

Byzantine Architecture

History of Architecture

No'man Bayaty

Introduction

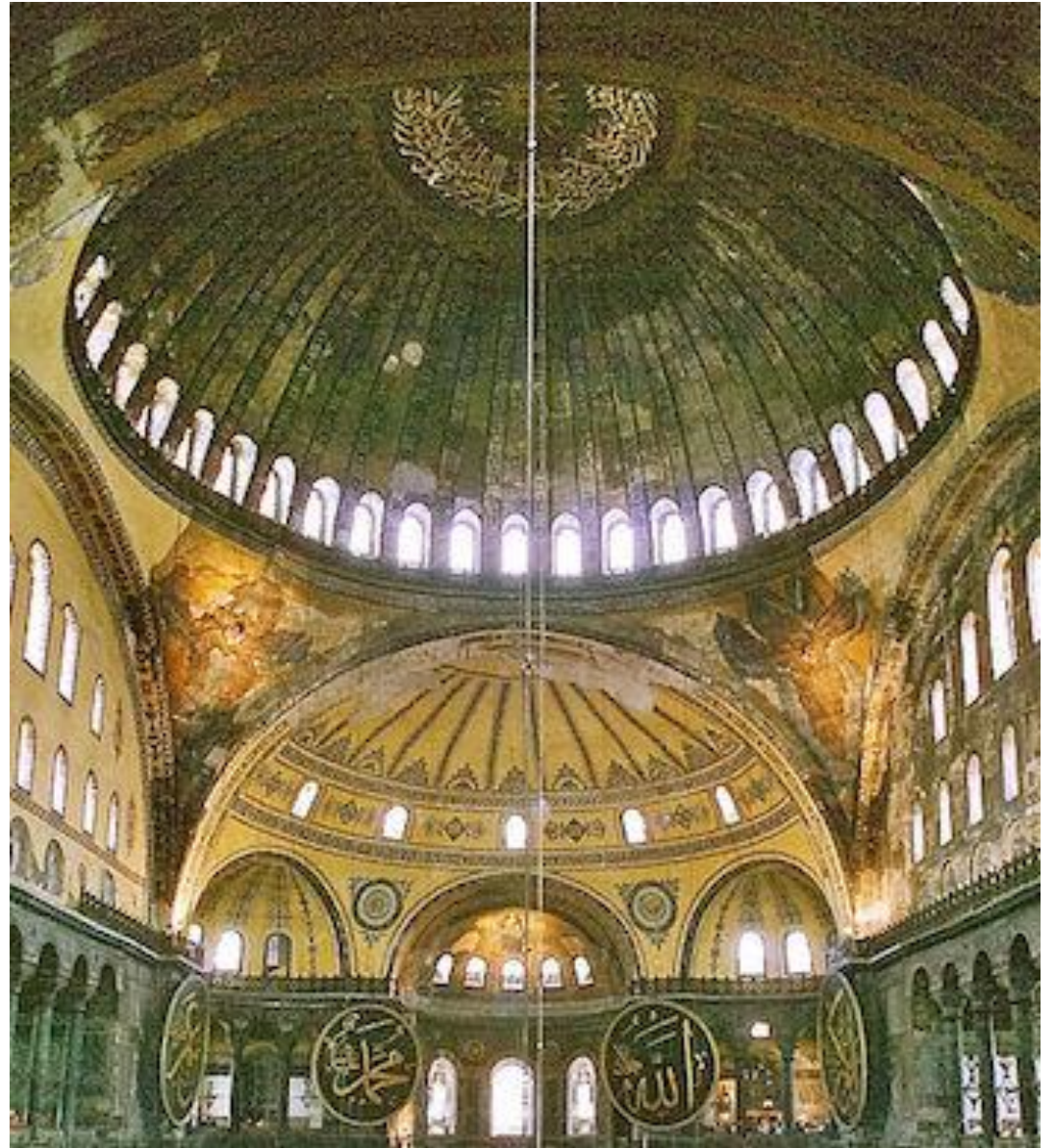
- Byzantium (Constantinople) became the new capital in 324 A.D.
- The location of Constantinople (Istanbul) is the finest in Europe.
- It sits on the strait of Marmara, one of the very strategic locations.
- The separation of the Roman empire accompanied a separation in religion, with the separation of the Christian church.
- The difference in belief and rituals between the eastern and western church led to some differences in architecture also.
- At the time of the emperor Justinian (527-565 A.D.), Italy became under the rule of the Byzantine empire.

