B. ARCHITECTURE
URBAN DESIGN (AR6711)
INTRODUCTION TO URBAN DESIGN
Lecture – 2

Need for Urban Design:

I would like to start with the great quote by Winston Churchill

"We shape our dwelling and afterwards our dwellings shape our lives"

In simple terms buildings or something which are created for us and it as safe places it acts as a safe place for human beings it is shelter as such that it is an enclosure, so it protect our environment rather been it is helping in determining quality of life of a particular City, when that happens the same true of Streets, villages, towns and cities where we live. So it is not about the building or the place where we live, it is about the constitution of a building and a group of buildings around a particular city, so everything works together for efficient functioning of cities.

The built environment is just not a group of buildings but it is has to be understood as a physical result of different social economic and environmental process happening at the political stage, so there need to be an investment which relate to economic development, their need for a public building that is a social life and there are different parks and ecologically sensitive areas, that has to be planned unmitigated that is environment process all these compose and intertwined together to form what an efficient environment is this relates to a majorly associated problem in urban called is urban sprawl, another words is uncontrolled expansion of urban areas, so the development of urban environment has serious effects on the quality of global environment.

To define what urban sprawl

If it is more or less again like what very urban, so more and more rural and agricultural land is being occupied due to expansion of towns and cities, it is another word for urbanization

Where refers to migration of a population from populated towns a cluster towns and cities into development area which is out on a moral land. So which means that the end result is the spreading of a city and it's above suburbs over more and more rural land, so occupying more green spaces.

There are different urban forms way which has influence on landscapes and climate while just take out some urban building forms might be modelled for solar access or shade for shelter, exposure to winds depending on what aspect it mitigates.

So looking at these two images urban form is not rectilinear in nature, it has semicircular plan and arrangement like a tarus, half tarus its back as the ramp and get down in the ground and there is a mini courtyard in between when you look at the morphology of this building you have slope entry you have a kind of open space which is below and a series of building which are harmony in nature, which are connect to the central block and which has solar panels on the top of it, so does that have a connection of course the urban layout of every individual urban farm affect the climate of that particular area it creates a micro climate of its own which means that a person standing over here might have different heating and cooling effect rather than a personal being here and this micro climate changes not because of any air conditioning or any mechanical ventilation but because of the urban form as such

High rise and couple of low rises which means that if there are any tall high rise building around a semi urban or say hello density area it create strong turbulent wind because all the pressure of the wind rise down and goes to down to the ground and bottom up high levels which means the pressure created over here, where is much higher which means that the urban form of this building is not responding to the neighbourhood as a whole.

This might be an identity or a landmark building but this doesn't correspond to the development or doesn't foster environmental development on a whole and the temperature difference, now there is a new terminology called as urban heat island which means that the temperature difference between city and its surrounding, so now the urban heat island might vary between different surrounding or the different neighbourhoods.

The urban heat Island will increase the cooling requirements of a building in summer and modify the heating requirements inventor which means that it is completely inefficient; creation of an urban island will increase the cost of living in terms of increasing cooling requirement during the summer, the cities are otherwise known as now places of non-green spaces. So the cities are categorized by reduce green areas which means that a lot of buildings have been coming up and I still coming up.

So the smaller pockets of open spaces have been occupied by the monolith building and turf surfaces are artificial landscape are being created and this which has more observe properties, which means that

the natural environment is being degraded and more of artificial environment is been coming into existence.

The built environment similarly it has an effect on climate, now it has an effect on the landscape as such more open the liveability of open spaces is significantly affected by environmental factors imagine you're planning a camp is imagine is facade without any open space are imagine this courtyard not being there.

There is another building over here and there is another, the quality of the space is confined to just walk ways which means that a person is psychologically affected by the sense of open space which is created but a liveable aspect in any space could be god by increasing the number of open in green areas in around a camp or the city, some of technical shade device.

