

History of Architecture and Culture – I

Lecture 9

Welcome to UGC lecture series architecture, I will now be taking through History of Architecture and Culture I that is AR6101, this particular lecture covers the second part of unit V that is classical period Rome. In the previous lecture you saw what are the socio cultural and political influences that led to the classical Roman architecture. What are the temples and forums of Roman architecture. The example of the set temples and forums and we saw the Pantheon Room. Moving on this particular lecture you will see

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Basilicas

First on the St.basilicas of the modern day early Christian architecture that you will be seeing in the coming semester of your architecture education. So in this particular basilica is very different from that of Christian basilicas which you will be seeing now

- So these Basilicas were erected as the halls of Justice or as exchanges for merchants, comprise some of the finest buildings which were erected and bear witness to the importance of law and justice in their eyes. So in the early Christian architecture basilica refers to the Christian prayer halls whereas the Roman architecture the Basilicas refer to the Roman halls of Justice or its area where law and justice where give the at most important
- So these buildings are also interesting as a link between classic and Christian architecture. So that became this form the link of those
- The usual plan was a rectangle, whose length was two or three times the width. Two or four rows of column's ran through the entire length, resulting in three or five aisles de[ending and galleries were usually placed over those, exactly where similar to the basilica of early Christian architecture
- The entrance was at the side or at one end, and the tribunal at the other on a raised dais, generally placed in a semicircular apse, which was sometimes party cut off from the main body of the building by columns.
- So this ranged around the apse was seals of the access that were the centre which was elevated about the rest being occupied by the Praetor or Questor
- So in front of the apse was the altar, where the sacrifice was performed before commencing any important business so that's what altar was for in the roman basilicas

- The building was generally covered with a wooden roof, and the exterior seems to have been of small pretensions in comparison with the interiors
- The major example that will be seeing today is Trajan's Basilica
- Trajan's Basilica is also known as the Ulpian Basilica, Rome which is like major major part of the Roman historical architecture
- This was constructed in A.D 98
- And it was constructed by Apollodorus of Damascus, she was the architect of the set building
- Is a fine example of the wooden roofed architecture. So you can see in the background this is the picture of Basilica. This is the cross section of the Trajan's Basilica
- So it's entered from Trajan's Forum and had a central nave 87 feet wide with double aisles, each 23 feet 9 inches wide and an internal length excluding the apses around 385 feet.

See as I said in my previous lecture, the forum is a public market space or the space which was surrounded by important government buildings or important buildings then Rome

So this Trajan's Basilica was the part of the Trajan's Forum that's from where the entrance was from, so and this was around 385 feet in internal length was excluding the apses.

- So the total internal height was around 120 feet and the columns on the ground story spreading the nave and aisles of red granite from Syene with white marble Corinthian capitals again. So Corinthian capital in Rome kind of as considered advance construction because of the intrigues of the capital set column. So although most of the important buildings in Rome exhibited in the Corinthian column as a demonstration of the advance architecture or the amount of detailing they have given to the architecture is very well seen.
- So at each end were semicircular apses as I said and was reached by flights of steps and it has a sacrificial altars in front of them. So well sacrifices use to take place before major decision was taken
- And the Galleries were there it was formed over the side aisles and it was reached by steps and as shown on the plan. This is the plan of the set Trajan's Basilica, this is where the entrance happens and the entrance from the forum and these are the steps and this is the altar where the set sacrifices happen, there is another altar here and this is the tribunal for judges and accesses. On either sides you have the tribunal for the judges and accesses were the set and this is where the Trojan's column is this is the Trojan's column you can see and this is where this were there and there are two library on either side, there is Galleries and that was the access by the steps as you can see here.
- So adjoining the Basilica were the Greek and Latin libraries and Trojan's famous Column stood in an open court between them. This is the cross section of the Trajan's Basilica

and this is how the interior looked back then and this is the galleries space and here you have the apse and where this is the aisles

Thermae

So next major part of Roman architecture that will be seeing is the Thermae of the Great public baths of Rome

- The Thermae of the Great public baths of Rome's are quite characteristic of the Roman civilization as the amphitheaters being probably derived from the Greek Gymnasia. So why this particular baths important is because kind of directly symbolifies the Roman interest in public gatherings or doing, its Rome as I said was more of social country where you know people use to like spending time together let it be from that's why they had from temples to the you know forums to the Thermae to the amphitheaters everything was more like a public space there
- The principal existing remains are found at Rome and Pompeii in a ruined state. So there is no bar existing as of now in the exact form that was before, so almost every Roman bar that we see right now is all in ruined form that we kind of raid in a how it look back then
- The Thermae supplied the place of the modern daily papers for the dissemination of news and gossip, and also answered in a measure the purposes of modern club as a rendezvous of social life. So it kind of acted like a place where people could come in discuss whatever it's happening society, whatever is happening around them or whatever happening in the news and you they could talk and they could gossip and you know it was like a rendezvous of social life it was happening in the particular area
- A small charge of a quadrants was sometimes made but in later days they were opened free as a bribe to the populace by Emperors in search of popularity

