

Vernacular Architecture

Lecture 10

Chettinad – A brief History

During the period of Chols, the community of the Chettiars lived in a seaside village called Kaveripoompattinam. The Chettiars were actually seafaring people, they lived by the sea and they did basic trade or fishing with respect to the sea. Infact, everything they knew was with respect to the sea. They were known to be seafarers and sailed on boats to many countries for trade. Sometimes they returned after a year or more. Yet, their businesses were profitable and families were wealthy. These Chettiars or the people of the Chettinad sailed in boats not even on ships to other countries, overseas and had trades and businesses that flourished a lot. During one such trip when the men were away, the floods or rather a tidal wave came and washed out the whole area in which they lived. This scared or shocked them where they feared the sea forever. The Chola king allotted new lands for settlement which were near the sea and also near a hilly area and two rivers as well. The fact that once the waves came and wiped out their entire village, made them scared or stay away from the water. Hence, they refused to accept those lands and found a rather drier land in the whole of Tamilnadu over which the Chola king ruled and moved to that part. This is a typical Chettinad house and we will look into the history of how this came about.

They moved inland as far as away from the sea and settled across 96 villages. From being seafarers they settled in completely hot and arid regions, this today is known as Chettinad. This became an important reason in the development of architecture which is why it is important to know this happened. The Nattukottai Chettiars hail Chettinad in South India, an area situated in the South-eastern region of Tamil Nadu. This is actually the second set of lands in which they settled and not the original one. During its initial stages, it consists of 96 villages but now due to the movement of people out of certain villages. Chettinad has well planned towns provided with well defined roadways, reservoirs to store and water to the town. A planned market, temples and everything providing the basic needs of the people. You noticed how vernacular architecture was done by people who basically did what they need. When this develops, an additional feature to it is when the people travel overseas with different architecture. We have seen this in the case of Gujarat or the Bohra muslims who travelled to other countries and came back and implied European style of architecture. Similarly, the Chettiars happened to do trade with other countries like Burma, Indonesia, etc. They brought those styles of architecture to their mansions. This is very evident and became unique. Chettinad happens to be a dry land with no proper rain which happens to be a major setback for that area. As such due to non availability of any mode of living, people were forced to leave Chettinad to various other parts

of the state in search of a living. Even though they settled in very dry land, they had to move again to different countries in order to scale higher.

Here are a set of conditions that mattered when the house of the Chettiar was formed. They were basically scared of floods or water, what they did first was, they raised the plinth of the building. Even though the place was dry, could probably have no floods or rains, they were still paranoid about the floods and the tidal ways. What they did was, they raised the level that even if they were floods it wouldn't enter the building. There is a plinth from the road to the main building and from the main building there is another plinth that leads to the main halls. In some cases one or two storey buildings, they were prepared in such a way that, incase a flood hits them on any day, they have to survive it because the flood hit them, it wiped out most of their female population and only the men prevailed. The level level kept rising and they had one or two storeys on which the people could run or stay in case of floods.

The evolution of Chettinad housing. The Chettinad houses were originally single-storeyed buildings made of sun dried brick of mud and bamboo and thatch. This was the original house when they were living by the sea. This has evolved to become tile-roofed with a small two-storeyed tower at both ends of the front elevation. Businesses flourished, trades were more profitable and their architectural knowledge and aesthetic appeal were increasing. They later added features to their house over and over. They later expanded vertically into two-storeyed structures and horizontally through the addition of numerous halls and courtyards that could accommodate guests at marriages and other ceremonies. Joint family system was something that prevailed in South India in Chettinad as well. Here, the basic space lock as seen in Analkettum Kerala, in this case its just a courtyard, not necessarily rooms. Courtyards went on to be added as per the requirement or the aristocratic wealth or the level of the particular head of the house. The courtyards kept adding on horizontally and as their wealth increased they also made sure they increased their storeys. Uniquely the weddings, basic events of a life, birth to death is something they respect and that is performed within the house and they also have rituals and ceremonies for each thing that is performed inside the house. Their whole architecture besides being a direct response to the climate and a response to their background, it was also an important reflection of religion and traditional customs of the Chettiars. Joint family system as I said was not unusual for three generations to live together in one house. The head of the family, he built houses for his sons. Not houses as such, the courtyard has rooms or hall spaces in which each son was housed and when he gave birth to his sons, he made sure that the house was annexed or added. Either the courtyards kept extending linearly or they kept extending buildings on each side. This is how the generations spread across. The Chettinad houses accommodate up to four generations before separate houses are built by individual houses. They built courtyards after courtyards and they built annex buildings after buildings and

after a point generally the later sons move out and build their own houses. That is how they proceed.

Chettinad – Planning

The Chettiars were efficient planners. Having travelled a lot, they put their knowledge, their experience from all those countries into a lot of scripts they formed for building Shastras and the culture and climate was also taken into account for planning their towns and buildings. The fact that floods had wrecked their homes previously led them to settle in extremely dry and arid conditions. They planned their town layouts such that streets were in North South axis and the houses were aligned with courtyards to East West Axis. This is a direct response to the sun, the sun path movement. The streets were placed in north-south axis, such that they were always shaded. The courtyards were placed in east-west such that the surrounding spaces were shaded always. They didn't want to expose the intense morning sun or the harsh evenings. In Kerala we saw the roof extended, slantingly on a 45 degree angle. Here it is more flatter, but serves the same purpose rather it does not protect from rain but simply from the intense sunlight. They made sure the plinth was high to counter floods even in this dry area.

