

## **B. ARCHITECTURE**

### **VERNACULAR ARCHITECTURE**

#### **Western influence on vernacular architecture of India**

#### **Lecture-14**

##### **Victorian Architecture:**

The Victorian architecture, when, India saw the emergence of presidencies of Madras, Bombay and Bengal, the fashion in England was of Gothic revival and neoclassical architecture. So you can see how architecture around the globe affected the architecture home. When England or the British raj was emerging and wielding more influence on the power over Indians and Indian presidencies. During that time in England the prevalent style of architecture was Gothic revival and neoclassical architecture. To talk about the style of architecture of England it is not just exactly the original it's a mix of many architectures mainly being Romanesque or Georgian architecture. So it is actually the revival of that architecture and neo classical architecture, it was just the combination of both that was what something reflected or went on to the designing principles are aesthetic principles when building important structures in India. At the same time, the Victorian style was also in vogue. So in the years to come, the buildings and monuments saw a mix of Indian style, Victorian, Gothic, Palladian, Baroque and other styles. However, none of the styles prevalent in Europe in those times were original. As I said none of it was original it was repeat or rather revival or new combination of architecture.

The Victorian architecture, the architecture being surrounded by the era of Queen Victoria. That is why it is called Victorian architecture. All of them were either imitated features from earlier Romanesque or Georgian architecture. This is the splendid beautiful example of Victorian architecture, this is the architecture piece in close its on Bangalore it is called as the glass house, it is mainly built in order to commemorate the coming of the prince from England. In present day it has lot of architectural varieties. The

Victorian Gothic architecture thus, was basically a hotch-potch of early European styles mixed with the introduction of Middle East and Asian influences. Apart from having influences on many European styles also have Asian influences. The Victorian terminus station now the Chatrapati Shivaji Station in Mumbai, is one of the examples of Victorian Gothic revival architecture in India.

So the Victorian Gothic architecture is revival of an architecture that was unique to it and not similar with other styles. This monument represents the themes deriving from Indian traditional architecture. This was new style of architecture that was developing, so essentially this type of architecture, the Gothic style of architecture, Islamic style of architecture and Hindu style of architecture. This building designed by F.W Stevens, became the symbol of Bombay as the Gothic city. At a point of today Bombay then Mumbai is the symbol of Gothic city. It had a lot of Gothic revival buildings. The other important buildings are as follows,

- Mumbai: Rajabai Tower
- Bangalore: The Glass House, Lal Bagh Botanical Gardens
- Kolkata: The Victoria Memorial Hall, GPO, Raj Bhawan and Higher Court of Calcutta
- Delhi: The Darbar Memorial, Mutiny Memorial, St.Stephen's College, Secretariat Complex, North Block
- Kottayam: Holly trinity Cathedral
- Mysore: St Philomena's Church
- Shimla: St Michael's Cathedral, ChristChurch, Gaiety Theatre, Gorton Castle, Viceregal Lodge

So you notice that the British moving into most important places, and also the places that are comfortable to them climatically, since they came from colder region they occupied regions which were suitable to them and also they occupy centers which was important to them in terms of ruling, Mumbai, Bangalore, Kolkata, Delhi, Kottayam came into the category of climate suiting them. The Victorian Gothic buildings in India represented the British imperial wishes to perpetuate the memory of Queen Victoria.

In some cases, they also wished to satisfy the Indian aspiration by inculcating the oriental substances and elements in the buildings. They also want to keep the architectural style with relevant region, they made allowances for the Indian inspiration to be added into the design. This was

the beginning of the Indo-Gothic and Indo-saracenic architecture. The Indo-Gothic architecture does prevail most famous rather most prevalent form of architecture thus turned to be successful was Indo-saracenic architecture. The monuments now created drew the elements from the indigenous and Indo-Islamic architecture and combined with the Gothic revival and neo-classical styles favored in Victorian England.

So what was typically a Victorian architecture was not just the Victorian architecture is a mixture of Gothic architecture and Islamic architecture. One of the best examples is the Victoria memorial hall of Kolkata, which inculcates numerous Mughal elements in the design. So Mughal elements became the important aspect of the architecture, the other features being secondary. Such monuments were built on advanced engineering standards. The advantage of being able to build these buildings being able to revive these styles of buildings or able to coming up with the Indo-saracenic styles was simple because the engineering standards were advanced. Compare to the Indian building system, they had just passed through the industrial revolution, they could understand the structures easily or came up with structures more easily and the materials they used were steel and iron port concrete which was getting used more and more. They were able to build buildings in a larger and more advanced standards which made these architectural styles more prevalent in that era. So here is an example of Gothic revival you can see that the location is in India but the style is not totally India at all. This is how the British impress their styles and impress their society into us.

