

# Flipping the Architectural History and Theory Course

Dr. Ahmet Sezgin

MEF University

- **Course Overviews**
- **Architectural History and Theory II**
- This course offers an overview of the history of architecture, from the first societies to the Renaissance. We will approach the buildings as the products of culture and with particular reference to the special problems of architectural design. **Materials** and **building technologies** as well as geographies and periods will provide the framework for the course. The course provides a critical viewpoint for comprehending and appreciating architecture in a comparative perspective
- **Architectural History and Theory III**
- This course offers an overview of the history of architecture, roughly from the 12<sup>th</sup> century to the Early modern period. We will approach the buildings as the products of culture and with particular reference to the special problems of architectural design. **Materials** and **building technologies** as well as geographies and periods will provide the framework for the course. The course provides a critical viewpoint for comprehending and appreciating architecture in a comparative perspective.

### **The aims of the course:**

By completion of *ARC 221 Architectural History and Theory*, students will begin to

- \* understand that architecture is a sophisticated phenomena with political, social, economical, and structural dimensions.
- \* discern stylistic differences among the “major” architectural cultures
- \* recognize iconic buildings of architectural history
- \* recognize the differences of materials and structures in forming space

### **The assessment of the students:**

By the end of the semester

Can the student distinguish “major” architectural periods and cultures?

Can the student recognize architectural components and construction processes of historical structures?

Can the student comprehend the structure and the interior space as a whole?

## Course Schedule\*

### Introduction

Leach, Andrew, *What is Architectural History?* 2010, pp. 41-74.

### Architecture of Early Societies and Early Cities

Jarzombek, Mark, *Architecture of First Societies*, 2013, pp. 79-88 and pp. 263-273.

### Mesopotamian & Egyptian

Gates, Charles, *Ancient Cities*, 2011, pp. 30-36 and pp. 70-79.

Brewer, J. Douglas & Teeter, Emily, *Egypt and Egyptians*, 2007, pp. 60-78.

### Aegean & Ancient Greek

Carmelo G. Malacrino, *Constructing the Ancient World*, 2010, pp. 77-110.

Jenkins, Ian, *Greek Architecture and Sculpture*, 2006, pp. 32-45.

### Roman and Byzantine Architecture

Jones, Mark Wilson, *Principles of Roman Architecture*, 2003.

Adam, Jean-Pierre, *Roman Building Materials and Techniques*, 2003, pp. 243-318 and 319-400.

### Central Asia & Iranian Plateau and the Subcontinent

Ettinghausen & Grabar, Oleg, *The Art and Architecture of Islam 650-1250*, pp. 5-16 and 37-54.

Shelia, Canby, *Safavid Art and Architecture*, 2002.

Harle, J. C., *The Art and Architecture of the Indian Subcontinent*

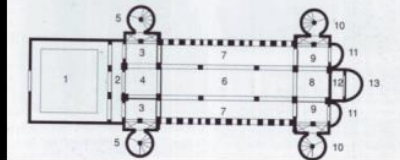
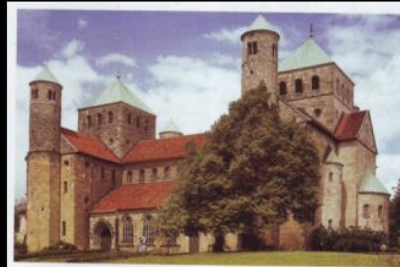
### Islamic Architecture in the Mediterranean

Blair, Shelia S. & Bloom, M. Jonathan, *The Art and Architecture of Islam*, 1995, pp. 70-96 and 132-145.

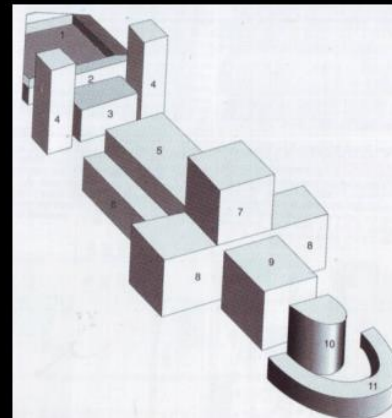
### Comparative Perspective

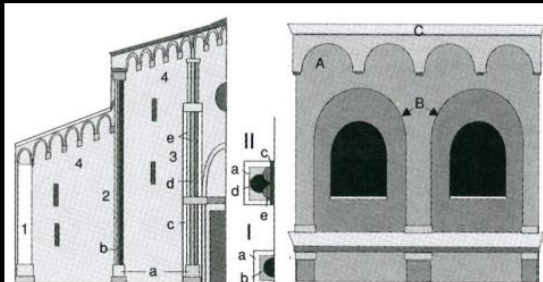
\* Although the headlines of the classes seem to be largely arranged according to geography and chronology, materials and building technologies will also be instrumental to organize the contents within and between the classes.

1. Narthex or atrium already present in early Christian churches
2. the interior western section of the forecourt has often been developed as the galilee
3. the narthex together with the
4. west tower forms a twin-towered façade
5. the central nave of the façade flanked by
6. The two side aisles. A simple aisled basilica in this case.
7. The crossing surmounted by a central tower
8. this is also the point from which the arms of the transept start
9. continuing from the central nave, the choir extends eastwards
10. to this is connected the apsidal- ended sanctuary and in some cases also an
11. ambulatory often incorporating chapels



1. Narthex or atrium already present in early Christian churches
2. the interior western section of the forecourt has often been developed as the galilee
3. the narthex together with the
4. west tower forms a twin-towered façade
5. the central nave of the façade flanked by
6. The two side aisles. A simple aisled basilica in this case.
7. The crossing surmounted by a central tower
8. this is also the point from which the arms of the transept start
9. continuing from the central nave, the choir extends eastwards
10. to this is connected the apsidal- ended sanctuary and in some cases also an
11. ambulatory often incorporating chapels





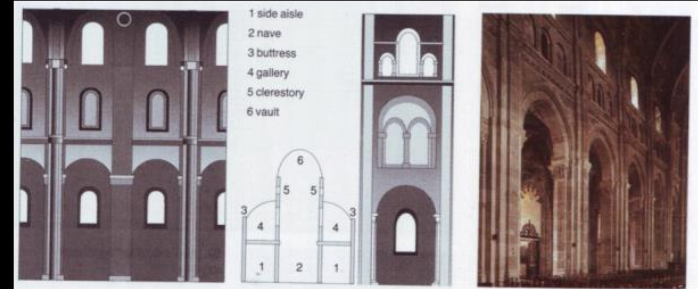
### Pilasters and columns

1. Engaged pilaster 2. engaged column, half-column 3. multi-shaft, compound or clustered pilaster (II) 4. blind arcades, raking.

