ARTH 3080: History of Architecture – *Prehistory to 1700*

DESIGN PROJECT 1

Learning from Precedents and the Renaissance Masters

THE UNFINISHED FAÇADE OF SAN LORENZO: A BRIEF HISTORY

The Basilica of San Lorenzo is one of the largest and oldest churches in Florence, Italy. Beyond its location at the center of the city's main market district, the church is an important part of the history of Florence. Notably it serves as the burial place of principal members of the Medici family.

Originally consecrated in 393 CE, it served as the cathedral of Florence for nearly three-hundred years. The church was expanded in 1059 CE with a typical Romanesque configuration of the time. Then in 1419 an offer was made by Giovanni di Bicci de' Medici to finance a replacement of the church and the leading Renaissance architect, Filippo Brunelleschi, was selected for the design. Brunelleschi's untimely death did not permit him to see the construction to completion in the late fifteenth century. Although several proposals have been made to finish the façade, including one by Michelangelo, the main eastern rough-hewn façade has never been completed.

The Basilica of San Lorenzo is also part of a larger monastic complex that contains important architectural and artistic works. This includes the Old Sacristy by Brunelleschi, with interior decoration and sculpture by Donatello; the Laurentian Library by Michelangelo; the New Sacristy based on Michelangelo's designs; and the Medici Chapels by Matteo Nigetti.

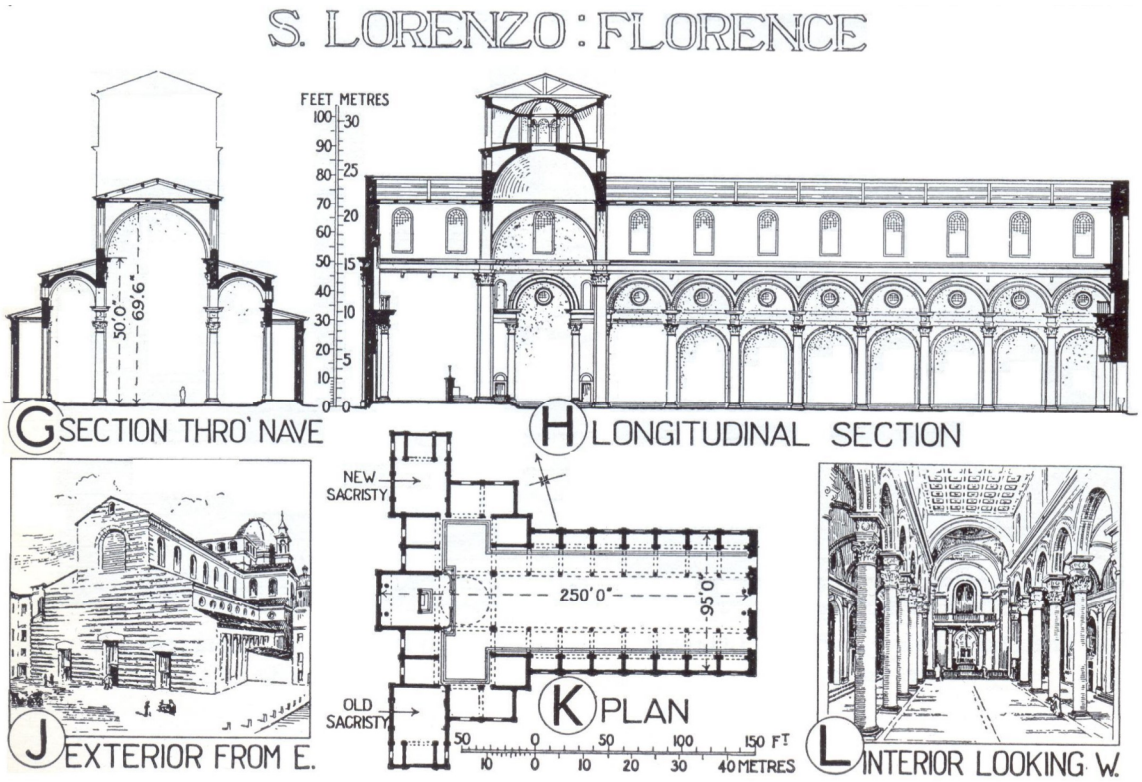
DESIGN CHALLENGE

"The task involved in bringing together the petrified remnants of yesterday and the life of today provides a vivid illustration of what tradition always means: not just the careful preservation of monuments, but the constant interaction between our aims in the present and the past to which we still belong.'"