Introduction

- The place is poor in terms of building materials (stone and mud are available), but had some marble, which was used and exported.
- The climate was hotter than Rome, which added to the oriental character of the architecture of the place.
- The term Byzantine architecture is used to describe the architecture of the empire, and sometimes also to describe the buildings built in the western empire but within the same style.
- The style continued to thrive in Constantinople until it fell under the hands of the Ottomans in 1453 A. D., and became the capital of their empire.

Architectural Character

S. Sophia, Constantinople.

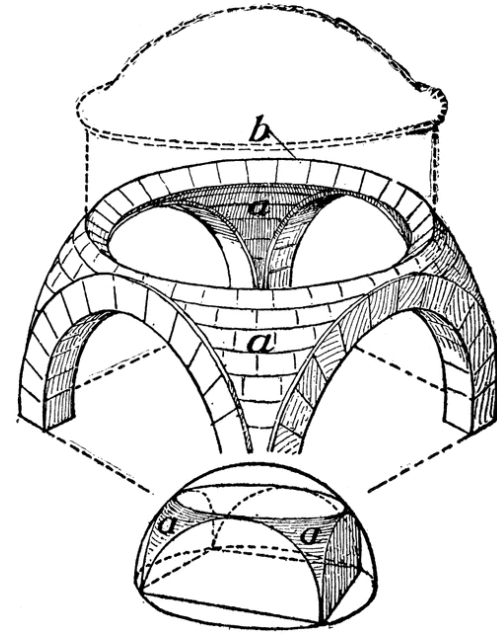
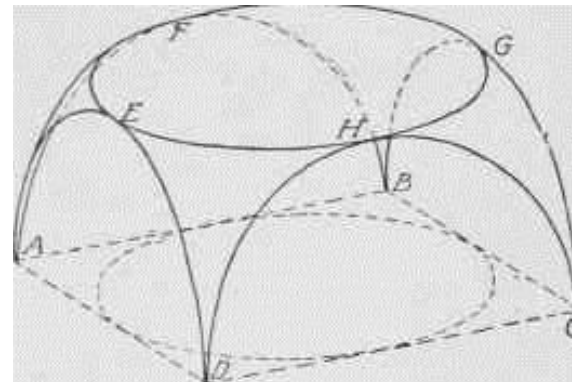


Architectural Character

- The most important feature that would control the form of this style is the development of the (dome architecture).
- This led to adopting central shapes, like circular or octagonal plans.
- They developed (Pendentives) as vaulting system.
- The structural elements were usually built with a marble shell, and filled with brick (close to the Roman concrete technique).
- The mosaic for interior is considered the best in history.
- The traders moved the style to cities far from the empire's influence, such as S. Mark and Venice.

Architectural Character

- The dome of the Byzantine architecture is an eastern influence.
- A pendentive: is a curved triangle of vaulting. It was the technique used to transform the square plan to the circular dome.
- With the help of the pendentives, the Byzantine architects were able to build domes over square plans, while the Romans built them on circular plans.
- Windows were opened in the lower part of the dome.
- In later periods a drum was used under the dome.