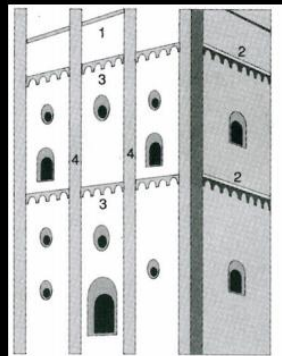
I and II: ground-plans of engaged column and multi-shaft pilaster: a. plinth; b. engaged column; c. pilaster strip; d. engaged column/infill pilasters; e. attached column/three-quarter circle profile.

### Arcades and arches

It is in the top belfry of church towers where one can often observe the interplay of blind arcades (A) and blind arches (B). The blind arcades take up and vary the arch motif. Together with the cornice (C) and the cupola, they form the completion of the tower.



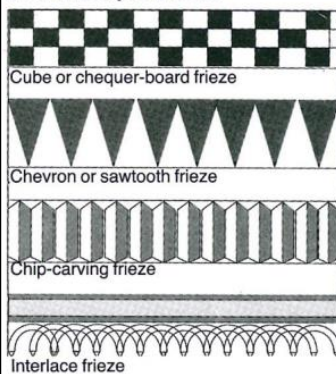
1 side aisle  
2 nave  
3 buttress  
4 gallery  
5 clerestory  
6 vault



### Structural elements

The horizontal cornice (1) often occurs in conjunction with a frieze of blind arcading (2). Horizontal blind arcades (3) and vertical lesenes (4) are elements frequently used to articulate towers and façades. The towers in question are usually massive west towers.

### Romanesque friezes

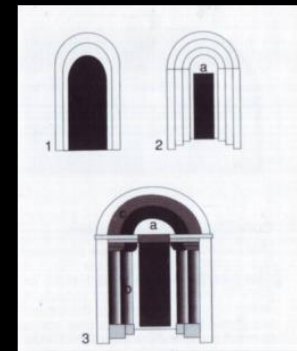


### Church doors

Romanesque religious buildings have three different types of entrance:

1. The simple round-arched entrance
2. The recessed or stepped portal
3. The recessed portal with columns

In the case of 2 and 3 particular, there is a variety of stylistic detail in construction as well as ornamentation.

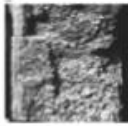




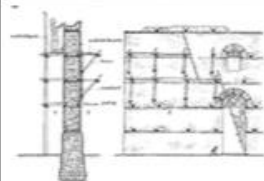
168 Mosaic at Pompeii. (Left) Via dei Sepulchri, trench 20 South. (Right) Centre. South, apsidiorium.



169 Wall faced with brick from a trench on the Isola Sacra, Ostia. The rubble core is applied in a mass, mixing stones and broken bits of brick with the mortar.



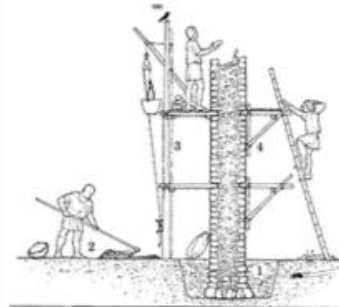
170 Temple of Palatina (end of the second century BC), faced with opus incertum with engaged stone.



182 1 Socketed scaffolding with a row of standards.  
2 Socketed cantilever scaffolding.

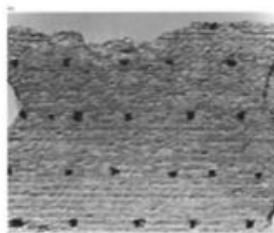


183 Socketed scaffolding with transverse putlogs.

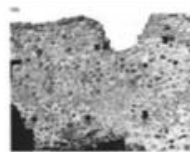


190 Construction of a wall—summary of the parts of the building site:

- 1 foundation trench
- 2 preparation of mortar
- 3 socketed scaffolding with standards



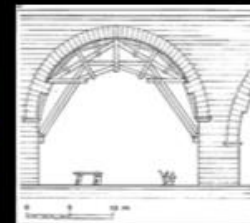
184 Transverse putlog holes in the aqueduct of the villa dei Sette Bassi. (Via Latona, c. 140)



185 Putlog holes in a wall of opus incertum. Pompeii VI, 7, 22; first century.



186 Putlog holes in a line above a course of bricks, each one with a small lintel over it. Walls of Beauvais, end of the third century.



## Terms & Concepts Roman Architecture

Entablature: superstructure of moldings and bands which lie horizontally above columns, resting on their capitals.

Cornice: any horizontal decorative molding that crowns a building or furniture element

Dentil: a repeating ornament in the bedmould of a cornice.

Bracket: a piece of metal, wood, etc, that is fixed to a wall to support a horizontal surface or line.

Modillion. decorative bracket that supports a cornice.

Moulding: a shaped strip fitted as a decorative architectural feature, especially in a cornice.

Volute: a spiral scroll characteristic of Ionic capitals and also used in Corinthian and composite capitals.

Coffering: a series of sunken panels in the shape of a square, rectangle, or octagon in a ceiling or vault.