– Hans-Georg Gadamer

Earlier this year, a private patron has come forward and pledged a large sum of money to construct a new Renaissance revival design for the unfinished façade of the Basilica of San Lorenzo. The association of the "Friends of the Elettrice Palatina" and the Comune of Florence have agreed to hold a design competition in search of a new design for the facade.

Any proposal for the new façade must be designed using the classical canons and under the tutelage of a master architect from the Renaissance period. The design challenge is to solve the contradiction between the new Renaissance revival façade and the older Romanesque basilica structure with its high central nave and low side aisles. Designers may want to take note of the Corinthian order and √2 proportioning systems used by Filippo Brunelleschi on the basilica's interior. Each proposal must keep in tact the location and size of the existing entry doors.



SCHEDULE AND IMPORTANT MILESTONES

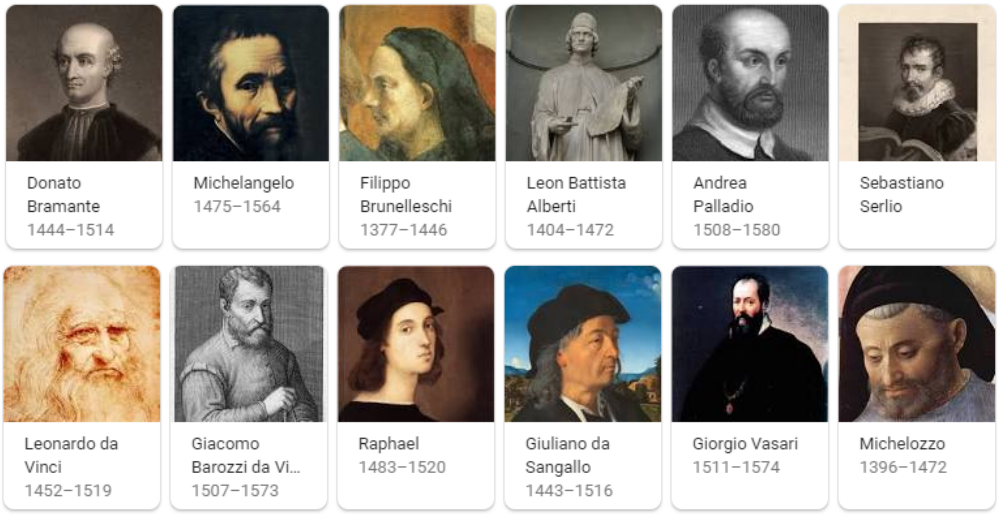
You will have four weeks to finish the design project. There are four key parts to the project; one part of which will be due each week and mark an important milestone.

Design Project assigned on **October 23, 2019.**
Part A – Choose a Renaissance Mentor and Precedents due on **October 30, 2019.**
Part B – Mentor Precedent Analysis due on **November 6, 2019.**
Part C – Concept Development / SD Phase due on **November 13, 2019.**
Part D – Final Design Drawing / Presentation due on **November 20, 2019.**

PART A – CHOOSE A RENAISSANCE MENTOR & PRECEDENTS

"Under no circumstances should you reject a good design solution for the sole reason that it is well-known, that it has been done before, or that it is not new."

– George Gromort



For Part A of the project, you will need to **select an architect from the Renaissance period (1300-1600)** as your mentor. After you have made your selection the next step is to **choose two buildings that your architect designed. These can be either built or unbuilt**.

