16th Century Italy

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1. Counter-Reformation

Martin Luther (1483-1546)

-a symbolic blow that began the Reformation, the beginning of Protestantism, in 1517

-He nailed Ninety Five Theses to the door of the Wittenburg Church.

-That document contained an attack on papal abuses & the sale of indulgences by the church officials.

Rembrandt van Rijn *Christ with Folded Arms*

The Reformation and a new cultural context

-The architects hired by the Catholic churches had to serve architecturally the restoration of the Church, its authority.

-In addition, the architects dealt with a problem:

-how to resolve the conflict bt. the centralized plan with its symbolic power and the liturgical demand to accommodate an increasing congregation and the ritualistic procession towards the altar.

The centralized plan
-favored for its geometrical symbolism.
-The circle or the square was adopted for the planning.
-In particular, commemorative churches favored the centralized plan (such as Bramate's Tempietto in Rome)

Latin Cross plan
-favored for its aptitude for liturgy
-accommodating larger congregations and procession on the Eucharist
-Those who adopted the Latin Cross also defended its symbolic value.
-They claimed that the plan resembled the shape of the cross on which Jesus became crucified.

Sant' Andrea
(begun 1470)

Leon Battista Alberti

Mantua, Italy

Sant' Andrea, interior view (begun 1470)

Leon Battista Alberti

Mantua, Italy

Synthesis between the two demands
-one from the centralized plan, and the other from the Latin Cross.
-a huge nave to accommodate a large size of congregation
-the crossing was also crowned by a dome that lets ample light in.

Significance of the façade of this church
-Along with the issue of plan, the proper treatment of the facade of the church was also an urgent issue.
-How to design a façade was an issue because of the Catholicism's wish to confront the challenge by the Reformation on its authority
-The solution was to adapt the Classical temple facade to a Christian church with the high nave and the low aisles.

Significance of Santa Maria Novella
-translation of the high nave and low aisles into a facade of the Classical temple front
-It adopts giant scrolls to facilitate the visual continuity between the high nave and the side aisles.

Santa Maria Novella Leon Battista Alberti
(1458-1471)

Florence, Italy

Il Gesu, plan and interior view (1568), Mother Church of the Jesuits

Giacomo da Vignola Rome, Italy

-Alberti, a highly respected Renaissance theoretician and architect, had already set a standard for this new type of church.

-Vignola was the leading architect who assumed the role of restoring the authority of the Catholic Church in confrontation with the Reformation.
-His church, Il Gesu, is one of the most important churches in the history of the Counter-Reformation
-We know that the classical temples were temples of paganism. However, the facade of the temples was employed for new Christian churches in this period, because the reassertion of the authority of the church in response to the Reformation was a more pending issue.

-This church, IL Gesu, was consecrated as the mother church of the new order of the Jesuits, or the Society of Jesus.
-The Society of Jesus, the Jesuits, performed an extremely significant role in cultural relationship between different continents: between Europe and Latin America, and between Europe and Asia.
-The Society was founded in 1540 by St. Ignatius Loyol, whom you might have heard of.
-It was the new principle agent of the Papacy to carry out the Counter-Reformation.
-Along with the High altar dedicated to Christ, there are two side altars dedicated to two important figures of the Society: one, St. Ignatius and, the other, St. Francis Xavier.

-These two side altars are located on the transepts.
-Its wide nave is 60 feet wide.
-It was found effective to accommodate a big congregation.
-The barrel vault above the nave was also found effective acoustically.
-The nave was flanked by side chapels and a transept (of the same width as the nave and aisles.)
-The grandiose character of the church is particularly striking at the crossing
-The crossing is surmounted by a large dome from which abundant light streams down.
-The nave is lit by windows set in the lower part of the barrel vault

-The interior was originally restrained in white
-The arches, entablatures and double pilasters were picked out in grey travertine
-During the 17th century, the interior became transformed into an ornamental Baroque one
-During the nineteenth century, the arches, entablatures and double pilasters were replaced in their material by marble.

Giacomo da Vignola

Rome, Italy

Il Gesu
interior view

Façade of the Church
-integration of the facade of the Santa Maria Novella by Alberti with the plan of the Santa Andrea by again Alberti.

Il Gesu

project for the façade (1568)

Giacomo da Vignola

engraving by Cartaro

Rome, Italy

-The facade was completed by his Giacomo della Porta.
-Compared to the original, della Porta’s facade is more strictly Albertian.

Il Gesu, façade (1568)

By Giacomo della Porta

Rome, Italy

2. Classical Architecture of Andrea Palladio (1508-1580)

-Mannerism developed non-Vitruvian details.
-Palladio returned to Viturvian principles
-He was faithful to them and developed his own vocabularies on those principles.
-His architecture was highly influential on the architecture of Britain during the 17th and 18th centuries.