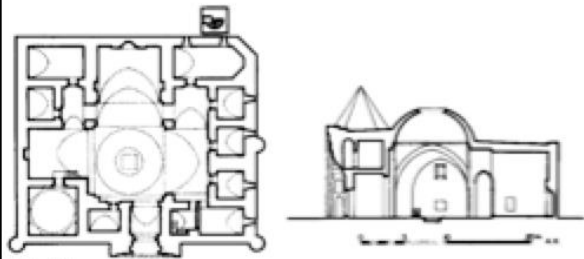
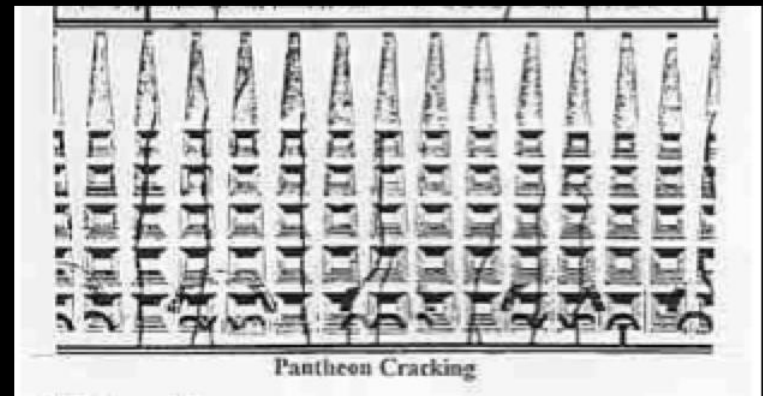
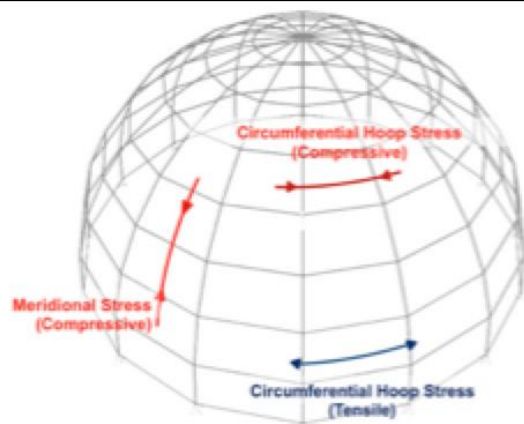
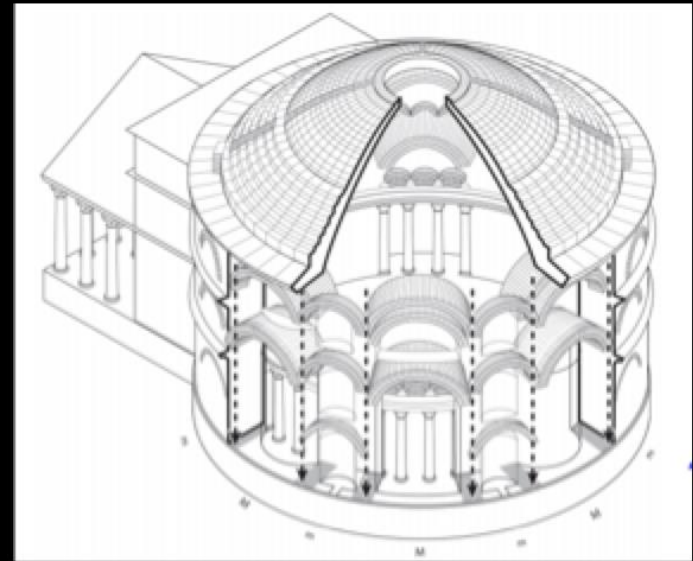
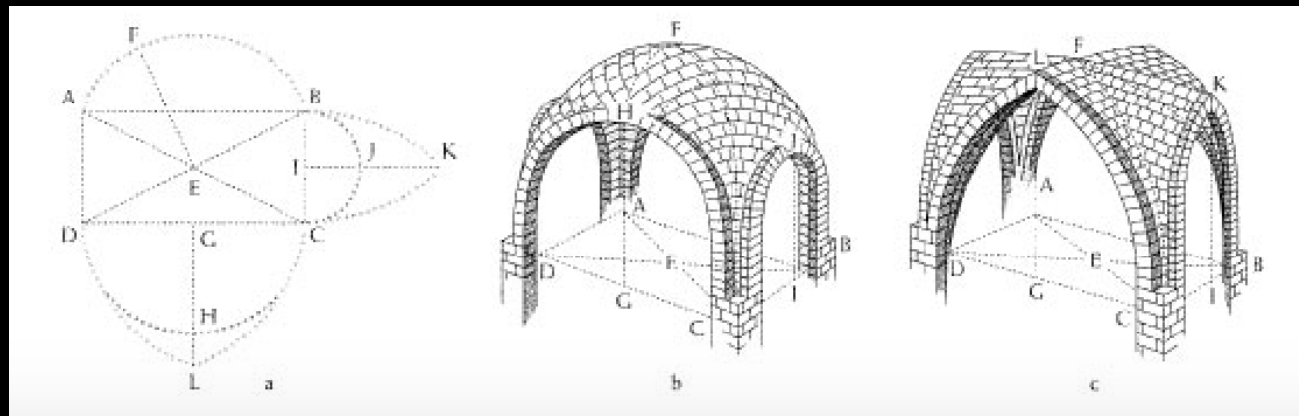
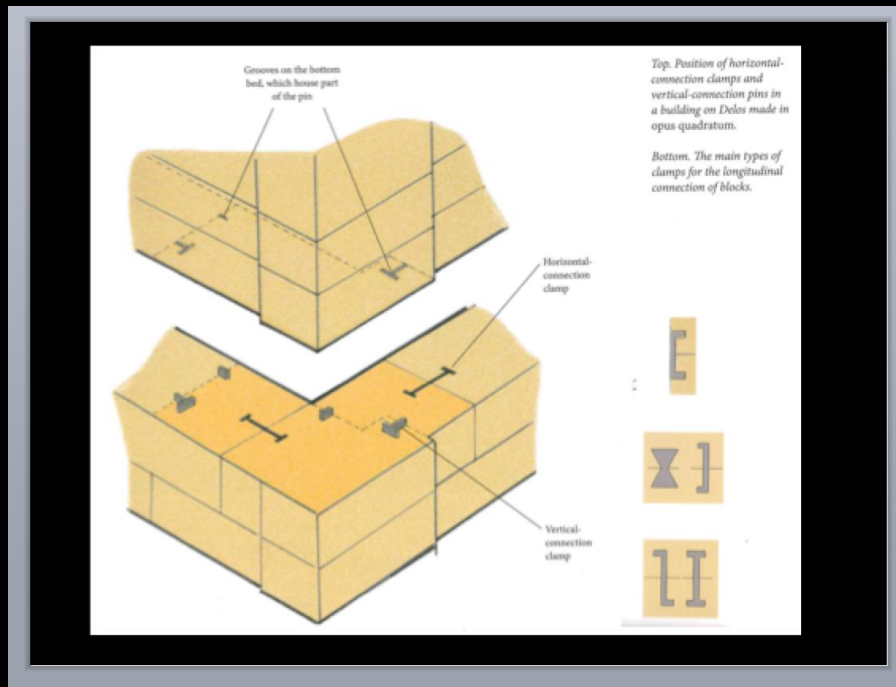
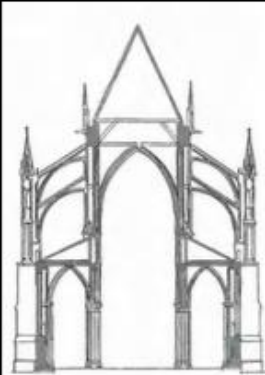


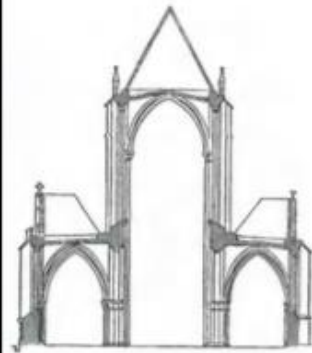
Fig. 32  
Plan and longitudinal section of the Caca Bey Madrasah, Korychir,  
1272-3.