So the general arrangements of particular Thermae or the great Roman baths, They had three particular main baths that one is the great central block and then there was the large open space and three the outer ring of the apartments

(a). A great central block

So the great central block was planned for the baths proper, so the processes of bathing resembling the modern Turkish bath. This particular great central bath had the Tepidarium is the warm room for the bathers to rest in and the calidarium and the hot room usually containing the warm water bath then there is Laconium or the Sudatorium there is a hottest room which was usually circular domed apartment and the Frigidarium was the cool room which usually contains the cold swimming pool "piscina" were the major part of this particular you know central block so that is they had the warm room for the baths of restaurant they had the hot room for people to take bath in and then they was the hottest which had circular domed apartment and the cool room that had a swimming pool for

people to bath in, so added were the Apodyteria rooms for undressing there were room for oil is called the Unctuarium and then there was the Sphgeristerium there is the place for the game and games of ball and then there were the libraries, there were small theatres and it kind of form like a now modern clubs of the present day. So they were even rooms to change they were rooms to massage or applying oil they were room to for warm baths or warm resting and they were cold swimming pool everything in the great central block.

(b) A large open space

I said in this particular place surrounded the central block and was frequently laid out at the stadium. So this was raised seats for spectators and this was used for various athletic exercises such as wrestling, races, boxing, so athletic as I said then Rome was very very prominent. So this particular space was usually used for the athletic exercises and they were planted with trees and ornamented with statues and everything.

(c) An outer ring of apartments:

These consisted of lecture rooms for the hearing of discourses, open colonnades, exedrae or recesses for the philosophers, poets and statesmen and other necessary apartments in this third area

The major example of the Thermae is a Thermae of Caracalla in Rome that will be seeing right now

- This was constructed between A.D. 212 -235
- It accommodates 1,600 bathers and are the most important of all the remains and give a splendid idea of their size and magnificence
- The entire site including gardens was raised on an artificial platform which is 20 feet high, so that's kind of even the landscape and garden was in lauds platform that showed how intricate and modern the architecture of then Roman period was how much new techniques were used in than the Roman time. So the entire site as I said was on an artificial platform 20 feet high and measured around 1,150 feet each way which did not include the segmental projection on three of the sides
- So under this platform were communicating corridors leading to the various parts of the establishment vaulted chambers used as stores, the hypocaust and furnaces for heating the water and hot air ducts.

The Thermae of Caracalla, Rome

This is how the Thermae of Caracalla in Rome would have looked back then you can see the platform in which raised in

- Along the road front was a colonnade having behind, this is the colonnade which we are talking about so around the road front was the colonnade having behind it a row of small

chambers in two stories the lower on the street levels were used as shops and the up up in the platform level for flight way for sleeper back. So this is the said two levels facing the roads and this side shops level and they had private spaces for baths. So that showed the how much for the market was existing in Rome even back then in how much people uses spend time outside in the social circle and they had the own social circle and own market places in the back then in Rome

- The entrance to the establishment was in the centre of the north eastern façade and let to the large open enclosure laid out for wrestling and other games as I said athletic games around which in segment position and elsewhere were various groups of dramatic representation and lectures those where the apartments as I said before
- So the central building was entirely for bathing which measured around 750 feet by 380 feet and therefore covered an area of 285,000 square feet. So this is the central area and this is the set court around it
- They were only a four doorways were formed on the north-east side and was exposed to cold winds, but large columned openings were giving access to the gardens and that were the feature of the south western façade that was like very evident.
- So internally the Tepidarium, forming the principal hall around which the subsidiary apartments were grouped constituted the controlling feature of the plan to which the other apartments were subordinated
- So it was 170 feet by 82 feet that it was roofed with an immense semicircular intersecting concrete vault which is 108 feet above the floor and its formed three compartments and supposed on eight potions of entablature resting on granite columns
- So this is the restored plan of the Thermae of Caracalla Rome and this is how the plan would have look back then, so this is the gymnasium as I said before on either sides, then there is the natation of the swimming pool, this is the hot bath that is called the Caldarium that is hot bath that is called radium that's the hot bath which happens here and this is the cold swimming pool that is the frigidarium and this is the warm bath area that is the tepidarium that happened of that was there was the hot bath, there was the warm bath and there was the cold bath and then there was the swimming pool for the public bathing and then there was the gymnasium on the either side that was consider to be take from the Greek architecture. This is the reminds of the Thermae of Caracalla right now and this is how it looks right now

Theatres and Amphitheatres

Moving on to the next important feature of Roman architectures that is the Theatres and Amphitheaters

In this previous chapter we saw the theatres of Greece and how important theatre was back in there Greece and the Greek theatre in Roman theatre was very very similar in nature. The design

of Greek theatres was adapted to suit Roman requirements and that's how the Roman theatres function or the look came in