Some of the important elements of the Victorian architecture are listed as,

- Bulbous domes along with many miniature domes, the domes became the important architecture of the Victorian architecture but rather inspired from Mughal or Indo-saracenic.
- Overhanging eaves
- Pointed arches, cusped arches, or scalloped arches
- Valted roofs, this was the true evolution from Indo saracenic and Victorian or European architecture.
- Domed chhatris, pinnacles, towers and minarets
- Open pavilions
- Pierced arcades

These were some elements of this style of architecture. There are variety of styles attributed to Victorian buildings, including the vernacular, Gothic revival, Italianate, Arts and Crafts and so on. We won't go into the different styles here, but instead concentrate on those aspects that they had in common. Most Victorian buildings have a square, solid look to them, unsurprising in an era of new industrial engineering. As I said the industrial revolution or industrial engineering is an important aspect the way they form and scale of the building they came out.

So they were mostly solid blocks. To contrast the solid blocks they had to have the perforation or other skeletal features which could compliment the solid blocks which lead to the adaptation of features from the Indo-saracenic architecture, Hindu architecture or Islamic architecture, the chhatris as we discussed, the various bulbous domes etc., they were often modeled larger town houses, they were belonging to the wealthy and so would have a front parlor and a back room, usually off a hallway. Not only they create public spaces, important religious spaces or administrative buildings with this style, they also built residential architecture out of this style. This is an example of Gothic revival architecture, the oriental building is called, this is from Mumbai, so you can see there are very typical turrets and minarets, they have a solid block they have a arched, arcades, they have large windows, these are all the features now you can see slopped roofs with tiles that have been used from the building materials. Perhaps to offset the rather solid, heavy construction of Victorian buildings, houses of the era tend to have lot of decoration; detailed fretwork, ornamental brickwork and terracotta panels, swirls. Volutes and so on, often crowded into less space than seems advisable. To contrast or make the solid blocks to look better they did a lot of ornamentation.

So this ornamentation is very intricate and rather too much in case of European architecture. It is something that they practices in houses of India too. New techniques in the production of plate glass allowed for larger panes to the windows previously. We can see the materials slowly replaced and being evolved, industrialization lead to the fact that may big up glass paints could be created. Bigger windows with the bigger glasses, usually which was with wooden shutters replaced with glasses became another important feature. While sash windows were still the norm, the glazing pattern favored fewer panes of larger area. It was normal in large towns for the windows of Victorian buildings to be painted dark brown, rather than the white we more

commonly see today. They also adopt the color style of the local architecture and keep into it rather which they don't today. Front doors became more prominent often with stained glass incorporated into the door, the fanlight or both. Bay windows also were widely used and Gothic and ecclesiastical motifs were frequently employed. These are the typical features of the French or the European architecture, front doors are important feature and they were ornamented, they were prominent and made much emphasized. Bay windows are widely used, Bay windows are typical features or motifs. Brick was usually the favored material as it was common for the local stone to be employed to ensure aesthetic harmony with the older buildings. So the color red something that was more prevalent in some of the architecture of India in order to keep to that the color which is used to that. Whenever the brick was used it is usually red brick and the yellow stocks are being in red until the beginning of 19<sup>th</sup> century when mass-production techniques of red bricks made red the more fashionable color.

So red brick all the colonial architecture of today are red and little bit white and that how the color came out. You can see this is also in Mumbai the court building, no other court building in period could look like this, so this is the direct influence of the European style of architecture with bordered features from Indo-saracenic and materials from the local architecture. It is quite common for the front elevation of Victorian buildings to be built in red brick, often with a fair amount of decoration whilst the rear of the house would be built in yellow brick and without decoration, to keep the cost down. In my opinion I think this is where the evolution of elevation style started. When there is architecture it is prior to that make sure that the building was designed wholly, it wasn't looks as front and back. It was looked at spaces and each space was designed with responsibility, here the front face that was visible to the people designed with the necessary things like red brick etc., and the back side to cut down cost was design with yellow bricks which is cheaper. This is how the elevation or elevation being better and the rest of the part being ignored was came out. Although many Victorian buildings are of solid wall construction, cavity walls were developed in this time as well, with varying degree of success. The cavity walls is not something that developed completely from European style, it is also inspiration or rather response to the climate of the local region. Cast iron wall ties were used; damp proof courses became mandatory through the 1870's.

