

العمارة في عصر النهضة (١٤٥٠-١٥٥٠م)

Architecture in the Renaissance (1450-1550)

Dr. Kamal Elgabalawy

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Renaissance style Italia

Florence Cathedral

Santa Maria



Renaissance style Italia

Florence Cathedral



The Cathedral of Florence Il Duomo

Striving to a height of 374 feet, the dome of Santa Maria del Fiore is a wonder of ingenuity. It is a masterpiece of Renaissance architecture. Its grandeur and artistry were used to subvert those of any other structure in early Renaissance Italy, elevating Florence over rival cities. Though very beautiful, it was too big and wide for its time. Italian architect Filippo Brunelleschi, unassisted, using methods that separate don't fully understand even today.

Timeline:
1418: Brunelleschi's dome
1420: Brunelleschi's dome
1436: Brunelleschi's dome
1469: Brunelleschi's dome
1482: Brunelleschi's dome
1504: Brunelleschi's dome

The Design

A Challenge

Brunelleschi had to build a new dome in 1418. His plan, and design, were revolutionary. He used a double dome structure, one on the outside and one on the inside. The dome is made of brick and is supported by a series of ribs. The dome is a masterpiece of engineering and design.

Shapes and Lines

The geometry of the dome, built on an octagonal base, suggests the use of a double dome. The dome is a masterpiece of engineering and design. The dome is a masterpiece of engineering and design.

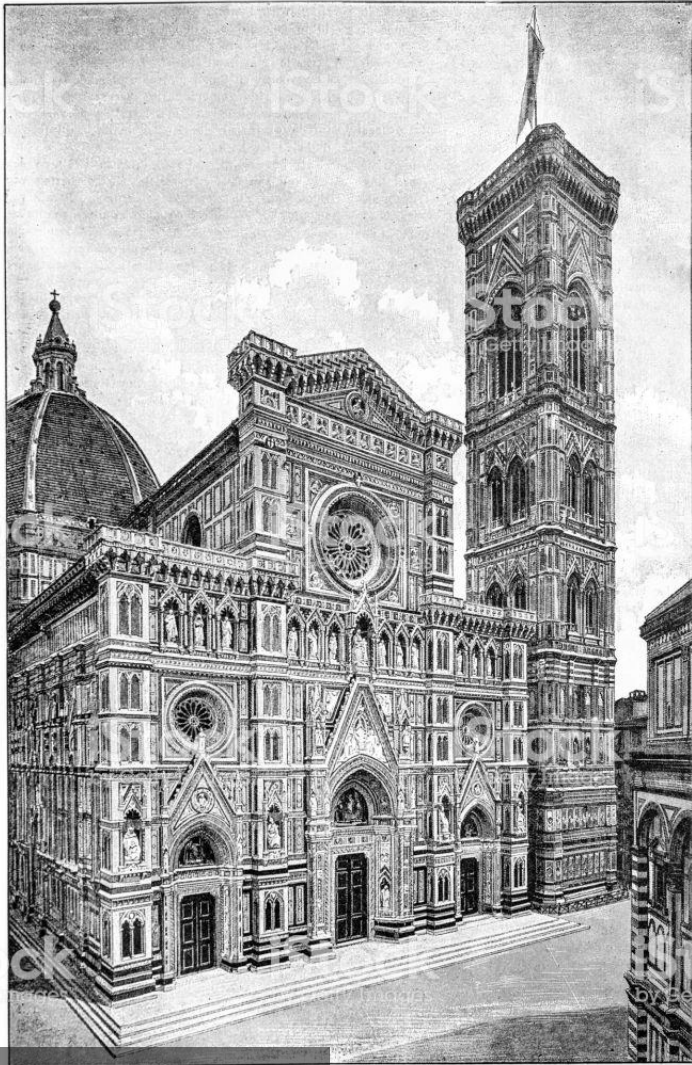
The Construction

Historical sources report that the dome was built without a temporary wooden framework, or "centering," to hold the masonry in place while drying. But Brunelleschi's dome was built with a temporary wooden framework. The dome is a masterpiece of engineering and design.

The diagrams illustrate the complex internal structure of the dome, showing the double dome system and the supporting ribs. The cutaway view shows the internal structure of the dome, including the double dome and the supporting ribs. The diagrams also show the construction process, including the use of a temporary wooden framework.

