

History of Architecture and Culture – I

Lecture 8

Welcome to UGC lecture series architecture, I will now be taking through history of architecture and culture I that is AR6101, this lecture covers the first part of unit V that is classical period Rome and the lecture covers

CONTENTS

- Roman Architecture – Influences that is the various socio economic and cultural influences that led to the set classical Roman architecture
- The Forum – What is the Forum in Roman architecture and why is Forum relevant in the classical period of Rome in architecture
- The Roman temples and its examples and the major example that is the Pantheon Rome

Moving on Basically in order to understand the various factors or the various principles of classical roman architecture is very very necessary to understand the factors that led to making of the said period of architecture

What are the factors that influence and made and kind of played a part of big part in making in what it looks like what we see it today?

INFLUENCES

- The Romans never became a sea faring people like the Greeks, nor did they send out colonists of the same description to all parts of the then known world. So what happened in Rome was while came in to existence Greece was always considered to be a base of the Roman architecture, Greece always a sea faring country whereas Rome was in the same. They were few rivals cities in Italy this period so the small town you know became separate independent part of then period and you know gradual absorption of small states happened in process that was never completed by Athens or Sparta. So the position of Italy enable to act as the Indian Mediatory spreading through the continent of Europe and the arts of then civilization overall the disciplined and the orderly approached architecture was very much seen in the roman architecture, see the culture of Roman architecture was you know more disciplined that was more orderly. Romans really respected understood public spaces, Romans always considered public spaces as major concern of the architecture, the architecture always revolve around how to create the space around bring in the society together having common you know spraying spaces or religious spaces, common gaming spaces, have common theatre spaces, they were completely you know even common baths that's how the public architecture of Rome was that itself shows the characteristic of how the Roman architecture was in the classic period

- So basically in Greece marble was only building stone and the major material of construction whereas Italy marble in Rome, terra-cotta stone and brick were largely used even for the more important buildings. So basically it was considered that permanent of time in Greece that you know marble was a major building block and even in especially for this mega structures and important building that is what was used but even in Rome if you see bricks and terra-cotta etc were used even in important buildings so that form the major difference between the Greek architecture of the building structure with the Rome and Roman building structure
- In Rome they were travertine, a hard limestone from Tivoli; Tufa which is a volcanic substance with the hills of which were available in the hills of Rome and these things were very much seen in the use in the construction of building then Rome. Even they were Peperino a stone of volcanic origin that also was used much in that time
- Roman architecture, as it spread itself over the whole of then known world, was influenced by the materials found in the various part of the set place itself, so you can see in Roman architecture, it was more vernacular approach towards the construction rather than bringing things from different parts of the places and making things. So it was more vernacular art you know architecture was itself considered was art in that time and you know lot of concrete was you know use in conjunction of brick and stone casting, so that was the favorite material you can say that period of time as I said right now we saw what are the geological influences and geographical influences that influence you know the Roman classical architecture

Moving onto the climatic influences, the climate as I said in my previous lectures that you know climate was the major part which went on to decide how can you know what basis the construction of set place has to be made because you know based on the climate of the building only the permissibility or how long the building can be standard and how much the building can stand and decided, so that may the climate played very much the major role in the construction of a any period or any place

- The north has the climate of the temperate region of continental Europe; central Italy is more genial and sunny and the south is almost tropical. So that you can see from the north to the central to the south there is the small small small variation in architecture which you can very well see because of the climatic influence of the set architecture of the set place
- So the heathen religion of ancient Rome being looked upon a part of the constitution of the state the worship of the gods came eventually to be kept up only as a matter of state policy. Do as we see the geological geographical climatic now religious understanding of the places were very important to understand the architecture of the set period because, you can see when the architecture evolved after the civilization came into place any part of the world's say religion played a major part in construction or the type of architecture

that were followed in the any particular place. So religion in Rome was more you know it more based on the constitution of the state, it vary depending on the state policy