So this is how the cavity wall construction system originated. These were often slate or sackcloth soaked in bitumen and were not always effective, the dampness in between and it was not effective as mentioned. Heating was invariably through the use of coal fires. As they settled important places and they chose the places which were cold something that they brought along in the system that they used around the houses completely. Central heating system was not employed. So coal or the burning wood fire was the most important form. Similarly, the lighting was often gas-lighting and not the filament light-bulb.

The features of Victorian style architecture are:

- Bay window: a window that sticks out of a house that can have windows on the side of it.
- Dormer: a window that sticks out from the roof that has roof of its own. Clapboard siding wood siding used on a house.
- Cornice: the piece that runs along where the roof and wall meets.
- Entablature: the upper part of a wall or story
- Gable: the triangle part at the end of a building formed by the two sides of a sloping roof.
- Pediment: the piece that comes out from the roof and covers the Porch

All these came to intricately with respect to the way which French colonial influence was doing.

- Lintel: a post that goes across the top of a window or door
- Portico: a porch with a roof
- Mansard roof" a roof with two slopes and often it is flat on top
- Turret: a small, skinny tower usually at the corner of the building.

The two example as I said was Rajabai clock tower has an interesting history, was designed by Sir George Gilbert Scott, an English architect. He modeled it on Big Ben, the clock tower from London. The total cost of construction came around about 200 thousand; the entire cost was defrayed by Prenchand Roychand, a prosperous broker who founded the Bombay Stock Exchange on the condition that the tower be named after his mother Rajabai. That is why the tower is named as Rajabai and his mother was blind and as a staunch follower of Jain religion she was supposed to consume her dinner before evening. This clock tower served as the remainder. The tower was built in a fusion of Venetian and Gothic styles. It is built out of the

locally available buff colored Kurla stone. The tower has one of the best stained glass windows in the city. This stained glass was actually the reason for industrial revolution which means it has the direct influence of the colonial architecture. The ground floor has two side rooms. The tower forms a carriage porch and a spiral staircase vestibule. The tower over the carriage porch, has a square form up to the gallery at the top of the first level. The form changes from a square to an octagon, this is the interesting part of the tower.

During its time, it was the tallest structure in the city of Mumbai. The Victoria memorial is a large marble building in Kolkata which was built between 1906 and 1921. It is dedicated to the memory of Queen Victoria. The Victoria memorial's architect was William Emerson, the president of the Royal Institute of British Architects. The Architecture that was something an established profession by them, then the design is in the Indo-Saracenic revivalist style. It was the memorial of queen of England, the style of Indo-saracenic was used. This style uses a mixture of British and Mughal elements as well as Venetian, Egyptian, Deccani and Islamic architectural influences,. It is constructed of white Makran marble. The gardens of the Victoria Memorial were designed by Lord Redesdale and Dravid Prain. Emerson's assistant, Vincent J. Esch designed the bridge of the north aspect and the garden gates. It was many years of construction and many people joined and Vincent design the bridge on the North aspect and the garden gates which is very famous. This Is the beautiful example of revival style of architecture Victoria memorial Kolkata.

## **Port of Cochin:**

We will be talking briefly about the port of Cochin, Cochin also has a history like Pondicherry or Goa. Cochin port was formed in 1341, when the heavy floods of that year silted up the mouths of the Musiri's harbor and the surging water was forced a channel past the present inlet into the sea. The old merchants of Musiri's shifted to Cochin as soon as the new outlet became more or less stable. This is how Cochin was formed strategically, when one group of community people moved from one place as the harbor gained prominence, then ruler of the region shifted his capital also to Cochin, giving impetus to the growth of the town. The early settlement of Cochin was at Mattanchery, the mattanchery was linked to the entire coastal stretch of Kerala through this inland waters. Kerala has lot of water systems which

goes through inland, thus gradually grew into a busy settlement. Not only it is a coast based port, it is also inland based water port. Nicolo Conti recorded that, by 1440, Cochin was a city 5 miles in circumference and that Chinese and Arabs carried on brisk trade with the natives of this town. Trade was very much flourished in these times Chinese and Arabs after which probably the Portuguese or the French came. Portuguese people are the only influential people who came this side. From 16<sup>th</sup> century as like Goa, Cochin witnessed the rapid changes through the trading and colonizing attempts of European powers. Portuguese were the first to arrive in Cochin. The arrival of Portuguese in each of these places had its significant changes. They founded Fort Cochin established factories and warehouses, schools and hospitals and extended their domain in the political and religious fronts.

