

Evolution of Human Settlements- AR6004
Unit 4
Human Settlements as Political Expression
Lecture 10

Planning of Brasilia

We shall be dealing with the planning of Brasilia. Now, if we look into the planning of Brasilia, which is the capital city, we will be dealing with the location, the population, the climate, the Topography, the culture. Why is it that the city has come about, what is the purpose behind it? The notes, the sector functions, accessibility, what is the current situation i.e. the reality of the city Brasilia, if you look at the context of why Brasilia came about, it was defined as the federal capital of Brazil. Brazil at one point of time, underwent a huge change and they wanted a capital to reflect that change. It was the planned city of Brazil. It has a population which is still confoundingly increasing constantly. It is the third capital of Brazil. First you have Salvador, Rio De Janeiro and now Brasilia. Brasilia is actually the largest city in the world which did not exist in the beginning of the 20th Century. So, this is one of the cities that did not organically develop but was strategically planned from the first point. The city was planned and developed in 1956 with Lucio Costa, who was the principal urban planner and Oscar Niemeyer who was the principal architect. So it was a joint effort between a planner and architect which gives us a completely beautiful end result since it is insufficient at times to simply have a well-planned city, the components, or the individual buildings sometimes might deter from it. So, when you have an architect involved as well, that situation slightly changes. Because along with a suitable mode of planning, individual

buildings are also suitably designed. In 1960, it formally became Brazil's capital, it actually resembles an airplane or that of a bird. The whole idea we will go into it. Why the design came about, what was the theory behind the design? In spite of it being designed only in the 20th century, it is being listed as the World Heritage site by UNESCO, this is the current situation of Brasilia, where exactly is it situated.

So, if you look at Brasilia over here, not just being the capital, you can see Rio de Janeiro, which is a coastal city. This was planned to be a federal district i.e. where most government buildings would come about. This is the central part of Brazil, it was not as far away from the coast, and you can consider it to be centrally placed. You have the Preto River in the East and the Descoberto River in the West. These are the two rivers that are around it. The size if you look at it; 2245 sq.miles i.e. about 5814 sq.m. In 1956, Lucio Costa, he was a Brazilian urban planner, he actually won the competition. It was a worldwide competition that was given for a brand new city they wanted. Major government buildings, like we have discussed, it's a federal district, which means it was mainly planned for the new Brazil that had emerged, the new government that had emerged. The architect involved in the design of government buildings is Oscar Niemeyer and the landscape and layout was planned by the designer Roberto Burle. If you look at the dates; 1956 - 1961, it was a short span of period for an entire city to develop, inaugurated on the 21st of April, 1960. 1987, UNESCO declares Brasilia a part of the world Heritage site. It is kind of contrary when you look at it, because UNESCO regards only Heritage sites usually. This site was given a lot of importance because a brand new capital, a brand new country i.e. an emerging country was designed and developed over a short period of time and it even held a well

amount of population that a growing city would entail. If you look at it, it was only planned for 50,000 inhabitants, but there was a massive population happening, so currently it's nearly 4 times of that. So the main reason why Brasilia came about, like we just discussed, it was a brand new type of movement they wanted to start for the 21st Century, Brazil wanted to portray a new kind of face to the entire global economy and another main reason is, the old capital of Rio De Janeiro, they wanted to help that as well. If you go about seeing the climate of that place, it is a dry and humid type of climate. The average temperature is 20.5 degrees, and you had the highest maximum around 28 degrees. So, not very hot. That kind of place was considered suitable for a new capital to emerge when compared to Rio de Janeiro. Rio de Janeiro was the capital from 1763 - 1960, it was the most well-known capital throughout the world but at this point of time, resources started being centred in the southern part of Brazil, the eastern region in Rio de Janeiro. But geographically Brasilia worked better because it was more centrally located. Dating back to 1891, the capital they decided should be moved from, Rio de Janeiro, which was very much towards the southern tip of the country to a closed place which is the centre of the country, so that it is accessible by everybody. Plan was initially conceived in 1827, at that point of time, when Pedro won as the emperor, the plan was conceived and the general wanted the new city of Brasilia on the idea of moving the capital westward from the heavily populated southern eastern corridor. This was not seen through because Pedro won, dissolved the assembly and he was no more the Emperor, because of social and political unrest, this never got through. The next important piece of history over here is, when President of Brazil from 1956 - 1961, he decided to order the construction of

