

# **History of Architecture and Culture – I**

## **Lecture 6**

Welcome to UGC lecture series of architecture, I will now be taking through the History of Architecture and Culture 1 that is AR6101. Today in this lecture you will be seeing unit four parts two that is Classical Period: Greece. In this previous lecture of the same chapter you would have seen how the architecture of Greece was based on various socio-cultural religious and political influences and how it grew from that to become what it was called the classic period of architecture how and what are the different kinds of orders of Greek architecture and we learned about the Doric order and with an example of Doric order architecture. Now in this lecture you will be seeing the Parthenon yet another example of the Doric column of architecture, the Greek orders there is an Ionic order which you will be seeing for the first time in this and the example of the particular order is the Erechtheion Athens

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So as you very well know that the Greek architecture considers to be unanimously the most classical architecture of all time. Across the globe as I said in my previous lecture the people try learning about the Greek architecture and you know it is a part of any kind of architectural studies, the Greek architecture becomes part of that, it is considered to be the epitome of you know detail epitome of proportion, epitome of religious architecture of all time so let it be any study across the globe of architecture this particular field of the Greek architecture is very much learned about and understood about

### **The Parthenon**

The most accomplished and the most famous architectural wonder or architectural feature of Greek architecture is the Parthenon. So in this particular lecture we will be seeing what is Parthenon and how Parthenon came in to place, what is the basic principle of construction of Parthenon, what are the different features of architecture of Parthenon, How Parthenon evolved, what all it went through become an to be looking like a to look demolished like what it is today.

So Parthenon was basically constructed between BC 457-438 which is way long back ago

- The Parthenon is a former temple on the Athenian Acropolis, Greece it is dedicated to the goddess Athena, whom the people of Athens called their Patron. So that is why the Athens is called Athens from Athena. So this particular temple or this particular religious monument called Parthenon is basically a temple for you know god is Athena

- Construction began in 447 BC when the Athenian Empire was at the peak of its power. It was completed in 438 BC as I said before and throughout the construction of the particular temple it's a lot of what is ups and downs in the construction. It's actually the most surviving building of the Greece as I said before and it's considered as the Zenith of Doric Order. The Doric order by its use was maximum signet in particular temple and this is consider to be the best of the best architecture of Greece ever.
- Moving onto the erected in the time of Pericles, it was being dedicated to Athena as I said we call Athena is the virgin of Athena
- Ictinus and Callicrates were the architects of this particular building and Phidias was the superintending sculptor. So why is the sculptor as important as architects this classic Greek period is every Greek building you can see was sculpturally very very very dominating and very very very detailed. So every building had its own architects and its own sculptures. So Ictinus and Callicrates were the architects and superintending sculptor was Phidias, so this building belong to all three of them together if you see how it valve
- So the temple is Peripteral octastyle on plan like other temple we saw with seventeen columns on the flanks
- So it is placed on a stylobate of three steps. Stylobate as I told in my previous lectures nothing but the plinth. The plinth was called stylobate in the Greek architecture of classical period and it was 102feet by 228 feet that is by the relation of breadth to length of the particular temple.
- So each of this steps measure about 1 foot 8 inches height and 2 feet 4 inches in width and it was too steep to ascend with comfort, it anthropometrically it was really steep for human scale to ascend with comfort. So intermediate steps were provided at the Centre of the east and west ends
- So on the east, there was a principal doorway which led to the cella which measuring the 100 feet attic in length was called the Hecatompedon. The cella of the particular this thing is called the Hecatompedon.
- The cella was 62 feet and 6 inches in wide, was divided into a nave and aisles by two rows of ten Doric columns, 3 feet 8 inches in diameter and having sixteen flutes as I said the Doric column is measured by the number of flutes or any column let it be in Greek architecture, any order was measured by the number of fruits or circular features which is provided in that particular column that is what was consider to be the measuring unit of the Particular column. So this particular column in this building in the cella had 16 flutes and that became the major part of the architecture of this particular monument, the three column were placed at the western end and that makes the ail continues around three sides of the cella. So near the western end of the cella was the famous statue of Athena. So the Statue of Athena was considered to be the most important part of this particular temple that is where the sculptor comes into place because any Greek temple if you see the dt and extremely explicitly details statue of itself and this particular cella or this particular temple had the statue of Athena and that is like the most important feature of