We all know the process of how develops when one influential architecture from ruling or colonial architecture. The fall of the Portuguese in Cochin came with takeover of the Fort by Dutch in 1663. So the Dutch have the rule to play. The Dutch East India Company tried to persuade the local rulers into giving them monopoly in pepper trade. The pepper is the important things in which something that the European, Portuguese or French or Dutch did not notice that. That is the reason they came back again. In this attempt, they came across varied interests of other forces viz. English, French and the Dutch. For hundred years therefore Cochin became the center of political and commercial battle. Since they noticed and found out this was an important port and it had many valuable things such as spices, peppers and precious stones. They wanted to have the upper hand over the port. The British took over Cochin from Dutch. Fort Cochin thus became British Cochin. It became a Municipality in 1866. With the onset of BritishRaj Cochin became the British annexed. In those decades, the existence of a sand bar in the sea mouth prevented large ships from entering safely into the backwaters of Cochin. With industrialization in the west there came the revolution in overseas trade with the wrought iron ships of greater draught and the consequence need for deeper and safer harbors and stronger moorings.

It was a annexed to the British industrialization happened, the ships got bigger and the port to be widened, that how the port of Cochin was developed. The opening of Suez Canal in 1869 further emphasized the importance of this port as a coaling station for this route. You see how it was developing more and more, it was developing as a industrial center, it was

developing in terms of architecture, it was developing in terms of culture, social and political background as well. The science and the art of dredging was not fully developed in this period. That was the drawback in Cochin. It was only in 1920 that the port works were initiated, under the direction of Sir Robert Bristo, the sand bar at sea mouth was cut opened a deep shipping channel was dredged to the backwaters. You see the industrialization brought bigger ships. The sand bars which prevented the bigger ships from getting in was cut open and the port was made bigger. The spoils of the dredging was used to reclaim Wellington island from the backwaters. Road connection to the main land on the west and road rail connection to the east from the island was completed in 1940 when Cochin was declared as a major port by the Government of India. Cochin port gradually became the focus of the city. Centered around the port facility grew large number of business and commercial establishments for providing the economic base to the city and the environs. The so many important features and so many important textures were happened, we will be dealing only about the way of planning developed and expanded.

We will be briefly going through some works of parade ground, surrounded by impressive century old trees; the Parade Ground was used by the Portuguese, the Dutch and the British to conduct military drills and parades. It is situated in the heart of Fort Kochi and you can see some of the fine old buildings surrounding it. These buildings accommodated the administration of the colonial powers. So influential British or European architecture if you notice according to the function or utility needs they bought in their architecture style, they bought in the buildings required. So in these case, the military drills or the parades were necessary, accordingly military and military buildings were bought in. this is prevalent around the parade ground. You can see this is the road surrounded by parade, you can see there were built in the local style but for the British and European necessities.

Then the Koder houses, this magnificent building constructed by Samuel S. Koder of the Cochin Electrical Company in 1808 is a supreme example of the transition from colonial to Indo European architecture. In one side, we know that the architecture was going from just being vernacular to being Indo colonial, to being IndoGothic or Indo saracenic, that was being reflected here. Features like verandah seats at the entrance, floor tiles set in the chess board pattern. This is something that used up in the all other types of

mansion too. Red colored brick like façade, carved wood furniture and a wooden bridge connecting to a separate structure across the street are all unique to this bungalow. This is the Koder house, you can imagine how the architecture and the style was drastically changing. We have seen Cochin is a part of Kerala, we have seen the palaces of Kerala architecture and here is the house that totally deviates from that the Koder house.

Then Mattancherry palace or Dutch palace, it is more or less amalgamation of the Kerala architecture, the palace and the features of the European architecture built by the Portuguese and presented to the Raja of Cochin. The building that was built, ruling when they were not overpowering the port or developing it.

So it was built and presented to the ruling kingdom and it acquired the present name after 1663 when the Dutch carried out extension and renovation in the palace. Its interiors are decorated with murals from the epic Ramayana. Also there are exhibits of some royal costumes and palanquins used by the Rajas for travel. As much as the architecture style was fusion of the architecture of Kerala and also the architecture of Indo-Gothic or revival styles. The interiors or other such things are very much local. This is the Mattancherry palace. You can see that the roof is very much vernacular architectural style, the windows are slowly becoming European style as arch shaped windows, wooden shutters and bigger windows. You can see that palace is very much closed and as more color to it, so the influence is slowly showing. Indo-Portuguese museum/ bishop's house was also another example. It was built in 1506 AD for the residence of the Portuguese Governor; After the British conquest in 1795 the property came into the possession of the Vernades family. Today, a museum depicting Indo-Portuguese history is functioning in a newly built hall. That is the Indo-Portuguese museum or the Bishop's house.