So urban design is not just about designer aligning the building in a form but also creating to a smaller details in understanding all the spaces and creating shading effects, creating landscapes that match the built environment, creating a user friendly walk way, creating scale that is necessary for the uses were going to inhabit the building. The different form of landscapes, the building which respond to have floating landscape which again alters the micro climate of a building, so there are sensible approaches nowadays is called vertical landscaping and different landscapes that have been grown vertically when the plots space and the ground space is more being occupied by the roads.

The need for urban design in a City, looking at all these considerations in to factors why do we need to design a city is there any requirements for a planer or designer to design the urban need city which has a lot of different problems interrelated yes of course.

It is the process of giving form, shape and character to group of building it's not about the single building, a group of buildings to the whole neighborhood, so arranging and organising different neighborhood to work together and of course city. So which means that urban design works in a building scale and neighborhood scale and cities scale, from a macro and micro scale together it is a Framework that orders elements into network of street squares and block store.

In simple terms arranging different groups of buildings connecting it towards smaller street farming the neighborhood placing different neighbourhoods in the city connecting to your roads and a city as such is called in urban design. It also involve the arrangement and design of buildings, like grouping of buildings, grouping of public spaces, grouping of different transportation systems connecting different spaces, grouping of different pedestrian network which has shown in the dotted lines.

Integrating everything giving form, shape, character, to everything requirement of an urban designer, urban design also blends what architecture landscape architecture and city planning together to make urban areas functional and attractive.

In urban design every space each of the space is not envision to be separate but rather every space is being connected in different forms and work together.

How the city has changed as a meeting place the city provided opportunity for social exchange of information of all kids as a marketplace. The city feasilate commercial exchange of goods and services and finally public spaces having it enabled access and connection between different people at different functions of the city, everything emerges together in a public space. So within a span of only few decades City devoted primarily to working city and basic necessities has been transformed into the city of leisure and enjoyment.

So now can we attribute any of these market, any of these meeting places or any of these public space to a modern city, no definitely it is not possible. The city are growing, it has its own different pockets of public spaces in urban spaces at different levels but managing it providing a good efficient design where people use it becomes a challenge.

Spectrum of Urban Design Activities:

What are the spectrums of urban designer activities, so first regional scale and whole city or town? So it is not about, it is moving to scales on understanding how a city can grow, so it starts from a regional scale whole city or envisioning what the town planning about city wide and urban district and self contained community. This is more related group of neighbourhood, grouping of neighbourhood, the building compilation neighbourhood relation between these two, impact area of a development and immediate area of individual building.

So this again further imposes the point that design of urban relates from individual buildings to the whole city of the Town, it relates to creating spaces, it relates to creating public arenas, it also relates to create streets café. If you see the streets sections well-designed manner which has a central median a good freeway for a car to move across, a good bicycle lane. So that a pedestrian movement was here is not at all in relation on face with a car, so which means that this could reduce the number of accidents happening well planned and more portion of a street is being rectified and moved into what a pedestrian and a cyclist can use than come in a person with the car could use and some of the streets keeps order with the character scale and proportion of building and the beauty of every streets cape is related to the building adorning, scale aspect of

design impact area of development and projects it's public spaces like street squares in parks are some of the spectrum of urban design activities, so smaller detail of tree till larger detail of buildings or town is also covered in the spectrum of activities, it also relates to all what kind of ornamentation you do in a facade what kind of ornamentation you do in a building of different functional nature what kind of curbs you could do how people use the space, how lamps could work and how open the ground spaces could be and how a mixed use environment could be got.

So a spectrum of activities of an urban designer ranger in much more diverse in terms of creating environment that are liveable, the urban design also involve the design of buildings, grouping of building, spaces landscapes and brings together planning transport architectural design landscape and Engineering to create a vision of the area that ensure it is being delivered to which means that there are three or four disciplines like engineering transport planning, architectural planning and urban design which are coming together into one forum to design what a city is about, it also established the network, this interesting images nothing but the interrelationship between every building in a street cape should achieved as an urban designer.