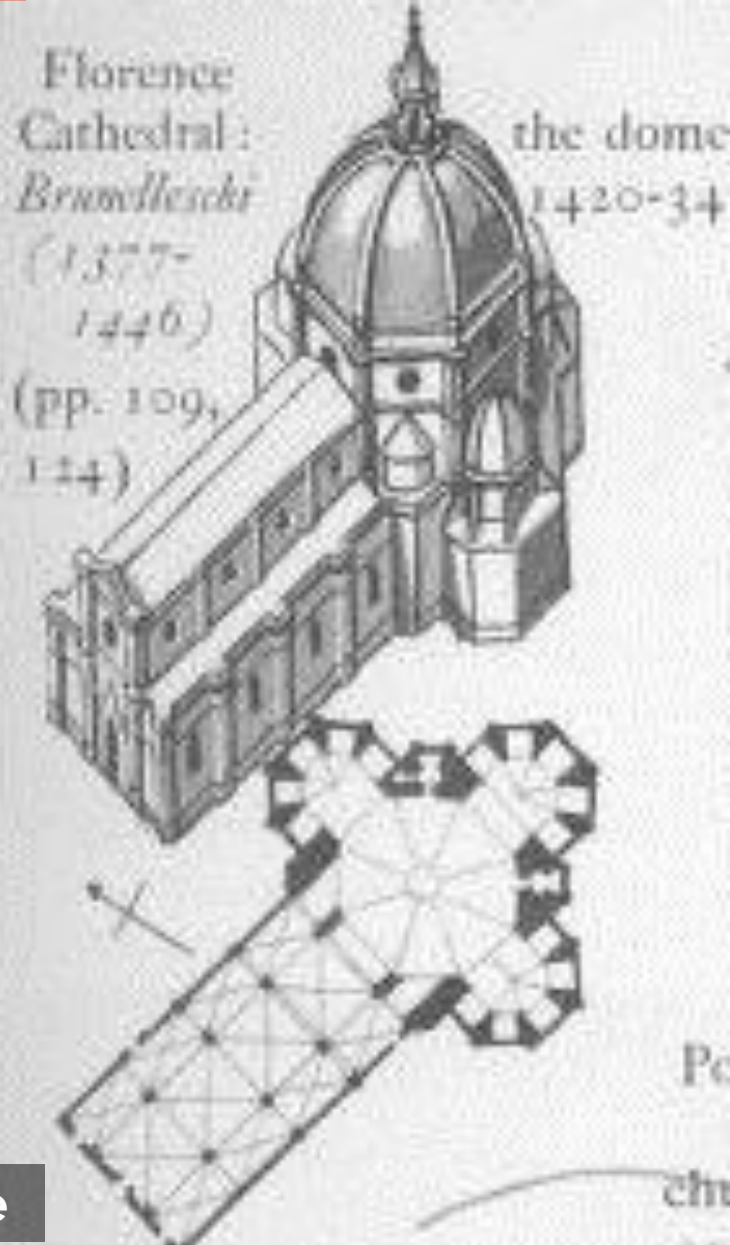
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Reference:

Graphic History of Architecture



Florence Cathedral: *Brunelleschi* (1377-1446) (pp. 109, 124) the dome 1420-34

RENAISSANCE-BAROQUE

Florence Cathedral: *Brunelleschi* (1377-1446) (pp. 109, 124) the dome 1420-34

S. Andrea, Mantua, 1472-1512 *Alberti* (1404-72) (pp. 120, 122)

Pope Julius II (1503-13) had the old basilican church pulled down (p. 70), and successive plans were made for the new church:

- 1 *Bramante* (1444-1514) 1506
- 2 *Raphael* (1483-1520) 1515-20
- 3 *Sangallo the Younger* (1485-1546) 1539
- 4 *Michelangelo* (1474-1564) 1546-64