Brasilia. So, Lucio Costa won a contest. So, there was a major competition that was declared to come with a main urban plan of this new city which was going to be the face of Brazil. He was a very important urban planner, they are about 5000 odd entries for the same. Oscar Niemeyer a close friend, was the chief architect of most public buildings and Roberto Brule Marx was the landscape designer. So Brasilia was built in just 41 months from 1956 to April 21st, 1960. If you look at a period of time for an entire city to be constructed, it is a very short period of time and you should see the details that has gone into it, the kind of structures, it was very futuristic, keeping in mind that there were stepping into the 21st Century. The culture if we look at it, Brasilia, it was a representative of many multi-cultural, multi diverse. So you have Portuguese, Africans, Italians, Germans, you have certain other European countries represented there. Japanese and Amerindians. So the kind of architecture which they were used to is; Cubist ideas, Baroque style, abstract forms, modern kind of architecture, combination of skills rather than one. It was a combination of many style of Architecture, Ekistial in a way.

Now the reason the competition came into being was; they decided they wanted the best and the best way to do that was to not choose one person but doing it in a truly democratic way as the new kind of Brazil wanted to represent was Nova Cap which was the new capital i.e New Capital Urbanization Agency. This was headed by the architect Oscar Niemeyer, the company was mainly to urbanize the new capital. Series of competitions between architects and urban planners. They knew right from the beginning that it was not sufficient to just have a normal planner on board. They needed an architect, a series of architects, a landscape designer as well, for a city to have full

completion. Now, if you look at the design on Brasilia, the first place, this is Lucio Costa, based on which Brasilia stands today. The second place is the linear typical form that we find in most cities and the third place was based on cubix kind of design. The fourth was the curvilinear cum linear form, semi radial pattern where individual sectors were going to be radial. They chose Lucio Costa for a number of reasons being it was very modernist in its expression, it had a clear thing of having a form of wings, having the form a bird and it was straightly laid among an axis. Axis is a very important form of urban component or form of urban planning. So, this was chosen as the best design for Brasilia.

Plano Pilato

If you look at the Plana Pilato i.e this is the best kind of design that could have emerged. You can see, it is actually like a bird in mid-air, its wings wide apart, you have the head and the entire body. The strong axis are around here or around here. Lucio Costa is a modernist architect and student of Le Corbusier. So a lot of his influence is seen in this design, he was entirely responsible for the layout and he believed in something call the Utopian city, it should be an ideal city or an ideal society. It should be a symbol of Brazilians greatness, if should lead to the development of the central region of Brazil which was ignored for, for so many centuries where only the southern part of Brazil has always grown. It should become the new centre of Brazil. This should become a new face, this city should become the new face of the emerging country. So when you actually look at the plan from above, it is like a bird which spread its wings or even a flight midway, it could be looked at either way but it is definitely based on something that is already

ready to take off which they found is very modernist, very reflective of what is going to happen in the 21st Century of Brazil. Brazil was just going to take off and re represent the global economy. So what was the components? Its main original urban concept was in the shape of a cross, so that this typical plan which you have seen right from the beginning of urban planning days in the 1700s, he modified it further giving it the form of a bird, so it could have kind of dynamism which a simple cross would not have. So by including an element like a bow like element, it had that kinetic fluid movement to the plan which did not exist as a cross. Intended to provide Brasilia with the dignity of a capital city, it has two axis at right angles. You have the monumental axis that is the fuselage of the plane, intersecting in the centre of the city with a residential axis which is wings of an airplane. To adapt this design to the local topography, the natural drainage of the area, one of the axes was curved in order to make it fit into an equilateral triangle. So, that is why you get that bow like structure. In Costa's notes, he talk about the form, he talks about the form which is a very important part because two axes have always been in history. But for the first time, he has curved one axis in order to suit the topography of the place. You can either say it represents a plane of a bird in flight. The local topography, the natural drainage, all of these were taken into consideration and given the best possible orientation. Free principles, highway engineering i.e elimination of intersections, this happened because of the curved axis.

