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SCHOOL OF BUILDING SCIENCE AND TECHNOLOGY

DEPARTMENT OF ARCHITECTURE

UNIT – I - URBAN DESIGN – SAR 1403

UNIT 1 – Introduction and History of Urban Form

Introduction to Urban Design.

Urban design is concerned with the arrangement, appearance and function of our suburbs, towns and cities. Its both a process and an outcome of creating localities in which people live, engage with each other, and engage with the physical place around them. It involves the design and coordination of all that makes up cities and towns. Traditionally, the most popular definition is that urban design is the interface between urban planning and architecture. In this sense it plays a meditative role between two major disciplines involved in the urban realm, but at different levels and scales. Moreover, the latter directly tackles the physical built form in unitary particles, while planning manages more 'abstract' notions such as zoning, functions, transport networks and economy. Hence urban design focuses on the urban space created through the effects of planning and realized through the physicality of architectural buildings.

In order for urban design to fulfill the role of a real interdisciplinary interface, it should be thought of – and taught – as a multidimensional activity. Other than planning and architecture, it should be clear that other seemingly independent disciplines play equally crucial roles in the study and/or creation of cities. Landscape architecture, communication and transport engineering, but also the 'soft' disciplines – sociology, economy, group and individual psychology and behavioral studies, even art and the humanities – are some of the poles that together shape the urban environment and give it its inherent subjective qualities.

Urban design should thus function as a multidimensional interdisciplinary interface, with the responsibility to manage and transform the interactions of the different aspects of urban life into a

	Architecture	Urban Design	Urban Planning
Scale	Individual building	Spaces between buildings: street, park, transit stop	Whole neighbourhoods, districts & cities
Orientation	Aesthetic and functional	Aesthetic and functional	Utility
Treatment of space	2D & 3D	3D	Predominantly 2D
Time frame	No definite time frame	Short Term (<5 years)	Long Term (5 to 20 years)

physical and/or usable form

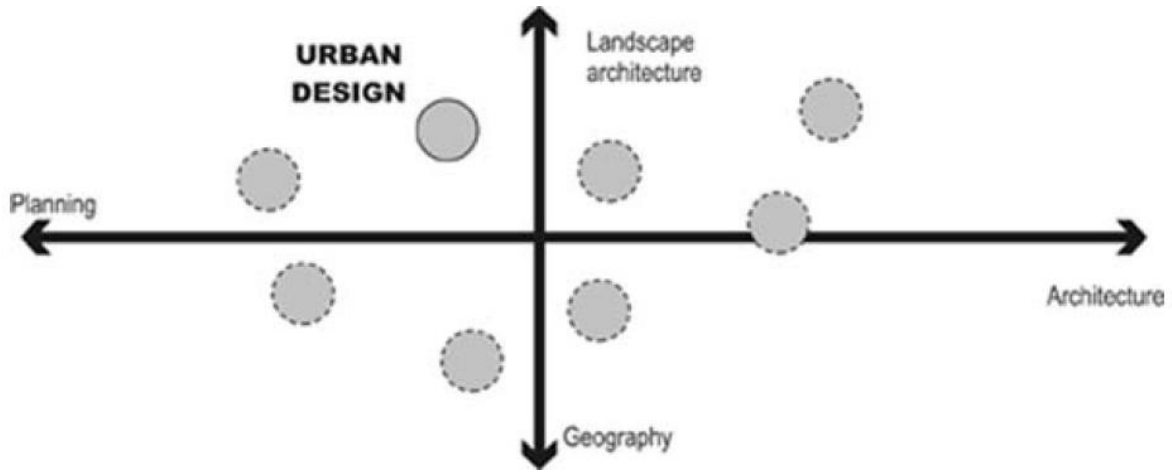


Fig -1

Like a work of art, the city has been designed and built with a vision in mind, and that vision has generally coincided with its contemporary worldview. With the atomization and mechanization of the professional disciplines urban design, like architecture, shifted away from art and has become a more rational, analytical discipline. Urbanists adopted dogmatic manifestos, and a self-conscious, self-righteous attitude developed within the discipline. Within the politicized discourse of the profession, antagonistic ideologies were often pitted against each other, Yielding polemics instead of cooperation.

Urban design as an occupation is relatively new, but historically it has always played the major role in forming cities. Under different guises and definitions in different periods and places, the longest lasting imprint on cities and people was due to whoever controlled the urban design decisions. The term itself was first used only in 1957, by the American Institute of Architecture. It gradually spread, mainly through the work of Kevin Lynch and Jane Jacobs in the 1960s and Christopher Alexander, Leon and Rob Krier, and Robert Venturi, amongst others, in the 1970s and 1980s.

Elements of Urban Design

1)BUILDINGS

Buildings are the most pronounced elements of urban design

Fig -2

Buildings shape and articulate space by forming the street walls of the city. Well-designed buildings and groups of buildings work together to create a sense of place. Ex -residential buildings, commercial buildings, institutional buildings, industrial buildings etc.

2) PUBLIC SPACES

Great public spaces are the living room of the city - the place where people come together to enjoy the city and each other.

Fig -3

Public spaces make high quality life in the city possible . Public spaces range from grand central plazas and squares, to small, local neighborhood parks. They form the stage and backdrop to the drama of life. Eg. ST. PETER SQUARE ,Located directly in front of St. Peter's Basilica in Vatican City. TIMES SQUARE ,New York's famous city square, Times Square is located at the junction of Broadway and Seventh Avenue and stretching from West 42nd to West 47th Streets

3) STREETS

These are the connections between spaces and places, as well as being spaces themselves. They are defined by their physical dimension and character as well as the size, scale, and character of the buildings that line them.

Main street

It is usually a focal point for shops and retailers in the central business district, and is most often used in reference to retailing and socializing. The term is commonly used in Scotland and the United States, and less often in Canada, Australia and Ireland.

HIGH street Frequently used for the street name of the primary business street of towns or cities, especially in the United Kingdom and Commonwealth of Nations.

FORE street

Often used for the main STREET of a town or village. Usage is almost entirely confined to the SOUTH WEST OF ENGLND. There is also a Fore Street in PORTLAND, MAINE, UNITED STATES, presumably named by colonists from SW England.

OVERPASS

In the US, an overpass is normally a bridge for motor vehicles to pass over other road .

SKYWAY

Skyway is usually used in the US for long or high bridges for traffic

BOULEVARD

A type of large ROAD, usually running through a city.

Traditionally a straight route with a line of trees or large shrubs running along.

Fig -4

ESPLANADE

An esplanade is a long, open, level area, usually next to a river or large body of water, where people may walk.

4) TRANSPORT

Transport systems connect the parts of cities and help shape them, and enable movement throughout the city.

 They include road, rail, bicycle, and pedestrian networks, and together form the total movement system of a city.

The balance of these various transport systems is what helps define the quality and character of cities, and makes them either friendly or hostile to pedestrians.

The best cities are the ones that elevate the experience of the pedestrian while minimizing the dominance of the private automobile.

5) LANDSCAPE

It is the green part of the city that weaves throughout, in the form of urban parks, street trees, plants, flowers, and water in many forms. Green spaces in cities range from grand parks to small intimate pocket parks. The landscape helps define the character and beauty of a city and creates soft, contrasting spaces and elements.

Fig -5

Urban form

The term “urban form” is used to describe a city’s physical characteristics. It refers to the size, shape, and configuration of an urban area or its parts. How it will be understood, structured, or analyzed depends on scale. Characteristics of the urban form range from, at a very localized scale, features such as building materials, facades, and fenestration to, at a broader scale, housing type, street type, and their spatial arrangement or layout. The concept of urban form encompasses also nonphysical aspects such as density.

Urban function can be conceptualized as *function of city* in relation to the society, hinterland, or other settlements; as *activities taking place inside of cities*; or as a *relation* between *urban (social) needs and urban (spatial) forms.* Urban functions are generator that shape...

Urban morphology refers to the study of urban form that focuses on the formation and transformation of urban forms of cities, towns, and villages over time; their spatial patterns at different scales; and physical characteristics to inform appropriate urban interventions to promote sustainable urban development.

1) Evolution of Cities Prehistoric

Towns and cities have a long history, although opinions vary on which ancient settlement are truly cities. Early cities developed in a number of regions, from Mesopotamia to Asia to the Americas. The very first cities were founded in Mesopotamia after the Neolithic Revolution, around 7500 BCE. Mesopotamian cities included Eridu, Uruk, and Ur. Early cities also arose in the Indus Valley and ancient China. Among the early Old World cities, one of the largest was Mohenjo-daro, located in the Indus Valley (present-day Pakistan); it existed from about 2600 BCE, and had a population of 50,000 or more. In the ancient Americas, the earliest cities were built in the Andes and Mesoamerica, and flourished between the 30th century BCE and the 18th century BCE.

Ancient cities were notable for their geographical diversity, as well as their diversity in form and function. Theories that attempt to explain ancient urbanism by a single factor, such as economic benefit, fail to capture the range of variation documented by archaeologists. Excavations at early urban sites show that some cities were sparsely populated political capitals, others were trade centers, and still other cities had a primarily religious focus. Some cities had large dense populations, whereas others carried out urban activities in the realms of politics or religion without having large associated populations. Some ancient cities grew to be powerful capital cities and centers of commerce and industry, situated at the centers of growing ancient empires. Examples include Alexandria and Antioch of the Hellenistic civilization, Carthage, and ancient Rome and its eastern successor, Constantinople (later Istanbul).

2) The Formation of Cities

Why did cities form in the first place? There is insufficient evidence to assert what conditions gave rise to the first cities, but some theorists have speculated on what they consider pre- conditions and basic mechanisms that could explain the rise of cities. Agriculture is believed to be a pre-requisite for cities, which help preserve surplus production and create economies of scale. The conventional view holds that cities first formed after the Neolithic Revolution, with the spread of agriculture. The advent of farming encouraged hunter-gatherers to abandon nomadic lifestyles and settle near others who lived by agricultural production. Agriculture yielded more food, which made denser human populations possible, thereby supporting city development. Farming led to dense, settled populations,

and food surpluses that required storage and could facilitate trade. These conditions seem to be important prerequisites for city life. Many theorists hypothesize that agriculture preceded the development of cities and led to their growth.

A good environment and strong social organization are two necessities for the formation of a successful city. A good environment includes clean water and a favorable climate for growing crops and agriculture. A strong sense of social organization helps a newly formed city work together in times of need, and it allows people to develop various functions to assist in the future development of the city (for example, farmer or merchant). Without these two common features, as well as advanced agricultural technology, a newly formed city is not likely to succeed. Cities may have held other advantages, too. For example, cities reduced transport costs for goods, people, and ideas by bringing them all together in one spot. By reducing these transaction costs, cities contributed to worker productivity. Finally, cities likely performed the essential function of providing protection for people and the valuable things they were beginning to accumulate. Some theorists hypothesize that people may have come together to form cities as a form of protection against marauding barbarian armies.

3) Cities as Political Centers – Medieval cities

While ancient cities may have arisen organically as trading centers, preindustrial cities evolved to become well defined political units, like today's states. During the European Middle Ages, a town was as much a political entity as a collection of houses. However, particular political forms varied. In continental Europe, some cities had their own legislatures. In the Holy Roman Empire, some cities had no other lord than the emperor. In Italy, medieval communes had a state-like power. In exceptional cases like Venice, Genoa, or Lübeck, cities themselves became powerful states, sometimes taking surrounding areas under their control or establishing extensive maritime empires. Similar phenomena existed elsewhere, as in the case of Sakai, which enjoyed a considerable autonomy in late medieval Japan.

For people during the medieval era, cities offered a newfound freedom from rural obligations. City residence brought freedom from customary rural obligations to lord and community (hence the German saying, "Stadtluft macht frei," which means "City air makes you free"). Often, cities were governed by their own laws, separate from the rule of lords of the surrounding area.

The time span between fall of the Roman empire till the start of renaissance is termed as DARK AGES as no great construction or development was carried out during this period. Economy was rooted in agriculture and the feudal system was the new order. Merchants & craftsmen formed

guilds to strengthen their social & economic position. Wars among the rival feudal lords were frequent.

PLANNING

1) Early medieval town was dominated by church or monastry & castle oflords.
2) For protective measures, towns were sited in irregular terrain, occupying hill tops or islands. Towns assumed informal & irregular character.
3) Church plaza became a market place.
4) Roads generally radiated from church plaza& market plaza to gates with secondary lateral roadways connecting them.
5) Castle was surrounded by wall & moat as a protective elements.

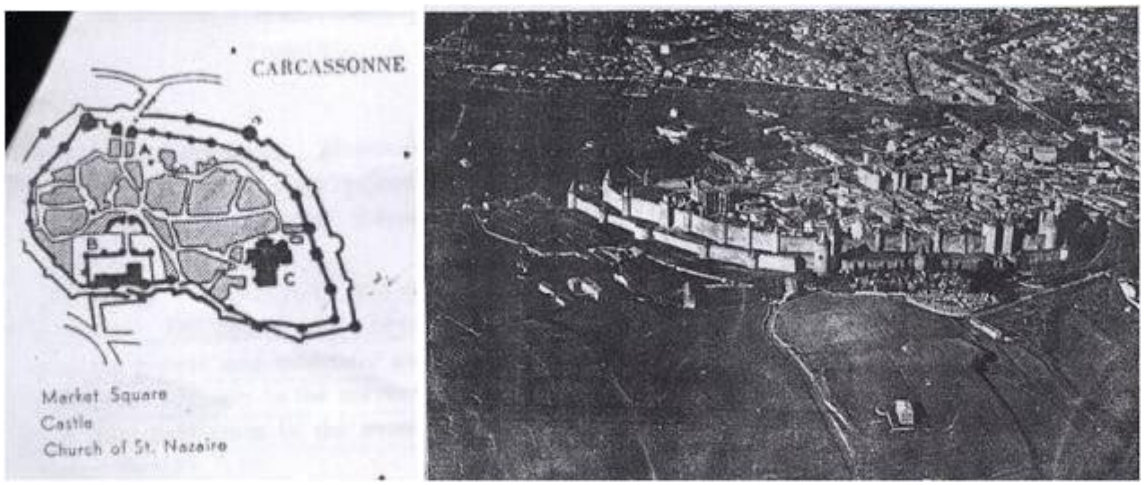


Fig -6

Examples of Medieval cities - Prague, Czech Republic, Rothenburg, Germany, Mont Saint Michel, France, Siena, Italy, Carcassonne, France, San Gimignano, Italy, Colmar, France.