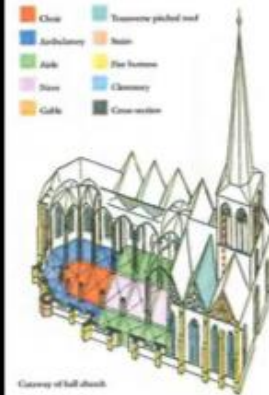
Cross-section of basilica with buttressing (Reims)



Cross-section of basilica without buttressing (Magdeburg)

#### Hall Church

This type of church has aisles that are as high, or nearly as high, as the nave. The hall church usually has a nave and two aisles, the nave receiving its light indirectly from large windows in the aisle walls. If the nave is higher than the side aisles, the church is referred to as a stepped hall church. Hall churches can have as many as two aisles on each side of the nave (St. Peter's, Lübeck). Since the aisles support one another, there is no need for external buttresses.



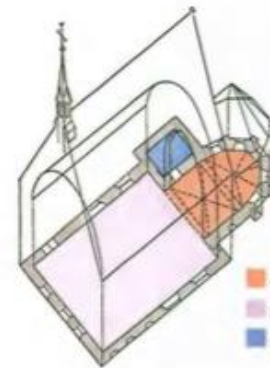
Gateway of hall church



Cross-section of hall church













Cross-section of stepped hall church



Two-apsed church (hall construction), (Nuremberg, St. Lorenz)

The single-apsed church is a non-centrally planned single-space church

- Animations
- Video FX
- Audio FX
- Cursor FX
- Gesture FX

 Rec 03-7-16	 Rec 03-7-16 2
 Slide6	 Rec 03-7-16 5
 Rec 03-7-16 6	 Rec 03-7-16 7
 Slide7	 Rec 03-7-16 9
 Rec 03-7-16 10	 Rec 03-7-16 11

### assignment for our next session

Select two mosques (in Istanbul) from the three categories we have studied in our last class (single-unit mosque; iwan mosque; multi-unit mosque).

Compare them regarding their structures and interior space, bring your comparison to the class.

Have at least one sketch of the structural system of one of the mosques you have selected.