Andrea Palladio (1508-1580)

Biography
-The son of a (Paduan) miller and was a stonemason & sculptor.
-Later, his gifts were discovered by the humanist Giangiorgio Trissino. Trissino educated Palladio and took him to Rome in 1541
-Palladio was brought up on Vitruvian principles & also studied the antiquities of Rome
-Palladio's knowledge of Vitruvius was at least equal to that possessed by any of his contemporaries
-As a matter of fact, he was responsible for the illustrations in the edition of Viruvius' text published (by his patron Daniele Barbaro) in 1556.
-This edition became the standard text for those who wanted to study Vitruvius

-Four Books on Architecture (1570)

Palladio’s Basilica
-The original building dates from the 13th c.
-It Served as a law-court, meeting-place for the City Council
-In other words, it was the modern equivalent to the classical basilica

Palazzo della Ragione (Basilica Palladiana), exterior and interior of loggia (1548)

Andrea Palladio Vicenza, Italy

-By the middle of the 16th century, it needed repair
-The walls needed support against the thrust of the massive roof dome. -Many architects were consulted including Giulio Romano
-Romano died in the process of consultation in1546
-Then Palladio’s design was approved & with this project
-he was at once established as a major architect.
-The palazzo was already 2 stories high

Palladio’s Solution
-shoring up the earlier building by constructing two story stone arcades around the outside of the original structure.
-The outer layer of the arcades functions as a buttress for the walls

Palazzo della Ragione (Basilica Palladiana), detail drawings (1548)

Andrea Palladio Vicenza, Italy

Palladio’s Solution
-The lower one corresponds to the height of the ground floor of the original structure
-In contrast, the upper arcade was conditioned by the height of the arcade below it so that it could have a proportionally harmonious relationship with the elevation below
-Its height was conditioned by the need to rise high enough to contain the thrust exerted by the roof
-The inner structure had slightly different widths of bays
-By providing these arcades, Palladio gave successfully a homogenous appearance to the irregularities of the inner structure.

Palazzo della Ragione (Basilica Palladiana), elevation and plan (1548)

Andrea Palladio Vicenza, Italy

Elevation
-To ensure the homogeneity of the facade further, Palladio carefully studied the relationship between the main arch and side openings
-Palladio varies the dimension of the side openings to maintain dimensions of the arches same
-This way, Palladio ensures the sense of Order based upon the repetition of the same motifs.
-The boundary b/t the building and the piazza was made permeable through the arcade
-This permeability befitted the building’s function as the seat of the town council

Palazzo della Ragione (Basilica Palladiana), detail drawing of facade (1548)

Andrea Palladio Vicenza, Italy

*Villa Barbaro-Volpi, ex*terior (1556)

Andrea Palladio

Maser, Italy

-The Villa Barbaro stands on the slope of a low hill.
-The facade of this villa is a testament to Palladio’s statement that a villa should have a dignified and elegant exterior by including motifs of classical temple architecture.
-The central part of the facade with temple-front projects itself assertively
-The facade is also marked at its both ends with classical motif of pediment and Albertian motif of scrolls.
-as Palladio wishes, the villa is simple and plain, yet dignified and elegant for its inclusion of classical motifs

Villa Barbaro-Volpi (1556)

plan and elevation

Andrea Palladio

Maser, Italy

Plan

-The wings of the first floor extend back toward the hill.

-In the garden at the backside, Palladio formed an open terrace area.

-The middle part of the terrace incorporates a semi-circular zone to extend further towards the untamed nature.

-At the point where the whole composition stands closest to the nature is a semi-circular nymph

-Its water is supplied from a natural spring behind

-The flow symbolizes the power of life streaming from the nature outside to the habitation of human construction.

Villa Rotunda (Villa Capra), exterior (begun 1565-1566) Vicenza, Italy

Andrea Palladio

-This work bears most lasting witness to Palladio’s longing for antiquity
-It was the last of Palladio’s villas to be built
-It is one of Palladio’s masterpieces and enormously influential even on modern and contemporary architecture.

Villa Rotunda (Villa Capra), detail drawings (begun 1565-1566)

Andrea Palladio

Vicenza, Italy

-It is a Simple, centralized structure.
-This simplicity was repeatedly conceived in the Renaissance, but was seldom realized. -Palladio brings finally a work of perfect mathematical and proportional harmony into realization
-Utility and functionality are not put aside. -Rather, they are transcended for the cause of creating a villa of symbolic significance impressively set in the middle of nature.