the temple as I said in the Doric column to the west of the cella was the Parthenon proper that is the virgin chamber, the virgin chamber of this particular temple of called the Parthenon but the temple took its name from this virgin chamber of the temple and because that was the most dominating predominate feature of the particular temple. So temple itself took their particular name and was called as Parthenon after that

- So the chamber is peculiarly differentiating the temple from most of the others and it appears to have been used as a hierarchy treasury so the many of the temple and this temple had a lot of things in common and the proportion was common and the construction methodology was common and it's very similar to the temple which we learned about in the previous lecture but this virgin chamber of Parthenon of this particular temple is what which makes it different from the other temples of the same classical Greek period that is what it makes the particular temple the epitome of the zenith of the architecture like we spoke about
- This is the plan of the particular temple, this is the Parthenon of the Virgin chamber is talking about this is cella and this is weather statue of Athena was this is the section if you can see this is where the statue of Athena stands, here you can see in the plan and the section and this is the entrance which we talking about you have Doric column all around and this I said sixteen flutes in height, you have Doric column within also which actually makes that particular feature of the cella of particular temple, you have the nave, you have the aisle particular temple split into nave and aisle and that it self you can see how split into the particular section itself cross section itself to that you have different as you can see Doric columns everywhere in different varying in heights
- So the decorative sculptures as considered some of the high points of Greek art before. The sculpture which were talking about the sculpture of Athena, here in the picture you can see how decorate the façade of the particular temple was even though it was colonnaded façade on the top you can see wherever there could find some space for intricate work they put in their maximum effort make it to as decorated was possible which so much of sculptural masterpieces being carved in to this particular temple. So the Parthenon is regarded as an enduring symbol of the ancient Greece as I said before leads the Athenian democracy and the western civilization is shown in the particular temple and is one of the greatest cultural monuments of all times in the world not only in Greece but all across the world in particular temple is considered to be the one of the world's greatest cultural monuments. So the Greek ministry of cultures currently carrying the program to selective registration of the particular temple to ensure the stability of the partially ruined structure you can see this is how the temple looks right now so that's why right now this is considered to be as I said one of the most land mark monuments of all time so the archeology department of Greece the Greek ministry of culture is doing is level best to restore the structure as it is without losing its magnificent today

- So the cella and the Parthenon were enclosed by walls about four feet thick having the outside and encircling the building, an ambulatory 9 feet wide on the sides and 11 feet in the front and rear.
- Both the pronaos and opisthodomos measured about 60 feet by 12 feet
- They were both used as treasure stores, and in order to render them secure, lofty metal grilles extending from the floor to the roof were fixed between the columns, the central intercolumniation having gates for means of access
- So what you seen previous Greek culture in temples as I said Greece was I said multiple Gods in Greece and you know each temple were dedicated to different different gods and what happen in each temple they had lot of heritage you know hierarchical well which was stored in particular temple dedicating to this particular god or goddess to which whom this temple is dedicated to this particular temple had this pronaos and opisthodomos which was actually you know this space where this treasure where stored. So in order to keep that particular treasure save they had this lofty measure metal grill were used to keep that secure and there were only gates as a means of access to the particular treasure troop
- So near the western end of the cella stood the famous statue of Athena Partheios which were speaking about before being one of the most marvelous works of Phidias. So Phidias as I said is the main sculpture of this particular temple and this particular statue of Athena , Partheios is considered to be the masterpiece of all times of Phidias, it represents the Athena fully armed with spear, helmet, segis and shield, supporting a winged victory of the right hand you can see in this power point, this is the sculpture of Athena and this is how it have looked when was made before she standing magnificently she could have been golden color wearing a spear, helmet, segis and shield she is complete marvel of the best form she could be in this is the representation of how it would have looked back then
- It was made in gold and ivory called chryselephantine as I said was a chryselephantine statue about 40 feet in height including the pedestal and was constructed on a wooden core,sothe core was wooden but it was plated in gold outside and was partially composed were detachable and removed in case of natural dangers and this height of this statue including from here to here was 40 feet, the face enhance made of ivory but the drapery, armor and accessories were of solid gold and precious stones were inserted for the eyes.
- So you can see wherever the white color you can seen those parts were made of ivory and the other parts were all made of gold and they were precious stones in the eyes as which as the eyes of the particular statue and that makes it like very very very magnificent and very very very dramatic in effect
- So moving on the most external feature of this particular Parthenon was fluted marble column which is 34 feet, 3 inches high forming the perestrial and resting on to the stylobate. So this fluted marble column is Doric in nature as I said this is the Doric temple.