4) Greco Roman Empires

Traditionally, the Greek philosopher Hippodamus (5th century BC) is regarded as the first town planner and 'inventor' of the orthogonal urban layout. Aristotle called him "the father of city planning",and until well into the 20th century, he was indeed regarded as such. This is, however, only partly justified. The Hippodamian plan that was called after him, is an orthogonal urban layout with more or less square street blocks. Archaeological finds from ancient Egypt—among others—demonstrate that Hippodamus cannot truly have been the inventor of this layout.

the first known example of a criticism of urban planning. From about the late 8th century on,

Greek city-states started to found colonies along the coasts of the Mediterranean, which were centred on newly created towns and cities with more or less regular orthogonal plans. Gradually, the new layouts became more regular. After the city of Miletus was destroyed by the Persians in 494 BC, it was rebuilt in a regular form that, according to tradition, was determined by the ideas of Hippodamus of Miletus. Regular orthogonal plans particularly appear to have been laid out for new colonial cities and cities that were rebuilt in a short period of time after destruction.

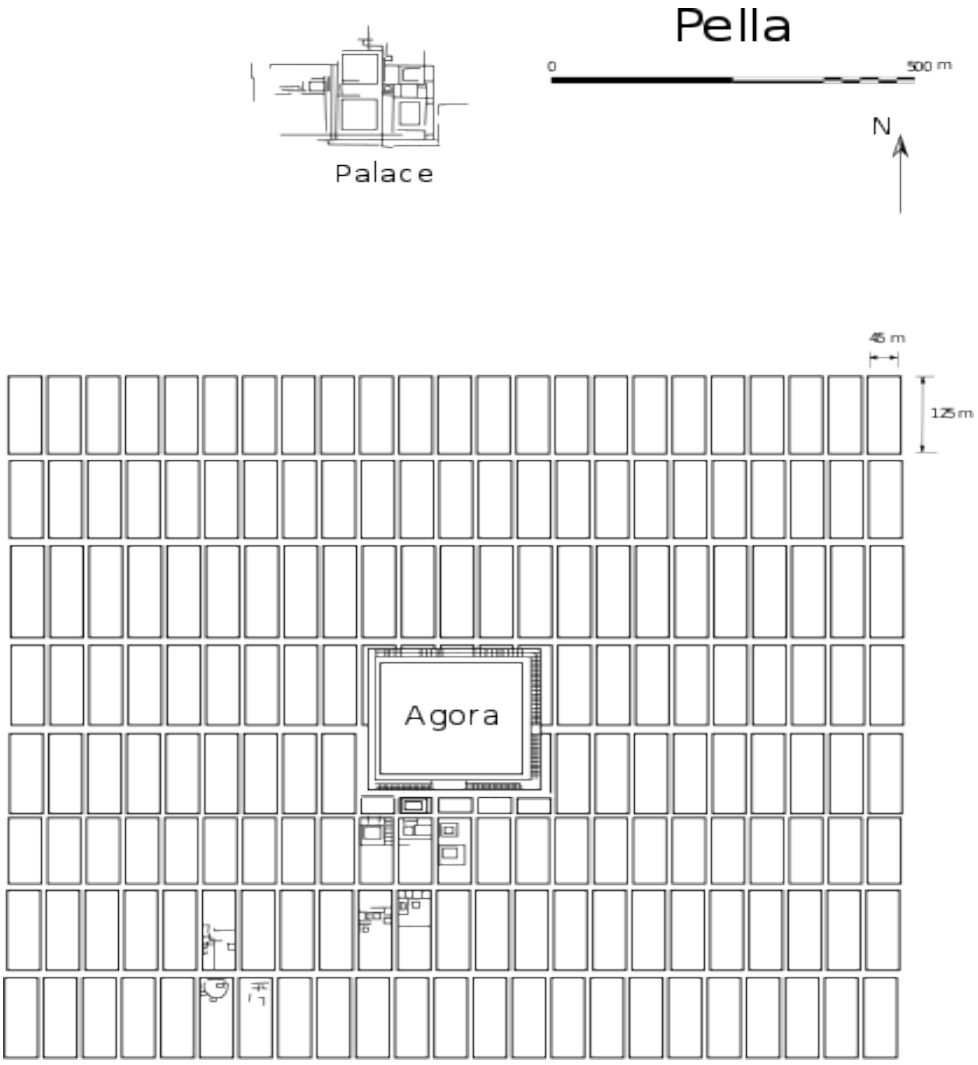


Fig -7

Following in the tradition of Hippodamus about a century later, Alexander commissioned the architect Dinocrates to lay out his new city of Alexandria, the grandest example of idealised urban planning of the ancient Hellenistic world, where the city's regularity was facilitated by its level site near a mouth of the Nile. The ancient Romans also employed regular orthogonal structures on which they molded their colonies. They probably were inspired by Greek and Hellenic examples, as well as by regularly planned cities that were built by the Etruscans in Italy. The Roman engineer Vitruvius established principles of good design whose influence is still felt today. The Romans used a consolidated scheme for city planning, developed for civil convenience. The basic plan consisted of a central forum with city services, surrounded by a compact, rectilinear grid of streets. A river sometimes flowed near or through the city, providing water, transport, and sewage disposal. Hundreds of towns and cities were built by the Romans throughout their empire. Many European towns, such as Turin, preserve the remains of these schemes, which show the very logical way the Romans designed their cities. They would lay out the streets at right angles, in the form of a square grid. All roads were equal in width and length, except for two, which were slightly wider than the others. The decumanus, running east–west, and the cardo, running north–south, intersected in the middle to form the centre of the grid. All roads were made of carefully fitted flag stones and filled in with smaller, hard-packed rocks and pebbles. Bridges were constructed where needed. Each square marked by four roads was called an insula, the Roman equivalent of a modern city block.

Each insula was about 80 yards (73 m) square. As the city developed, it could eventually be filled with buildings of various shapes and sizes and criss-crossed with back roads and alleys. The city may have been surrounded by a wall to protect it from invaders and to mark the city limits. Areas outside city limits were left open as farmland. At the end of each main road was a large gateway with watchtowers. A portcullis covered the opening when the city was under siege, and additional watchtowers were constructed along the city walls. An aqueduct was built outside the city walls. The development of Greek and Roman urbanisation is relatively well- known, as there are relatively many written sources, and there has been much attention to the subject since the Romans and Greeks are generally regarded as the main ancestors of modern Western culture.

5) Renaissance Ideal Cities

Florence was an early model of the new urban planning, which took on a star-shaped layout adapted from the new star fort, designed to resist cannon fire. This model was widely imitated, reflecting the enormous cultural power of Florence in this age; the Renaissance was hypnotised by one city type which for a century and a half— from Filarete to Scamozzi— was impressed

upon utopian schemes: this is the star-shaped city". Radial streets extend outward from a defined centre of military, communal or spiritual power.

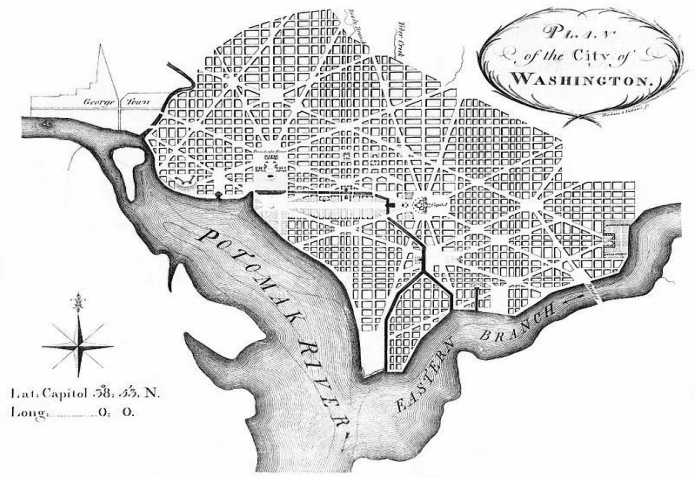
Only in ideal cities did a centrally planned structure stand at the heart, as in Raphael's Sposalizio (Illustration) of 1504. As built, the unique example of a rationally planned quattrocento new city centre, that of Vigevano (1493–95), resembles a closed space instead, surrounded by arcading. Filarete's ideal city, building on Leon Battista Alberti's De re aedificatoria, was named "Sforzinda" in compliment to his patron; its twelve-pointed shape, circumscribable by a "perfect" Pythagorean figure, the circle, took no heed of its undulating terrain in Filarete's manuscript. This process occurred in cities, but ordinarily not in the industrial suburbs characteristic of this era (see Braudel, The Structures of Everyday Life), which remained disorderly and characterised by crowding and organic growth. Following the 1695 bombardment of Brussels by the French troops of King Louis XIV, in which a large part of the city centre was destroyed, Governor Max Emanuel proposed using the reconstruction to completely change the layout and architectural style of the city. His plan was to transform the medieval city into a city of the new baroque style, modeled on Turin, with a logical street layout, with straight avenues offering long, uninterrupted views flanked by buildings of a uniform size. This plan was opposed by residents and municipal authorities, who wanted a rapid reconstruction, did not have the resources for grandiose proposals, and resented what they considered the imposition of a new, foreign, architectural style. In the actual reconstruction, the general layout of the city was conserved, but it was not identical to that before the cataclysm. Despite the necessity of rapid reconstruction and the lack of financial means, authorities did take several measures to improve traffic flow, sanitation, and the aesthetics of the city. Many streets were made as wide as possible to improve traffic

6)Industrial Cities

An industrial city is a zone or area that consists of a cluster of stand-alone industrial facilities, all operating simultaneously. It is usually located on the outskirts of a city, and is normally provided with good transportation access, including road and rail. Industrial cities offer integrated infrastructure for the various plants in one location, which would regulate the operation of all existing processes. Specifying the locations of all processing plants, and their respective water consuming and producing operations is essential when defining the area/zone. Moreover, all available service corridors that can accommodate water transport, access ports that allow corridors to be reached from within a plant facility, and any barriers that exist in between plants and corridor facilities need to be identified.

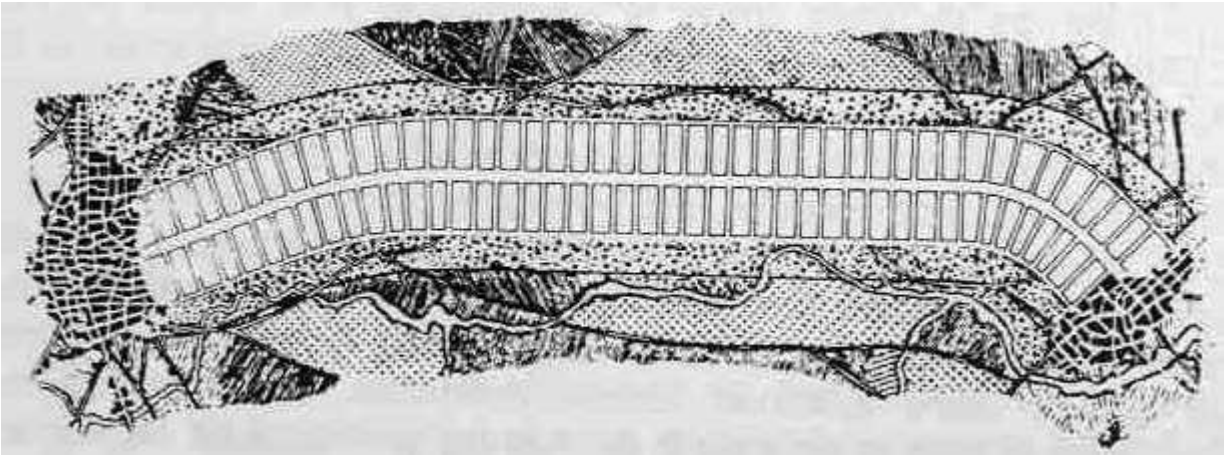
The Postindustrial City

In the wake of deindustrialization of large swathes of urban North America, Australia, and Europe, formerly industrial cities were placed in the unenviable position of losing investment, jobs, and identity. The global shift of manufacturing creates new industrial cities in the developing world but leaves behind industrial cities in the developed world. These industrial cities, or to be more accurate, these newly postindustrial cities, became associated with the old, the polluted, the past, and the failed. A major theme of marketing these postindustrial cities is todistance them from their recent industrial past. Some of the rebranded postindustrial US cities include Pittsburgh and Syracuse. In the case of Syracuse, New York, this involved a new logo for the city that replaced images of smoking factories with postmodern building skyline and a transformation of a local lake from dump site to scene of regeneration and set of recreational opportunities (Short et al., 1993). Formerly industrial cities are rebranded in more attractive packages that emphasize the new rather than the old, the fashionably postmodern rather than the merely modern, the postindustrial rather than the industrial, consumption rather than production, and spectacle and fun rather than pollution and work. Take the case of Wollongong, an industrial city on the New South Wales coast of Australia. A massive steelworks dominated the urban economy. The steelworks shed 15 000 jobs from the early 1980s to the mid-1990s. The rate of job loss was only one major strand in negative imagery associated with the city in the national imagination and among foreign investors. City leaders decided to rebrand the city in the public imagination. An image campaign was built around the idea of ‘innovation, creativity, and excellence’ (Kerr et al., 2011). An important part of the campaign involved the steelworks planting half a million trees on its site while the council found funds to clean up the beaches and construct cycle ways. The greening of the city is now an integral part of a city’s attempt to shed its hard industrial image for a softer postindustrial greener imagery.



6) Modern Urban Planning

Planning and architecture went through a paradigm shift at the turn of the 20th century. The industrialised cities of the 19th century had grown at a tremendous rate, with the pace and style of building largely dictated by private business concerns. The evils of urban life for the working poor were becoming increasingly evident as a matter for public concern. The laissez-faire style of government management of the economy, in fashion for most of the Victorian era, was starting to give way to a New Liberalism that championed intervention on the part of the poor and disadvantaged. Around 1900, theorists began developing urban planning models to mitigate the consequences of the industrial age, by providing citizens, especially factory workers, with healthier environments.

