

Evolution of Human Settlements- AR6004

Unit 3

Human Settlements & Their Characteristics

Lecture 6

Importance of Shelter

The importance of Shelter; Obviously known to mankind right from time in memorial, it is one of our basic needs, it is the place what can protect us from all the elements, keeps us warm and safe and also gives us the encouragement to satisfy other needs. It is only when man is safe and in an environment that his other faculties work and he can progress, so it is considered to be one of the most important requirements while addressing our physiological needs, along with the need of food, water, air and sleep. So, through time men's shelter has taken a lot of forms, depending on the person's social status or circumstance. The wealthy could provide many roomed mansions for themselves and their family. Their rooms are richly decorated, the spaces are lit, very airy and large. They don't have to worry about running water, warmth, cold, heat, nothing, every day they have to just concentrate on other activities besides the need to feed themselves and worry that they would not have shelter any moment. These are the usual kind of houses that you would see. You would have the mansions on one end, the slums on the other and in between you have the apartment complexes that house the middle class. So, in the other end of the spectrum you have shacks that are found in squatter camps, shanty towns which are basically slums. They are nothing but corrugated iron sheets placed together for shelter. This is all for a group of people, they never occur for a single unit, it is always a group of people, running water is unavailable, they might not have power, basic need of shelter might be met but the occupants definitely have to concern themselves every day to worry about their shelter, food, water, etc and in between we have the apartment complexes i.e the middle class where they have to work to make sure they pay their rent or they mortgage, they might not be in the dire situation of that of the lower middle class or of the people living in the shanties but they do have to focus on maintaining a kind of life to ensure they have this roof over their heads and if you look at this kind of shelter, man has always moved. There is a requirement of change that is inherent in man, we cannot live in one place, in one type of house throughout our lives. As and when life changes, circumstances change, whatever the time is, whatever stage in

life we are, we always want a shelter to call our own and have family members. If you look at the early modern period, what all affected the kind of living. In the early Renaissance period, we were concentrating more on arts, crafts and things like that. But in the early modern period, with the emergence of the industrial revolution, glass was being used extensively as it was a newly found material which could be produced and mass produced. This altered the facade and window construction details considerably because it became a kind of element that could be showed off in terms of construction. Initially this was only used for grand public structures like city halls, town halls, court houses and things like that. Construction in the Renaissance period focussed on the design and the architecture of the building rather than the materials used. This was largely because of the increased appreciation of aesthetics and design, and then because of the widespread cultural reforms that were happening all around the place. With the industrial period, mass production began using new technological processes which led to an increase in the invention of technology. The rate of buildings of shelters has increased exponentially because things were getting manufactured in factories now. Prefabrication became a very important thing and with the steam engine, people could transport wood and other materials faster. Many different forms could be mass produced in factories, Iron beams became very casual to use, brick was also being mass produced instead of the old kin method. So, different materials came about, the cost of bricks was reduced because of manufacturing it in a larger quantity, similarly with other materials as well. The advent of steam and water powered sawmills also allowed wood to be manufactured at a standard size at larger scales. So, once a standard size emerged, even the type of construction that came about was standardized construction, prefabricated construction, cheap machine made nails were also available, combination of these two materials provided for a quick and cheap form of shelter in the form of balloon framing. This emerged in America where wooden construction was very prevalent. So, no longer did you require highly skilled carpenters, the whole do it yourself methods started where people could start building their own houses and this was the answer to America's problem of mass immigration at that point of time. So, when people could build their own houses, it was with communities help or few families would get together and help as a part of three houses and they would move in. Materials were cheap, the labour they were doing by themselves and the method of construction was very easy. This is a typical balloon framing that you would see,