100% 



0:02:59:04

0:02:30:00 0:02:45:00 0:03:00:00 0:03:15:00 0:03:30:00 0

Rec 03-7-16



Slide1



Slide4



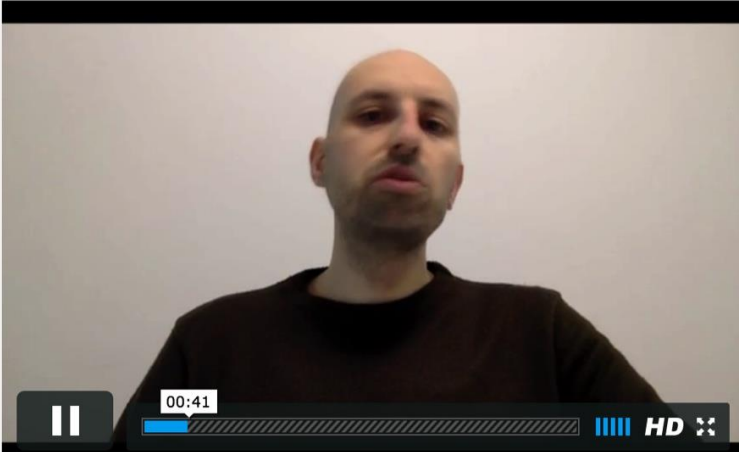
Slide6



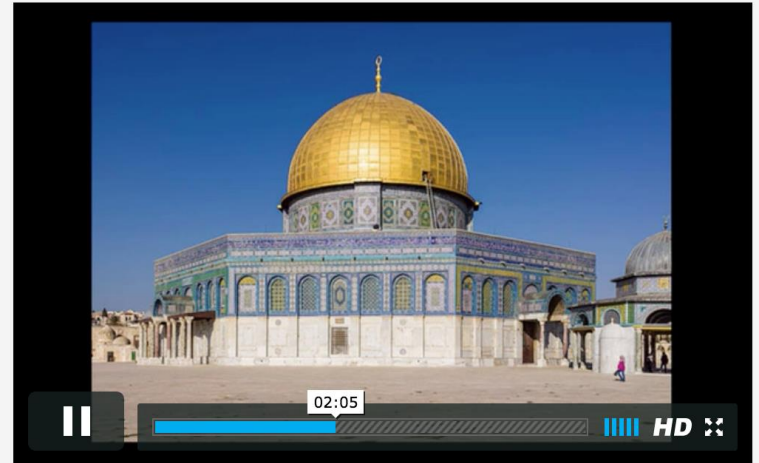
Rec 03-7-16 5



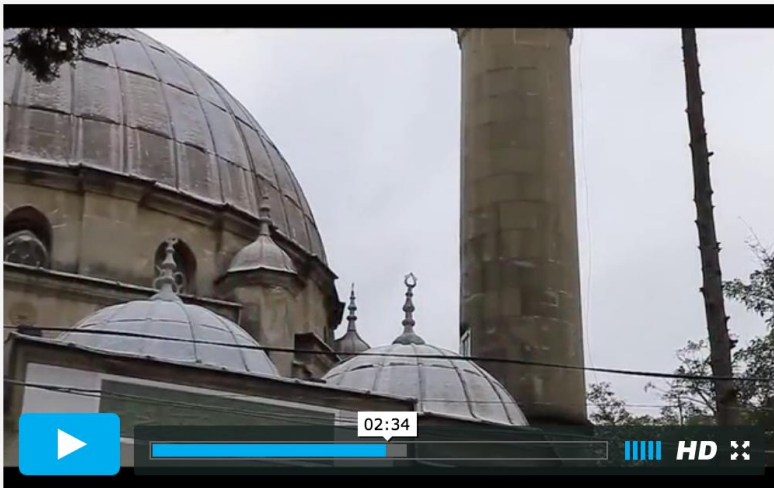
Enabled: Statistics Tracking



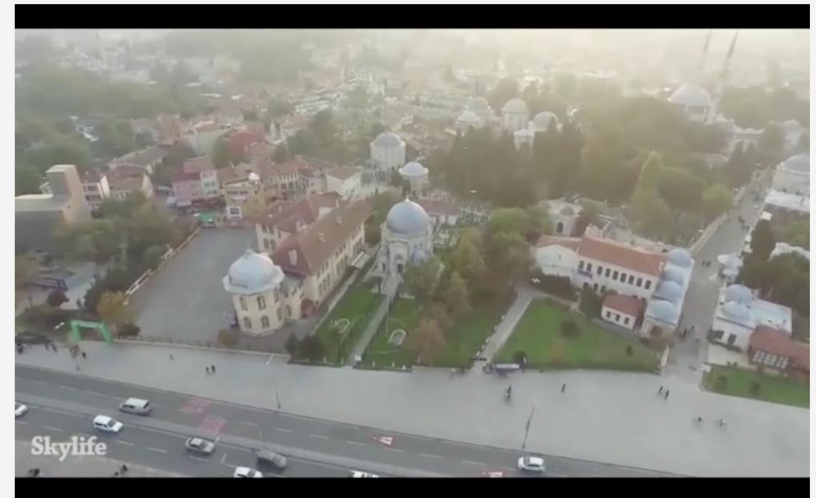
Ottoman revival in architecture



Ottoman revival in architecture



Ottoman revival in architecture

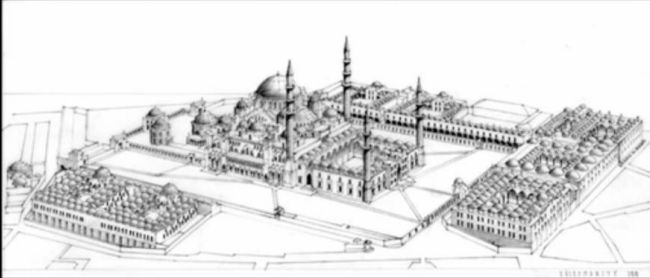






## classical Ottoman style in architecture

Enabled: Statistics Tracking



## classical Ottoman style in architecture

Enabled: Statistics Tracking



1) mosque, (2) mausoleum of Süleyman, (3) mausoleum of Hürrem, (4) Koran recitation school, (5) public fountain, (6) elementary school, (7) first (evvel) madrasa, (8) second (sani) madrasa, (9) remains of medical school, (10) hospital, (11) hospice, (12) guesthouse, (13) Sinan's tomb with domed sabil and empty plot of his endowed school and residence, (14) the janissary agha's residence, (15) third (salis) madrasa, (16) fourth (rabi) madrasa, (17) bathhouse, (18) hadith college, (19) madrasa near the palace of Fatma Sultan and Siyavus Pasa.



## classical Ottoman style in architecture

Enabled: Statistics Tracking

### *Kulliyye*

Ottoman term used to describe a group of buildings mostly with a mosque at the centre and administrated as a single institution as a waqf. It might include madrassas, libraries, khanqas, bath houses and a kitchen for the poor. In English it may be called complex.



## classical Ottoman style in architecture

Enabled: Statistics Tracking

The Süleymaniye Complex in Istanbul: An Interpretation,  
Gülru Necipoğlu-Kafadar  
*Muqarnas*  
Vol. 3 (1985), pp. 92-117





## classical Ottoman style in architecture

Enabled: Statistics Tracking

### assignment for our next session

Select two mosques (in Istanbul) from the three categories we have studied in our last class (single-unit mosque; iwan mosque; multi-unit mosque).

Compare them regarding their structures and interior space, bring your comparison to the class.

Have at least one sketch of the structural system of one of the mosques you have selected.

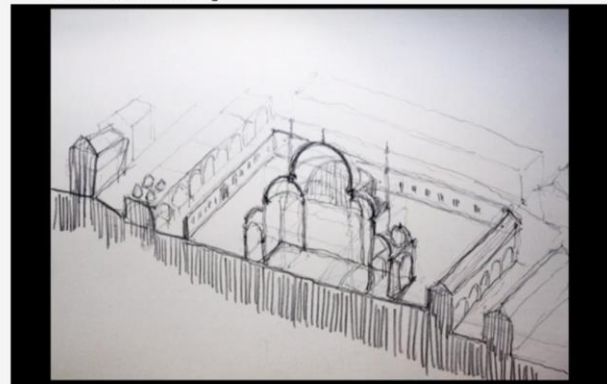


02:59



## classical Ottoman style in architecture

Enabled: Statistics Tracking



tatar, Emin Demir Torun, Tugce Demir Turk, Arda Tayel

**Cc**

**Bcc**

**Sent** Friday, November 20, 2015 1:14 PM

**Subject** 24.11.2015 - video clip

---

Dear all,

please check the video clips at the links below. They are recordings of Charles Moore, designer of Piazza d'Italia in New Orleans. We will discuss this building at the end of our session about Roman architecture.

<http://www.tubechop.com/watch/7290412>

<http://www.tubechop.com/watch/7261898>

At the end of the class there will be a quiz. The question will be partially based on these clips: Based on Charles Moore's design and talk, what are the most prominent architectural features of Roman architecture? What other architectural elements and forms would you add to that?



Aga Khan Award for Architecture

ARCHITECT'S RECORD

2010 AWARD CYCLE

I. IDENTIFICATION

Project Title Museum of Islamic Art  
Street Address Museum Roundabout  
City Doha Country Qatar

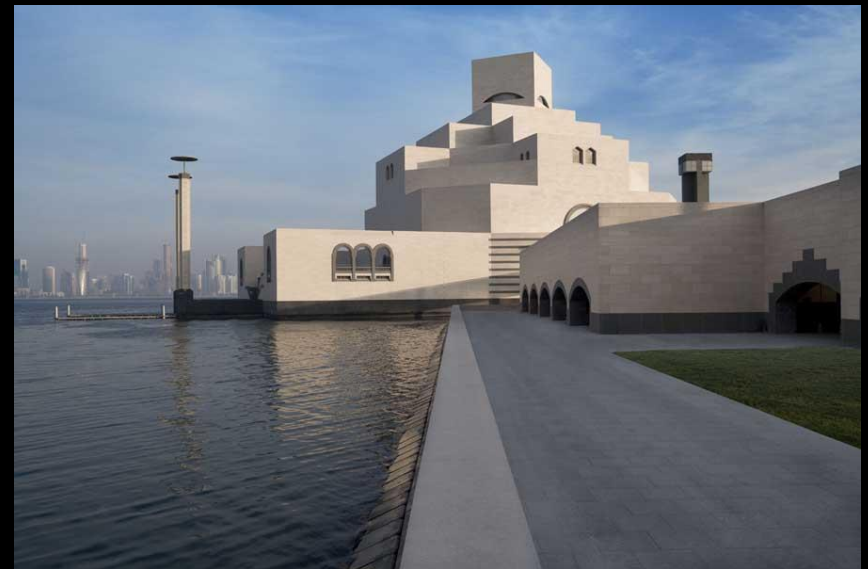
II. PERSONS RESPONSIBLE

A. Architect/Planner

Name Mr. I. M. Pei Architect  
Mailing Address 88 Pine Street  
City New York Postal Code 10005  
Country United States Telephone 212 872 4010  
Facsimile 212 872 4222 E-mail nrobinson@pcf-p.com  
Principal Designer Mr. I. M. Pei

B. Client

Name Qatar Museums Authority  
Mailing Address P.O. Box 2777  
City Doha Postal Code \_\_\_\_\_  
Country Qatar Telephone 974 422 4009  
Facsimile 974 422 4224 E-mail anajjar@qma.com.qa



## OVERVIEW

### I.M. PEI

MUSEUM OF ISLAMIC ART,  
DOHA

### FRANK GEHRY

GUGGENHEIM MUSEUM,  
ABU DHABI

### NORMAN FOSTER

NATIONAL MUSEUM,  
ABU DHABI

### JEAN NOUVEL

LOUVRE, ABU DHABI;  
NATIONAL MUSEUM, DOHA



### I.M. PEI

spoke about the simple geometric forms that make up his Museum of Islamic Art in Doha, and he described the clarity of the desert sunlight as a central influence.