-At its centre is a circular *sala*, sitting within a square. -4 massive temple-front porticos approached by flights of steps.
-4 narrow passages lead to the sala.
-There is an interesting contrast of scales in spatial experience: the contraction of the scale from the outside to the narrow passage way is released at the moment when one stands in the circular sala.
-The cupola of the central room was originally based on that of the Pantheon in Rome, but in its final execution, (supervised by Vincenzo Scamozzi,) it was made shallower and thus less prominent in appearance
-It exemplifies the way in which Palladio linked architecture w/landscape in a wholly new way in his villas

-Set on a hill, it appears majestic and appears to draw in nature from every direction.
-Regarding the construction of a villa, Palladio advised against building it in valleys as this would deprive the structure of its importance in being seen from a distance
-The territory surrounding & belonging to the villa should be overseen or kept under surveillance
-From the hill crowned by the villa, the view extends far beyond the garden of the estate
-This gives the beholder a sense of being at one with the whole of nature and simultaneously, at the control of the whole
-It is an architecture of paradox in this sense: it seems to be both within nature and at the control of the surrounding.

Vitruvian Man (1487)
(based on Book III of Ten Books on Architecture by Vitruvius)

Leonardo da Vinci

Accademia

Venice, Italy

Vitruvius, Man at the centre of cosmic geometry

Villa Madama, plan (begun 1516)

Giulio Romano

Rome, Italy

3. Influence of Palladio's architecture on the architecture of England during the 17th century

Inigo Jones (1573-1652) – influence from Andrea Palladio (1508-1580)

17 century in England

1. **Inigo Jones (1573-1652) – influence from Andrea Palladio (1508-1580)**

-During his visit to Italy in 1614, inigo Jones acquired a number of original drawings by Palladio (from Palladio's pupil Scamozzi).
-He also acquired a copy of Palladio's *Four Books of Architecture*.
-He studied this book carefully and added his own annotations.
-Palladio's original drawings and the copy of his treatise that was retained and studied by Jones at Worcester College, Oxford University.
-Inigo Jones studied diligently Palladio's treatise and drawings
-He left a strong imprint on the development of English architecture.

-This is the first English villa in the Italian style (1st Palladian Ideal)
-he follows Palladio's (mistaken) understanding of the villa during the Greek and Roman periods
-The upper story of the middle section is a temple front without a pediment
-The division of the façade into three sections with the center projected is also a typical feature of Palladio's villas

Queen's House

plan (1616-1635)

Inigo Jones

Greenwich, England

-There is a public road between the two blocks of the villa
-Jones placed 2 blocks on either side of the road and joined them at the second story by means of a bridge
-The elevations facing the road are flat.
-In contrast, the elevations on the opposite sides are Palladian

Palazzo Chiericati, exterior (1550)

Andrea Palladio Vicenza, Italy

-In particular, Palladio's Palazzo Chiericati
-The facades are tripartite with a central projecting portion

Palazzo Chiericati, exterior (1550)

Andrea Palladio Vicenza, Italy

Andrea Palladio
Villa Cornaro, Piombino Dese,
near Treviso, 1551-3
Woodcut from *I quattro libre dell'architettura* (Venice 1570)

St. Paul's, Covent Garden, exterior view (begun 1630)

Inigo Jones London, England

-Designed as part of the first geometrically planned urban development of 17th century England.
-The church stands at the West end of the piazza.

St. Paul's, Covent Garden, plan, general view and elevation (begun 1630)

Inigo Jones London, England

-One unique feature of this church is its portico with Tuscan orders.
-Its Tuscan portico performs a purely civic role in the piazza, b/c the entrance to the church is at the other end
-Jones' use of the Tuscan order is an intriguing matter.
-Indeed, Palladio once recommended the use of the Tuscan order, but not in church architecture, but in villa architecture.

Then, why did Jone use the rustic Tuscan?

Architectural Orders (Roman Doric and Tuscan Orders)

Il Redentore, exterior (façade 1576)

Venice, Italy

Andrea Palladio

-As you can see, Palladio's churches never use Tuscan orders.
-Palladio's churches: a series of temple front motifs and the Pantheon-like dome

St. Paul's, Covent Garden, exterior view (begun 1630)

Inigo Jones London, England

-Jones here shows a treatment which is never found in Palladio’s church architecture.
-Though influenced by Palladio, when it came to church architecture, Palladio’s Catholic churches were not his models
-Jones was more sympathetic to the austerity of the Protestant cause.
-He was proud to call the church “the handsomest barn in England”
-In other words, designing a church suitable for Protestant services in the new Classical manner, Jones makes plain the fundamental character of the new religion
-This approach also suited his patron’s desire for economy

4. Baroque Architecture (17th century Italy)

Ecstasy of Saint Teresa

(1645-1652)

Gianlorenzo Bernini

Cornaro Chapel,

S. Maria della Vittoria

Rome, Italy

The change of status of the classical norm during the mid-sixteenth century onwards.