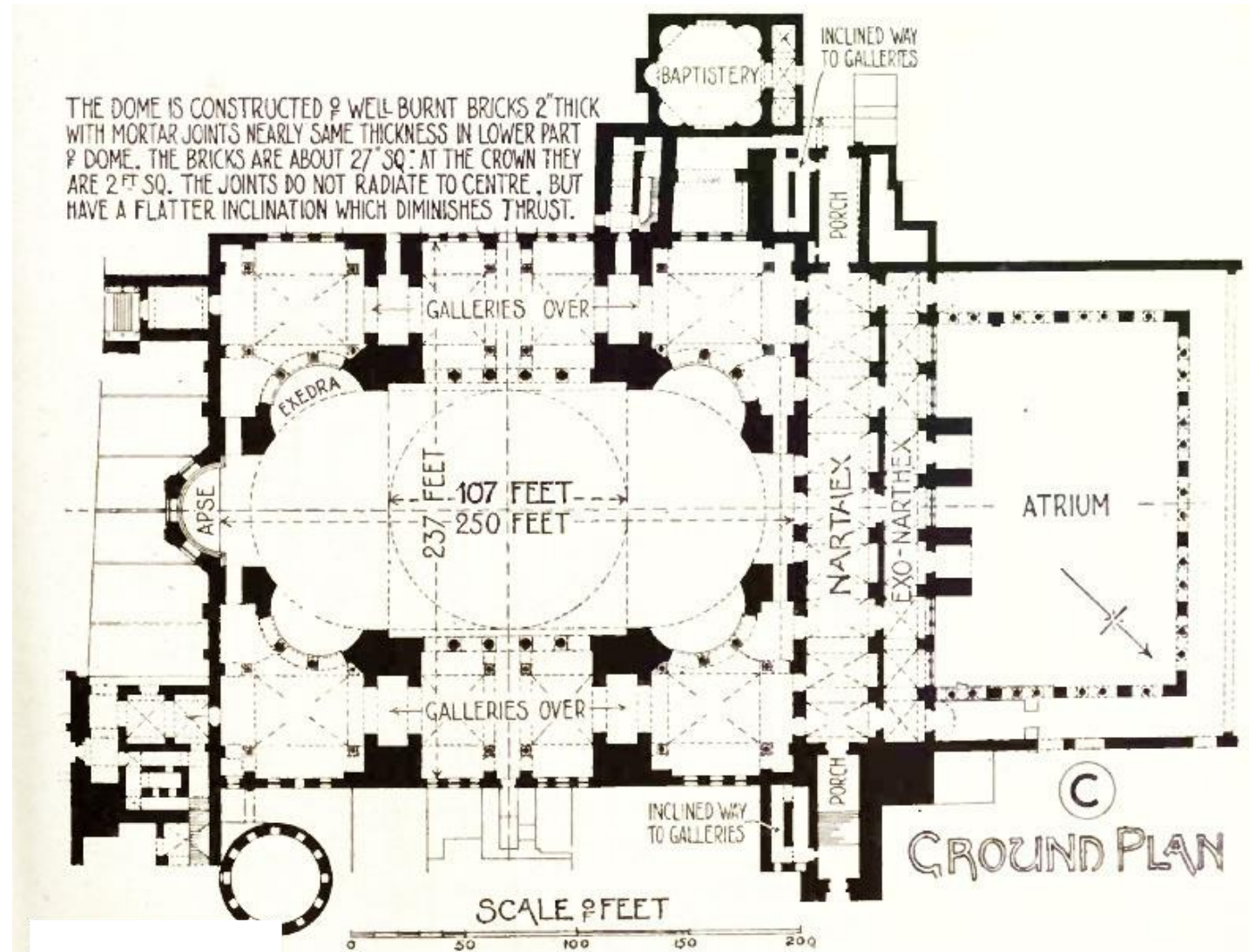


Architectural Character

- The usage of brick architecture in domes became a main character of the Byzantine architecture.
- One of the remarkable features is the grouping of several small domes around a central large dome.
- They changed the classical orders; there were several variations of them.
- The arches were still semi-circular.
- The brick architecture was in accordance with the interior mosaic.