So you look at a shop which is on the corner of the street, bottom of this building and there is another commercial shop, so this is like a side walk café, this is another major building this is like a commercial art gallery, so look at how visually these are connected imagine person walking through the street. So a person in the street has a ground connection all these facade which are open in nature. It has glass façade, so there is a visual connection for the person moving on the ground floor to the building such and there is also visual connection between these terraces of the buildings that terraces is directly related to the street. So there is a user building interface that is being created and there is also a building Street relationship that is being mitigated, so these two are important amount of networks created in a city, play very important role on how liveable streets could be in terms of defining what a public realm as well.

Urban Design & Urban Planning:

Now they might be a lot of confusion between what a urban designers and what a urban planning is about

A urban city and town planning is basically it integrating land use planning transportation planning to improve the built environment but urban design is concerned with the arrangement appearance and functionality of towns and cities, it is beyond what are planer could do and it also takes and shapes, uses of a urban public spaces. A urban design considers first point urban structure it is how a place is put together and how so imagine this is a place put together as a whole and how individual parts or

individual parcels of land relate to one another. So it is like a whole and sum of its parts, every part of our parcel of the land is related to every other structure, urban structure and morphology should work together in a urban design.

Next is urban typology that is individual typology of the building on how it has related and spatial typologies which relate to intensity of used what kinds of function should accommodate, consumption of resources production and maintenance viable communities, every footprint occupied is taking up a natural resource called land. So that typology and the density should be managed are considered in an urban design.

Accessibility a person walking from a particular path has different destination of different terms on moving through to access the accessibility play an important role a person on any street should have any safety and choice when moving, this moment should facilitate interesting for affairs through the buildings and it should make every path of urban block accessible. Legibility and we finding it more or less related to navigation where a person in a city is it should be able to find out what different parts and where different parts are.

Animation it is much stimulated public activities how could you activate a particular space between the building through the use of public spaces and the last being

Function and fit that how different intended user how mixed-use could be got in a particular neighbourhood looking at the image they could lots of retail residential, retail office, retail residential parking together, so there are mix of functions that are working together but one function doesn't define another function.

Principles of Urban Design:

Some of the urban design includes character, so it is to protect and enhance the buildings street and material, when we talk in terms of character of a particular building, street café is also adds value to it and every Street lead to a particular focal point and separate landmark. So when every Street is being managed and design in an equitable manner this characteristic be insured in a way that it flows through the design of a street and alignment of the streets need not be in linear fashion rather shown in the image with which has a sense of direction which curves down go to another point. So which means that there is a sense of surprised that is being created in the street cafe are such use of colours again makes an important aspect or character value to a particular space and look at the image which has a railing on top, so there is two sets of streets that are being created one street character which is on the ground and once street structure which is elevated, so this become a small

pedestrian prominent that connect two different buildings on the top of this building. So these buildings or two to three floors high and this could accommodate lot of commercial activities while in turn, all these buildings in the top could occupy lot of office structures are commercial buildings, so which means that the character of space is also concerned with the usability and function of it the people using on this commercial aspects would park and use the Street as such and character of the quality of the street remains the same while this is more dynamic in terms of people using only for the officers.

Moving on to the continuity and enclosure there are different street and public spaces that are align around the city, so any city will have different groups of urban parks, different groups of local parks and the neighbourhood parks, that are arranged one above one side by side to another, any city will have a water streamline, so managing all these, it creates the sense of continuity, canal, roadway, freeway, any water body extreme creates a sense of continuity within the city where one urban fabric is being connected to a different urban fabric with slide boundary, so discontinuity could be god in terms of efficient achieving of design through marginally demarcating the private spaces and efficiently planning the public spaces you could also see a public road across the bridge, so this ensures continuity in terms of connecting one neighbourhood to another neighbourhood.