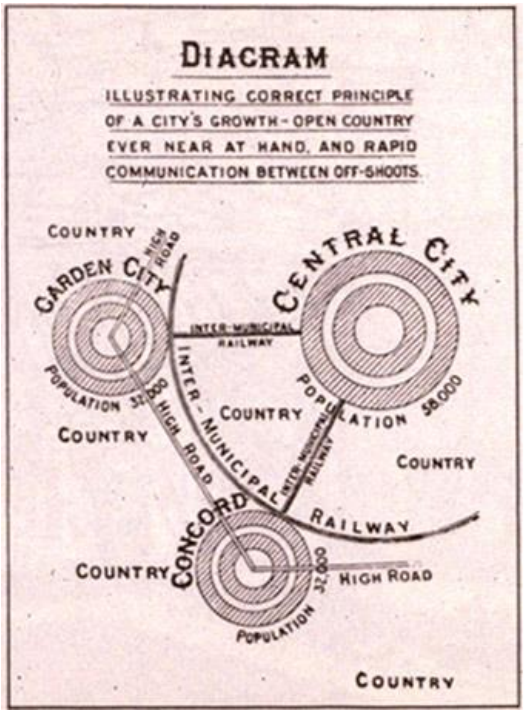


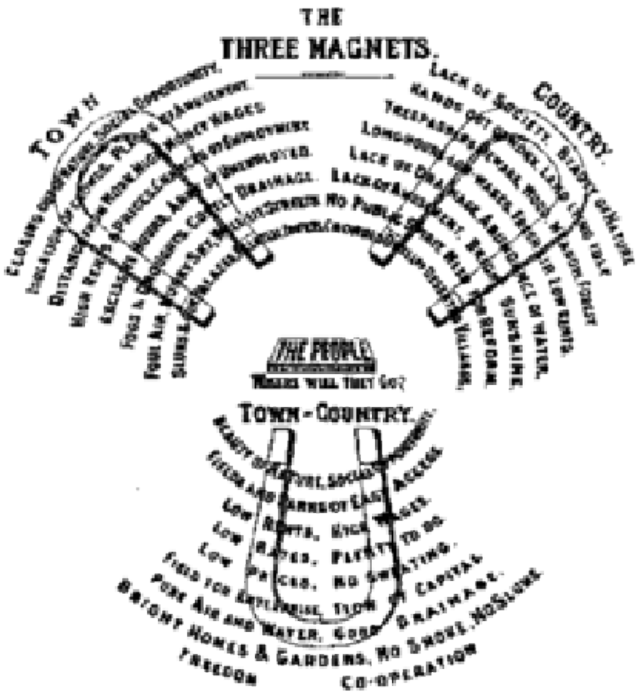
Modern zoning, which enabled planners to legally demarcate sections of cities for different functions, originated in Prussia, and spread to Britain, the US, and Scandinavia. Public health was cited as a rationale for keeping cities organized.

1) Garden city movement

The first major urban planning theorist was Sir Ebenezer Howard, who initiated the garden city movement in 1898. This was inspired by earlier planned communities built by industrial philanthropists in the countryside, such as Cadburys' Bournville, Lever's Port Sunlight and George Pullman's eponymous Pullman in Chicago. All these settlements decentralized the working environment from the centre of the cities, and provided a healthy living space for the factory workers. Howard generalized this achievement into a planned movement for the country

as a whole. He was also influenced by the work of economist Alfred Marshall who argued in 1884 that industry needed a supply of labour that could in theory be supplied anywhere, and that companies have an incentive to improve workers living standards as the company bears much of the cost inflicted by the unhealthy urban conditions in the big cities. Howard's ideas, although utopian, were also highly practical and were adopted around the world in the ensuing decades. His garden cities were intended to be planned, self-contained communities surrounded by parks, containing proportionate and separate areas of residences, industry, and agriculture. Inspired by the Utopian novel Looking Backward and Henry George's work Progress and Poverty, Howard published his book Garden Cities of To-morrow in 1898, commonly regarded as the most important book in the history of urban planning. His idealised garden city would house 32,000 people on a site of 6,000 acres (2,428 ha), planned on a concentric pattern with open spaces, public parks and six radial boulevards, 120 ft (37 m) wide, extending from the centre. The garden city would be self-sufficient and when it reached full population, another garden city would be developed nearby. Howard envisaged a cluster of several garden cities as satellites of a central city of 50,000 people, linked by road and rail.

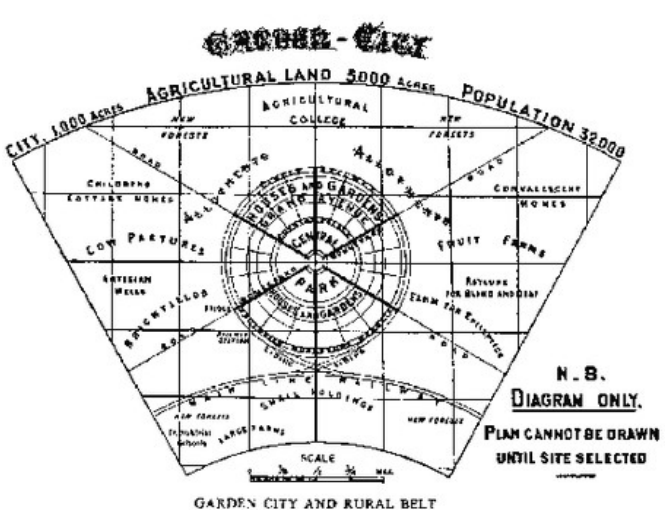




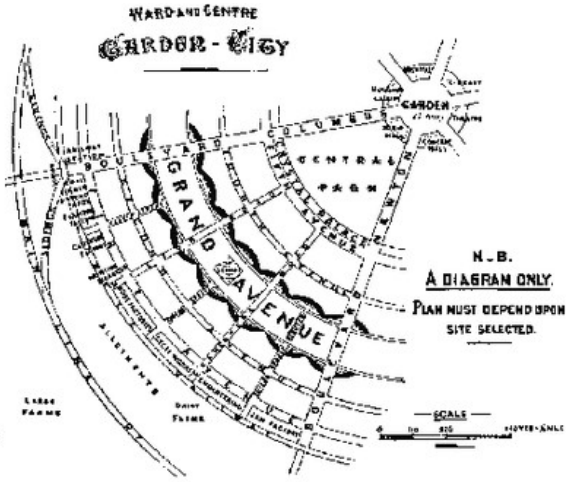
He founded First Garden City, Ltd. in 1899 to create the first garden city at Letchworth,

Hertfordshire.Donors to the project collected interest on their investment if the garden city generated profits through rents or, as Fishman calls the process, ‘philanthropic land speculation’. Howard tried to include working class cooperative organisations, which included over two million members, but could not win their financial support. In 1904, Raymond Unwin, a noted architect and town planner, along with his partner Richard Barry Parker, won the competition run by the First Garden City, Limited to plan Letchworth, an area 34 miles outside London. Unwin and Parker planned the town in the centre of the Letchworth estate with Howard's large agricultural greenbelt surrounding the town, and they shared Howard's notion that the working

class deserved better and more affordable housing. However, the architects ignored Howard's symmetric design, instead replacing it with a more ‘organic’ design. Welwyn Garden City, also in Hertfordshire was also built on Howard's principles. His successor as chairman of the Garden City Association was Sir Frederic Osborn, who extended the movement to regional planning. The principles of the garden city were soon applied to the planning of citysuburbs. The first such project was the Hampstead Garden Suburb founded by Henrietta Barnett and planned by Parker and Unwin. The scheme's utopian ideals were that it should be open to all classes of people with free access to woods and gardens and that the housing should be of low density with wide, tree-lined roads.



GARDEN CITY AND RURAL BELT



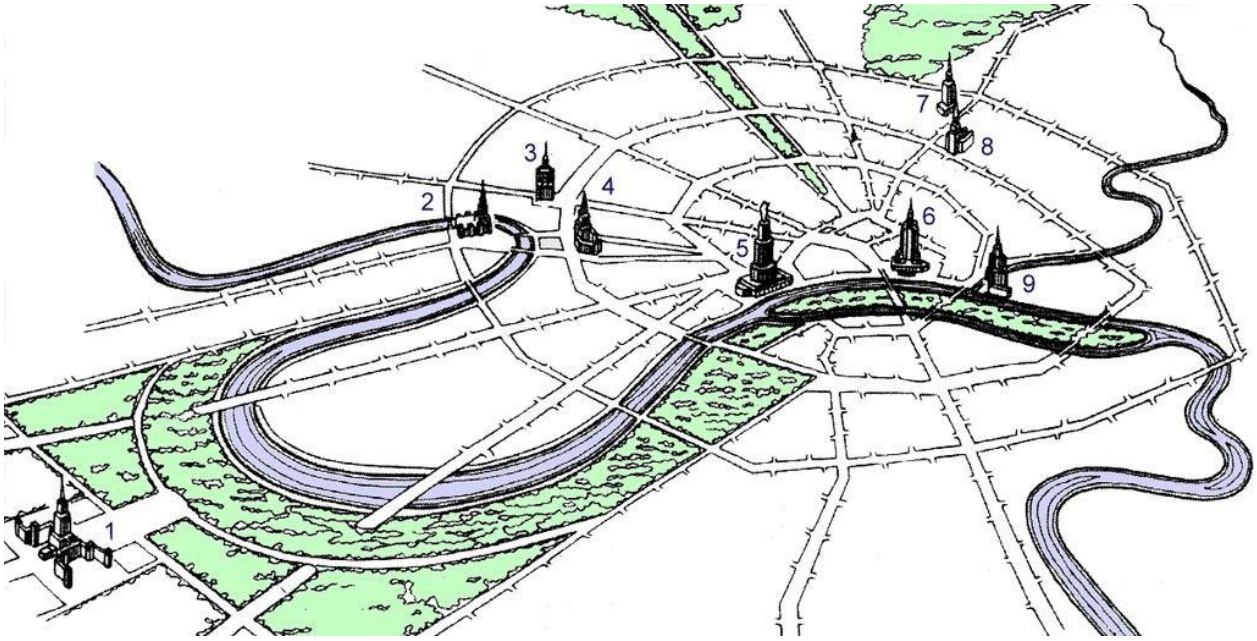
In North America, the Garden City movement was also popular, and evolved into the "Neighbourhood Unit" form of development. In the early 1900s, as cars were introduced to city streets for the first time, residents became increasingly concerned with the number of pedestrians being injured by car traffic. The response, seen first in Radburn, New Jersey, was the Neighbourhood Unit-style development, which oriented houses toward a common public path instead of the street. The neighbourhood is distinctively organised around a school, with the intention of providing children a safe way to walk to school.

2) Modernism and Post world war towns

In the 1920s, the ideas of modernism began to surface in urban planning. The influential modernist architect Le Corbusier presented his scheme for a "Contemporary City" for three million inhabitants (Ville Contemporaine) in 1922. The centrepiece of this plan was the group of sixty-story cruciform skyscrapers, steel-framed office buildings encased in huge curtain walls of glass. These skyscrapers were set within large, rectangular, park-like green spaces. At the centre was a huge transportation hub that on different levels included depots for buses and trains, as well as highway intersections, and at the top, an airport. Le Corbusier had the fanciful notion that commercial airliners would land between the huge skyscrapers. He segregated pedestrian circulation paths from the roadways and glorified the automobile as a means of transportation. As one moved out from the central skyscrapers, smaller low-story, zig-zag apartment blocks (set far back from the street amid green space) housed the inhabitants. Le Corbusier hoped that politically minded industrialists in France would lead the way with their efficient Taylorist and Fordist strategies adopted from American industrial models to re-organise society.

In 1925, he exhibited his Plan Voisin, in which he proposed to bulldoze most of central Paris north of the Seine and replace it with his sixty-story cruciform towers from the Contemporary City, placed within an orthogonal street grid and park-like green space. In the 1930s, Le Corbusier expanded and reformulated his ideas on urbanism, eventually publishing them in La Ville radieuse (The Radiant City) in 1935. Perhaps the most significant difference between the Contemporary City and the Radiant City is that the latter abandoned the class-based stratification of the former; housing was now assigned according to family size, not economic position. Le Corbusier's theories were sporadically adopted by the builders of public housing in Europe and the United States. Many of his disciples became notable in their own right, including painter-architect Nadir Afonso, who absorbed Le Corbusier's ideas into his own aesthetics theory. Lúcio Costa's city plan of Brasília and the industrial city of Zlín planned by František Lydie Gahura in the Czech Republic are notable plans based on his ideas, while the architect himself produced the plan for Chandigarh in India. Le Corbusier's thinking also had been profoundly affected by the philosophy of Futurism and Constructivism in Russia at the turn of the 20th century.

Another important theorist was Sir Patrick Geddes who understood the importance of taking the regional environment into account and the relationship between social issues and town planning, and foresaw the emergence of huge urban conurbations. In 1927, he was commissioned to plan the city of Tel Aviv, then in Mandatory Palestine. It consisted of about 40 blocks, sized around 150 metres squared. The block contained an inner small public garden, disposed into a windmill configuration of inner access roads, making it awkward for car traffic. The big blocks form a gently undulating street pattern, north–south commercial, east–west arranged to catch the sea breeze. This was a simple and efficient manner to modernize the historical fixed grid patterns



A series of shaded boulevards short cuts the system, with some public squares, accessing the sea front. The plan of the new town became a success. Urban planning in communist countries has often modeled itself on Western modernism, using the authority of the state to implement efficient urban designs produced in administrative centers. (In Russia this process was nominally decentralized after the end of the USSR, but Moscow remains the source of much of the country's urban planning expertise.) Germany under national socialism also undertook grandiose schemes for urban redesign.

New Towns

Ebenezer Howard's urban planning concepts were only adopted on a large scale after World War

I. The damage brought on by the war provoked significant public interest in what post-war Britain would be like, which was encouraged by the government, who facilitated talk about a ‘Better Britain’ to boost morale. Post-war rebuilding initiatives saw new plans drafted for London, which, for the first time, addressed the issue of de-centralisation. Firstly, the County of London Plan 1943 recognised that displacement of population and employment was necessary if the city was to be rebuilt at a desirable density. Moreover, the Greater London Plan of 1944 went further by suggesting that over one million people would need to be displaced into a mixture of satellite suburbs, existing rural towns, and new towns. The New Towns Act 1946 resulted in many New Towns being constructed in Britain over

the following decades. New towns were built in the United States from the 1960s – examples include Reston, Virginia; Columbia, Maryland; Jonathan, Minnesota and Riverside Plaza. This construction effort was combined with extensive federal government grants for slum clearance, improved and increased housing and road construction and comprehensive urban renewal projects. Other European countries such as France, Germany, Italy and Sweden also had some successes with new towns, especially as part of post-war reconstruction efforts.