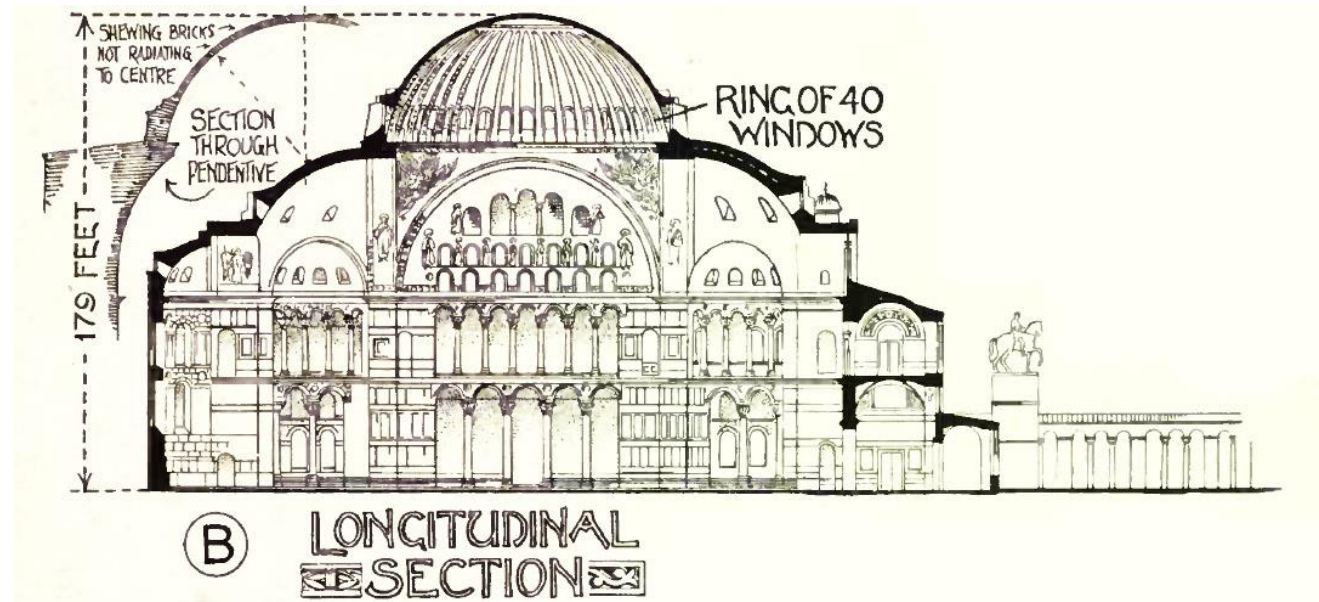
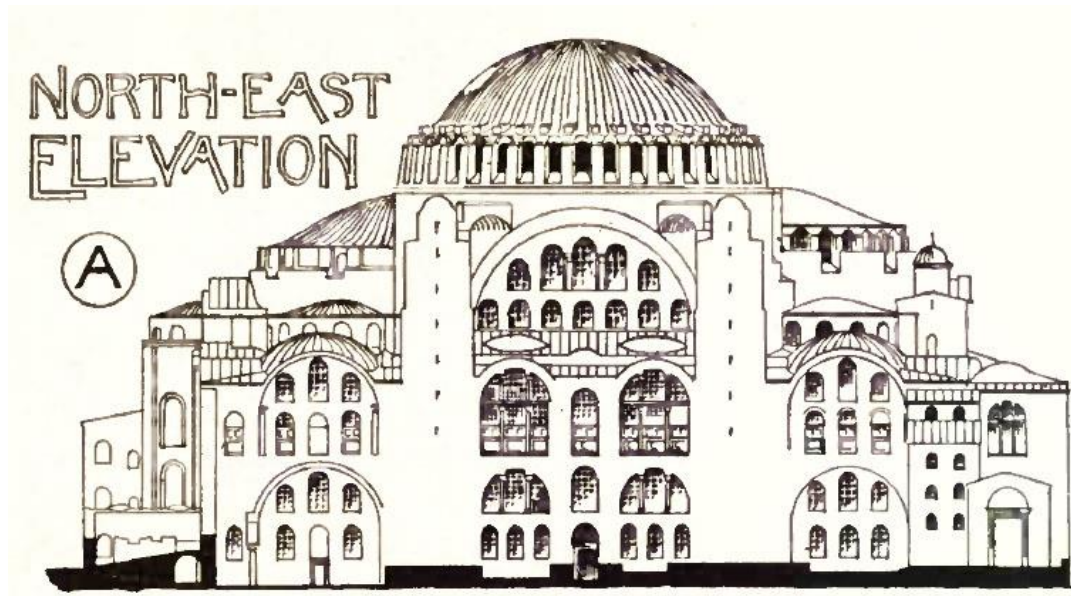
Examples (Churches)

- S. Sophia, Constantinople:
- The most important building in Byzantine architecture.
- It was built by Justinian in the 6th century.
- The dome is 32 m in diameter and 54 m high, standing on four massive piers.
- The church has two stories, the upper galleries are for women.



Examples (Churches)

- S. Sophia, Constantinople:
- The two semi-domes act as buttresses for the central dome.
- The great four piers are of stone, the rest of the building is brickwork.
- The columns used in the building are of different sources, materials and colors.