S. Spirito, Florence, 1435 *Brunelleschi* (p. 122)

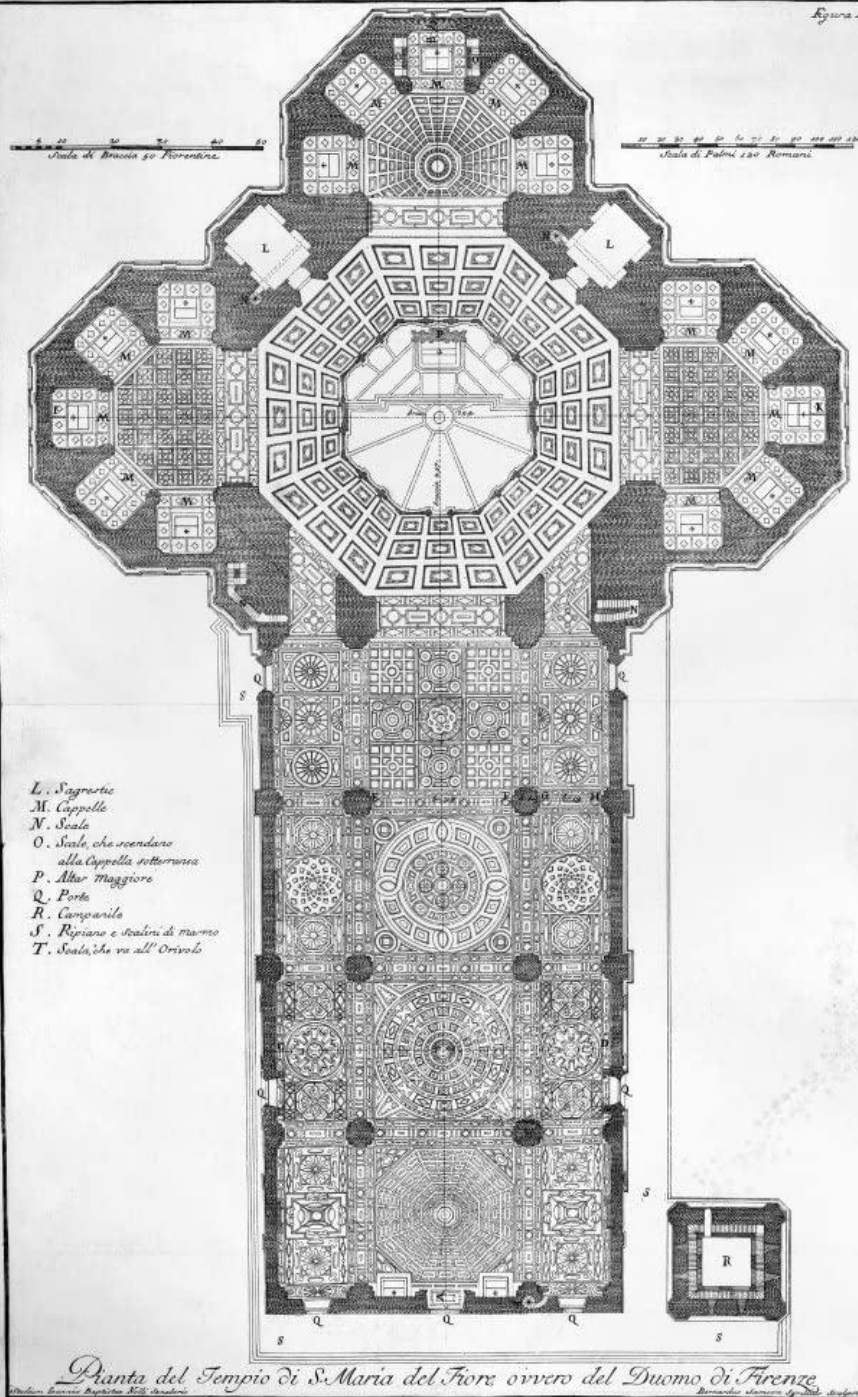
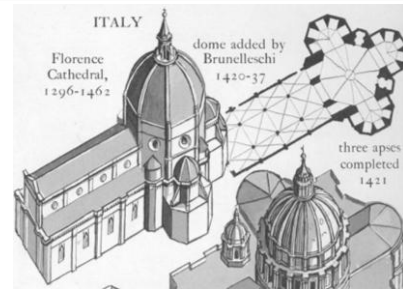