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SCHOOL OF BUILDING SCIENCE AND TECHNOLOGY

DEPARTMENT OF ARCHITECTURE

UNIT – II - URBAN DESIGN – SAR 1403

The city

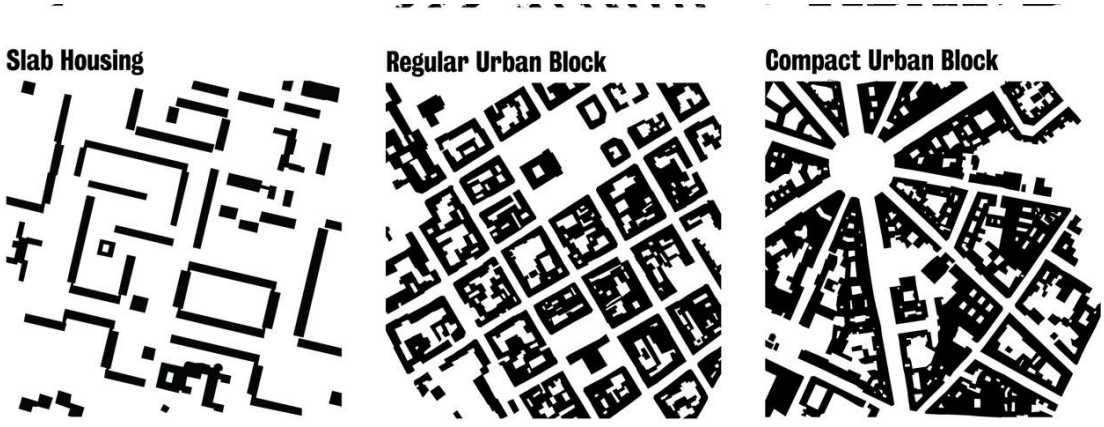
A **city** is a large settlement. It can be defined as a permanent and densely settled place with administratively defined boundaries whose members work primarily on non-agricultural tasks.[4] Cities generally have extensive systems for housing, transportation, sanitation, utilities, land use, and communication. Their density facilitates interaction between people, government organizations and businesses, sometimes benefiting different parties in the process, such as improving efficiency of goods and service distribution. This concentration also can have significant negative consequences, such as forming urban heat islands, concentrating pollution, and stressing water supplies and other resources.

Historically, city-dwellers have been a small proportion of humanity overall, but following two centuries of unprecedented and rapid urbanization; roughly half of the world population now lives in cities, which has had profound consequences for global sustainability. Present-day cities usually form the core of larger metropolitan areas and urban areas creating numerous commuters traveling towards city centres for employment, entertainment, and edification. However, in a world of intensifying globalization, all cities are to varying degrees also connected globally beyond these regions. This increased influence means that cities also have significant influences on global issues, such as sustainable development, global warming and global health.

Urban design is the way cities are shaped in order to best connect the local populations with their environments. Urban designers or planners bring together architecture, public space, sustainability, social equity, transportation, and other aspects of city life to create a space that consciously addresses each issue. Examples of best cities For urban design in the world are Singapore City (Singapore), Zurich(Switzerland), Copenhagen(Denmark), Seoul(South Korea), and Chandigarh(India).

Images of Copenhagen City

Urban Structure and Morphology



Morphological studies often deal with development of forms and pattern of the present city or other urban areas through time, in short with evolution (Murphy, 1966). In fact, an urban settlement is apparently a physical entity and the morphology it acquires is a result of a long process of growth. In a more restricted sense, the terms of morphology refers to the internal

structure of various land uses in urban areas. The functional structure, functions and forms, constitute principal and intimately related aspects of urban morphology. In a specific period of time, the structure of a town passes through various developmental stages and is the consequence of the processes it undergoes. In general, the morphology of a town is quite different from that of a biological organism, to the extent of its individuality with the function.

But, the process of formation of a town and the development of an organic form are almost alike and pass through three stages:

(i)Histogenesis, (ii) Patternogenesis, and (iii) Morphogenesis (Wolpert,1967).

In the process of town formation **'histogenesis'** refers to the origin of historical nucleus of the town, and it forms some definite means of intercommunication between individual human agglomerations. During this stage, the nucleus development of a town takes place. Settlement starts concentrating around a religious site, fort, lake, etc. centripetal force is active in this process. The pattern formation or **'patternogensis'** may be regarded to be the phase of development of various nuclei of human settlements and their interactions within, ultimately providing a pattern of skeleton to the town. More precisely, the development of roads and structures can be put into this heading. Thus, the sectoral development of town takes place and centrifugal force, to some extent, is active. The state of 'morphogenesis' can be perceived in the morphological character, to be closely associated with the functional character of present day city (Singh and Bansal, 2005).

Urban morphology is the study of the physical form of a city,which consists of street patterns, building sizes and shapes, architecture, population density and patterns of residential, commercial, industrial and other uses, among other things. Special attention is given to how the physical form of a city changes over time and to how different cities compare with each other. Another significant part of this subfield deals with the study of the social forms which are expressed in the physical layout of a city and conversely, how physical form produces or reproduces various social forms. This approach challenges the common perception of unplanned environments as chaotic or vaguely organic through understanding the structures and processes embedded in urbanization.

In American geography, urban morphology as a particular field of study owes its origins to Lewis Mumford, James Vance and Sam Bass Warner. Peter Hall of the UK is also a central figure in the field of urban morphology. In Europe the word morphology has been used in various times by Dickinson, Smailes, etc. Dickinson (1950) wed and interpreted in terms of its origin, growth and defined it thus, "morphology is concerned with plan and build of habitat". Morphology of towns thus reflects its functions and idea of planning and building at each phase of its development. Ratzel has remarked that, "like functions beget like forms", and in identical frame of references "the nature of both depends on the cultural realm in which they develop" (Dickinson, 1964). Morphology studies often deal with development of forms and pattern of the present city or other urban areas through time, in short with evolution (Murphy, 1966). The influences which the city exerts on the social and economic structure of the area help in the economic structure of the area and in the formation of land use patterns. The different functional characters are found to be concentrated at different places. The priority is for the economic and social utility of the particular function (Singh, 1964). According to Dickinson (1956) the uses which can pay the highest rent at a particular place occupies he land once the site is occupied, it is the human or cultural factors which give the essential form, shape and sustenance to the town on a particular site according to the needs of the age (Smailes, 1966). J.E. Brush (1962) has discussed the morphology of Indian cities with respect to existing layout of streets, the arrangement and characteristics of buildings and associated patterns of land use.

Discussing about the above views, R.L. Singh (1961) pointed out that the same should be pursued not only with a view to identify new categories and pattern or developing new classification but also for the light they throw on historical sequence and functional relationship.

According to Singh (1970), the term 'morphology' includes the various internal forms and structural patterns and characteristics of a spatial unit. In brief, urban morphology is the distribution of different functions in a city. According to Dickinson (1956), it is concerned with the plan and builds of the habitat, viewed and interpreted in terms of its origin, growth and function. It is a description of their nature, their relative disposition and their social interdependence that constitutes a geographical analysis of an urban area (Smailes, 1970).

There are three basic models in urban morphology

1. Burgess Concentric Model (1929),
2. Hoyts Sector Model (1939),
3. The Multi Nuclei Theory (Ullmann & Harris, 1945)

However, no Indian town purely follows these urban morphological models. The most salient feature of urban morphology of Indian towns includes at least four types of cities, as defined by J.E.Brush (1968, 1973). Though a lot of variations in the city structure are observed - ranging from fully planned and modern westernized cities to more or less indigenous cities, but a varying blend of the orient with the occident and with the distinctive Indianness is a common feature. The Indian culture still has an upper hand in most of the cities. The four types of the cities are:

i. **Indigenous cities with one dominant node:** These cities, following in general the Bleicher-Clark Model of urban density gradient, are in majority numerically.

ii. **Anglicized port cities:** (Mumbai, Kolkata and Chennai). These have lower densities in the city centre, as contrasted with the indigenous cities.

iii. **Two-node cities:** this group includes cities like Hyderabad – Secunderabad and Bangalore.

iv. **Planned cities:** Cities like Chandigarh, Jamshedpur and Bhubaneswar are include in this category, where the population density is lower throughout and the density crest is not necessarily in the centre.

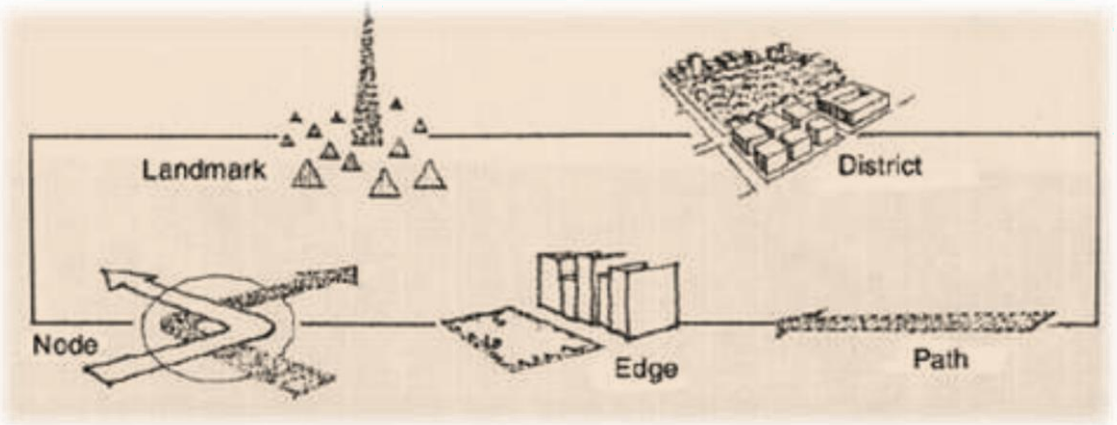
The towns of the lake region are more or less follows the characteristics of the indigenous type. The morphological set-up of functions varies because it is the outcome of human creative instincts projected through the total setting of resources and cultures within the limits of time and space (Taneja, 1971). A second illuminating approach to Indian urban areas is through analysis of various parts of the complex, i.e. old (indigenous), Anglicised and newly developed

planned areas. Indigenous and anglicized are two types of developments and in almost every resort they show a great contrast between indigenous part and Anglicised part. Typical Indian

centres contain a congested old section, adjacent to which may be found carefully planned and often spacious sections dating back to British period. This character is very much traceable in Nainital and Bhimtal towns with one dominant node. The study of morphology of towns of

the lake region, thus, shows either conflict, or blending of indigenous features and the hybridized European features.

Urban thinker **Kevin Lynch** was able to establish a notation of city



elements that matched peoples perception in his book *IMAGE OF THE CITY*.

They are identified as:

- Paths
- Edges
- Nodes
- Landmarks
- Districts

Kevin Lynch five elements of city planning:

PATHS :The streets, sidewalks, trails, and other channels in which people travel.

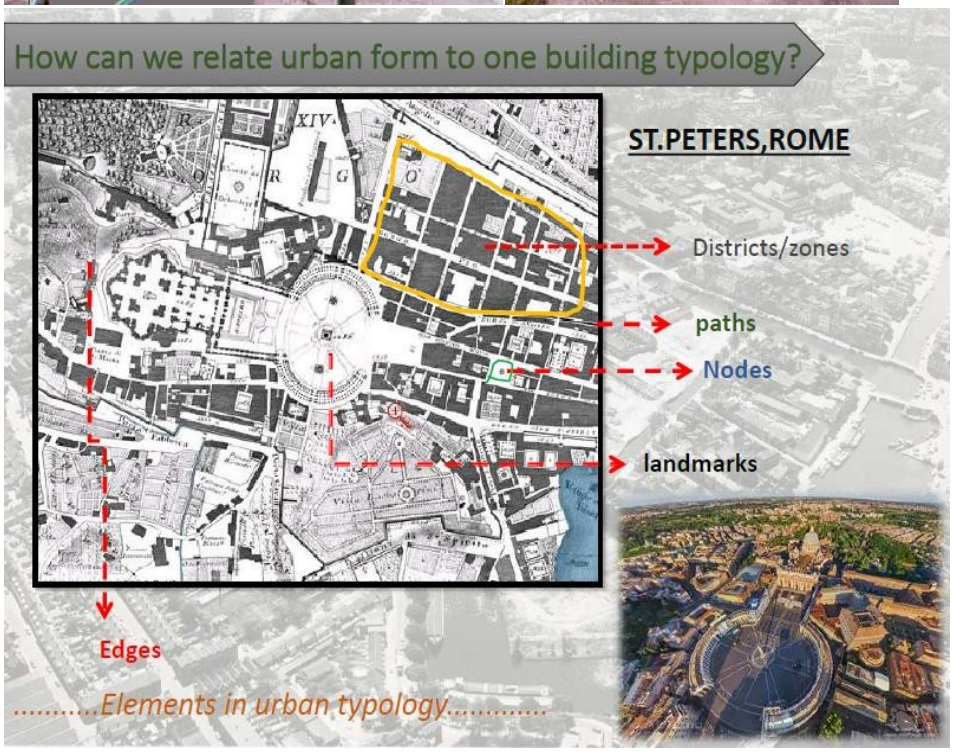
Importance:

- They organise the mobility.
- pattern of street network is what defines a city and makes it

unique**. Characteristics of Paths**

• They are defined by their physical dimension, size ,shape and character of the buildings that line them.

• They range from grand avenues to intimate small paths.



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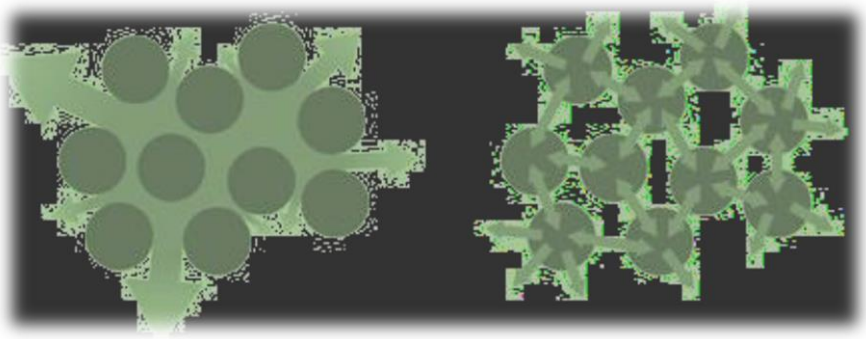
NODES A common point where two or more roads meet to form a junction or square.