MUSEUM OF ISLAMIC ART,  
DOHA



Photographs by: DigitalGlobe via Google Earth; Museum of Islamic Art; Pei Cobb Freed & Partners; Associated Press

# Hassan Fathy's New Gurna: Past - Present - Future.



▶ ▶| 🔊 1:39 / 6:51







# American Architecture Now: Charles Moore



DukeLibDigitalColl

**Tube Chop**

Chop YouTube Videos

Enter a YouTube URL...







Piazza del Italia, New Orleans



Palazzo della Civiltà Italiana, Rome

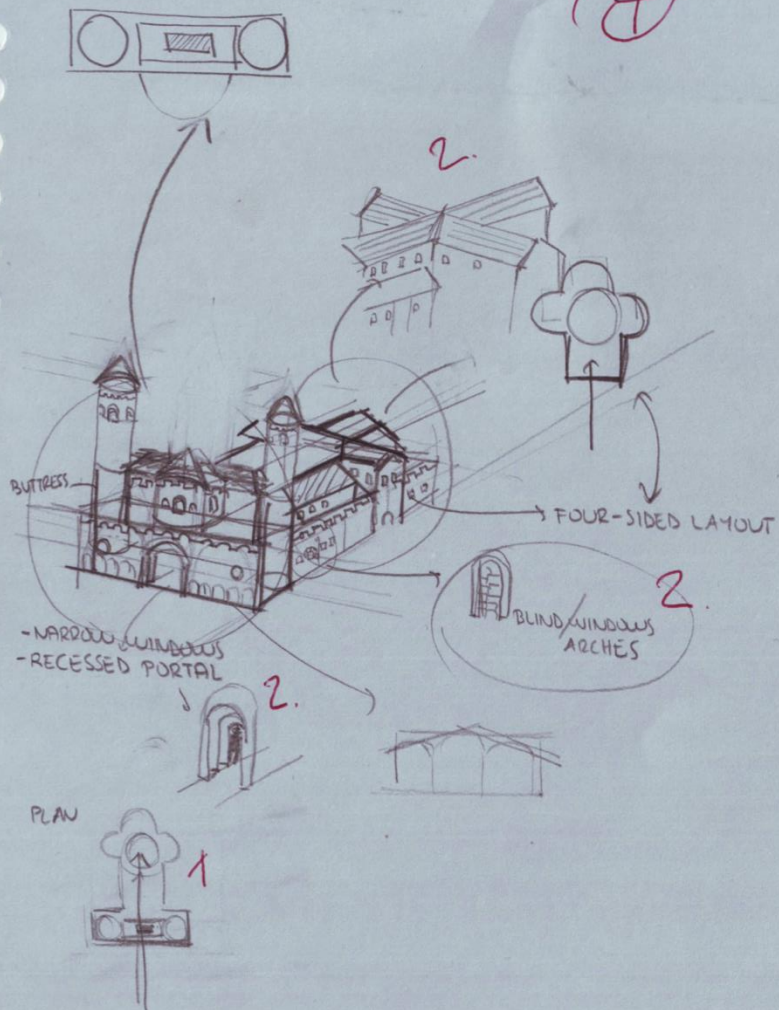


# ROMANESQUE STYLE CHURCH

ROMAN-ESQUE

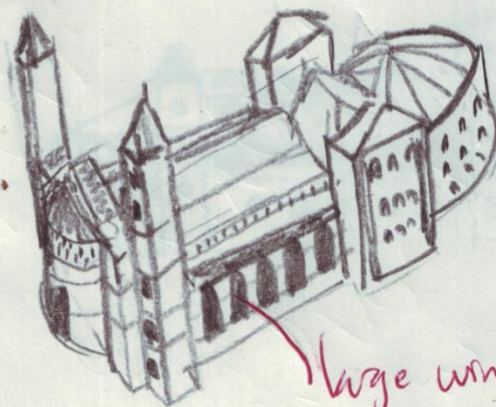
TUGGE SELIN TÜRK

7

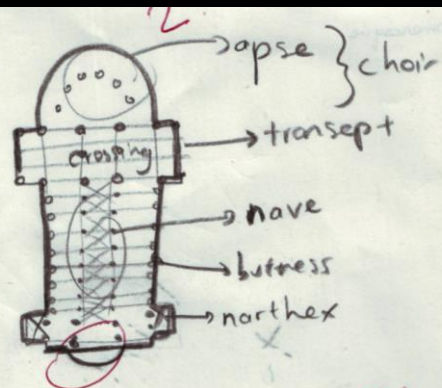
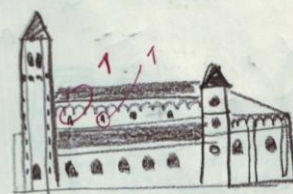


proportions  
composition 2

roof v. 1



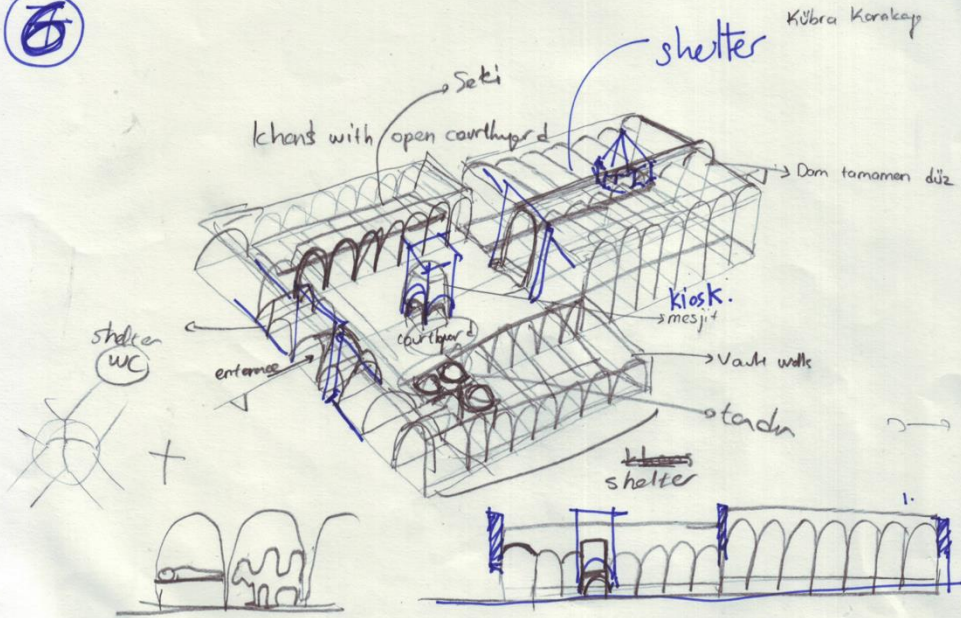
m



apse  
at the entrance?!