- So only 32 Doric of the column still standing they are 6 feet 3 inches in diameter at the base and 4 feet and 7 inches under the echinus, and support an entablature which is 11 feet high with the usual division of architecture, frieze and cornice as already described.
- So you can see the columns kind of as reduce in diameter towards the end you can see like this, on the top most side the diameter reduces to 4 feet 7 inches and 6 feet 3 inches towards the top
- So the pediments are low gables which terminated the roof at each end had at their lower angles an acroterion and carved lion's head
- So you can say this is the cross section of the whole Parthenon and the lighting method of this particular building is always in discussion. So the method of lighting is in Greek architecture is very confused about because they were no clear story windows which were found inside so always was considered the lightning was taken through the roof or the walls and the light was taken inside so this particular temple had this lighting method is called the Botticher method of lighting by skylight, so this is one of the most advance technique of the classical Greece architecture
- So the celebrated Panathenaic frieze was carved along the top of the outside of the calla wall, being taken across the east and west ends above the six columns to pronaos and opisthodomos
- Out of a total length of 25 feet only 335 feet are in existence
- The western frieze, expecting the three central figures is in its original position the greater portion of that belonging to the northern, southern and eastern sides is in the British Museum, the remainder with the in the Louvre museum.
- In the 16<sup>th</sup> century the Parthenon was converted into a Christian church and it was dedicated to the "Divine Wisdom" when an apse was formed at its eastern end. So the apse was later added in the 16<sup>th</sup> century when this particular temple was converted into a divine into a Christian church dedicated to the divine wisdom
- From 1206 1458 it was under the Frankish Dukes of Athens where it was a Latin Church and from 1458 it was again a Greek temple under 1460, when it was again converted into a mosque. So the Parthenon shows you know went from Greek temple to catholic church to a Latin church then again to the Greek temple and then to a mosque
- In 1687 during the capture of Athens by the venetians. It was much damaged by a shell which fell into a portion of the building and used as a powder magazine
- So right now after that the building has been demolished it was damaged like so considerably that it couldn't be used further,
- So now moving on we will seeing next type of column you saw the Doric column order you saw the example of the Doric order you saw the Parthenon moving on the next you will seeing the Ionic order

## IONIC ORDER

This is the basic Ionic order you can see this is the column, this is the stylobate of the length and this is the base, this is the shaft, shaft is where the flutes are this is the abacus and this is the small abacus on the top and this is the volute and the volute is what features was most distinctive features of an Ionic order and this is the entablature and the entablature consist of the architrave and the frieze as I said before and this is the raking cornice of particular column and this is the pediment.