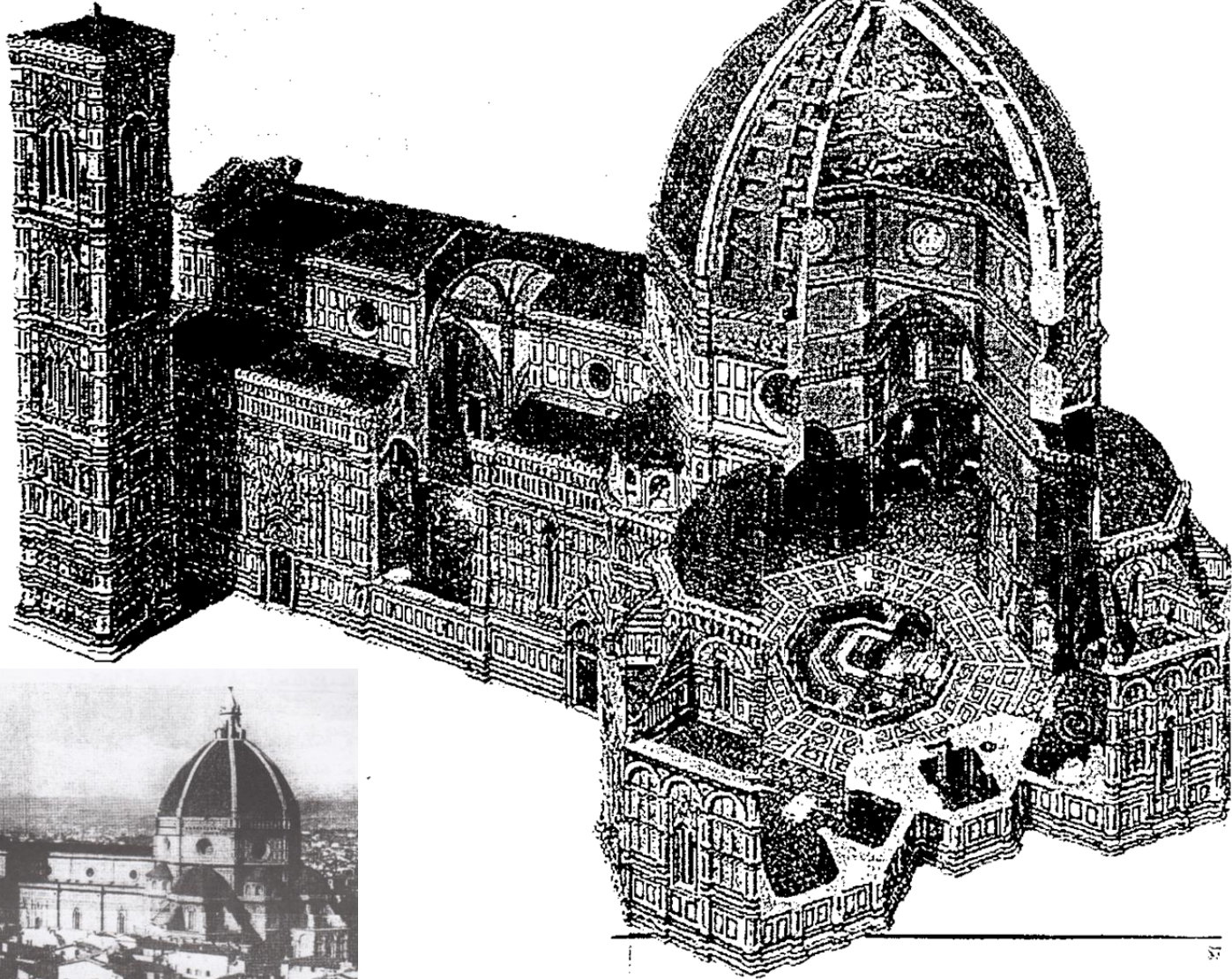
also designed the dome, completed 1585-90 by *Giacomo della Porta* (1541-1604) and *Domenico Fontana* (1543-1607);