Next, the importance of the residential districts, he discusses this in between the notes 3 - 5, where he gives importance to residential districts as such. This has been placed along the curved axis. Civic and administrative centre, recreation centre, the municipal administration

facilities, the barracks, the storage and supply zones, small local industries, Railway station all along the monumental axis. So, over here you can see this is the back axis i.e the curved portion of it. This is the residential blue belt and here you see the monumental axis in bright red. This is pretty much an arrow that is getting ready to get out of the bow as well. So, any form it took, let it be the bird in flight, the plane in flight, an arrow which is going to get out from the bow. It all suggests a movement and a sense of dynamism. Banking and commercial districts fell along the intersection of the monumental and highway residential. Location of the entertainment centre is along the intersection of the monument and the back axis, which is along this area. Here you have the highways, the image of that and here the expressways. The kind of transportation they had was within the city buses, obviously an international airport because they wanted it to be representative of the changing global economy. High speed rails. Now, if you look at the zones and the sectors that were formed. Lik here along the curved axis, in yellow, you have the residential zone; blue you have the administrative zone. Here in the centre, bang in the centre between the residential areas, you have the commercial, and back there in the green area is the entertainment zone. If you look at the difference in layout, you can see how the highways don't have straight intersections but because of the curved axis, it has curved roads and the intersections are never at right angles. This has actually proven to be less accident prone, drivers automatically become more careful because the turning areas are much wider and larger. These are the typical kind of residential areas that came about, these are the civic centres, and you have the church, which is again modernist in its own way, without giving way for the cathedral. It's been changed to suit the new kind of

economy, the new kind of city that was emerging. More civic buildings in open spaces, open spaces were given a lot of importance because they wanted to stress on public congregation. Administrative buildings, Government buildings. They wanted to portray a kind of monumentality, create a sense of awe. Different kind of architecture, modernist architecture that needed someone to explain something which was considered to be the future of architecture or urban planning. These are the commercial districts. Now we will move on to the building hierarchy. So, you first have the plaza of three towers. House fundamental powers i.e. the equilateral triangle that we have discussed about. Government and Supreme Court, the base of the triangle. The congress is very much at the Apex. The church comes to the centre at the given own square. The monumental axis you have the government and municipal plaza. If you look at the landscape, like it was just mentioned, open spaces are given a lot of importance because they wanted to propagate a lot of interaction between the public, they wanted even some space for future expansion, say in case the population increased.

All of this kept in mind; the city was built as a large open area, with a lot of open areas between the built structures. You have something called super blocks, which are surrounded by bands of greenery planted with trees; Strips of the Districts - also planted with greenery; Park city which is filled with open areas such as squares, flower gardens, vegetable gardens, orchards, Botanical gardens and the Cemeteries were at the end of the residential highway axis. As you look at the vehicular circulation, you have secondary roads which control heavy vehicular traffic. The traffic was controlled by roads that would either go on a platform underground or under a platform. Clover shaped Turn-offs;

this was the kind of turn-offs that are there, where the circulation would happen in different districts without creating an intersection. This is where the green belt would be and all the roads would go along this. Without having an intersection the roads were created. We just saw, that this actually happened because the curved axis was there. Pedestrian Circulation, you had Independent paths; local pathway systems were created for each district - residential, commercial, administrative districts; this was completely separated from vehicular circulation. So, they gave a lot importance to pedestrian traffic as well as their safety. If you look at his notes and his design notes, it is obviously Airplane style, Monumental Axis; Four Scales of Design; you have the Monumental scale which is symbolic, Residential scale which is comfortable, the Gregarious scale which is for social buildings, the Bucolic scale which is park city and rustic spaces. So, when you look at these different scales, it is based on the comfort level of the people at the very same time, they wanted to portray Brasilia as a modern city of the 21st century. The Dignity of a capital city, it should have an Esplanade, where the ministries and public buildings are located, the Bus stations where the two axis cross; the Cathedral and the Plaza of the three towers. So, individual super blocks when you look at it, uniform height of six stories, no high rises and vast motorways. Ample parking, low population density, open green space for people to enjoy. These are typical superblocks, the number of superblocks that were built, based on different typologies; it could be residential superblock or the ministerial superblock depending on the location. It was all done based on different typologies of buildings in that period of time.