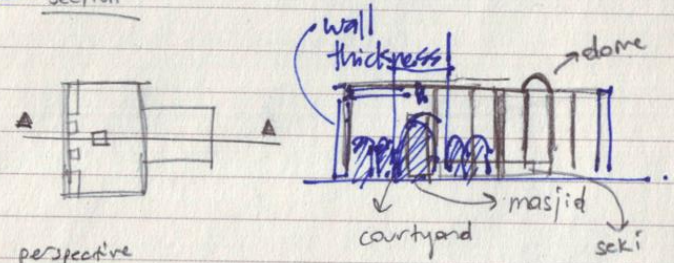
6



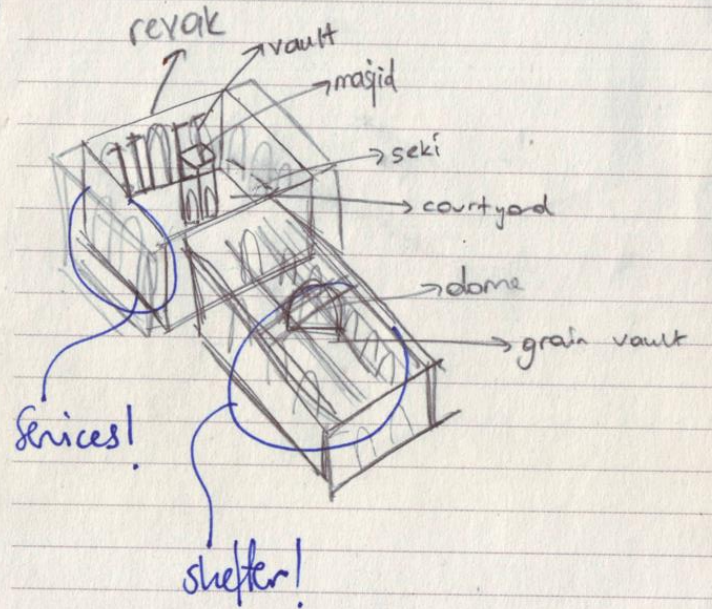
4

Quiz I - Arzu Ören

section



perspective



## **ARCH 222 - Guideline for Mid-term assignment**

There will be a video assignment for the 2<sup>nd</sup> mid-term exam of the ARCH222 course.

The video will be about a building in Istanbul that belongs to one of the architectural periods or styles (including revivals) covered in the course in the last two terms.

Your video should be on the user perception and experience of the building with focus on one or more of the following points: the relationship of the building with the topography and the urban fabric, and the character of space in the transition from the exterior to the interior; how is the architectural style of the building expressed; how the selection of the materials and structural system influences the design of the space. Your comments should refer to the authentic historical building/context as well as the contemporary site.

The video should be approximately 5 minutes in length. It should be mostly out of YOUR recordings/photos at the site. The video can be composed of gifs, slides, time lapse, sketches, and ~~etc~~, as well as video recordings. In speech or in text the video should have around 300 words.

You will submit the video by uploading it to a video sharing site and sending the link to me in a message at blackboard. The subject line of the message should be "name surname - mid-term assignment submission". Submission will be complete ONLY after you sign the submission list.

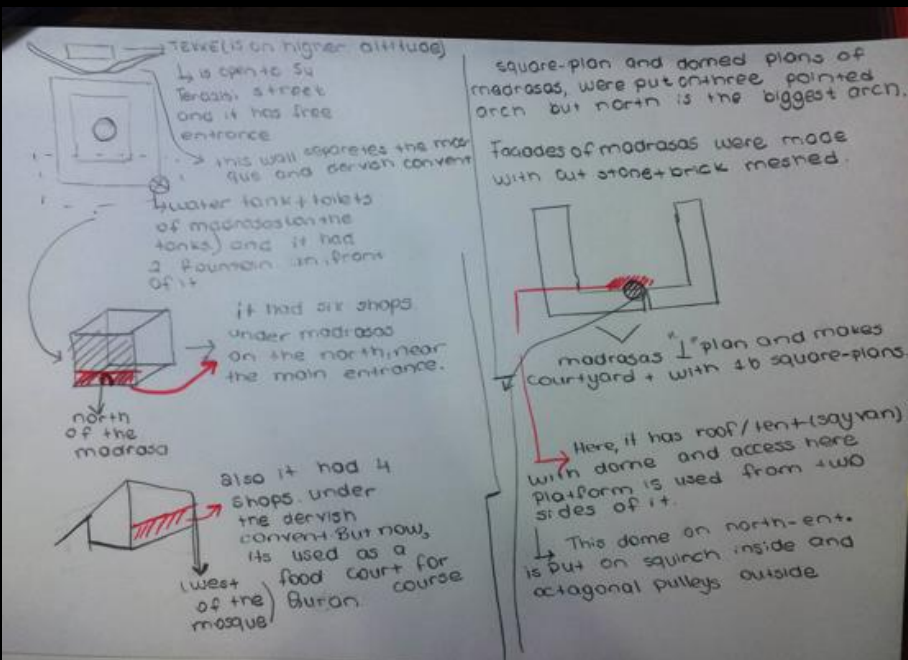
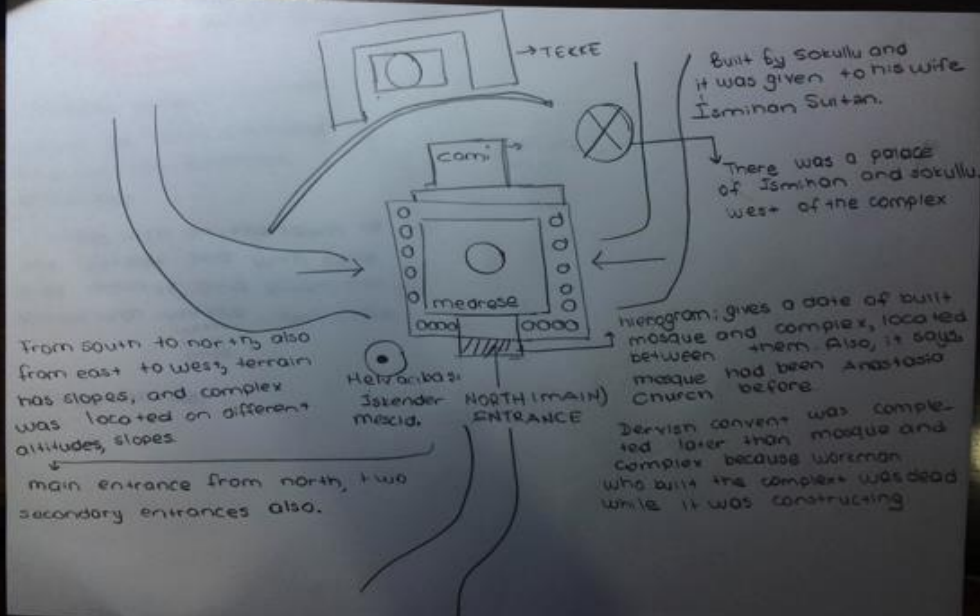
### Deadlines