- So Ionic order is one of the three main orders of classical Greek architecture, characterized by two opposed volutes in the capital
- The Ionic order is especially remarkable for its scroll or volute capital. As I said this scroll and volute capital as it seen in the background is the most remarkable feature of this particular order,
- This like so many other decorative motive seem to have been derived from the lotus bud of the Egyptians undergoing sundry modifications on its way from Egypt by way of Assyria to Asia minor but to what influence these modifications should be attributed is not at present clear.
- So it's said to be either evolution of the Egyptian lotus bud or this modification should be attributed to you know what the modification attributed to presently not clear this spiral is also found in the early Minoan jewelry and domestic article is earliest BC 800, this origins also may be sufficient to can't that of later period into this Doric order or I mean Ionic order
- The columns have shafts usually about nine times the lower diameter in height, including the capital and base having twenty four flutes separated by fillets and not sharp edges as in the Doric order
- So as you can see there are 24 flutes high this particular column which is different from the Doric order in this way
- There is a moulded base usually consisting of a torus and scotia but no square plinth was there in the later example a lower torus was added making what is known as the Attic base
- The capital consist of a pair of volutes, as you can see this is the pair of volutes or spirals about the two thirds the diameter in height, on the front and back of the column, connected at their sides by what is known as the cushion, sometimes plain and sometimes ornamented and on the front and back an echinus moulding carved with the egg and dash and a bead moulding under
- So the entablature as I said varies in height, it is usually one-fifth of the whole order. It is one major factor which is differentiate one column with the other so it consist of an

1. An architrave usually formed as a triple fascia, probably representing superimposed beams
2. The frieze sometimes plain but often ornamented by a band of continuous sculpture
3. A cornice with no mutules but usually with dentil ornament reminiscent of squared timbers and having above it the corona and cyma-recta moulding

So this is the entablature and it consist of a architrave and the frieze and the cornice about that, so the major example of this particular Ionic order temple is The Erechtheion Athens which is like very very famous monument

## **THE ERECHTHEION**

- So this was constructed between BC 420 – 393
- Mnesikles was the architect of this particular temple
- Situated on the Acropolis, north of the Parthenon, and was erected on the site of an older temple burnt by the Persians in BC 480
- So basically there was temple before and Persians burnt and particular temple of you know Erechtheion is stands on that particular site were the temple existed
- It is an interesting example of unusual and irregular planning due to its sloping site and fact the is consisted of three distinct shrines, so usually it's not very evident very much you practiced in Greece and multiple gods were prayed or were particular temple being divided into gods together with many shrines being in particular temple complex itself. This particular temple complex is different from others because this was particularly specific because it had the very regular plan which again was a very different thing in Greece which is never done before and also this had three distinct shrines inside. So the distribution of the interiors which measures 61 feet 3 inches by 31 feet 6 inches is still a matter of conjecture
- It has no side colonnades, hence it is called “apteral” , you can see this is the plan of this particular Erechtheion is usually the particular Greek temple is rectangular plan you can see, this Pandroseion and north vorale you know kind of put in this fit in this irregular sloping site by irregular planning, so it has no side colonnades as I said and that's why it is called the “apteral”
- The eastern portion was appropriated to the shrine of Athena Polias (guardian of the city) as I said before Athena Polias whom to Parthenon was also dedicated to the western portion of the particular temple was dedicated to the Erechtheus and Poseidon, the Pandroseion being probably included within the precincts to the west of the temple proper.
- There are three porticos of different designs an eastern Ionic hexastyle portico, a northern Ionic tetra style portico and a southern caryatid portico.

- These three different types of porticos where there is in the particular temple
- The southern or caryalid portico as it is called was probably not an entrance but raised a "tribune" as it had only a small entrance on its eastern side whence the lower level of the western cella was reached by means of steps.
- It has six sculptured draped female figures you can see in the picture before, these were 7 feet 9 inches height were similarly spaced to the column of the northern portico, so this kind of column is the largest feature of this particular temple to look like a sculpture because that is the most specific part of the Greek architecture like they had the very very ornamental column which looks like female figures of the male figures and that kind of added to the architecture of the classic Greek time so it rested on a solid marble wall about 8 feet above the level of the terrace and supporting an unusual entablature on which rests the marble coffered roof, so this is the entablature which it supports it has I said the three major parts one is dedicated to Athena Polias, one dedicated to Erechtheus, one dedicated to Poseidon that is what they believe right now