The two buildings you choose will serve as case studies or architectural precedents. By studying, analyzing, and diagraming the precedents, you will be able to extract the design principles needed to inform your own design.

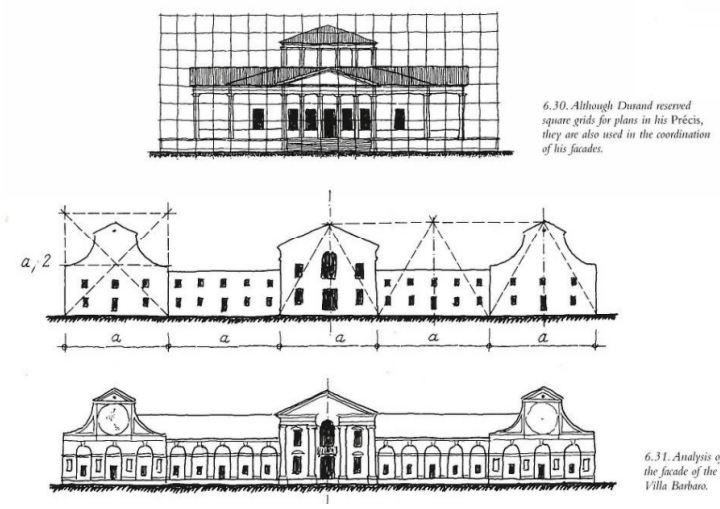
Below are a few possible Renaissance mentors to choose from:

a. Filipo Brunelleschi (1377-1446)
b. Leon Battista Alberti (1404-1472)
c. Donato Bramante (1444-1514)
d. Giuliano da Sangallo (1445-1516)
e. Leonardo daVinci (1451-1519)
f. Michelangelo (1475-1564)
g. Sebastiano Serlio (1475-1554)
h. Baldassare Peruzzi (1481-1536)
i. Raphael Sanzio (1483-1520)
j. Antonio da Sangallo the Younger (1484-1546)
k. Jacopo Sansovino (1486-1570)
l. Giulio Romano (1499-1546)
m. Giacomo Barozzi da Vignola (1507-1573)
n. Andrea Palladio (1508-1580)
o. Giorgio Vasari (1511-1574)
p. Giacomo della Porta (1532–1602)
q. Vincenzo Scamozzi (1548-1616)
r. Inigo Jones (1573-1652)

PART B – MENTOR PRECEDENT ANALYSIS & DIAGRAMS

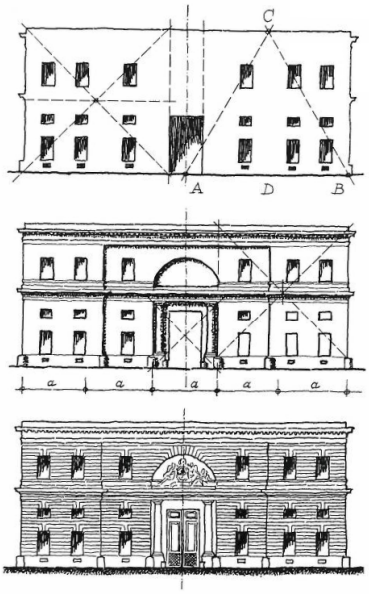
"To design is to compose, but to compose one must have objects with which to compose; for the architect these are the 'elements of architecture.'"