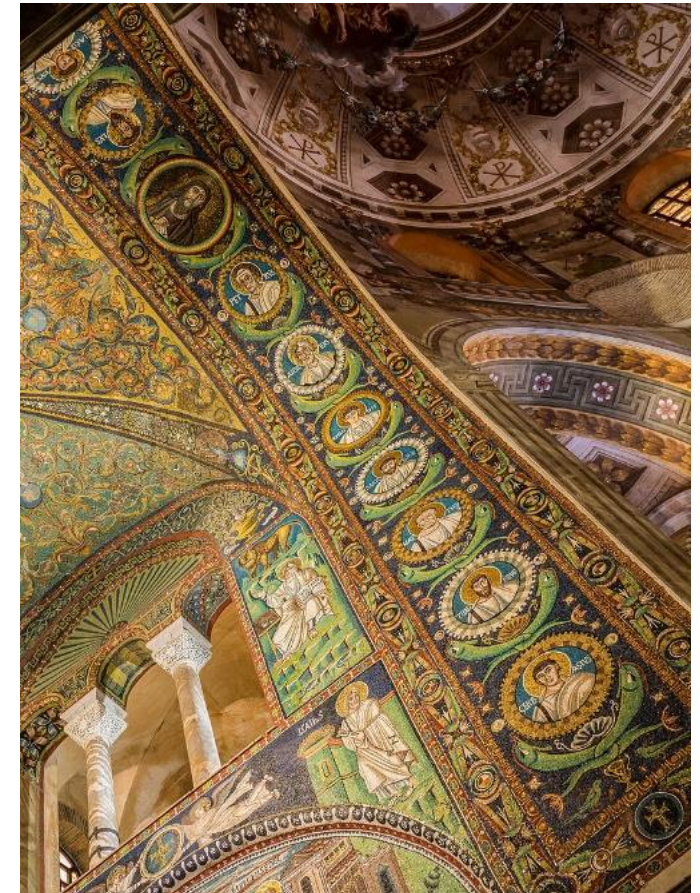
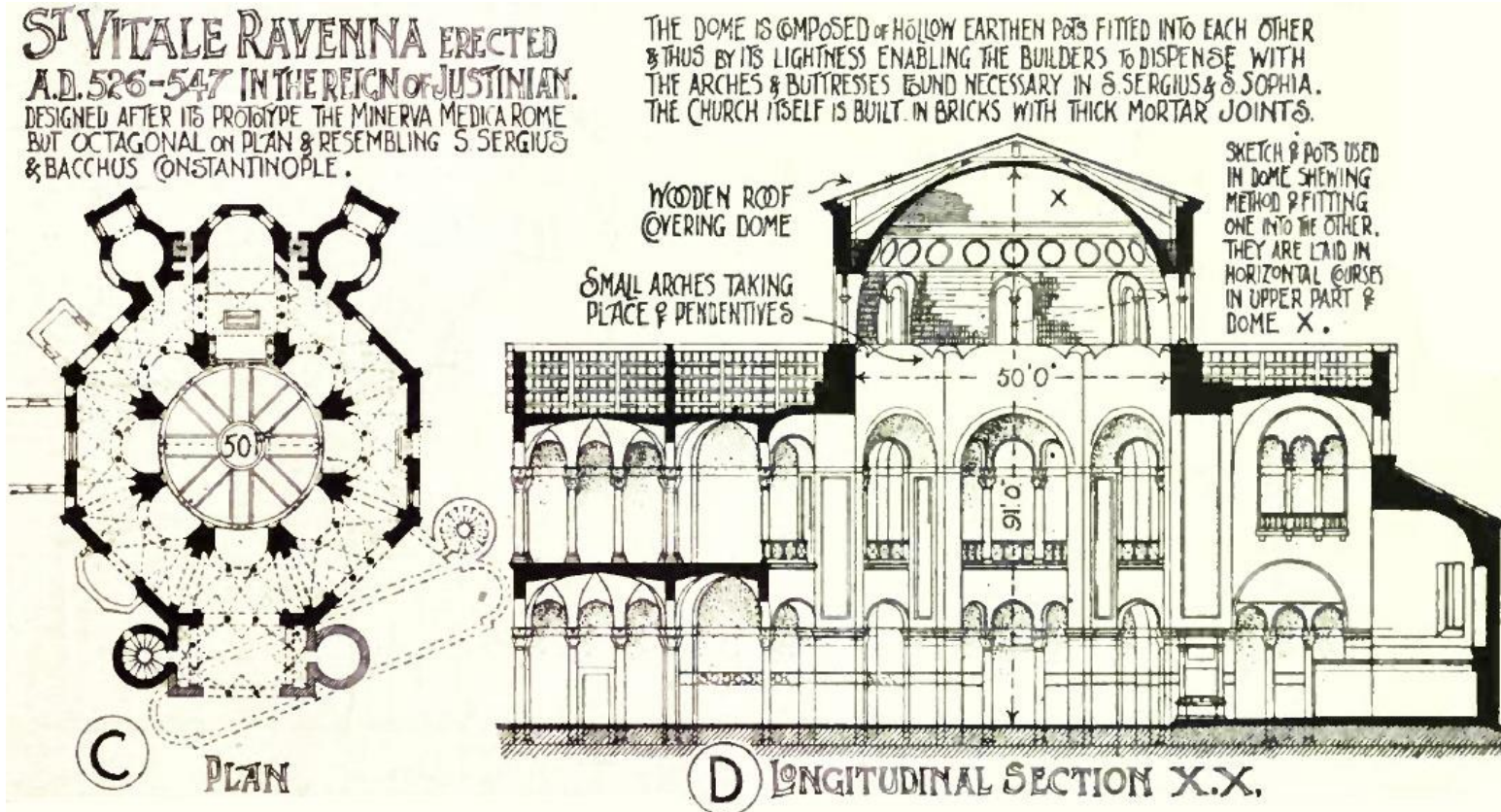
Examples (Churches)