The Chettiars were very insistent on conserving water. The water saving system was very intact and very inclusive of the entire village in which they stayed. For instance the water is collected in a courtyard in a tank or in a vessel, excess water that overflows from this, flows through drain pipes onto the street from which there are more drainage connections that lead directly to a pond called the Urini which is a traditional way of conserving water in rural areas or villages. The houses are built on a rectangular, traversal plot that stretches across two streets. The fact that generations kept expanding, the stretch of a house actually extended from one street to the end of another street, that's how big the houses were. From the main threshold, your eye travels in a straight line across a series of inner courtyards each a diminishing rectangle of light. Visual connection in architecture is an important thing, not only that, the house was actually an extension of courtyards. The men stayed in the beginning, guests came in the beginning, important religious rituals happened in the main courtyard, then they were storage courtyards, then they were courtyards with attics and then came kitchens. There is a long gap between what a woman is doing inside and what a man here is upto. A single threshold or a single line of contact is maintained throughout the building. Such that when you look from the entrance, you can see the end. Such that any contact necessary can be developed. This is how the architecture was transversed, leading out to the backdoor. The courtyard supplies ample light and air and leaves the rest of the house in deep and cool shadow. There is also light but at the same time blocking the sun's intensity, leaves a shadow which makes it cool. This is an elaborate hall, this is not the courtyard, people used to come and trade within this space.

The courtyards have tiles placed exactly under the storm-water drainpipes so that the stone floor is not damaged. Underground drains run through the house, with stone stoppers carved exactly for their mouths. Large stone vats for water and wooden bins for firewood line the inner courtyards. Once their basic utilitarian needs were looked after, they went into designing each and every aspect. For the water to flow through, there is a pipe and these pipes can be closed in order to prevent snakes or other rodents from coming in. They used stones to close this. What they did was, they went to the extent of carving these stones in an intricate way such that they showed aesthetic appeal.

We shall now look at the series of spaces in a courtyard house or a Chettinad house. First comes the Outer thinnai, thinnai is a raised platform where people can sit and talk. This is where people meet, guests can sit and talk or the men of the house could take naps when there is too much heat. The huge elaborately carved teak front door. They are known a lot for carved intricate teak doors, they put in a lot of materials from Burma, from Italy, from Greece and Indonesia, so many things, not just building materials but also food, jewelry and all sorts of things. Teak doors or the doors with a lot of entablature was an important aspect or a very unique aspect of architecture and happens to be very expensive also. The door leads to the first open air courtyard, with pillared corridors running on each side that lead into individual rooms, each meant for a married son. Then comes the second courtyard with large dining spaces on either side. Each space is just defined by a courtyard. The door leads into the first open air courtyard, the second courtyard with large dining spaces, the third courtyard was for women folk to rest and gossip. Gradually from common people using it, it moved to women's spaces, so that women folk could cook, rest and talk to each other. There were a lot of grinding stones, every activity with respect to each space had different set of instruments, different set of spaces, etc. Now, we move on to the special configurations.

The Chettinad houses were conceived as fortresses, guarding both valuables and the even more valuable, cool air. As much as they considered everything tangible as valuable, they also considered the intangible aspects such as cool air, lighting and ventilation, the diffused light as important aspects. Instead of lawns which cannot be maintained because of scarcity of water, the Chettiars used courtyards. The thinnai ended in granaries on one side and a room. In the beginning, along the thinnai you had granaries and store rooms, here is where the accountant or the Kannuku Pillai was seated and he performs his duties. The doors also had precious gems sometimes on them. You can see the main courtyard, in this case, it is two storeyed. You have a corridor running, you can see doors, a continuous set of doors, these are for the married sons, this is called the vallivu in which the houses or the rooms for each son is situated. If you look at this straight vista point, you'd notice there is a door, typically each door opens to visual of the end of the house.

The courtyards - the most important feature like in other featured architectures too. The Chettinad mansions have at least a couple of courtyards. The living space leads one immediately into the courtyard. The first open-air courtyard with corridors flanked by huge pillars on its sides generally was bordered by rooms along its sides. Triangular slots cut into the walls of these houses, an inbuilt shelf for lamps. Those days electricity wasn't available so lamps formed the main form of illumination at night. Separate and typical provisions or niches were present on each door. The second courtyard opens out immediately and is flanked by dining. The third courtyard served as a restroom for the women folk, while the fourth one housed the kitchens. The only part of the house besides a section of the kitchen to which a separate ownership can be attributed is the separate rooms and attic rooms for each son. Men, women and children are segregated. The men occupied the outer verandah, the women occupied the Kitchen courtyard and work is segregated accordingly. No house comes with less than two vast kitchens. Kitchen is actually something that is attached to a main building but in Chettinad houses or the mansion houses, they are always in most cases separated. They are not only separated, but there are two kitchens. One kitchen is meant to cater to large group of people when there are festivals, weddings or bridal showers as such. In such a case, the bigger kitchen was used, in other cases the smaller kitchen was used. Sometimes the kitchen also had annexed spaces where the people settled or sleep down near the kitchen.