– John F. Harbeson



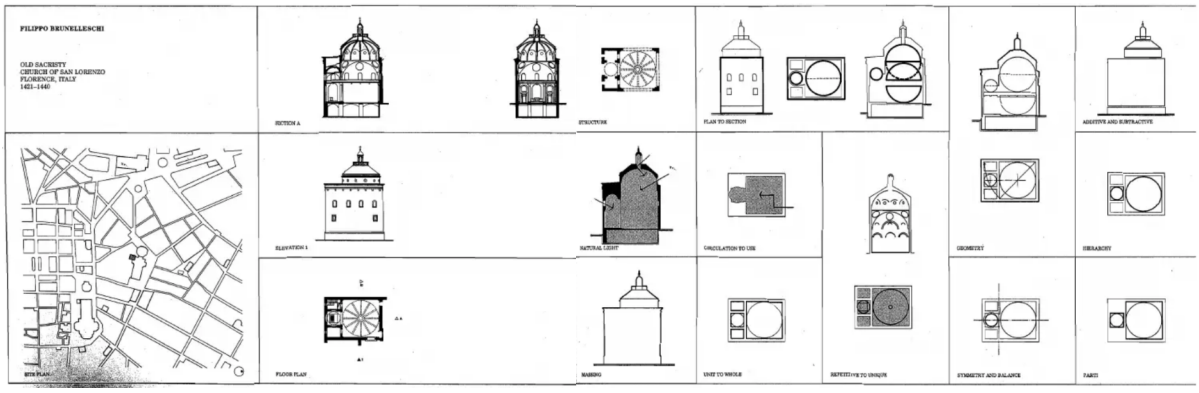
6.30. Although Durand reserved square grids for plans in his Précis, they are also used in the coordination of his facades.

6.31. Analysis of the facade of the Villa Barbaro.



6.32. Analysis of the street facade of Hôtel d'Hallwyl.

For Part B of the project, you will analyze and study two building precedents from your mentor in order to better understand their specific design language (i.e., rules of composition, proportion, ordering systems, rhythm, parti, massing, etc.). Each building should be analyzed in no less than three ways; this makes a total of six diagrammatic studies. The diagrammatic studies will be submitted digitally via Canvas but will be also used as part of the final presentation.

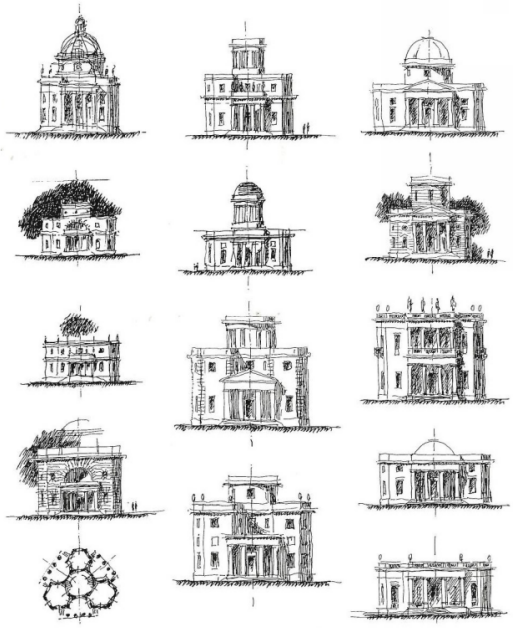


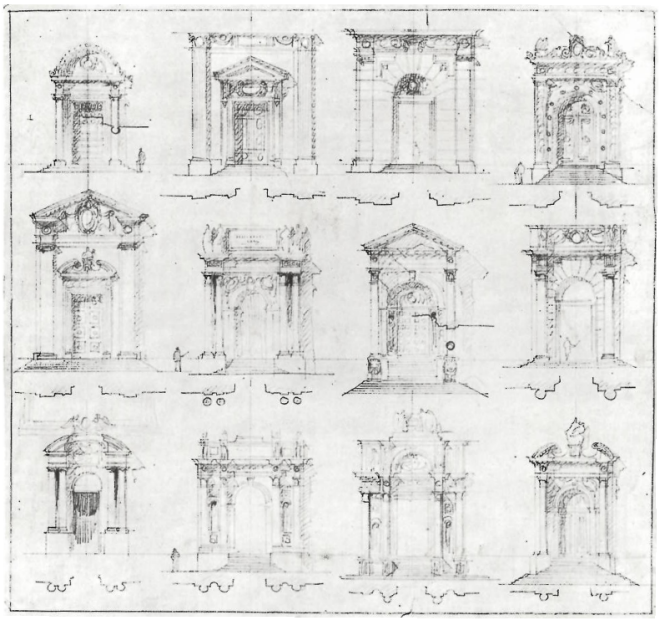
These can include, but are not limited to the following analytical tools and diagrams:

