History of Architecture and Culture – 5
Lecture - 6

Works of Etienne-Louis Boullee

Etienne-Louis Boullee he was one of the architect who evoked the sublime emotions of terror and tranquility at the same time through grandeur of his work. His work is so magnificent so grand that same point of time you feel both terror and tranquility in the buildings. He believe that geometrical purity is very important he thought of monumental forms of all the time and he thought that when geometric purity is there the ornament should not be there. So he was basically looking for Anandan geometric purity of monumental form.

And he also believe that light is the one of the important aspects of architecture. If you have light you have divine according to Boullee. So he went on with all removing with unnecessary ornamentation which usually clusters in neo classical style and the earlier baroque style more show. Baroque and rococo more show what he did was started removing all the unnecessary ornamentation. Which was require and he had the raw forms. What he did with raw geometric forms he inflated to huge scale, huge proposition grand monument and monumental scale and he had repetitive element. So he had regularity he had symmetry he had variety he had rhythm within repeating elements at one point of time. He had ordering principle between the elements. So each and every element in design had an ordering principle that work random with each other. That was Louis Etienne Boullee for you. Take a look at some of his most famous work you can see the screen right now. You have huge building where he design as cenotaph of Isaac newton look at his form. He had taken the bare essential sphere he blown it to huge proportion.

The proportion you can appreciate if I add sentence that this write here is cypress trees. So if this cypress tree imagine the size of the building which he conceptualize such was a grand ideas. And here again you can see the works of Boullee were in he try to use cylinder Walt columns

rectangles squares semicircles and basic all basic forms that were used in basic architecture. But blown to extraordinary proportions and he believe that architecture should be made expressive of its purpose. He people talk about architecture parlante when he was designing.

Let me take moment to explain what architecture parlante mean that particular point of time in schools of France people were thought that architecture needs to talk for itself. Architect need not to talk about building were its architecture itself meet to on itself. So what else architect do then blow up the geometrical form for itself to enormous proportions. There by the building it talks and talks loved. So architectural parlante was very very common in his architecture. His cenotaph for Isaac newton the English scientist were actually not build it just a design forms. It would have taken the form of sphere that is 150m high.

Imagine 150m which is bigger than length of the football field that idea was cenotaph for the famous English scientist Isaac newton. Though the structure was never build its design was engraved and circulated widely in lot of professional circles. Engraved it was centrum sketch form it circulated widely lot of got known about the project and started appreciating Boullee for his great effort. There was small sarcophagus placed for newton in the lower pole of the sphere line in the center of the bottom. There was sarcophagus newton which was kept and the memorial create a beautiful effect of day and night of the building. So explain that you in a moment before that we have taken a look at the celestial phenomena created in this building.

So this is have the building look in plan. This the 1st cylinder and this is the 2nd cylinder this is the sphere kept on top. Here in the section you can see the sarcophagus placed in the middle and there is a small viewing platform. For the center for the visitor the huge movement of time and celestial phenomena was describe in the famous those building. So beautifully the viewer is also an isolation that is small viewing

platform here. Where here stand in viewer if you look at the buildinghere. You can see the 1st cylinder was here this is 2nd cylinder this is the 1st big cylinder this is 2nd cylinder and the sphere which was inscribed inside the building. So the 1st cylinder 2nd cylinder and the building which was inscribed. These are the rows of cypress tree was talking about.

So if the rows of cypress trees are of this size you can clearly visualize how big the building would have been. Overall height of the building from this point to point according to him would be 150m. At the top half of the sphere edges there are small apertures in the stone because it was stone building and on the top of the stones structure they were small holes which were added in the building. So what happened was it create small amounts of light to pass through the tiny holes and it will come into the building. So inside the building during that day all the lights inside building were turned off. So it look like night effect in the day because of the small lights every were creating blurring small bits of light creating a star light.

So the sphere look like night sky because of its darkness and because of its forms and small light that come in the pores at different days different places will create the star lights effects. So he has try to create the night sky when there is a day outside. What happened in during night he put up central large light fixture which floods light through the sphere as sunlight. During the night there was light fixture which spreads light throughout the sphere and during the day when there is sunlight outside there is a tiny hole which make up to the night sky. He made larger hole for moons and brighter stars the smaller holes for less bright ones and during the night there is darkness outside there is brightness inside.

So in this building the architect has created the night in that day and day in the night how clever. So now it time to move on from the great architect Boullee to another famous architecture in that point of time.