• The strategic focus points for orientations of squares and junctions.

• spots in a city into which an observer can enter, and which are the intensive foci from which the person is travelling.

Importance:

• to increase the perception of an active, urban corridor and to encourage more walking.
• Strengthen the emphasis on alternative mode use in the corridor.
• Contribute to the overall vibrancy, safety, and desirability of the area.



Characteristics of nodes:

• These nodes should occur where single uses or a combination of uses lead to higher levels of pedestrian activity,
• Pedestrian nodes should include such furnishings as drinking fountains, trash cans, and benches to increase the users' sense of comfort. Seating should be arranged to accommodate groups of people
• Careful thought should be given to the amount of seating provided because too much unused seating may detract from the goal of creating an active area.

EDGES

They are boundaries between two phases, Bodies of water (such as an ocean, river, or lake) Landforms (such as mountains and hills) Manmade structures (such as buildings, railroad tracks, walls, or highways)

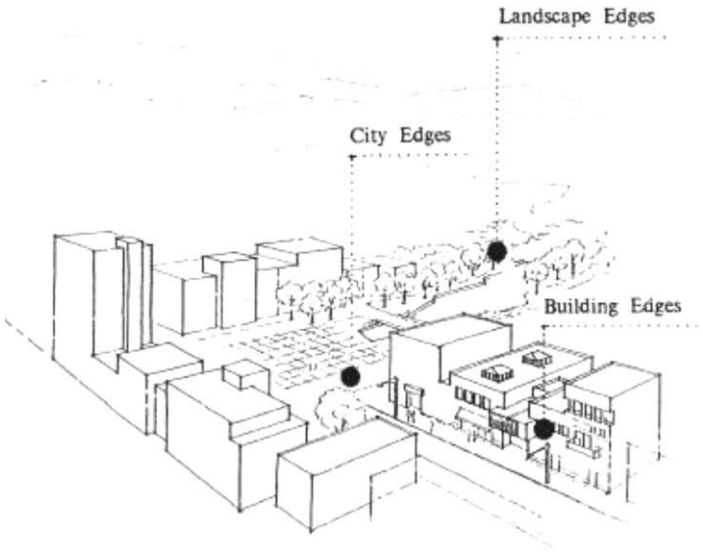
Importance:

Functionality and usage of the spaces are clearly defined by edges..

Characteristics of edges:

• Acts in a space by stopping it, more or less penetrable, or they may be seams, lines along which two regions are related and joined together.

• Street edges need to be oriented and/or adjusted for maximum light on the space between buildings, and not just for interior penetration, in order to encourage active street life.



DISTRICTS Areas characterized by common characteristics, these are the medium to large areas, which have some common identifying character.

Characteristics:

- Distinctive physical characteristics might include 'thematic continuities', such as texture, space, form, detail, symbol ,function and building.
- The presence of these and other similar attributes reinforce a district's fabric, cohesiveness, and identity
- Good planning makes for liveable neighbourhoods, a safeand healthy community, and a sustainable economy.

LANDMARKS

External points of orientation, easily identified objects– towers, spires, hills are distant and are typically seen from many angles and from distance, over the top of smaller elements.

Other landmarks – sculptures, signs and trees are primarily local being visible only in restricted localities and from certain approaches.

Importance:

Functionally prominent structures have a major influence on the aesthetics of their immediate urban landscape; location ,function of open spaces and landscape furniture.

Physical Characteristics: some aspect that is unique or memorable in the context.

PUBLIC SPACES

Great public spaces are the living room of the city – the place where people come together to enjoy the city and each other.

- Public spaces make high quality life in the city possible -they form the stage and backdrop to the drama of life.
- Public spaces range from grand central plazas and squares, to small, local neighborhood parks.

Marina Barrage with the city skyline as backdrop

Park goers enjoying the Giant Tree in Gardens by the Bay

CHARACTERISTICS:

- Promotes human contact and social activities.
- Is safe, welcoming, and accommodating for all users.

- Has design and architectural features that are visually interesting.
- Promotes community involvement.
- Reflects the local culture or history.
- Relates well to bordering uses.
- Is well maintained.
- Has a unique or special character.

Role of open spaces.

Open spaces can be grand central plazas and squares, or small, lush pocket parks. They can also be soothing sanctuaries amid the urban hurly-burly or packed with people.

- These spaces let you soak in the sun, enjoy the lush greenery and interact with fellow city dwellers at these open spaces.
- These open spaces also act as landmarks and unique setting for events and celebrations

Urban Square

One of the most important elements of city design is the square or plaza. It is possibly the most important way of designing a good setting for public and commercial buildings in cities .

Urban squares (also called civic spaces, town squares, piazzas or plazas, amongst other names) are spaces that form focal points in the public space network, providing a forum for exchange, both social and economic, and a focus for civic pride and community expression. In spite of the fact that urban squares may be considered focal areas, the dimensions of these area are investigated not in the expositive expression on centrality yet in that of open spaces.

Urban squares have a tendency to be formal and urban in nature rather than parks and open space, which are normally soft landscaped, bigger and less seriously utilized. (Australian Government, 2009).Urban Square additionally uphold the notoriety of activity centers providing a space for an extensive variety of formal and informal activities that upholds social and cultural life for users of the center. The function is to welcome individuals to wait and, interface and unite (Australian Government, 2009). Square is intended for all people. Subsequently the functional amenities ought to be the physical fascination for the people. Jan Gehl (1971) mentioned that ‘outdoor activities’ in public open spaces might be isolated into three classes, each of which places

altogether different requests on the nature: Necessary activities, Optional activities and Social activities.

In his book *'A Pattern Language'* Alexander (1977) describe the *'Small Public Squares': as*

"A town needs public squares; they are the largest, most public rooms, that a town has. But when they are too large, they look and feel deserted."

A popular square in Copenhagen, Denmark

A great square in Bologna, Italy

There are two main methods of categorizing squares – by function and by form.

THE FORM OF THE SQUARE

There have been a number of attempts to classify the form that squares may take. Two of the most influential theories were outlined by Paul Zucker and Sitte .

TYPES OF THE SQUARE

Camillo Sitte (1989) determined a square as series of artistic principles;

i) **Enclosure** - an enclosure is the primary feeling of urbanity, and his overarching principle was that 'public squares should be enclosed entities'.The key to enclosure in the square is the

treatment of its corners. Generally speaking, the more open the corners of the square the less the sense of enclosure, the more built up or complete they are, the greater the feeling of being enclosed (Moughtin, 2003).

ii)**Positive space** - a buildings principal's aesthetic was the manner in which its facade defined space and how the facade was seen from within that space.

iii) **Shape** - 'Deep' and 'wide' type depending on whether the main building was long and low or tall and narrow. The depth of a square was best related to the need to appreciate the main building (ratio 1-2depth:1height) while the corresponding width depended on the perspective effect (ratio less than 3width:1height).

iv) **Monuments** - The center should be kept free, and provide something as a focus, along the edge of the square or off-center. The positioning of the monuments had a functional logic and aesthetically is pleasing (Sitte, 1989).

On the other hand Zucker (1959) outlined five types of urban squares as:

i) The Closed square – Piazza San Marco, Venice;

A closed square is a complete enclosure interrupted only by streets leading into it. The imperative component is the layout plan and regularly displaying a normal geometric shape and in some cases a redundancy of architectural components (Place des Vosges, Paris) or building facade types. A set of grouped squares with a rhythmical rotation of two or more sorts focused on the corners or on the focal parts of every side. (Place Vendome, Paris), or framing the streets running into the square (Place des Victoires, Paris) (Matthew Carmona, 2010). Close Square is a self-contained space used as a gathering place. Usually it has strong sense of enclosure and convenient connections to streets. It is usually refers as an area that framed by buildings (Moughtin, 2003).

ii)The Dominated square – the space is directed towards the main building

Recognizing some buildings create a sense-of-space in front them is characterized by a building or group of buildings towards which the space is directed and to which all other surrounding

structures are related. The dominant features may be a building, a view that provided a strong sense of space such as Piazza del Campidoglio, Rome (Zucker, 1959).

iii) The Nuclear square – space form around a center It has a central feature as a vertical nucleus that sufficiently powerful to create a sense-of-space around itself and to charge the space with a force that keeps the whole nucleus together.

iv) The Group squares – spatial units combined to form larger compositions The squares may be linked by means of an axis or axial relationships such as the Place Royale, Place de la Carriere and the Hemicycle in Nancy or have non-axial relations being such as Piazza San Marco, Venice that grouped around a dominant building.

The Amorphous square - unlimited space, lacking definite form; shapeless; or of no particular type; or lacking organization; formless. Amorphous Square shared at least some of the necessary qualities with other types, and it sometimes appeared to be unorganized or formless. For example, Trafalgar Square in London is not successful in terms of creating sense of
space that relates to the size of the square.

Based on Sitte (1909) and the *City Planning According to Artistic Principles,* Out of his analyses of squares some rules are abstracted here :

 There are two categories of city squares: the deep type and the wide type. Whether a plaza is deep or wide usually becomes apparent when the observer stands opposite the major building that dominates the whole layout.

SUSTAINABILITY OF URBAN SQUARE

Accessibility of public space

Square is more a ‘co’ space (community, communication, continuity) than a ‘dis’ space (discontinuity,discrimination, disparity) (Racine, 1999). Open spaces have receptiveness imperatives which as per Lehrer (1998),inferred generally from social practices that actualize social exclusion. Fyfe and Bannister (1996) suggest unlimited physical receptiveness just additionally to accentuate the social approachability of open space. As respects the urban

square, Korosec-Serfaty and Kauffmann, (1974) define it more precisely as a meeting place where recreational activities, commercial trading, religion and politics are practiced (Such as Dataran Merdeka).

The economic dimension

The economic issues of substantial towns have accelerated a modification of the functions of squares. The wish from urban communities to pull in outer capital and visitors has expedited a developing homogenization and commodification of these open spaces, which builds social exclusion (Mordue, 2007). The management of open spaces or squares is imperative to minimize lacking upkeep and absence of outline and social control—to avoid antisocial behavior and deterioration as per Carmona and de Magalhaes (2006). Provided that we think about a square as a focal and central area (i.e. a position of face to face time and fascination and a center for transport, job, administrations) the economic theory expects that the vicinity of these characteristics increments property values and the vicinity of public buildings and tourism for sure has a positive effects (Benoit Faye, 2012) towards the encompassing qualities.

Fundamental urbanistic and architectural characteristics.

The square is may be a zone interfacing base systems serving a city for group infrastructures or as a tourist attraction. These sizes are develops, of which it is watched just their qualities of changing force. A square is hence considered a set of attributes dependent upon an arrangement of perceptions over periods.

Urban Landscape

The urban landscape is essentially the overlay between a city's natural systems – the water, trees, air quality, open space, and biodiversity – and its human systems – the sidewalks, bike lanes, fields, transit systems, infrastructure, etc.

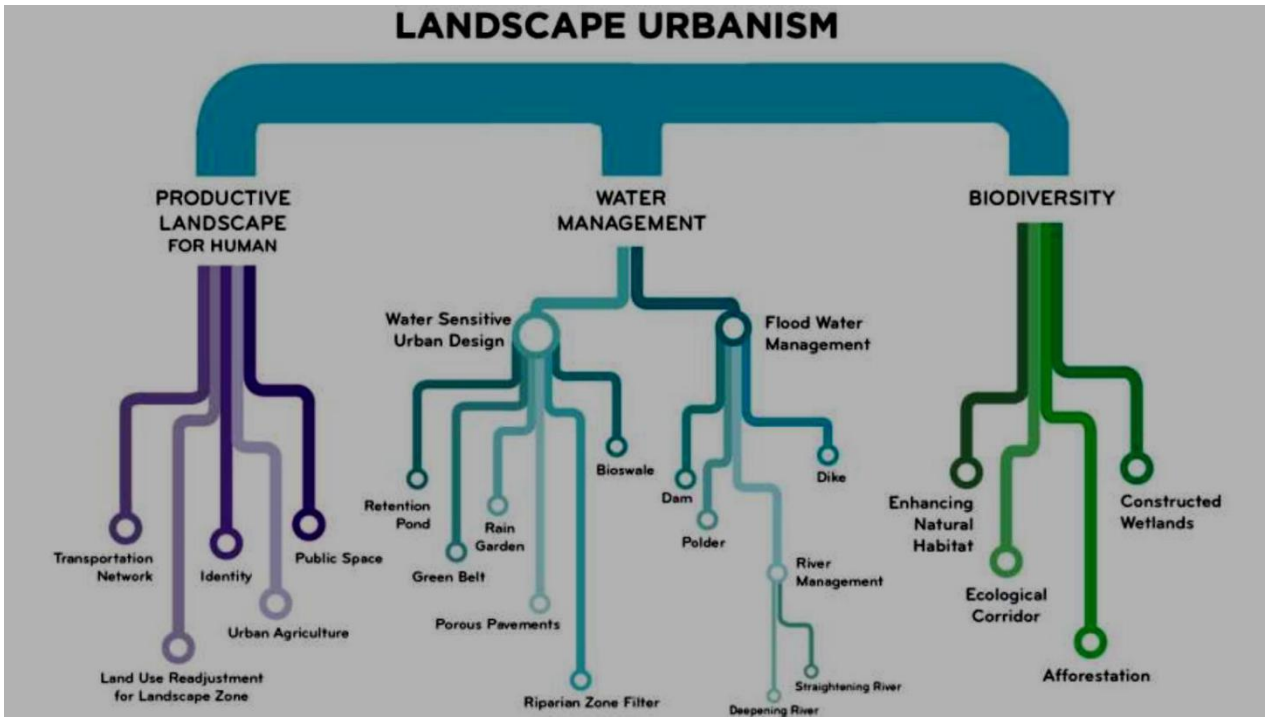
Landscape Urbanism

Landscape urbanism is a theory of urban planning arguing that the best way to organize cities is through the design of the city's landscape, rather than the design of its buildings

-- Landscape urbanism is a response to the limited understanding or portrayal of project and site context currently employed by both architects and landscape architects. It is also a notion put forth strategically by landscape architects as a means for differentiating their profession among the design professions, particularly architecture, and in response to the superficial role landscape architects increasingly find themselves in. -- Paradoxically, landscape architects have not generally latched on to this movement as strongly as architects. -- Landscape urbanism is a catch phrase for a range of concepts all reflecting a desire for more flexibility and ecological sensibility than is currently incorporated in design and planning.