you have the foundation, then you have the sole plate; all of it was done with single simple elements like slats of wood which were prefabricated and come from factories. They were put together with nails, you had studs, or the floor boards, everything was completely done with wood. The whole word Balloon framing came about, as the name suggested, this was the first time man was doing something himself, in the sense, it was unskilled work. So, this was thought to be an air filled house that would be blown away by the wind, which was definitely not true because couple of these balloon framed houses continue to stand strong till date. So, what happened from the shift from the early modern period to the contemporary period? One predominant factor is that shelters were no longer simple structures, we were now talking about towering high rise buildings, where either concrete was used or steel was used. A new innovation in development was the steel frame as a structural element, brick was also still being used but more as a cladding material which gave it a modern look and feel. Lightweight concrete was used to increase the strength of concrete and the use of pumps made sure that this concrete could be developed to many levels and in a much faster way. So high rise buildings could also be constructed using concrete and in a faster way, reinforced concrete was another development where steel rods were combined with concrete, this was also developed. The multi faceted developments during this period, have led to practices that have made the industry's standard for construction of buildings and shelters. So, now even building houses and other structures became an industry by itself. It was predominantly done in a way that a lot of these materials were pre-fabricated. Iron beams came from factories, wooden beams came from factories, glass came from factories and you just got together at the site and put it together. These are some of high rise buildings that you see.

Different Types of Houses

If you look with respect to the types of houses that you see in a city and what kind of scale and proportion, shelter takes in a city? On one side, you have a bungalow, they are build outside the cities, usually in suburbs where there is enough space available and land is not a premium value. Then you have apartments which is basically tall buildings with small dwelling units within them. They are built in cities, anywhere where not enough space is available. You have a detached house, this is a free standing residential building. You will find them in the less dense areas, in the suburbs and maintain sometimes even rural areas. They have gauges

and they are surrounded by a garden. Semi detached house is nothing but a town house, this you find in the richer parts of cities, where two houses would share a basic common wall and the entire house would be mirror imaged, they would not have much of a garage or garden. You will just have a small strip of greenery. So, this was basically the beginning of suburbanization in United Kingdom and Ireland. This kind of housing emerged there first. It is halfway between a terraced house and a detached house. These are terraced houses or basically row houses as you see where in the 17th Century, a row of identical houses side by side, which share side walls, the first and last of these were called a terrace because if you look at it from a distance, it is like a uniform roof is shared by all of them. If you look at a terrace, they will have a common sharing parking lot like this, nothing in terms of greenery, just a few shrubs and they would all be facing in towards a courtyard, because this was the only source of lighting and ventilation. As they were built side by side, there were no windows that were available in other parts of the house. These are row houses, they were predominant features in the suburban area, in U.K. This was again a result of the industrial revolution and post-industrial when you had the emergence of the middle class. These are detached houses, bungalows you have over here which is basically all on a ground level. A bungalow is something that is now misdefined because a bungalow these days can even be a G +2, which is actually not the case. As per definition, it is only a ranch style i.e only at the ground level. It is traditionally small, but today as we mentioned, it can be quite large as well. A bungalow is basically a single dwelling unit, with a small piece of land which is for gardening and a single roof structure. A block of flats or an apartment building or a multi-unit dwelling is made up of several apartments. Apartments were used in the U.S, and flat would be in U.K and even in our country. If a building is a high rise construction, it is a tower block. Because of the emergence of a tower block, the topmost floor emerged and the house there was called the 'Penthouse'. The Penthouse is nothing but a large scale apartment which is built across the length and breadth of the entire floor. It is completely associated with the luxurious lifestyle. These are all the kind of skyscrapers that have emerged post industrial revolution. This is a mansion built in the outskirts of the city exclusively for the upper class. Now, these are the townhouses and terrace houses which are the most commonly found. Condos are something you see in the United States. Again the word Condos are different from that of flats, because you

can rent out a flat vs a condo has to be bought and people who buy it would be living in it. So, a flat is different from that of a Condominium.