1. There was a group of architects who claimed that the classical architecture is enough. We do not have to create new architecture, what is important is to understand the classical norm as best as possible and restore it. This group took Vignola and Palladio as their models to follow.

2. There was another group of architects. They rejected to be a perpetual copyist. They took Michangelo as their role model. To this camp belonged Borromini and Guarini.

3. The third group of architects who tried to balance between the first and second groups.
Bernini

Baroque Architecture and Urban Consciousness

-The architects of the Baroque period emphasize urban role of an individual building.

-Surrounding, more engaging, embracing

-Curvilinear shape: Not necessarily for the aesthetic play, but for its urban performance

-Concave, convex juxtaposition

-The effect of light

-Movement

-moving forward

-moving perceiver (not the perceiver in contemplation)

-Theatricality:

> “spectators cannot fail to be impressed by the complexity of the architecture (its complexity), its richness, or its dramatic intensity. Baroque arch. Is consistent in its desire to impress, to transform, the environment to the viewer, to make the viewer a participant.”

Sant' Andrea al Quirinale

axonometric (1678)

Gianlorenzo Bernini

Rome, Italy

-Juxtaposition of convex and concave walls, planes and lines
-The concave wall extends to embrace visitors to the church
-Juxtaposition of two porticoes: one based on temple-front of classical architecture with a slightly curvilinear pediment; the other based on the portico of a circular temple
-Juxtaposition of different scales in the facade: one responds to the openness and bigness of the urban space in front of the church; the other responds to the scale of people who come in to the church
-The chapel is of an oval.
-It has two axes: at the end of the short one sits the main altar
-The remaining part of the wall is carved with niches housing smaller altars

Sant' Andrea al Quirinale, interior (1678)

Gianlorenzo Bernini

Rome, Italy

5. The Influence of Baroque Architecture on the Architecture of England

-The Baroque architecture of Italy came to England during the second half of the 17 century
-An architect named Christopher Wren (1632-1723) **started to introduce the vocabularies of the Baroque Italian architecture to England.**

-Wren was a contemporary of Descartes and a colleague of Sir Isaac Newton in the Royal Society
-Wren spent his youth studying physics and mathematics & became Professor of Astronomy at Oxford.
-He came late to architecture, but his scientific background had trained him to solve technical problems such as the stability of buildings and the construction of domes.
-In a lecture in 1657 as a professor of Astronomy, he quoted Vitruvius in order to verify his claim that mathematics, geometry and astronomy were the foundations of all disciplines.
-This was the moment the seed of architecture was sewn in his mind.

-Wren’s masterpiece

St. Paul’s Cathedral

Wren’s Ideal Plan

(1675-1710)

Sir Christopher Wren

London, England

-London had a great fire in 1666.

-The original St. Paul’s Cathedral-a Gothic church-was damaged severely.

-It became clear by 1668 that the proper solution for the damaged Cathedral was not a partial rebuilding, but a complete reconstruction.

-Wren was chosen as architect to design this church, one of the most important churches in England

-Wren’s plan is of Latin cross with a dome to emphasize the symbolic center at the same time

-At the crossing, 8 giant piers carry a majestic dome.

-Influence of Baroque architecture

Sant' Andrea al Quirinale, plan and facade (1678)

Gianlorenzo Bernini

Rome, Italy

-Before one reaches the crossing, the main center, one passes through a series of, what one may call, Baroque spaces.

-While allowing procession towards the center, the nave presents a series of moments of pause.

-The nave is composed of a series of nodes and each node is given centrality of a lesser degree.

-At each node, the space expands horizontally, or perpendicular to the main axis.

-This insertion of pause in the middle of procession is a feature of Baroque theatricality.

St. Paul's Cathedral
partial plan and section
(1675-1710)

Sir Christopher Wren

London, England

Treatment of the drum
-32 buttresses surround the drum, finishing in engaged columns to create the effect of a peristyle
-Every fourth intercolumniation is filled in by a wall decorated w/a niche
-This was for structural reason, as well as for decorative reason
-The columns reinforce the stability of the dome

-On the interior, the base of the drum rest on 8 arches standing on 8 corner columns
-The octagon has alternating wide and narrow bays

Design of the Dome itself

-The dome has 3 shells: the inner brick dome is a near hemisphere.

-It has an open oculus looking through to the tall brick cone.

-This brick cone supports the lantern.

-The outer hemisphere is a light timber framework covered w/ lead.

St. Paul's Cathedral (1675-1710)

Sir Christopher Wren

London, England

-In the Western facade, the dome appears as flanked by two Baroque towers.
-In the middle of the towers is a pedimented portico.
-This treatment of the facade and the dome was an influence from Italin Baroque architecture, particularly by Borromini’s San’t Agnese.

Sant' Agnese, facade (begun 1652)

Francesco Borromini

Rome, Italy