-- Landscape urbanism appears, at heart, to have a fondness for infrastructure and a desire to incorporate this infrastructure into design without resorting to superficially “shrub it up”. -- The theory and language are in some cases intentionally vague such that the concept serves as a thought exercise instead of something which is actually implementable. -- There is value in arguing the theoretical niceties of landscape urbanism — this dialog digs into the role exterior spaces play in connecting urban fabric while countering the dominant role architecture has played for many years in defining and structuring urban design. -- Many authors define it as a shift from the urban “building block” of architecture to the “structuring medium” of landscape. -- Possibly one of the most fascinating aspects of landscape urbanism is its inclusion of indeterminacy into the design process. Spaces can be too programmed and attempting to leave some flexibility in a design is both interesting and potentially pragmatic in the face of uncertainty. -- Landscape urbanism fundamentally draws attention to context. More to the point, what it demands is the inclusion of landscape in all its forms – built, vernacular, natural, etc. – as the basis for understanding the forces shaping projects and to which projects must respond. In this respect, landscape urbanism promotes an understanding of places and projects based on an ecology that includes people and what they do and have done in the same frame as a comprehensive view of the natural world.

Landscape Urbanism – theory of urban planning arguing that the best way to organize cities is through the design of the city's landscape, rather than the design of its buildings.



New Urbanism

New Urbanism is an urban design movement which promotes environmentally friendly habits by creating walkable neighborhoods containing a wide range of housing and job types.[1] It arose in the United States in the early 1980s, and has gradually influenced many aspects of real estate development, urban planning, and municipal land-use strategies.

It encompasses ten basic principles such as traditional neighborhood design (TND) and transit-oriented development (TOD) . These ideas can all be circled back to two concepts: building a sense of community and the development of ecological practices.

Across North America, and around the world, an urban design movement called **New Urbanism** is changing the way our cities and towns are built. New urbanist developments are **walkable neighborhoods,** rather than large, single-use places with streets hostile to pedestrians. **Careful, participatory planning** ensures that everyone in the neighborhood has easy access to the necessities of life, making life easier for kids, the elderly, and people who don't want to drive.

Since World War II, **cities have been spreading ever-outward.** Strip malls, parking lots, highways, and housing tracts have sprawled over the landscape. Too many **urban neighborhoods** have been blighted by oversized housing projects and centralized redevelopment schemes. Even **older suburbs** have suffered as new ones continue to spring up, skimming off tax base. Many of the planning ideas behind New Urbanism are not new. It includes **sizable infill projects** within existing cities and towns. Like in Bethesda, Maryland. Or New Urbanism can be **small projects on individual blocks,** like the block on 8th and Pearl in Boulder, Colorado. It can also apply to **redeveloped neighborhoods** like Park DuValle in Louisville, Kentucky. New Urbanism includes **greenfield projects,** also called traditional neighborhood developments (TNDs). Maryland's Kentlands and Lakelands are among the best-known. New Urbanists also take part in **regional planning.** In New Jersey, a statewide plan has focused public investment into existing centers, and a statewide design guideline is helping keep the state's small towns vibrant.

The Principles of New Urbanism

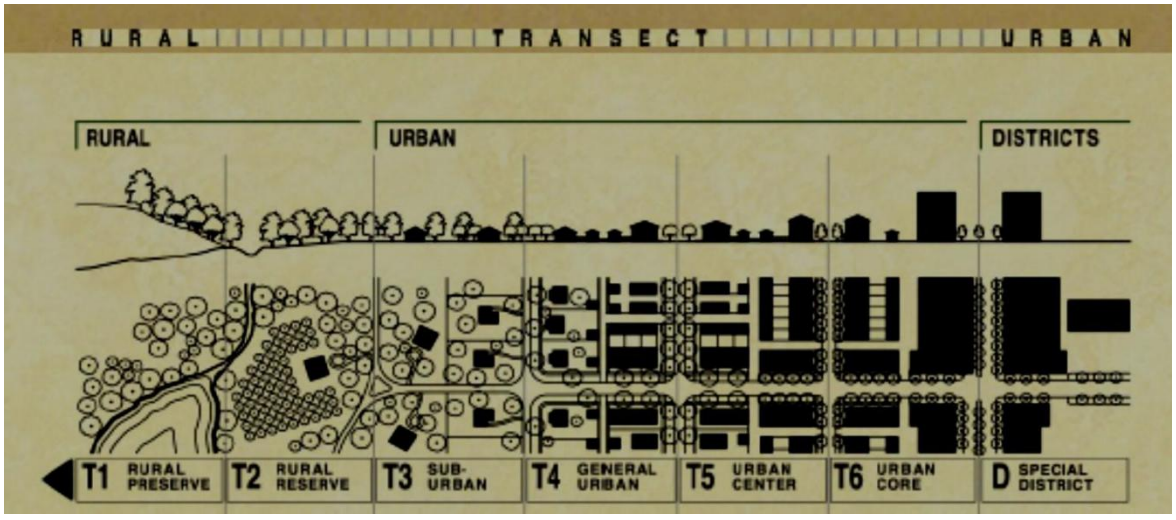
The principles of the New Urbanism are defined by a **Charter,** which was developed between 1993 and 1996 by a broad range of architects, planners, interested citizens, scholars, elected officials, and developers. It was ratified at the fourth annual Congress, the annual meeting sponsored by CNU.

Its principles are divided into three categories:

- The Region: Metropolis, City and Town
- The Neighborhood, the District, and the Corridor
- The Block, the Street, and the Building

The Region

For new urbanists, the region is the overall context for all planning. That means planning must often **cross traditional jurisdictional lines** in order to create a healthy region. Towns within a region need a comprehensive metropolitan strategy in order to prosper. Each town should have both homes—for people of all incomes—and jobs. That way, residents aren't forced to travel far to work. Each town also needs a discrete sense of place. New Urbanism calls for towns to develop in the **appropriate style** for their surroundings, while respecting their neighbors. Towns and cities within a region should have **clear boundaries,** contributing to a **sense of place.** The land between towns should be preserved as open space—wilderness or farm-land. These edges are as important as the centers to the success of New Urbanism. Wilderness, farmland, villages, town edges, town centers, city neighborhoods, and city centers each have their own building densities, street sizes, and appropriate mixtures of retail, residential, and other functions.



The Neighborhood

Diverse, walkable neighborhoods are what distinguish New Urbanism from other modern development styles. The word "neighborhood" gets tossed around a lot in real estate brochures, so it is important to be clear what it means. **Each neighborhood has a center and**

an edge. The center should be a public space, whether a square, a green, or an important intersection. The optimal size of a neighborhood is a quarter-mile from center to edge.

For most people, a quarter mile is a **five-minute walk.** For a neighborhood to feel walkable, many daily needs should be supplied within this five-minute walk. That includes not only homes,but stores, workplaces, schools, houses of worship, and recreational areas. People within a quarter-mile radius will walk to a major transit stop. Those who live further from a transit node are less likely to bother with the train or bus.

The Block, Street, and Building

In New Urbanism, streets are **safe, comfortable, interesting places for people to walk and meet.** Buildings open onto sidewalks, rather than parking lots. Windows and doors facing the sidewalk make streets safer, and more interesting, for everyone. New urbanist streets can **accommodate cars** while also providing comfort and convenience for **pedestrians, bicyclists, and wheelchair users.** Since the suburban boom of the 1950s, **urban design** has taken a back seat. New urbanists are helping to rediscover this largely lost art. Excellent design can make a dense neighborhood feel livable and open.CNU's award programs recognize beautiful, livable neighborhoods.

Urban conservation is concerned with those parts of the built environment that are of architectural or historic significance. This includes buildings (individually or in groups), localities (streets, blocks, environments or precincts), special gardens or landscapes, and other structures. Conservation does not mean preservation of buildings, localities or other features for all time. Only a few buildings are so highly significant that they should be retained in a wholly original form. Many more buildings of character can be retained if they are adapted to allow continued economic occupation. This may mean a changed form of their original use or an entirely new use andthis is emphasised in the Board's strategy. Lack of maintenance is a major reason for the loss of many worthwhile older buildings. Their continued occupation ensures that they are maintained in a reasonable condition, The Metropolitan Planning Scheme already allows some flexibility in the use of buildings of architectural or historic importance.

TRANSIT ORIENTED DEVELOPMENT

A Transit Oriented Development (TOD) is the creation of compact, walkable, mixed-use communities centered around high quality transit system especially the BRTs and MRTs.

Factors driving the trend towards the TOD are :

- Rapidly growing traffic congestion nation-wide
- Rapidly growing pollution due to motorized vehicle
- Growing desire for quality urban lifestyle
- Growing desire for more walkable lifestyles away from traffic
- Changes in family structures: more singles, empty-nesters, etc
- Growing national support for Smart Growth.

Goals of TOD

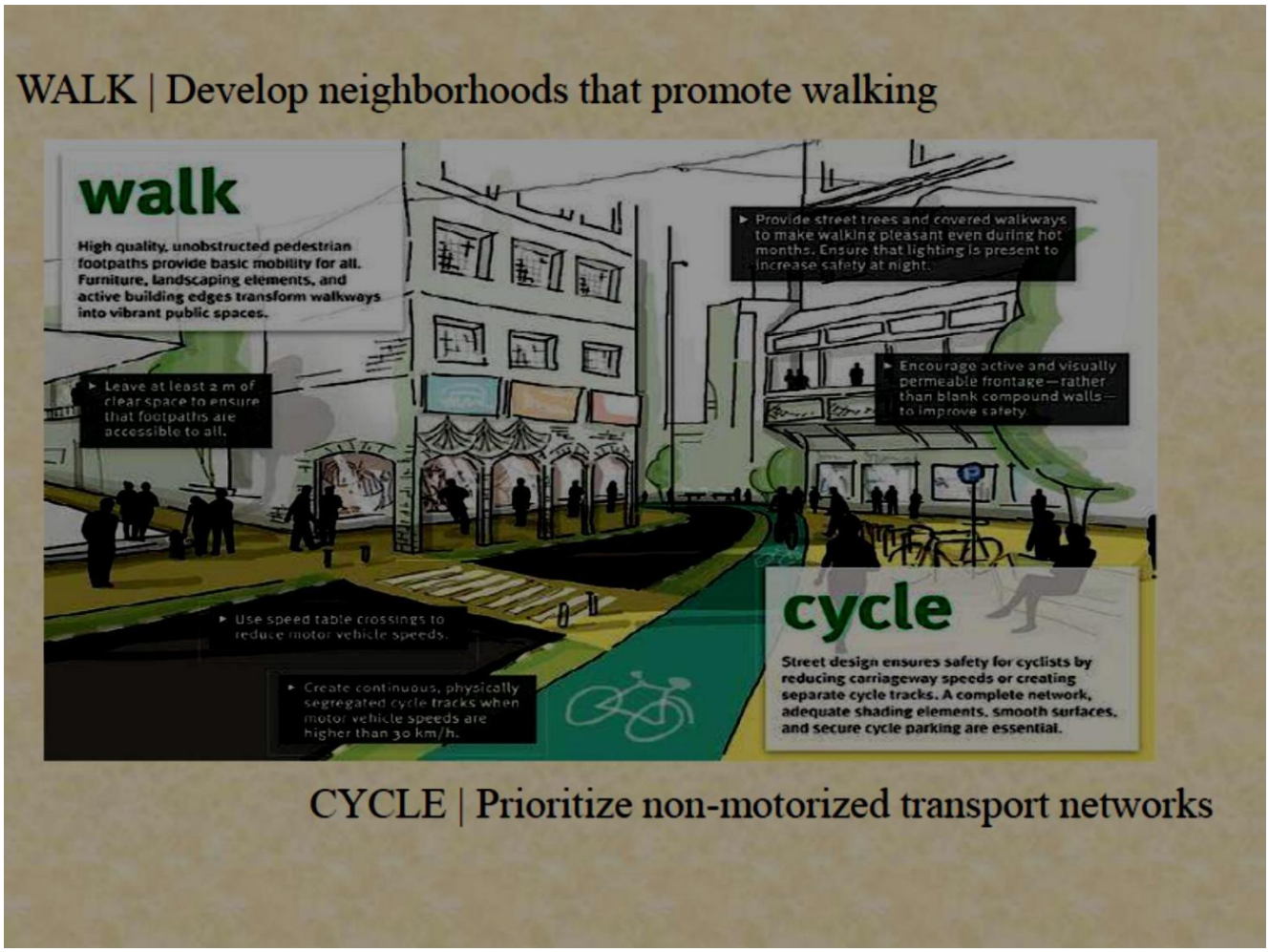
The goals of Transit Oriented Development are to:

- Reduce private vehicle dependency and promote public transport use through design, policy and enforcement.
- Provide public transport access to the maximum number of people through densification and multimodal connectivity.

Advantages of TOD

The advantages of Transit Oriented Development are:

- Higher quality of life
- Better places to live, work, and play
- Greater mobility with ease of moving around
- Increased transit ridership
- Reduced traffic congestion and driving
- Reduced car accidents and injuries
- Reduced household spending on transportation, resulting in more affordable housing
- Reduced pollution to a great extent



Present efforts in India

Mumbai: Eliminating low density, outward expansion, the city's proposed Development Plan instead calls for higher FSI up to 8 along rapid transit corridors and commercial districts, while restricting FSI to 2 or less in areas without transit access.

- Ahmedabad: allowed higher densities for developments along transit corridors, with Central Business District having an FSI of 5.4. better streets, an improved public realm and infrastructure upgrades.

- Delhi: to allow higher densities In a TOD zone, which extends 500 metre on either side of an identified Delhi Metro corridor, to avail 400 FAR, mandate mixed use, and eliminate setbacks and compound walls for developments near public transport hubs.