Concept of Landmarks

How important are landmarks in the urban situation? They are basically one of the most significant urban components, they can be perceived beyond tall, large, monumental distinct buildings or towers, landmarks come in different types and Kevin a very important urban planner from America and the United Kingdom came about that Landmark is one of the most important urban components because he decided that it is the landmark that lends or contributes to the image of the city. They are elements with defining characteristics that are different from the surroundings and are easily recognized from a particular distance or place. They can literally be buildings that are different from their surroundings or it can be an element in the urban scenario that is basically a curious object like an old clock tower or maybe an open place where particular event occurs recurrently. Landmarks can also be defined as features with distinctive spatial features as well as colour, shape or any potential of value it has, to help people orient themselves and find themselves in that environment. So, you have landmarks of different types, the common landmarks that you see are; Towers, buildings, open spaces and special urban features. A landmark is basically something that you can identify an area with, a city with or an entire skyline with. So it can be categorized as these four and we will just discuss these categories briefly. If you look at towers, most towers are designed such that it is awe struck, awe striking and it garners a lot of attention. That is the main reason why man has always built towers. He has always strived towards height and its association with spirituality. That is why the cathedrals and the churches and even the temples for that matter, all had tall structures. Fact is, another very important aspect with regard to towers is, quest for power. So, a company that is looking to build its headquarters, would go in for a tall building or a towering building, because they want to show that they are powerful, to show a position, wealth and dominate the city skyline. So, this drive to express power, grandness, basically led to many towers being constructed, such that religious based buildings and palaces were taking a back seat. So, these symbolic towers have practical purposes such as church bells in terms of churches and in recent years, if you look at telecommunication equipment like your cell phone towers or it could be a lightning protector, it could be any of these. When a

tower has a dominant physical characteristic, it can be a landmark to a city and can play a role in urban design. Now, in a city like New York when there are literally hundreds and hundreds of towers, it is the physical expression of the tower, is what makes it a landmark. Just not the mere height of it. So towers are urban components that follow closely with the growth of the city which is a response to dense population concentration, high land costs and scarcity of land. Initially to why towers are being built and today why towers are being built, hasn't changed much, It is only because of rising costs that a tower or a skyscraper is being built. But the physical characteristics, the architectural elements is what makes it a landmark. Even Oblisque or a simple thing could be considered a tower, it needn't be a building. It doesn't have to be completely usable as such, it just has to be something that is associated with themselves. It could be completely symbolic but it should be visibly distinct in the skyline, that is a requirement. So, here is a combination of the number of towers that we see in our city. You have the light house over here, without doubt it is part of the skyline there, you cannot miss it. Here you have the clock tower which is part of our central railway station, a recently built tall skyscraper, not exactly a skyscraper but with respect to Chennai's skyline, yes. Here you have the Santhome Cathedral, all built at a different period of time for different purposes, but they are all landmarks in their own right. Now, we will discuss buildings and landmarks. A lot of towers that we saw were also buildings, it could overlap over each other in terms of a tower could be a building, but a building necessarily needn't become a tower to be a landmark. It could be a ground floor house, but because of its particular aesthetic character or its particular scale, any reason could be considered. dominance, any of these factors could make sure a particular building becomes a landmark and it dominates its surroundings. Now, if you look at it, it has to have a memorable image, it could be a contrast to towers, in a city of towers to have a structure that looks like G + 2, that could be a landmark by itself. So, it needn't be distinctive in the skyline but from a closer distance, with respect to a particular area, it should be distinguishable and it should be contribute to that area's heritage. Here you again have the Police quarters, the LIC building, this could be thought of as a tower in its own time, it has a garnered a lot of respect as a very important building in Chennai's history. Then you have a gopuram, the kapaleeshwar temple. The Music Academy again, a very squat building but because of its strategic location and its relevance in city life, it is a very important landmark. Now, open spaces. We have seen towers buildings and