Works of Jean-Nicolas-Louis Durand

Jean-Nicolas-louis Durand was an architect who built very little he didn't built lot of structures yes but he influenced the whole generation of architects Schinkel, garter, klenze, sempur and lot of other people was studied with Durand. So he had lot of ideas and what he actually did was he reduced all his extra vacant great ideas into normative economic typology buildings. So that he thought all great idea also needs to common simpler form. So that simplicity will give wider use of the building not just one or two building here and there were people can express architecture appreciated. It should be the case were so he thought every single man should be able to appreciate the gift of architecture that is have been given to the world.

What he did was he reduce all the extra ideas into small normative economic typology house. So he did was he establish universal building concepts through which he was the one of the first person think of modular permutation of fixed plan. So he has one plan and he has different according to style according to requirement. He can change the work on different elevation different requirements based on the amount money. That was possible by the client his elevation also change. So he able to give what the client wanted and not just one are two projects famous neo classical architecture with grandeur with thing like boolated. What he did was he thought that the ideas of architecture should reach even the simple common man.

So let's take look at the different prototype plan that he made. So he made lot of plans he made lot of elevation he made lot ofschemes in his architecture. So using the same plan he able to create different types of elevation and different types of buildings. The one type is this and another type is this and he able to create different types of elevation different types of works for the same plan. So what he did was in the 1800 Durand wrote a treatises called a mecanisme de la composition. He purposed axonometric drawing for the first time as the ideal perspective for designing buildings. And what he also did was he marked he worked

on different modular level plans. And different modular level elevation for each of the plan he design.

So which means as a common man even I can pick a plan and elevation according to my budget. So I will also get the benefits of architecture I will also get the benefits of being designed by architect at my plus. Such this grand idea Durand simple but magnificent. He was planned the ideas that buildings could be planned in repetitive modular units. He believe that repeat and modular unit was one of the fundamental of architecture. That their basic framework could be clad in different styles of architecture according to function or taste. So the basic frame work which is the plan can work with different architectural styles same plan could always represent different architectural style are according to Durand. If the client wanted let say rococo architecture if he able to spend lot of money then he took to the same plan rococo architecture.

And the client neo classical then while you can have romantic neo classical building or even a structural neo classical building for the example. According to requirement that according to the money that person can afford to spend according to function according to taste. The style of architecture can be changed in different styles according to him. He also believe that rich decoration was not essential to anarchitectural effect. For an architectural effect he believe that was perfect way in which if you planned properly if you designed properly you will get architectural effect. So what happened was if you don't pay an architect if you don't get it people thought that the ideas of architectural effect won't come. Only it will come when you startdoing rich decoration only when you start spending lot of money.

So this misconception was broken by Durand that early point of time as in 1800s. So this was the perfect formula in which develop for large open settlement cities. And which can be built very quickly and in very economic manner. So let's take look at how Durand sketches he takes a piece of paper. He draws fine gird line of equal sizes then he draws plan

and then according to the plans. He makes the elevation of the buildings according to them he makes different sections. So make this different combination with same kind of plan he want to make a different kinds of elevation. Different types of elevation one with the flat row with double height building mezzanine height with grand archer. Another one with sloping roof like a pediment columns with Greek style on top within second floor. Another one is simple one story building with normal very flat roof with large step leading to front of the building on all four sides. Like vilacabra so with this basic gird sheet he was able to provide in propose different variety of plan elevations and different styling.

This is something which was famous about Durand. He believe that architecture wasn't about visual just making things grand. He thought that a problem resolved well and done efficiently would be automatically invested with meaning. So he that the problem has to be efficiently and resolve properly and automatically meaning come to the building according to his opinion. His treatise included beautifully drawn pristine plans sections and elevation all drawn with fine lines regulating grid. With utmost austerity and precision with this manner.Hequestion the tradition of elaborate watercolor renders produced at the schools of fine arts that particular point of time. At that point of time what happened was architect usually don't give plan and elevation. They don't draw plan like what we today. What they did produces grand watercolor scheme with trees with fountains in all that they producing paintings. So these paintings were with only one which were shown to client to explain about them. Just this how we show 3D renders use today. To explain to a client those time they show elaborated watercolor painting to convey to their client. So because there is only way architect and the client can think about same building in same manner.

Because if you draw a plan client cannot visualizes the plan. But Durand change the way the plan are given to the client plan are given for

architecture buildings. He was one of the first people to started drawing plans elevations and sections with fine line on regulating gird pattern that is when it all started. Durand started even after 200 years we still doing drawing fine line on regulating gird even today. This is some of the works that Durand made here you can see the fact that the entire building can be broken down into simple logical line. The line intersecting at middle and square that is being formed by four lines and intersecting at equal sizes on both sides is other things. With this he able produce one two three base over here and the central opening as a central thing and three base on all sides. And with this things he will be able to elaborate this thing into this particular way of doing it.