Urban Design Theories

There are three approaches to urban design theory:¬Figure-Ground Theory¬Linkage Theory¬Place Theory .All these theories differ significantly from each other, but taken together can provide with comprehensive understanding of integrated spatial of built environment.

1. Figure-Ground Theory

TheoryoRoger Trancik (1986) inhis book Finding Lost Space, explained that the figure- ground theory is founded on the study of the relative land coverage of buildings solid mass(figure) to open voids(ground).

Figure-ground:The relationships between solid building mass (figure) and open void (ground)•Each urban environment has an existing pattern of solids and voids. Thus, looking at this approach in plan view enables us to study the relationship between solids and voids. While the geometric patterns of the existing spaces allow us to construct a spatial diagram.

This theory is an attempt to manipulate these relationships by adding to, subtracting from, or changing the physical pattern.•The objective of this manipulation is to clarify the structure of spaces by establishing a hierarchy of spaces of different sizes.

2.The ***linkage theory*** focuses on 'lines' to connect various urban elements with each other. This linear emphasis can find expression in streets, lanes, pedestrian ways and/or open spaces. The general idea is that of a network, with lines providing the structure for ordering space.

3) The ***place theory*** adds a 'human touch' to the previous theories by paying attention to the historical, cultural and social setting of a particular urban design. The internal context is given preference above the abstract designs imposed from the outside.

An analysis of these three theories would place the *figure-ground theory* in the Third Quadrant of a quadralectic communication. Mass and void are in some sort of dualistic struggle and the 'winner' or 'looser' is determined by the choice of the observer. Trancit spoke in this context of 'lost space', which can be found in large parking lots, the leftover unstructured landscape around high-rise towers and other areas of underused space. The opposite is the 'positive urban space' or 'found' space. An element of *inversion* – so typical for the Third Quadrant – is active all the time. Good can become bad and lost space can be found. Giambattista Nolli's '*Map of Rome*', drawn in 1748, is given (by Trancik) as an illustration of the theory.

The open space is 'carved out of the building mass as a continuous flow linking interior and exterior spaces and activities'. Voids are created in a mass and space becomes an object in its own right. The emphasis is on the horizontal direction created in flat building masses. The aim is to make a front, which can be punctuated, by empty spaces. This situation is the complete

opposite (inversion!) of the modern approach where buildings 'rule' over their environment and verticality is predominant.

The *linkage theory* – characterized by an organization of lines – would fit in a Second Quadrant approach to urban design. Circulation and connection become a major centre of attention. 'Linkage is simply the glue of the city' said Fumihiko Maki. The actual 'lines' can be, in his view, part of a compositional form, a mega form or a natural, group form. The linkage theory was popular in the sixties of the twentieth century when large-scale urban planning took place.

Its results are now viewed with some disgust by the same generation for which these houses were built.

The *place theory* emphasizes the contextual meaning of a space derived from its social, cultural and historical-emotional content (as a place). This theory requires a study of the (historical) identity of a place in relation to the need of its contemporary users. The type of urban development related to this theory was mentioned earlier by Christopher ALEXANDER *et al* (1987). It was classified as 'organic', based on the idea of a growing whole. The practical implications of the place theory caused, according to Trancik, at best to a 'minimal interference in the social and physical setting'. More often the findings of the designers – who are essentially no historians – gave way to a redefinition of old patterns and styles. Over-designing and too much planning were the result

Models of Urban Structure

Cities are not simply random collections of buildings and people. They exhibit functional structure: they are spatially organized to perform their functions as places of commerce, production, education, and much more. One of the most important forces determining where certain buildings or activities are located within a city deals with the price of land. This tends to be the highest in the downtown area and declines as one moves outward from the center. The United States is the only country in the world in which the majority of the people live in the suburbs. Even though house prices may be higher in the suburbs, the land value is lower (a downtown apartment complex will produce much more revenue per year than a few suburban

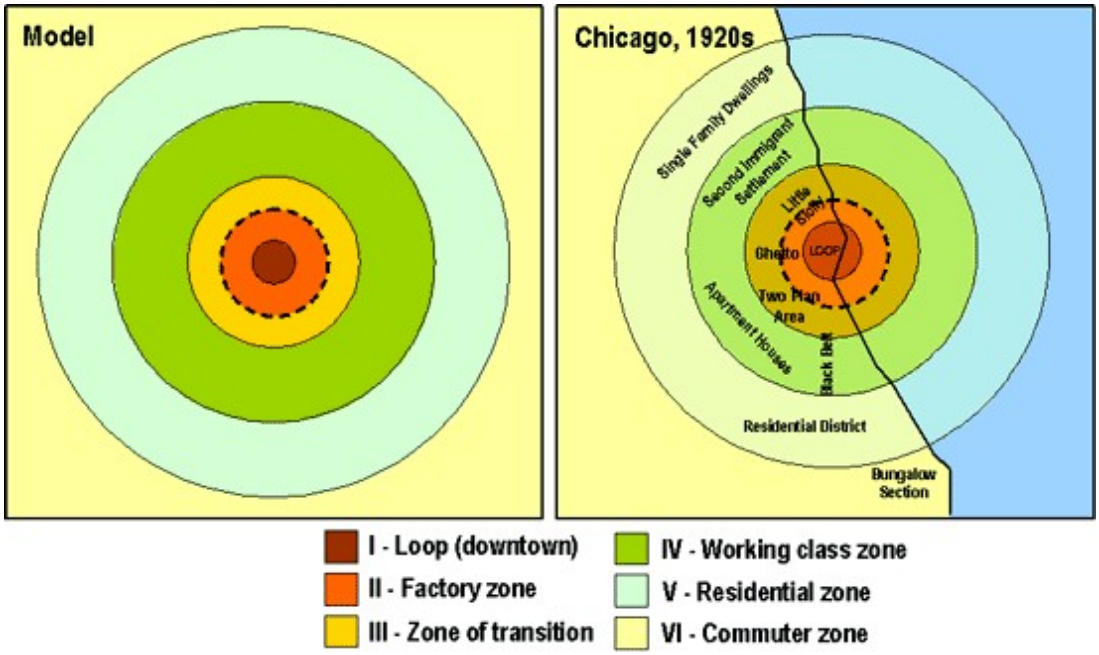
homes occupying the same amount of space). In every other country the majority resides in either rural or urban areas.

Before preceding, it is important to define some commonly used terms in referring to city structure. The **central business district (CBD)** (or downtown) is the core of the city. High land values, tall buildings, busy traffic, converging highways, and mass transit systems (e.g., South Floridas Tri-Rail) mark the American or European CBD. An **urban zone** is a sector of a city within which land use is relatively uniform (e.g., an industrial or residential zone). The term **central city** is often used to denote the part of an urban area that lies within the outer ring of residential suburbs. A suburb is an outlying, functionally uniform part of an urban area, often (but not always) adjacent to the central city. All of these urban regions or zones lie near or adjacent to each other and together make up the **metropolis**. The term **hinterland** is a German word meaning the land behind the city (the surrounding service area).

Modeling the North American City

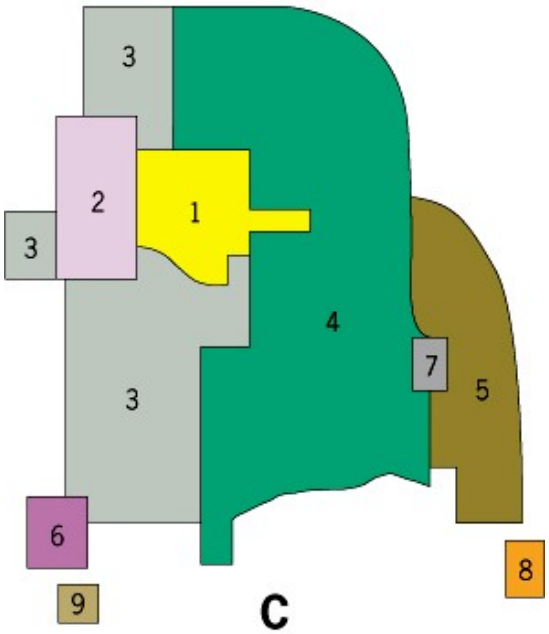
As cities evolved, they displayed increasing complexity over time. The **concentric zone model**

(A) resulted from a study of Chicago in the 1920s by Ernest Burgess. This model was drawn up at a time when the full impact of the Industrial Revolution came to bear on the American City. Burgess recognized five concentric functional zones. At the center was the CBD (1). The zone of transition (2) was characterized by residential deterioration and encroachment by business and light manufacturing. The zone of independent workers.' homes (3) was primarily occupied by the **bluecollar** (wage-earners, manual laborers) labor force. The zone of better residences (4) consisted mainly of the middle-class. Finally, the commuters.' zone (5) was the suburban ring, consisting mostly of **white-collar** workers who could afford to live further from the CBD. This model was dynamic. As the city grew, the inner zones encroached on the outer ones. Remember, the model was developed for American cities and had limited applicability elsewhere. It has been demonstrated that pre-industrial cities, notably in Europe, not at all followed the concentric circles model. For instance, in most pre-industrial European cities, the center was much more important than the periphery, notably in terms of social status. The Burgess concentric model is consequently partially inverted in these instances.



In the late 1930s, Homer Hoyts **sector model** (B) was published, partly as an answer to the drawbacks of Burgess concentric zone model. As technology dealing with transportation and communication was improving, growth alone created more of a pie-shaped urban structure. Hoyt discovered that land rent (for residential, commercial, or industrial) could remain consistent all the way from the CBD to the citys outer edge.

MULTIPLE NUCLEI MODEL



C

1 Central business district
2 Wholesale, light manufacturing
3 Low-class residential
4 Middle-class residential
5 High-class residential
6 Heavy manufacturing
7 Outlying business district
8 Residential suburb
9 Industrial suburb

In the 1940s, Chauncy Harris and Edward Ullman, arguing that neither of the earlier models adequately reflected city structure, proposed the **multiple nuclei model** (C). This model was based on the notion the CBD was losing its dominant position and primacy as the nucleus of the urban area. Several of the urban regions would have their own subsidiary but competing nuclei.

As manufacturing cities became modern cities and modern cities became increasingly complex, these models became less and less accurate.

Today, there are urban realms, components of giant conurbations (connected urban areas) that function separately in certain ways but are linked together in a greater metropolitan sphere. In the early postwar period (1950s), rapid population diffusion to the outer suburbs created distant nuclei, but also reduced the volume and level, of interaction between the central city and these emerging suburban cities. By the 1970s, outer cities were becoming increasingly independent of the CBD to which these former suburbs had once been closely tied. Regional shopping centers (e.g., malls) in the suburban zone were becoming the new CBDs of the outer nuclei.

The term **"edge city"** was coined by Washington Post journalist and author Joel Garreau in 1991. We can equate the growing edge cities at major suburban freeway interchanges around America as the latest transformation of how we live and work. These new suburban cities are home to glistening office towers, huge retail complexes, and are always located close to major highways. According to Garreau, several rules must apply for a place to be considered an edge city:

1. The area must have substantial office space (about the space of a good-sized downtown) & substantial retail space (the size of a large regional shopping mall);

2. The population must rise every morning and drop every afternoon (i.e., there are more jobs than homes);

3. The place is known as a single end destination (the place "has it all;" entertainment, shopping, recreation);

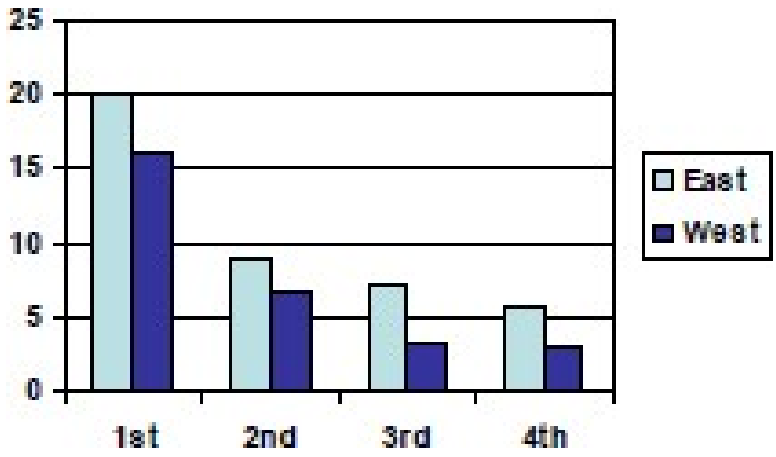
4. The area must not have been anything like a "city" in 1960 (cow pastures would have been nice).

Edge cities represent the third wave of our lives pushing into new frontiers in this half century. First, we moved our homes out past the traditional idea of what constituted a city. This was the **sububranization** of America, especially after World War II. Then we wearied of returning downtown for the necessities of life, so we moved our marketplaces out to where we lived. This was the **malling** of America, especially in the 1960s and 1970s. Today, we have moved our means of creating wealth, the essence of urbanism - our jobs - out to where most of us have lived and shopped for two generations. That has led to the rise of the edge city.

The Rank-Size Rule

We discern not only the hierarchy of urban places (hamlet, village, town, city, etc.) but also the so-called **rank-size rule**, established by George Zipf in 1949. This rule holds that in a model

urban hierarchy, the population of a town or city will be inversely proportional to its rank in the urban hierarchy. For example, if the largest city has 12 million people, the second city will have around 6 million (½ the population of the largest city); the third will have 4 million (w̄ the population of the largest city); the fourth city 3 million; and so on. The rank-size rule does not apply in all countries, especially those with dominant primate cities (e.g., France, Mexico), but it does apply in several countries with complex economies. The United, for example, displays a **binary distribution** of the rank-size rule. When a country has two large cities of similar size in separate regional areas; the rank-size rule may apply regionally as in the case of the U.S. The eastern U.S. is anchored by the largest city, New York, followed by Chicago, Washington D.C., and Philadelphia. The largest city in the west, Los Angeles, is followed by San Francisco, Seattle, and Phoenix. The chart below illustrates that the rank-size rule does generally apply in a regional sense.