- Form of Massing – Silhouette of building with one or more elements (primary mass, secondary mass, links, appendages)
- Wall Treatment – Composition and subdivision and ornamentation of walls
- Composition, Rhythm, Fenestration (Unit to Whole, Repetitive to Unique)

- Structure, Grid
- Plan to Section / Elevation
- Proportion, Scale, Geometry
- Symmetry, Axis, Tripartition, Balance
- Duality, Punctuation, Differentiation
- Parti, Concept, Hierarchy
- Natural Light, Shade and Shadow in bays
- Classical ordering and composition
- Figures or Elements of Architecture

PART C – CONCEPT DEVELOPMENT / SCHEMATIC DESIGN PHASE





"Authentic architecture is not the incarnation of the spirit of the age but of the spirit, full stop.'"

– Leon Krier

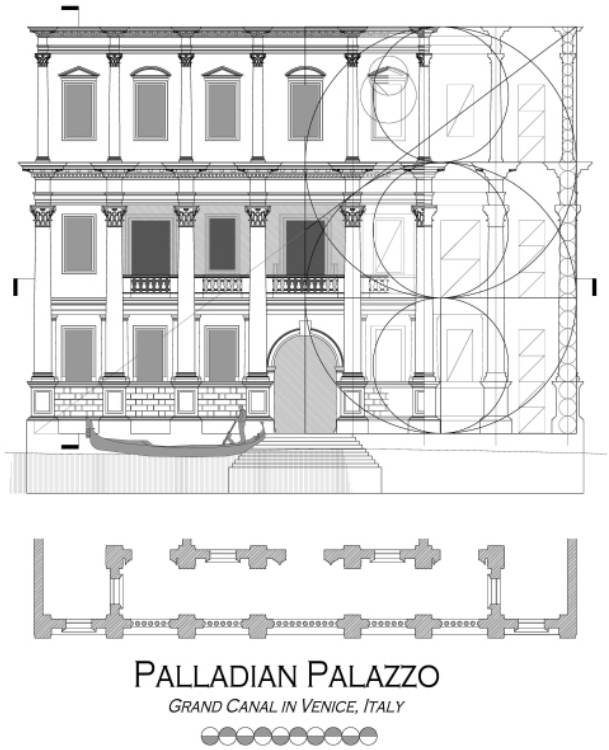
Part C of the project is where you develop your design concepts for the façade. In terms of the architectural design process, we call this phase schematic design. Embedded in the *Ecole des Beaux-Arts* curriculum was the *esquisse* – a French word for sketch. The esquisse is a preliminary sketch showing the main ideas of your solution to the design challenge and problem explained above. It is done in a short and fixed time, usually anywhere from a couple hours to nine hours. Your final design for the project will be founded on your esquisse.

As part of this design process, you will create a total of six (6) quick sketch proposals for the design of San Lorenzo's façade. This design will be informed based on your findings from your precedent analysis of your mentor. Remember that the key is to design the façade as if you were your Renaissance architect.