- The auditorium was a semicircle and consisted of tiers of seats one above the other, with wide passages and staircases communicating with the external porticos on each story
- At the ground level separating the auditorium of sloping seats from the stage was a semicircular area which was occupied by the senators.
- The stage thus becoming all important was raised considerably and it treated with great richness and become connected more completely with the auditorium. The stage became the definitely it was the major part of the set designs that was the maximum decorated and detailed out that time. So the theatres were constructed on the slope of the hill usually, Tier upon tier of connecting corridors were made and people could run in their in case of sudden flowers that was in addition to the Greek architecture that you can see in the Roman theatre architecture.
- The major example of the theatre we would be seeing the theatre of or in the southern France. This particular theatre held 7,000 spectators and is an example where the auditorium is constructed and not hollowed out of the side of a hill. See in Greece are theatres were usually and only made out of the side of the hill and curved out of that in the platform, you know they uses the select side of the hills and curved out the theatres, in Rome that was the usual practice but also there were theatres that were constructed and not hollowed out of the side of the hill. In this particular theatre or range in the southern France is an example
- In diameter it is 340 feet between the inclosing walls and staircases for access to the various levels were placed on either side of the stage which is 203 feet wide by 45 feet deep and in closed by return walls at right angles to the back wall
- The great wall at the back of this stage, 314 feet long by 116 feet high, is ornamented by blind arcading so this is how the theatre look right now and as I said this is not a hilly side this was a constructed theatre in order to curved out theatre

AMPHITHEATRE

- The amphitheaters are characteristic Romanistic building and this is basically Roman in nature and is found in every important settlement and in addition to their normal purposes and it was used for naval exhibitions, the water drains for flooding the arena still existing in many examples
- So the modern Spanish bull rings to some degree give an idea of the arrangement and uses of Roman amphitheatres
- These are good exponents of the character and life of the Romans as I said this directly implies the public life of socialized life of the Romans back then
- So they had a great a love for martial combat which were consider to be a good training of nation of warriors and then the tame of the mimicry of stage.

So the major example of the set of amphitheater will be seeing right now is a Flavian Amphitheatre well known as Colosseum in Rome

- So it was commenced by Vespasian in A.D. 70 and it was completed by Domitian in A.D. 82. Domitian completed almost the whole building except the upper story. The model of the buildings
- The model in the crystal palace gives a good idea of the general distribution of its parts. In plan it is a type of all the examples and it is consisting of a vast ellipse 620 feet by 513 feet having externally eight opening on each story those on the ground floor forming entrances by means of which the various tiers of seats were reached.
- The arena proper is an oval 287 feet by 180 feet surrounded by a wall 15 feet high. The seats in solid stone rise up from the arena having underneath them corridors and staircases.
- So this is the present condition of the elevation of Flavian amphitheatre colosseum in Rome presently it looks like this
- So they were dense for the wild beasts were immediately under the lowest tiers of seats and consequently opened on to the arena as at Verona. So that actually this kind of game the gladiator game was very much relevant in prominent in Rome back then so wild beasts were kind of Todd beneath the seats
- So the auditorium has four ranges of seats, the two lower forming the grand tiers, the third separated from the second by a wall and the top range under the peristyle forming the later addition
- So the access to the various seats is from the eighty entrances by means staircases placed between them with the radiating walls and the corridors are placed by the intervals. So you can see this is the plan of the set colosseum and this is the gladiator entrance and these are the set seats of particular colosseum that were talking about, so the quarter of the plan had a Corinthian range of second floor or other quarter had a Tuscan range of ground floor and the other quarter had Ionic range of first floor. The use of the Corinthian, Ionic, Tuscan columns in the particular you know construction by itself its forms the major part of the you know architecture of the particular building we will learn what is the Tuscan column in the coming lecture
- The masonry was laid without mortar, and the construction is strong and solid and this system is one of the concrete wall resting on walls on the same material, 2 feet 3 inches thick faced with the travertine stone which is 4 feet thick and having an internal lining of 9 inches of brickwork which makes 7 feet in total thickness
- The supports have been calculated at one-sixth of the total area
- So the external façade is divided into four stories. The three lower ones have their walls pierced with arches and are ornamented with half columns of the Tuscan, Ionic and Corinthian orders, the two latter being on Pedestals.

- So the upper story has Corinthian pilasters and the height to the top of this order is 157 feet. Between the pilasters are the corbels used to support the masts and the Velarium.
- This is interior of the set Amphitheatre, this how it looks, so this is the major you know cross section of the set place, so there is the square windows and bronze shields here the top to sires by use to you know seats. Women plop slaves the seating is made up of wood and the n lower to tiers of seating for upper class people that is the Emperor, Vestal, Magistrate, Senators, Patricians and the emperor has own sodium pet on this is side axe to the arena this particular door that you see here and this is the tap door with the lift in order to bring out the wild animals whose that is kept inside, this is the fighting arena with the wooden floor which is covered insane, this is the dungeon for the animals in this area and that's form this come out, the different construction materials are used and the lighters are used at the top and arches and tunnels which leads and stairs leads to the vomitoria and out of the seats given here so you can see the steps that leads up this and there are what to say this particular place is constructed on the drained lake site and there are three floors of arches and columns in Doric, Ionic and Corinthian side as I said before this are the three floors