Some cultural changes and modernization could also be attributed. The thinnai was provided on either side of the house to entertain guests basically but later on intimate contact was rather shunned or it was not encouraged, that led to the development of compound walls inside which the thinnai happened to be. People who happened to be to the immediate family or guests who are related to the family of the house were the ones who could go in. You can see the spaces being used. This is actually during the evening where the light is diffused and beautiful, the thickness of the walls are great and the courtyard helps in convective cooling which makes it a very outdoorsy space. Instead of lawns or outward spaces, they have inward looking cooling spaces.

The typical house - the basic floor plan of a Chettinad house consists of an outside verandah - the thinnai, a series of double rooms opening off the main courtyard for storage, prayer and sleeping and a small courtyard behind for cooking and for women to socialize. Initially they were tiled roof with a small two-storied tower at both ends of the front elevation. The later expanded vertically, the rear hall served as the women's domain. Chettinad architecture stands out for its large use of spaces in halls and courtyards. The ornate embellishments like Belgium glasswork, intricate woodwork, spectacular ceramic tiles, stone, iron and wooden pillars like nothing else that can be seen in this part of the world. What they essentially did was they

brought architectural designs from many parts of the globe and put it together, that makes it a unique amalgam which cannot be found in other spaces.

We will talk about each space, the thinnai or the space that is called the 'Kattu' after which you can talk about the Mugappu which is the first space where the accountancy, the male entertainment of guests happened. The Valavu or the living area of the house where each room was allotted for the sons. The Pattalai or the living halls associate with each of these spaces. The Irattai veedu, rooms used for each family to keep their belongings. As I said, married sons have a room for them to stay and also have a space to store their belongings. The corridor is what connects all these spaces because essentially all these spaces are courtyards around which the rooms come. These two are connected by the space in between as corridor. The Irandankattu - used for dining, the Moonamkattu - the kitchen or the adukala.

Now we will look into the building materials of Chettinad architecture. The walls are made of baked bricks, they are very thick to keep to the heat that should not pass through. Plastered over by a secret recipe of roots, apart from the walls being thick and of baked bricks, they had this unique technique of using egg yolks, a series of vegetables, diced and roots to form a way of plaster which is very polished, white and inhibited heat from going in. The yolk and the lime leaves them silky smooth and washable. Uniquely which is not easily available is a surface or a wall surface which can be cleaned incase of any specks. The list of various materials from around the globe - the tiles from Spain, floors of Italian marble - crafted Athangudi tiles, as much as they used materials from other countries, they use materials from other countries, they use their experience in making the informed decision that materials could not be found in the local were used from other countries and materials that were locally available were easily used. Athangudi tiles were tiles made from hand printed paint and simple mud baking. The pillars of Burmese teak, many houses have small turrets. Inside an authentic Chettinad house, you will never find the need to use fans because of their open courtyards, their high storey windows, diffusing through lattice screens; all this made the area very cool. Plastered over by a secret recipe of roots, yolk and lime that leaves them silken smooth and washable. This is another reason why the walls remain cooler.

We will talk briefly about the construction techniques - the Madras terrace roofing. The roofs of these chettinad houses did not need flat roofs but since they had courtyards they had to be sloped in case of rains. Handmade floor tiles from Athangudi, are inlaid on the madras terrace roof pattern with the joists imported from Burma as battens are melamine burma teak. The Madras plastering technique that we talked about, another one which helps cool makes use of lime egg plastering, another traditional technique used to paint the walls white and keep the insides of the houses cool. You can see various tiles, these are also Italian tiles, you can the columns, the columns are mostly from stone or wood. You can see the madras roofing also

wood. The construction material, decorative items and furnishings were mostly imported from East Asian countries and Europe. The marble was brought from Italy, chandeliers and teak from Burma, crockery from Indonesia, crystals from Europe and wall-to-wall mirrors from Belgium. Chandeliers were something that were used in Chettinad mansions for a very long time. The huge spaces are emphasized with the use of Chandeliers. Not only that, they also brought in food, crockery, crystals, jewels, mirrors from Belgium. The woodwork and stonework was inspired from the houses in France and other European destinations. The ceiling has artistic patterns in vegetable dye over roofing plates made of copper soldered with a special variety of aluminium. Iron, steel and aluminium were important materials used, the window shades were not slabs or other baked tiles as such, they were simply made from aluminium or iron. The lattice work or the window work was also made from iron. Another important thing they used to do, was have painters come in from various countries or various cities and have them paint and have the whole place decked with paintings. The whole place was decked with art. No cementing agent was used in the construction. The lime grind was used. There is a colourful combination of blood-red tiles and sloping woodwork. This is what happens to be the construction and different ways in which they brought in art from different countries.