So all the neighbourhoods are not seen as different places but it is seen as an one entire urban district or urban core. Now this continuity could vary from one scale to another where has smallest scale of continuity extends from this private park to public parks and from a smaller Ali road to a major road that connects different urban fabrics, on a closure look at this image, these two images create a sense of secondary street with it, so you have the column structures or a collonade structure where people could walk through as an street. So this could be efficient there is an enclosure there is a physical enclosure but psychologically there is a boundary that is demarcated which means that this urban fabric or this building relate in terms of climatology aspect. A person could walk on the street and in same time, when it is raining or when it is harsh climatic conditions people could use this Collonade to walk under and create shadow, it creates the shade kind of moment taro-fare

Ease of movement creates much more safer pedestrian streets, so everyone comes across in modern day cities on lots of accidents due to public interference on the road district. So this is because there is no enough road that is there is no enough side work that is being planned for any pedestrian, so that easily move into the road so all these road forms which is to accommodate different people in different user group to be occupied by different buildings has to be extended and this entire public

movements should be completely demarcated from a transial moment of roads, so car and pedestrian doesn't conflict each other.

Legibility in terms of streets is created through organisation of street and building in a different manner. So that both residence and visited easily navigate around the particular street and what happens if imagine a person from a street on this green line should go open line, so the street alignment is more or less farming a grid shape which bronze or ironically.

According to the morphological form, so there is a clear axial road which might be railroad there is a city centre and there are street primary, secondary, there is an organisation hierarchy of things that are created which facilitate moment of person from one point to another. Landmark building created everywhere around the world, so from any historical context, so where large grandiers and large structures and palaces were created as landmark, that form a identity of a building. Similarly in modern day landmark structures become a sense of place for the entire city that becomes a place where everyone come and everyone force down and when everyone uses a particular space and that is much more prominent to a city that is much more taller that becomes more legible.

So you could actually use it as a route marker as a visitor saying that where would Eiffel be and where would landmark be, so that creates that move or makes you drive through different places to reach the particular spot. Legibility got in terms of focal point and sign-ages were efficient use of these cross board that every corner street facilitate, non-confusion roads which means that when many people passed down on the street, they are literally confused and how to ask.

So when a person when a user by is walking and he asked on where a particular street or particular building is about he gets confused on way to go and where to move. A simple urban morphology structure and a plan of the entire neighbourhood with the directions lead to clear mitigation of different focal point and sign-ages. So proper sign-ages which is legible should work on any good urban design solution. A cities are more divers, the divers in terms of cultural aspect and social aspect there are many people moving down into city have different cultural background as well, so city creation of public spaces should incorporate these different culture and social aspect that are divers in nature and the diversity could again be achieved through different mix of users, so if it is a particular harmony development and completely residential in nature. The diversity could not be achieved and is diversity is achieved in terms of taking into consideration what different user and need of a neighbourhood art and by putting the different retail in commercial uses to the ground, add value to this. Create a place with variety and choice and encourage mix of uses and architectural style to make it a vibrant place. Place making is a particular concept where urban designers fail to address in many Indian

cities or many Southeast Asian cities. Creation of a place and dignity place should be attached and that could be bought through multiple uses or divers uses of a particular space and none of the space should be left dead in terms of but any space should be flexible to adapt but it's should not be rigid to accommodate just one news.

Sustainability is one important factor everyone are arguing about now to create a social economic and environmental sustainable city for future which means that everyone and every person and every people should be taken into consideration, every building should be taken into consideration, every energy factor should be taken into consideration, while the movement of traffic cutting of trees, deforestation, environmental aspects, rain, climate, blocks, roads every aspect or every elements that compose city has to be taken into consideration, for a good sustainable development and prospective nature of the design should be followed rather than taking a progressive development.

So for city to be progressive on its own, it should be sustainable in nature and for that sustainability it should not be physically sustainable but rather socially, economically and environment, sustainability.

Social sustainability relates to involving much people, creating a diverse platform for many people to use. Sustainability relates to good mix of being and good mix of ages of people using different places and all places should be accessible for all.