He elaborated this to this and from this evolve this and from this. From here he could do as many wonders doing something like this and taking one particular point of this he can work wonders. And this scheme what you see something here the central scheme over here. He put forward rational and specialized theory of architecture free from speculation from metaphysical that point of time. Durand was genius not because he built lot of buildings but mainly because of his ideas. He wrote treaties he wrote books he trained lot of people Schinkel and others. And most importantly he brought architecture to the common man. Previously architecture only mint for palace churches grand buildings dukes else major economic hotspot area. And some point of time for grand factory and another places yes but Durand really brought to very small level even local commonest man was earning modest amount that was the achievement Durand made. Even though he didn’t build lot of buildings.

Works of Jefferson

Thomas Jefferson from United States of America. If you wondering who Thomas Jefferson was yes he is an American president Thomas Jefferson he not just an architect he also the American president once. American neo classicism are neo palladium as they like to call it. Was embodied in American president polymath Thomas Jefferson. He design

his own house his retreat his school and his design for home of his friends and political alias especially Barboursville. He made the use of octagons and octagoanl form in his design what Thomas Jefferson was design in America was. He made Italian design simpler for American use this is some of the building which Thomas Jefferson designed in clearly see the ironic columns the pediment the Croatian columns the dome that resemble Pantheon.

He took everything from the classical architecture and his architecture is sometime also attribute as Jefferson architecture. Jefferson architecture primarily employs paladin design or Palladianism is form of architecture proposed by the famous architect Andrea Palladio. Who we known him as a designer of vilacapra or vila agenda which was designed in the 15th century. It was designed that particular era of renaissance architecture. The key features of Palladian designers has having the central core symmetrical wings and access from all four sides. That was basic palladium for you. He had the portico on pediment us one of the primary entrance. Any primary entrance should have a portico and pediment top on columns that was the idea of Jeffersonian architecture. He thought that the classical orders and molding especially as the Tuscan order very important. So he use repeated classical orders in his building.

A piano Nobile the main floor elevated above ground level. Because piano mobile is where you take a flight of steps and reach the main floor level. It is raised above the ground and he uses mostly red brick construction primarily he love the way the bricks felt and look and also it give very good contrast again in the white painted columns and the red bricks. He use octagons and octagonal forms like I mentioned earlier he used Chinese railings and suppressed stairs he had a hidden stairs case instead of grand stair ways he had a hidden stairssuppressed stairs ways. Let’s take look at few nobbling’s at his design they can see the pediment and the grand entry you don’t see the entrance here you don’t see the

stair case it suppressed or hidden. You can see the main entrance portico lite elements windows on top.

Unlike the molding and other things the windows on top. His own house he was designed was based on the neo classical principles which was described in the books of Italian renaissance architecture Andrea Palladio. He reworked his house through much of his presidency time. To include design elements popular in late 18th century Europe. It contains many of his own design solutions. Let's take look at way he has design circular openings octagonal dome on the top main entrance with pediment collimates French railings.

Here is the plan the east portico with its main columns that you see over here and has entrance hall pallor and which leads to west portico. The main dome right about this it has symmetrical plan on that two side. There is a bedroom onone side and the other side the same room converted into dining room. His cabinet on this side converted to tea room on the other side. He has palazzo on the either sides and symmetrical rooms on either sides. Hidden stair cases usually people prefer grand stair case right in the middle of the building.

But Jefferson uses hidden staircases which is not visible from any of the axis. During his presidency time he reworking on the project he added a central hall way and parallel side of the room's to the structures which double area of entire building. He removed the second full height story from the original house and replaced it with bedroom floor which is in mezzanine level. The most dramatic element of the new design was an octagonal house. The room inside the dome was described by a visitor as a noble and beautiful apartment. But it was rarely used perhaps because it was hot in summer and cold in winter or because it could only be reached by climbing a steep and very narrow flight of stairs. So this room was very badly used.

These are some of the building that Jefferson designed here again you can see the octagonal core Chinese railing grand entrances pediment.

Use of light inside the pediment instead of using decoration and moldings. And also we can see the ordering principles which are very strict in straight forward again you can see the octagonal way in which he plan things. Entry from all four sides' stair case entrance from building this side and this side. Again Palladian architecture at its peaks if you see the section through his building. You can see parapet which high in the buildings and also you can see low height roofs in the taller roofs which creates a proportions system with each other. And making the windows as special element to justify the use of windows. He had use same neo classical elements were make each window look like small houses itself. So that element used in his architecture.