PART D – FINAL DESIGN DRAWING & PRESENTATION

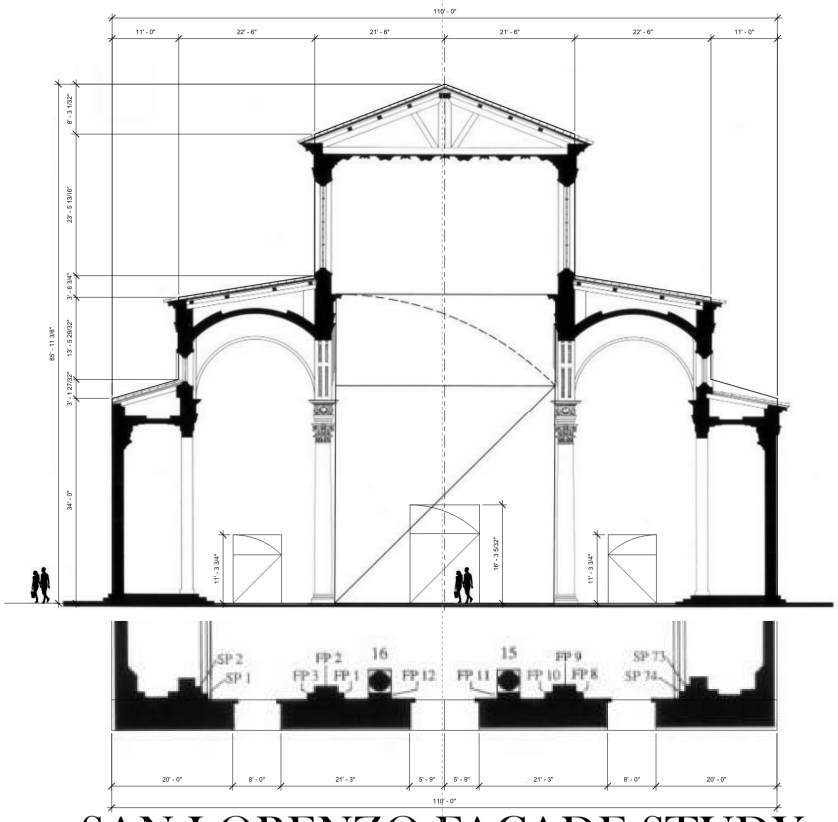
"A classical approach to design fulfills architecture's most basic responsibility.'"

– Allan Greenberg



The final stage of the project for Part D includes selecting one of the options from Part C concept development and further refining the design in elevation and plan. The final elevation and plan should both be drawn at 1/8" = 1' – 0" scale and a graphic scale should be provided. Only half of the building elevation (façade) will include extensive details, such as stone joint patterns, lines of molding profiles, column capital details, etc. The other half of the elevation will be drawn in diagrammatic format and include proportional analysis, compositional elements, regulating lines, etc. See the image to the right as an example. The main drawings can be created by either analogue or digital means, such as hand drafting or computer aided drafting techniques.

The final project will be compiled on an ARCH D size (24"x36") sheet of paper. The final composition should include the previous steps of the design process. Starting at the bottom of the sheet in ascending order, this includes Part B – Precedent Analysis, Part C – Concept Development, and Part D – Final Design. The department office sells ARCH D size sheets of vellum (a sturdier type of trace paper) for under a dollar if you prefer the analog method. Other methods for compiling the final presentation board digitally may include using software such as InDesign, Bluebeam, etc. and printing the final board out. Below is an example of a typical board layout.



SAN LORENZO FACADE STUDY

Florence, Italy

By Student Name
Mentor: Architect Name

CONCEPT DEVELOPMENT - THE ESQUISSE

PRECEDENT ANALYSIS

BUILDING NAME #1 | ANALYSIS #1 | ANALYSIS #2 | ANALYSIS #3

BUILDING NAME #2 | ANALYSIS #1 | ANALYSIS #2 | ANALYSIS #3

PROJECT ASSESSMENT AND GRADING

Your design project will be graded based on the following criteria:

LEARNING OBJECTIVE	POINTS / PERCENT
1) Part A – Choose a Mentor and Precedents	10 / 5%
2) Part B – Precedent Analysis and Diagrams	30 / 15%
3) Part C – Concept Development / Schematic Design Phase	60 / 30%
4) Part D – Final Design Drawing and Presentation	100 / 50%
TOTAL	**200 points / 100%**