- S. Sophia, Constantinople:



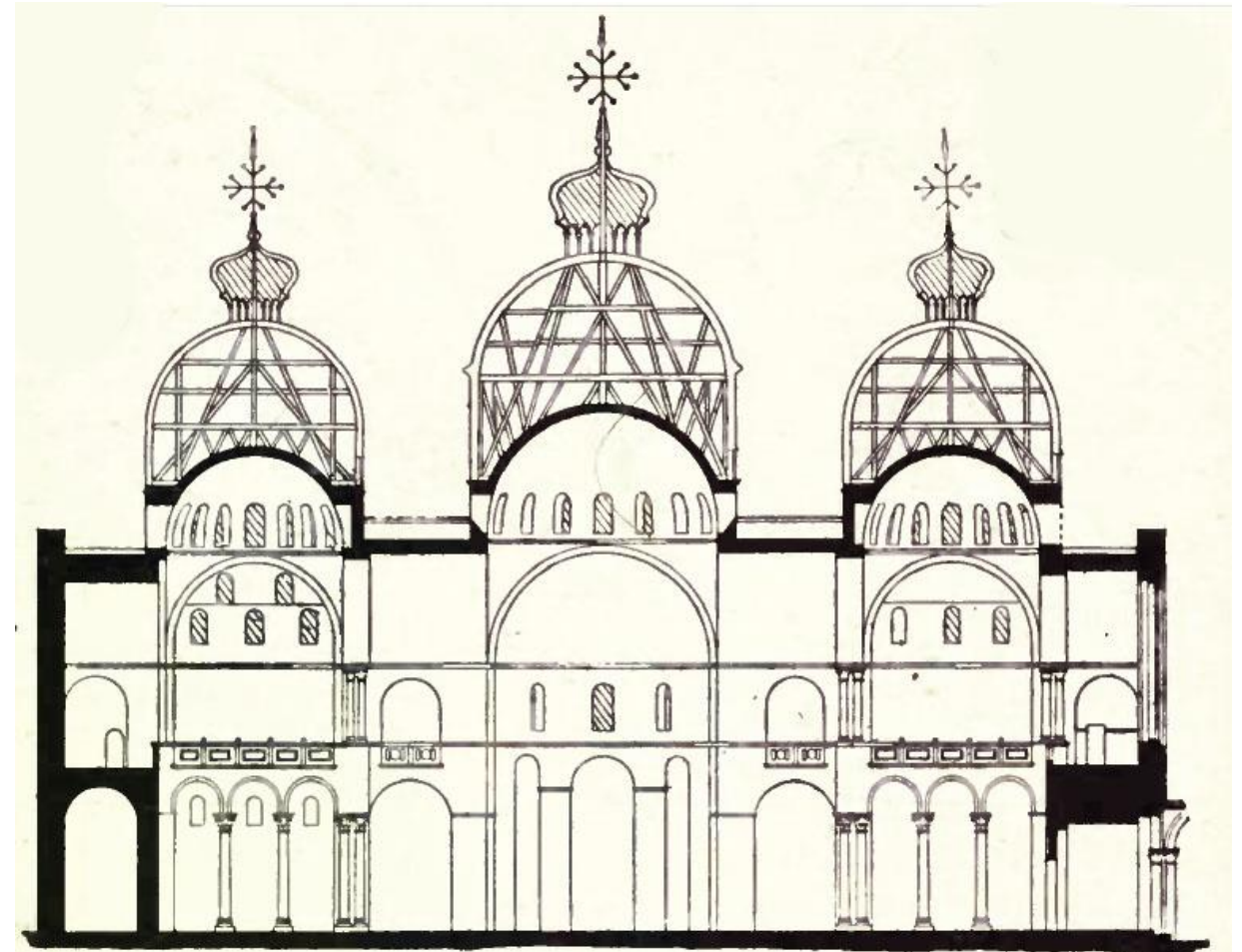
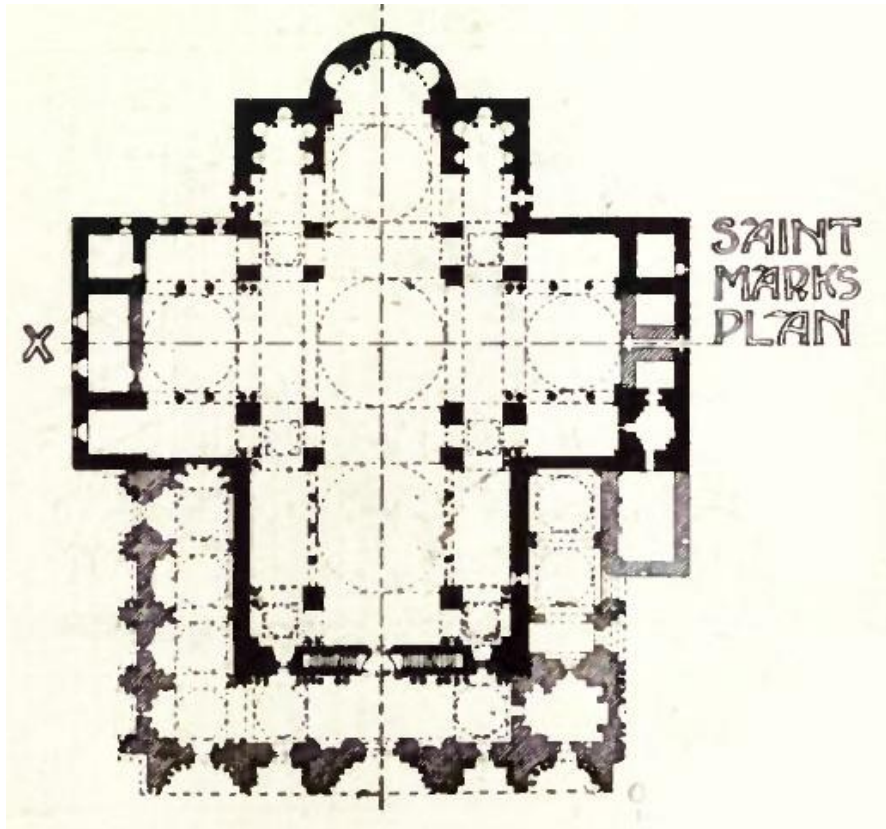
Examples (Churches)

- S. Vitale, Ravenna:



Examples (Churches)

- S. Mark, Venice:



Examples (Churches)

- S. Mark, Venice:



Byzantine architecture

- Byzantine plans are distinguished by a square plan covered by dome.
- The emphasis in Byzantine churches is on the vertical line, while in the early Christian basilicas on the horizontal line.
- The exterior of the buildings were relatively simple.
- Sometimes horseshoe or segmented arches were seen in the buildings.
- Windows were small and often grouped.
- Early columns were Roman, but because of the short supply in the east, they had to design their own, usually with foliage-carved capitals.

Byzantine architecture

- The mosaic ornament was used in compatibility with the structure, and were of religious themes; Incision technique was more Greek than Roman.
- They were surface relief, and did not break the shape's outline.