- The emperor then received divine honours and may almost be described as the leader of the Pantheon of deities embraced by the tolerant and wide spreading Roman rule. So officialism therefore naturally stamped its character on the temple architecture that particular time, so that form the concern of the major factor that influence the architecture of temples of Rome
- So what happened in Rome? Who were the inhabitants of Rome on that time? So that also influence the architectural lots so a truciant a true sands so the true sands were the Aryans may be probably that what is understood right now, they have they appeared in settle in Italy before the tentiq history of Italy begin, so they were the great builders, so there influence in architecture was very very evident. So long before the history begins the Greek and Italians and you know they separated and formed two distinct nations. So the Italian had further split up into separate nations among themselves. So there was Greece and Italy was together advance and then Greece and Italy separated and the Italians themselves had certain in a split among themselves in that also influence architecture of each parts which were different. So the common form of government in ancient Italy the symbol that of Greece because you know it was a part of Greece before consisting of towns, restrings join together to firmly
- So the foundation of Rome is of uncertain date, but is generally taken back to B.C. 750 which is yet to be concluded upon but that is the assumption right now. So based on that also the architecture change.

So the first and foremost most important architectural features of Rome which will be seeing is the Forum or the Fora of Rome

THE FORUM

So what is the Forum? You can see the in this slide this is the picture of the fora whichever you know from the understanding or whatever existing right now

- The Forum corresponded with the Agora in a Greek city, so in Greek architecture we learned about the Agora of the Market place. So the same the forum kind of implies the same meaning it's almost like the Agora of the market place and it was an open space used as a meeting place and market or a rendezvous for political demonstrators. See the Roman kings or the Roman principle rulers always believed again involving public in to art forms, cultural activities they had many many activities it was more of a public country where you know people use to come together to enjoy to for recreation. So this place was more of a meeting place of people with also had markets along with it and it acted as a rendezvous for political demonstrations
- The forum was usually surrounded by porticos, colonnades or public buildings, such as temples, basilica or halls of justice senate houses, shops and down with pillar trees and

memorial statues of great men, it's more like a truffle card square kind write now if you consider to something that is presently existing something like that because you know you had colonnades around it you had you know halls of justice around it and you had temples around it you had you know statues of you know great men around it, it was more like a what to say it was more like a space acted as a public space as well as it demonstrated or hell the important of features of then the government of Rome

- The “Forum Romanum” was the oldest and grouped around it were some of the most important historical buildings. So you can see behind the picture you can see this is the forum Romanum of the Forum of Rome
- It is the rectangular forum or plaza which is surrounded by the ruins of several important ancient government buildings at the Centre of the city of Rome.
- Citizens of the ancient city referred to this space originally a market place as the forum magnum or simply the Forum. If you say the Forum that refers to the forum magnum or the Roman forum or Forum romanum, so this was originally designed to a market place which is surrounded by very very important ancient government buildings and that's why it is formed the major forum of that time.
- It was for century's centre of Roman public life site of triumphal processions and elections; the venue for public speeches criminal trials and gladiatorial matches and the nucleus of commercial affairs so as I said it is more over public space oriented countries, you know there were lot of speeches happening at that time. So the gladiatorial matches which is like the most important or the most famous public recreational activity of then romans. All this things that happened in that particular area, particular part of time, so this is the roman forbade is stored after various authorities is the plan of the same and this is how it would have looked back then, so this is just artistic understanding assumption of how it would have looked back then

Moving onto the next important feature of architectural typology of the classical Rome that is the Temple

THE TEMPLE

So what are Roman temples? Why are the roman temples different temples that of the Greek temples? Who are the you know dt is are the main people who worshiped there, the Roman temples were the result of the amalgamation of the Etruscan and Greek types for the resemble in many aspects the Greek example but the prostyle arrangement and the use of podium was derived from the Etruscan type. So in the previous chapter we saw what were the Greek temple, how the Greek temples evolved, why is the Greek temple important. So the idea of the planning of the temple is very much similar to the same as that of the Greek temple but the prostyle arrangement use of podium directly in aware influence by the Etruscan architecture as I said before and the influences the Etruscan architecture very much of the Aryans they were like really

good builders their architecture was also very much evident in this Roman temple is kind of an merge of both Etruscan Greek temple architecture,