now flat open spaces; how do open spaces actually become landmarks? There could be two scales, either on a regional scale or on a macro-urban scale. So, basically what it is; there is a hierarchy within the street, the smaller unit of spaces could be aggregated and larger spaces could be formed. Basically, the street is the lowest end of it, even a street is an open space. A street could be a landmark, a street junction could be a landmark and at the other end of it, you have a large open space which could be confined within particular set of compound walls and used for a particular reason. Instances where street closures are made, you have; pedestrian malls, like you have pondy bazaar for instance. It is a landmark in the sense, it is an open space, we are talking about the pedestrian areas and the streets but it is a kind of landmark that is created. There is no building with relevance, in the sense, they are all covered with hoardings but it is a very important landmark, it is a stretch of pedestrian shops and similarly you have an occurrence in mylapore tank. Again, they are all architecturally unimportant shops but in terms of relevance in the historic urban fabric context, they are very relevant, they had a distinct culture and social focus. This provides a less tangible border, so there is no particular compound wall that is built around it but these open spaces are very crucial as well. Then you have two types of urban spaces like we just discussed; the hard open space which is a closure that is created, you have particular architectural boundaries which function for a particular reason or gatherings, like the Island grounds and the Napier bridge, that is also a very important landmark. Then you have the soft urban open spaces where it is not, you don't have a very solid compound wall as such but they are categorized by use, size, style, activities, architectural form, relationship to street and the location. So these are the concepts that deal with type of open spaces we have in a city. It should be pleasurable, sustainable and should have an intimate relationship with nearby buildings. So, again open spaces doesn't mean a land filled area where a lot of garbage collected is going to become a landmark, it should have a particular purpose, it should be pleasurable and sustainable in the sense it should be something that is going to take into the future, it can't be a parking lot, things like that. We should have a critical understanding of such spaces, only then can we make use of such spaces. So, open spaces are basically nodes and districts that have similar features to that of landmarks. They actually influence the imageability and legibility of cities, they have the capacity to be a point of concentrated activities and can be used as a reference point as well. So, strategic location is important, historic value is

important and type of activities are also important. Here in the top corner, you have the island grounds where you have the constant carnival sort of atmosphere. So, if you think of a carnival or an exhibition in Chennai, this is one of the first places that you think of. Here you have Valluvar Kottam, an architectural feature plus an open space as well. Here you have the Semmozhi Poonga, again within a compound wall but this is a soft urban landscape. Similarly, you have nageshwara park which is a soft urban landscape. In a place like India and Chennai especially, you can't have a park that is not completely compound walled, this is done completely for security issues, it is not a park that can be left open because of other security issues, hence a compound wall exists. That is why they have tried to indicate the compound wall as a part of the garden where it is not hard landscaping but soft. Now, we will look at Special Urban features as landmarks. When you think of special urban features it could be which are urban furniture or civic furniture. It could be a clock in a particular place or a clock tower in the middle of a street junction, it could be anything. A sculptural form, it could be because of its color, texture, size, mass, anything. Obviously this is a very broad description, you cannot categorize and say, this is what it is and that is why this category emerged of special urban features. So, its basically it should be a 3-d element in the city, which is neither a tower or an open space. So, anything which is not above the 3 that we have discussed, comes automatically under the special urban feature. If you look at it, it needn't always be utilitarian, it could just have an aesthetic value, they could have profound aesthetic values, it could be utilitarian but not predominantly, fountains are accepted, sculptures, wall murals and at major road junctions you can have a particular type of clock or anything, all of that is acceptable as a special urban feature. The special urban feature could be in the middle of a major open space but it cannot be demarcated as an open space by itself. It also leads to people selling a kind of local identity. You should have a cultural relation to it, people should have a kind of story or maybe even mythological incident related to it. It could be a recent landmark that is being made to ornament or decorate the city with art. Basically, the special urban feature should have the ability to promote interaction and communication between the city and its users. It should be a conversation starter, it should be something that defines the city or at least that part of the city. It needn't be monumental, it could be monumental, that is not the criteria. It should please the masses, it should not be predictable and it should not be something that is enjoyed by elitist part of the society. So, we will look at the

Special kind of Urban features we have, we can see an example over here; you have the two kinds of memorials right on the same road, but these as such are not buildings, they are just memorials for M.G.R and Anna. It is just an obelus kind of structure, this is a lotus type of abstract structure. It has no relevance in terms of architectural history or anything, it is only because of a relevance to the people and the kind of structure that has been built, it has garnered importance and it is a landmark. Here you have the Anna Nagar tower which is part of a park now, these have become redundant water towers built in the 60s and 70s, but now it has been made into a landmark in an open space. This is part of a large open space but you see the water tower which is now redundant but is still an important landmark. Here, you have an important speed junction, a clock tower which is the Royapettah clock tower. This has also been there for a very long time. So you can see how different special urban features cover a lot of these elements. Special urban features could include any of these type of structures, it needn't be associated with any particular purpose, you can see the examples we just discussed, none of them have a purpose as such. They have entertainment value, historic value and now it is an important landmark.