- 5 side cupolas added 1564, by *Vignola* (1507-73)
- 6 *Carlo Maderna* (1556-1629) lengthened nave to form a Latin cross & added the façade 1606-12

St Peter's, Rome, 1506-1612 (pp. 93, 124)

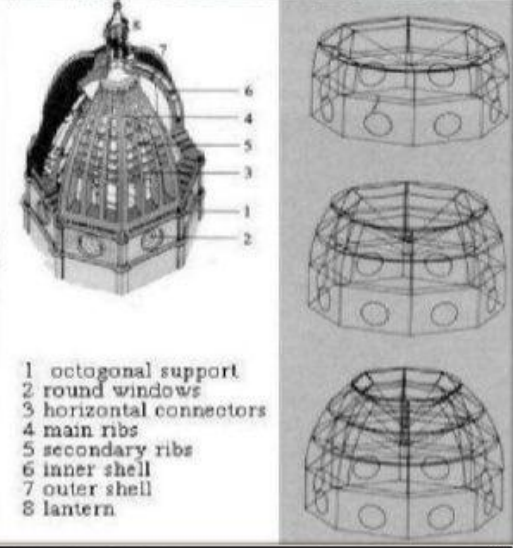
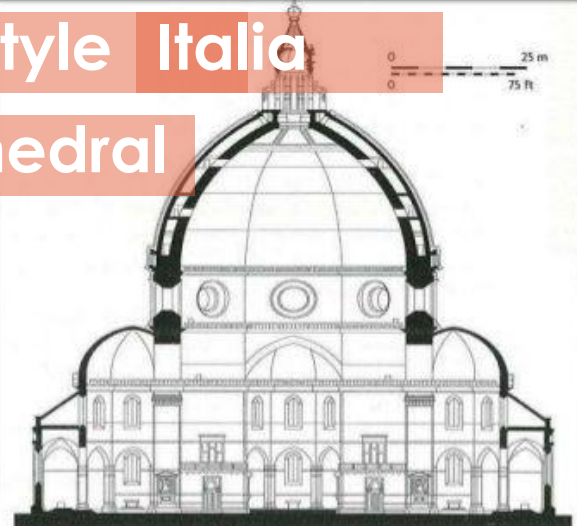
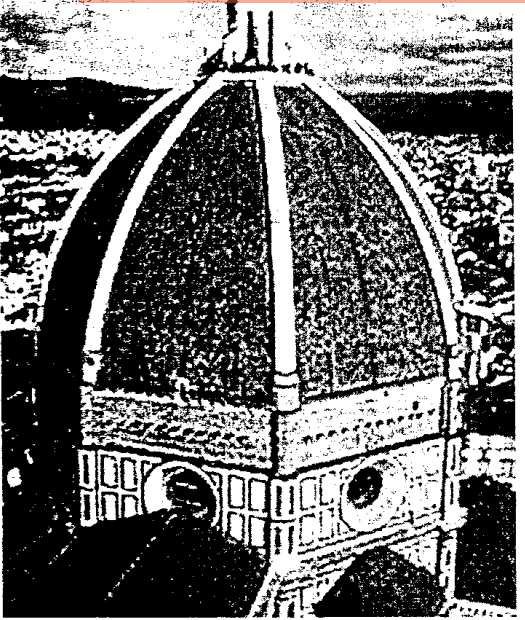
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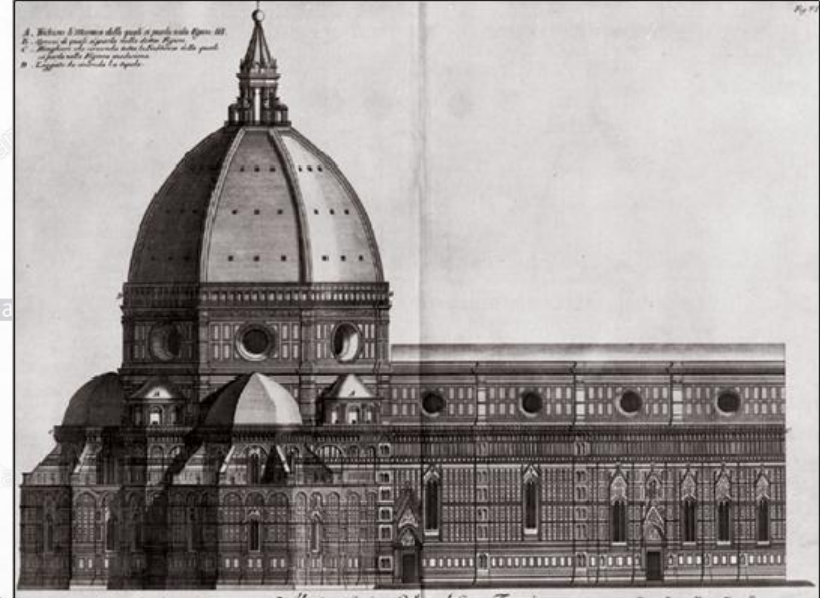