So the characteristic temple is known as the pseudo-peripheral and had no side colonnades as was usual in Greek examples, "the order of columns being attached to the flank walls and arranged as a prostyle portico towards the front only. So in Greek column they were you know there were side colonnades in all four sides that was not there here, in here there was only you know flank walls and then towards the front they had prostyle portico columns towards in the front only

Steps were provided at the principal end, between projecting wing walls which often supported groups of statuary and were continued along the flanks and back of the temple as a podium or continuous pedestal, so basically the pedestal was very high steps were provided at the between the projecting wing walls and you know in order to climb the podium of the temple and enter the temple

THE ROMAN TEMPLES

The major example of this particular temple is the temple of Mars Ultor in Rome, this was constructed in (B.C 42-2) and this is the elevation of the set temple, it stood in the forum of Augustus in a precinct surrounded by an enclosing wall 10 feet high. So why we are learning about this particular temple is because it is one of the largest Roman temples and it had columns which were 58 feet in height and only there were three columns and a pilaster remaining right now. So this is the artistic impression how the temple would have looked back then,

So the next important temple which will be seeing is a temple of Venus and Rome in between this was constructed between AD (123- 135), so this had a peculiar plan consisting of two cellars each provided with an apse placed back to back and a pronaos at each end. So this is the temple of Venus, if you can see this is the remaining part of the temple right now

It was pseudo-dipteral decastyle in plan, any of the Roman temple architecture you can see the planning is very similar with each other except the Pantheon which will be seeing after this, there are twenty columns on the flanks and the Cella walls were of extra thickness in order to take the thrust of the vault which is about, this particular vault is like major feature of the architecture of this particular temple

Internally there were niches for statues and the Cella was crowned with a hemispherical coffered vault the apses having semi-domes. Every Roman temple had different different statues dedicated to the dt to which the particular temple is dedicated to, so usually they have interior walls inside the temples which use to whole the statue of this particular dt with in the temple you can see, this is how it look back than that's how we consider could have look back then in the classical period of Rome

So again this temple was raised on a platform and stood in a large enclosure entered through imposing gateways, it had surrounded by a colonnade of nearly 200 columns of red and grey Egyptian granite. So this is the like existing part of the colonnade right now everything is got ruined as a time

THE PANTHEON, ROME

Moving on to the most important you know the building of the classical Roman period that is the Pantheon, this building is considered so important because this is the building in which the maximum of the building still remains intact, you know has the years went by Pantheon actually it was never left you know without occupancy as centuries went by as people conquered Rome, many many this particular building was used in many many different religion, many many different forms, so that kind of made it stand and you know not loose its legacy still remain in tag from you know like what it was before so that's why this is considered to be the most important you know building of the classical Roman period that is existing

- So this was constructed between 27 BC – 14 AD in this is the elevation of the Pantheon you can see, this is the portico and this is the Pantheon. So the Pantheon is directly considered to be you know directly if you translate consider to mean the temple of every god that is also kind of you know even now debuted as to is that the real meaning of it but as now that what we believe meaning it that it means “it's a temple of ever god”
- It is a building in Rome, Italy on the site of an earlier building commissioned by Marcus Agrippa during the reign of Augustus. The present building was completed by the emperor Hadrian and probably dedicated about 126 A.D that is like so long back. He retained Agrippa's original inscription which has confused its date of construction.
- So the circular portion of this particular building is known as the Rotunda and it occupies the site of an older uncovered piazza used as a “nymphaeum” or place for plants, flowers and running water the level of its floor being 8 feet below the present level. As I said you know the particular building belong to the construction on the site belong to some previous building and that building had place which is dedicated to gardening or the plants, flowers or running waters directly refers to garden or open space that is the exactly the site where the Rotunda which forms the major part of this particular building resides
- So this is the plan on the Pantheon and this is the cross section and this is the set Rotunda or the circular part of this Pantheon
- The building is circular with a portico of large granite this is the portico area, large granite Corinthian columns under the pediment so as I said in the previous lecture then the Greeks though Greeks in went at the Corinthian column then Greeks. Romans where the actually put the Corinthian column into maximum use and this is the particular building where you can see the Corinthian column at its best and this is the example of Corinthian column that we consider almost as a base for almost all the other building. So