Getting approval for the selection of the buildings: by 29.03.2016

Submission of the first draft outlining the structure: by 05.04.2016

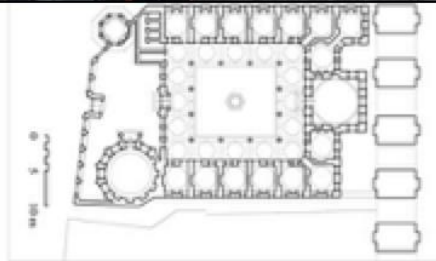
Submission of the second draft with the transcript of the text: by 12.04.2016

Final submission and presentation: 26.04.2016





## SCENE



## INFORMATION

Komplex's location the relation between Bozdoğan aqueduct. History( built by Mimar Sinan in 16 th cen), Relation between human scale, surrounding scale and bozdoğan aqueduct scale.

The complex's plan; the complex comprised a madrasa, a tomb, a fountain and a graveyard. Where those located(I will make colourfull map to show)

-Mainly surrounding of entrance courtyard  
-details of door  
-details of sink  
-the spatial hierarchy

Tomb, sink and graveyard located in the entrance courtyard.  
The details of door and sink(chanced detail from fire accident)  
Sinks is the only part that still original from 16th.  
Because all komplex has damaged in fire accident.

## ARCH 222 - Guideline for the paper submission

There will be a paper written for the 1<sup>st</sup> mid-term exam of the ARCH222 course.

The paper will compare two buildings that are connected by stylistic influence, site, building patron, or type of the structure. At least one of the buildings should belong to an architectural style that is covered in the course. Your comparison should have a research question in the comparison of two buildings such as but not confined to how two different architectural periods differ with their standing a on site/topography; how advances in building technology prompt stylistic changes; how an architect's style evolve in between sites/clients; which architectural elements/features persist in evolution of a style.

The paper should be two pages long with 12 type size excluding footnotes, drawings, and photographs. Drawings and photographs should be a supplement for the two pages paper. The paper should be sent as a digital copy to [sezginah@mef.edu.tr](mailto:sezginah@mef.edu.tr) before the final exam. A hard copy should be also submitted on the final exam date.

### Deadlines

Getting approval for the selection of the buildings: by 12.04.2016

Submission of the first draft outlining the structure: by 19.04.2016

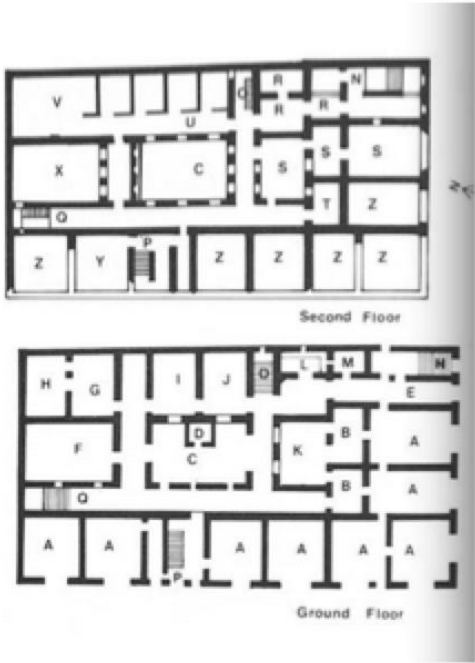
Submission of the second draft: by 26.04.2016

Final submission: on the date of the final exam

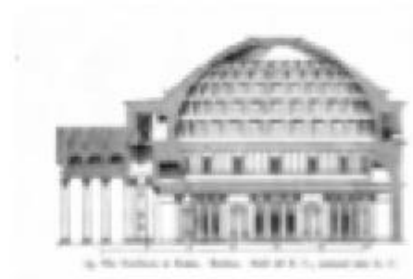
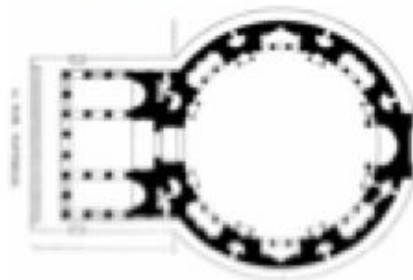
5) Explain the process of the Roman wall construction on the right.



This architectural floor plan illustrates the Temple of Isis at Philae. The layout includes several rooms and courtyards, each labeled with a number. At the top left, there is a large rectangular room (16) with a smaller room (11) inside it. To the right of room 16 is a large rectangular room (10) with a smaller room (15) inside it. Below room 16 is a room (14) with a smaller room (14) inside it. To the right of room 10 is a room (13) with a smaller room (12) inside it. In the center, there is a large rectangular room (8) with a smaller room (9) inside it. Below room 8 is a large rectangular room (3) with a smaller room (7) inside it. To the left of room 3 is a room (6) with a smaller room (6) inside it. To the right of room 3 is a room (6) with a smaller room (4) inside it. At the bottom, there are two large rectangular rooms (2) with a smaller room (1) inside them. The plan also shows various smaller rooms and courtyards, including a room (5) at the bottom left and a room (1) at the bottom right.



12) Compare the domed buildings below regarding their structures, materials, and interior spaces. (drawings are not in the same scale)



\*) How can a contemporary architect approach to and inspired from architectural history? Explain by referring to one of the cases that has been discussed during the course.