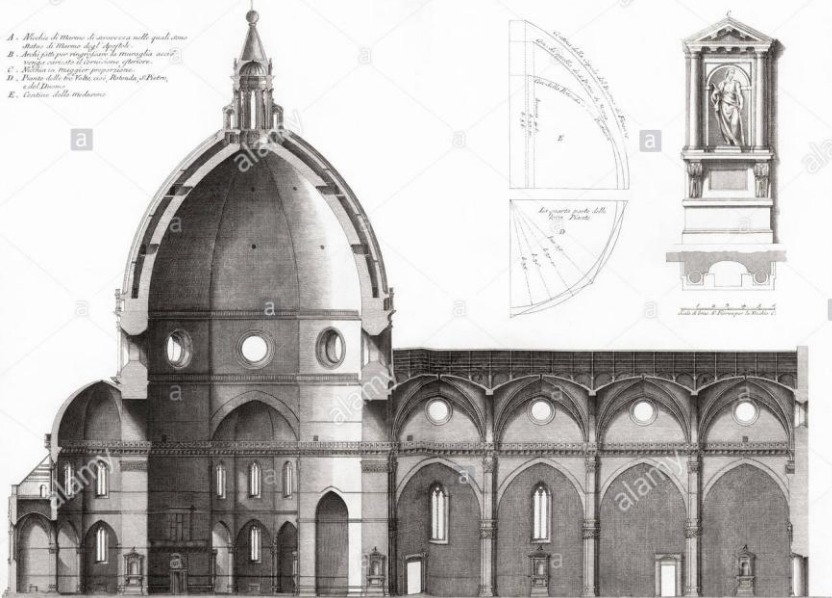
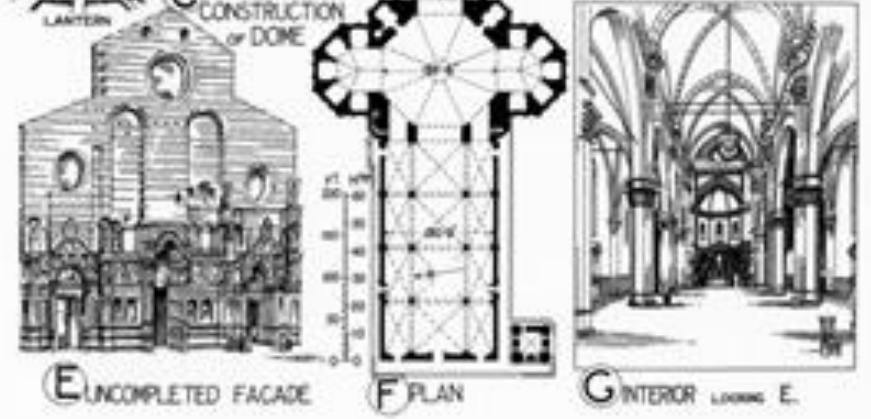
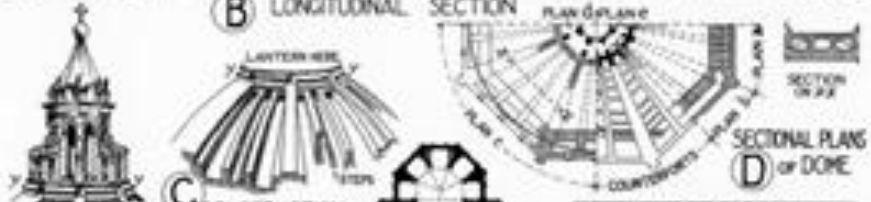
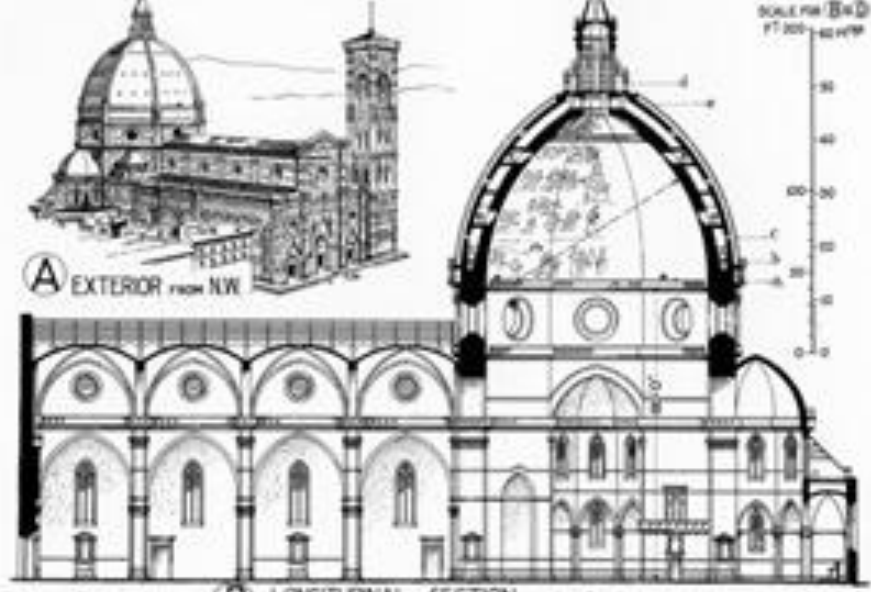


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S. MARIA DEL FIORE: FLORENCE



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THANK YOU

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