a rectangular vestibule links the porch to the rotunda, as this is the one which is under a coffered concrete dome which you can see in the section with a central opening or oculus to the sky. So this is called the divine opening or the opening to the sky so that is this particular opening is called the oculus, so almost 2000 years after it was built the Pantheon dome was still considered to be the largest unreinforced concrete dome in the world. The height to the oculus and the diameter of the interior circle are the same which is 43.3 metres

- So in front of this “nymphaeum” and facing towards the south was a decastyle portico forming a frontispiece to a three cell temple of the Etruscan type built by Agrippa
- The present Rotunda was erected by the Emperor Hadrian in A.D 120-124 as I said on the site of the more ancient “nymphaeum”, as I said before the portico to the Etruscan temple being taken down and re-erected at the higher level.
- As rebuilt this portico was made octastyle instead of decastyle and was made to face the north instead of the south, so this is the difference between this particular pantheon and other usual temples of Roman architecture, so the Rotunda actually lot of centuries.
- Rotunda became the Santa Maria Rotonda or the church of saint Maria as you know Christianity to over Rome, particular you know Rotunda was used as a church of saint Maria so that’s why called Santa Maria Rotonda. So it’s a circular structure and it has a internal diameter of 122 feet 6 inches and it’s also the same as its internal height
- The walls of made of concrete with a layer of tiles every three feet in height and 20 feet in thickness, it has eight great recesses one of which forms the entrance, so the entrance is kind of what to say its camouflage between you know with the recesses as in there are eight recesses, one of the recesses firms the entrance to the particular rotunda, this is the cross section of the particular set building this is the portico, this is the rotunda and this is the set dome which is the largest dome which I said this is the oculus of the opening to the heaven and it has a coffered sealing that again is one major architectural wonder of then in the classical period
- So they were eight piers have niches entered from the exterior of the building formed in three different heights, the lower are in semicircular on plan and are 19 feet high to the springing of their hemispherical heads, So the front of the rotunda as a I said made of the Corinthian octastyle column and it is made of octastyle portico, 110 feet wide by 60 feet deep in centre and this is the portico and this are the Corinthian column which I was taking about, this is how the Pantheon would have looked back then
- The columns, 42 feet 6 inches high in front of the recesses in the interior are believed to be part of the original design of Hadrian’s design
- The dome or cupola is hemisphere having its inner surface coffered in five different ranges, the manner of this is considered to be regulated or four shorted so as to be seen from the above worthy of notice

- The intermediate portion was not examined but it is held that a series of arches may have been formed in this portion so as to relieve from pressure the recessed opening below
- Again the lighting is effected solely by one circular unglazed opening that is the oculus which is 27 feet in diameter formed in the crown of the dome and still retaining its circular bronze cornice, so this is the interior of the Pantheon presently
- This method of lighting may have been a symbolic meaning in thus imitating the appearance of the vault of the heavens in the temple of all the gods that may be the idea
- So they said one great eye opening upon the heaven is by far the noblest conception of lighting a building to be found in Europe. So this particular idea of lighting is considered to be the greatest idea of lighting in the whole of Europe and the classical period.
- The octastyle portico has monolith Corinthian columns as I said which is 46 feet 6 inches high, 5 feet in diameter at the base