Brasilia Today

How is Brasilia today? We can certainly say that Brasilia has changed the ways of the Brazilian architecture. Niemeyer showed in a couple of lines the harmony and beauty that those buildings would have and it is interesting that during all these years, the buildings have remained great and admired all over the world. The modern use of concrete and glass gives sensual shapes to all of these buildings where all of them are inspired from women's curves which mark the typical idea of Brazilian architecture. That was their attitude at that point of time, they believed in celebrating womanhood, this is Brasilia today as compared to the late 60s. If you look at it, in terms of high rises, it is uniform. There are no towering structures like you would see in the skyline of New York or Chicago. All of them are sitting squat and at that point of time, in the beginning when it was inaugurated, a blank landscape with lots of motorways and open spaces. But now, over a period of time, the more of these squat buildings have come about, still they have followed the rule of not having any towering buildings. So, if you look at the thing, they actually followed the Athen's strata which is a very remarkable and important thing, they differentiated housing, work, recreation and traffic. The Athens' strata were taken into it, which has never been done for any brand new city. If you look at the positive aspects of the planning of Brasilia, it was supposed to be designed to represent Brazil in the 21st Century which was in 1960. Thus, this is definitely futuristically designed. It was the first time you have an urban planner, an architect and a landscape designer get together as you plan a city right at the placing phase. It was the first time that smooth transit floor was given importance where the zoning has been done initially and 5 decades later, still the zoning is very much in place. It is the only city that was built in the 20th Century that has been awarded by the

UNESCO status because UNESCO only regards historic cities and towns. The planning policies as such, located in the residential areas around the expansion areas, making sure it is futuristic in such a way that in spite of having a population explosion, it is still very much a viable and liveable city and it does have an impression of a very modern city because of the layout, because of the individual buildings that were designed, at the same point of time. The new buildings that are coming about are a reflection of that period as well. It was designed as an antidote which was not merely an antithesis to the site or capital of Brazil, it was supposed to represent the new growing global economy of Brazil. The basic units, the huge superblocks, everything was a representative of how big Brazil was going to become. The same facade, the same height, the same facilities, a kind of Utopia was also being represented. The same kind of materials like glass, steel and concrete, the kind of preventive measures being taken as a socialist reform, at the same time being a capitalist country to make sure, that there is uniformity amongst all the social classes and all the families are leading the same kind of life together. So in spite of it being representative as a capitalist economy, it was very socialist in the way it was planned, that is why it was considered as an Utopian kind of plan. If you look at the negative aspects of it, the most commonly criticized aspects of it; the monotony in the layout of the city. All the buildings are of the same height, same material, when they wanted to create a kind of equality socially, what happened is that, there was no difference in the type of the building, in the typology of the building. So, you just have superblocks in the same height, large open spaces and vast roads. It is kind of boring, a kind of monotony is present, no bright colors are used, Kind of needs the new comer to the city, a kind of scenario where

he doesn't know where he is. One part of the city resembles any other part of the city. So if you look at vibrant cities like New York and Chicago, you have something like a downtown, you have something like place that is commercial and residential at all times of the day vs. in Brasilia that whole feeling is lost. You have a separate commercial sector, you have a residential sector, you have an industrial sector, an entertainment sector and the administrative sector. So, all of these sectors have been stringently demarcated and followed till date which means that there is a part of the city that is asleep at night because there is no government activity, no kind of commercial activity happening during the night. At the same time, there is a part of the city that is completely dull throughout the day which is the residential sector, where people go out to work and things like that. The residential sector becomes kind of dull throughout the day. So, it does not have balance which is required by most cities and which follows the trend of having 24 hour cities in today's context.