Urban Functions

It is important to note that every town and city has an economic base. For example, workers in a manufacturing plant are in the citys **basic sector**; their work produces goods for export and generates an inflow of money. On the other hand, workers in the **nonbasic sector** (the service sector) are responsible for the functioning of the city itself (e.g., teachers, street cleaners, office clerks, etc.). The ratio of basic to nonbasic workers gives an impression of the citys **economic base**. The ratio is about the same for most large cities (about 1:2). When a business is established with 50 production (basic) workers, it adds 100 nonbasic workers to the workforce. Economic expansion of this kind therefore has a **multiplier effect** on the workforce and the urban population (most workers have dependents (e.g., children) who consume goods and services).

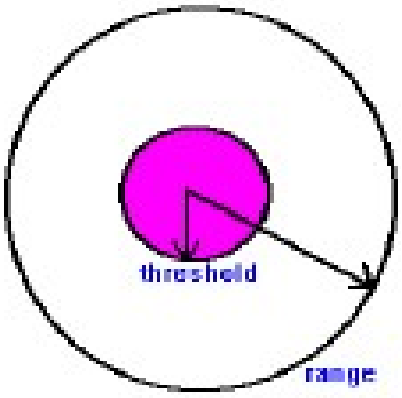
Data on the number of people employed in basic and nonbasic jobs (the **employment structure**) can help discern the primary functions of a city.

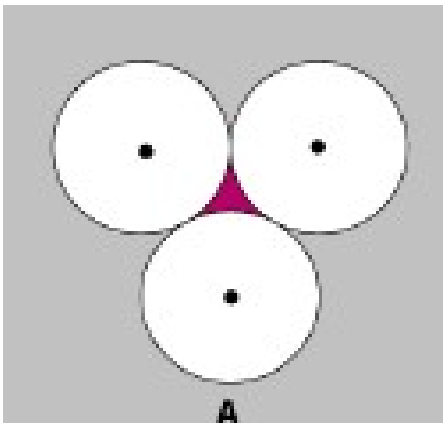
Although it is becoming increasingly more uncommon, some cities are dominated by one particular activity. This **functional specialization** was more evident in the past Detroits automobiles, Pittsburghs steel, and Houstons aerospace industry were but a few examples. Today these cities are much more diversified. Some functional specialization can still be seen today Orlandos theme parks and vacation spots, Las Vegas casinos, etc.

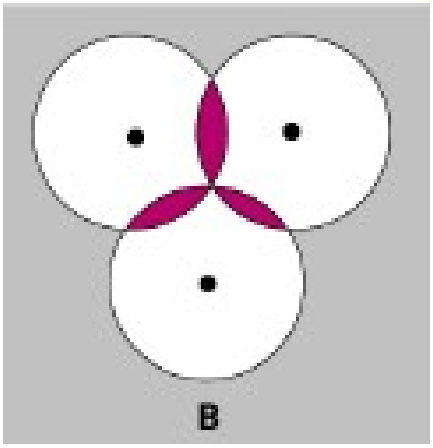
Central Place Theory

How do service areas relate to each other? Do they overlap? Do towns of approximately the same size lie about the same distance away from each other? Every urban center has a certain economic reach that can be used as a measure of its centrality.

In 1933, Walter Christaller, a German, laid the groundwork for central place theory. He attempted to develop a model that would show how and where central places (hamlets, villages, towns, cities,) would be functionally and spatially distributed. In his model, the ideal region would have flat terrain with no physical barriers. Soil fertility, population distribution, purchasing power, and transportation networks would all be uniform. Finally, he assumed that a constant maximum distance or range of sale of any good or service produced in a central place would prevail in all directions from that urban center. Christallers idea was to compare his model to real world situations and try to explain any variations and exceptions. He defined **central goods and services** as those provided only at a central place (e.g., bowling alley, professional sports team,). The **range of sale** was the distance people would be willing to travel to acquire the goods or services. The limit would lie halfway between one central place and the next where the same product was sold at the same price (all things being equal, you wouldnt travel 10 miles to a movie theater if one was 5 miles away). The **threshold** is the minimum market area needed to bring a firm or city selling goods and services into existence, and to keep it in business.







In Christallers urban model, each central place has a surrounding **complementary region**, an exclusive hinterland within which the town has a monopoly on the sale of certain goods or services because it alone can provide these within the range of sale. If all his assumptions were in effect, such complementary regions would be circular, but this would create some significant problems. The issue is that either the circles adjoin and leave unserved areas (A), or they overlap; in the latter situation (B) the central place no longer has a monopoly

Sustainable urban forms,

A thematic analysis has been used to coop with the vast body of **sustainable** development and environmental planning literature. ... Moreover, it identifies four types of **sustainable urban forms**: the neotraditional development, the **urban** containment, the compact city, and the eco- city.

What is Compact City?

- The compact city "city of short distance "is a currently emerged urban planning concept.
- Promotes relatively high residential density with mixing of various activities.
- It provides required infrastructure facilities within walk able distance.

The compact city concept aims at a high-density mixed-use, and intensified urban form.

• The idea emphasizes that urban activities should be located closer together to ensure better access to services and facilities via public transport, walking, and cycling, and more efficient utility and infrastructure provision.

• The basic provision of the compact city is the local community or neighborhood, though conventional urban planning models tend to plan towns and cities at a larger scale with a reliance primarily on automobile travel.

• In the compact city, human scale factors should be given greater emphasis from the viewpoint of achieving a better quality of life, and therefore consideration of the effects of the local environment are key components in such planning.

Urban development

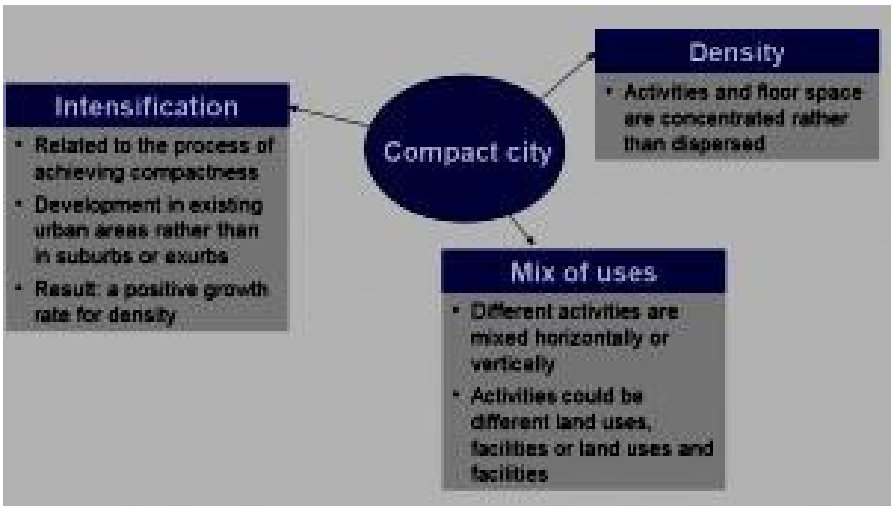
The availability of land became an ever-growing issue owing to claims made by the rapidly increasing levels of mobility.

• In the 1980's the population increased rapidly; when it stabilized, households became smaller and as a result number of households increased.

• Whilst the need for housing and for urban space kept on growing, the negative effects of urban sprawl called for a change in the outwards-oriented movement in the surge for urban space.

Advantages of the compact city

Less car dependency, low emissions, reduced energy consumption by.(1) Shifting from car to walking, cycling and public transport.(2) Reducing trip distances.(3) Reducing total number of trips. Better public transport services, increased overall accessibility, re-use of infrastructure and previously developed land.The rejuvenation of existing urban areas and urban vitality, a high quality of life, the preservation of green space and a milieu for enhanced business and trading activities.Strengthening of the self-containment, diversity and multifunctionality of the city.



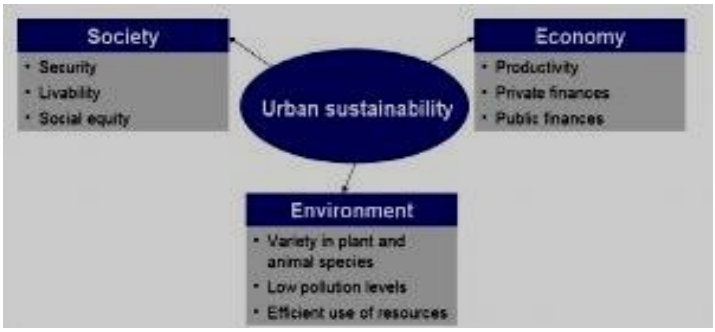
Concepts describing the development paradigm of the compact city

Urban sustainability

Sustainable development involves more than environmental conservation; it embraces the need for equity. Both intra-generational equity providing for the needs of the least advantaged in society, and inter-generational equity, ensuring a fair treatment of future generations, need to be considered.

* Challenges generating models of urban sustainability:

• proliferate and transform the entire global economy into a balance-seeking



relationship with our natural ecosystem.• reconcile humankind with the natural environment, whose health is the precondition for all human activity. develop and maintain a continually re-balancing relationship among their internal social and economic activities and with their wider natural and agricultural landscape.• to develop a real and viable alternative to decline, not merely on a theoretical basis, but in a real place: the sustainable city.

• **Responsive Environments.**

The concept of responsive environments shares many of the basic aspects of environment legibility developed by Lynch (Lynch, 1960). By focusing on what features make an environment responsive to the needs of its users we can then begin to explore how properties of virtual environments (such as arena used for the display and scope for movement) may alter the responsiveness and ultimately sense of place and presence. They do this using the following concepts: permeability, variety, robustness, visual appropriateness, richness, personalization and legibility.

Permeability is a property of how easy it is to move through an environment and depends heavily upon the paths and objects placed within the space. There are two types of permeability: physical properties (e.g. a path) and visual appearance. For example although a path may exist in some environment, if it is not visually obvious it may remain unused. This in turn affects the sense of place people experience in the environment. Permeability is also influenced by the nature of spaces, for example whether they permit private or public access.

Variety refers to the range of activities, people and building forms which can be found in a space. The varied nature of people, forms and activities will create a range of meanings and in turn the meanings may influence the variety of options available. For example in a museum people can buy gifts, view exhibits, talk to other visitors and perhaps visit a café. However a virtual version of the same museum may concentrate only on aspects related to viewing exhibits, thereby altering the sense of place. As well as being shaped by the range of activities which are built into the space, variety is a product of the location of features and paths of movement.

Robustness explores how a single space can be put to multiple uses. An example would be a room where changing the configuration of the furniture may lead to it becoming a lecture room, dining room or place for a Christmas party. Robustness is also influenced by temporal aspects. For example a museum exhibit may be open only at specific times, with people queuing in order to gain access. If large groups of people are queuing then the queue may act as a meeting point, social space (as people may begin to converse) or as an area to relax prior to seeing the exhibits. However as soon as the exhibit opens then the queuing area may simply return to its original use, that of channelling and controlling movement.

Visual appropriateness is how the provision of cues can support variety, robustness and legibility, it is vital if people are to correctly interpret how to make appropriate use of an environment. Examples of poor visual appropriateness are when buildings are identical in colour and appearance making it difficult to differentiate them.

Richness relates to the range of sensory experiences available, for example sight, smell, touch and sound. It is also concerned with how the experience can have an effect on the emotional state of those visiting the place. A visual example would be the use of paths to provide a heightened sense of awareness of the environment and that something important is going to happen. Therefore in the visual sense it is important to consider how long something can be viewed and where it can be viewed from.

Personalisation is the ability we are given to customise an environment on a large or small scale. Small scale personalisation can include moving a chair in a room, large scale personalisation being the ability to change the appearance of a building.

Legibility is how easy it is for a person to construct a mental map of their environment and depends to a large extent to the form of the environment and the activities people undertake. Lynch (Lynch, 1970) discusses many features such as paths, nodes, landmarks, districts and edges. Although these concepts are drawn from the real world they are relevant to the development of virtual environments. For example paths play a key role in nearly all of the properties of a responsive environment, due to the fact that they are a predominant part of the mental image a person possesses (Appleyard, 1970; Kuipers, 2001; Lynch, 1970). They shape the activities of people and are shaped by the activities people undertake. Paths also provide a rich sensory experience, as they act as a means to walk by and through features of a space. This results in them playing a critical role in the development of a sense of place. In real world environments they suggest and provide a means of movement. However in the virtual environments discussed in this paper technical restrictions prevent people from moving. Although the environments suggest that paths are available using them is not possible. Moreover, virtual environments often restrict several aspects of the experience such as richness, variety, robustness and personalisation; therefore reducing the potential cues available that may help people in developing their sense of place.

Place

Researchers in the field of environmental psychology and more recently virtual environments have explored the idea of place in order to understand the whole experience people have of locations (spaces) that they visit (Spagnolli & Gamberini, 2005). The work has often taken a phenomenological perspective (Relph, 1976; Tuan, 1977) with the objective of uncovering the core aspects of a space that result in it becoming a place. In basic terms a space is the physical manifestation of a location, for example a room, its walls and furniture etc. Whereas a place contains higher level

aspects such as the activities people undertake, any meanings they attach to it, as well as the physical properties (Norberg-Schultz, 1976;Relph, 1976).

Presence

Assuming that an environment is responsive to the needs of its users and that our sense of embodiment allows people to experience the range of activities, people and forms provided, we contend that they are likely to experience a strong sense of placeand presence. Therefore in a virtual environment presence can be seen as ‘the subjective experience of being in one place or environment even when one is physically situated in another’ (Witmer & Singer, 1998). If the sense of place is strong and the technology provides a high quality experience then people will experience the 'illusion of non-mediation’ (Lombard & Ditton, 1997).

Presence also manifests itself in three ways: physical, social and co-presence (Ijsselsteijn & Riva, 2003). Physical presence is the focus in this paper and deals with feeling as if one is physically located in a mediated environment. Social presence is when there is a feeling of being with others, either locally or remotely and co-presence is where one feels a sense of being

co-located somewhere with others and combines aspects of social and physical presence. This paper focuses on physical presence as both virtual environments studied are for single users only. A contrasting view of presence is offered by Floridi (Floridi, 2004) as the 'successful observation' of entities in our surroundings. This view creates two ideas of presence: forward and backward. Forward presence is where we seek to extend our boundaries of experience to a remote location, for example by manipulating a robot at a remote location such as the moon (also known as tele-presence). In contrast backward presence is where the environment is brought to the participant, for example by placing someone in an immersive CAVE and projecting images of a given location. The experiments in this paper focus on backward presence as the environments used seek to bring another environment to the user.

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DEPARTMENT OF ARCHITECTURE

UNIT – III - URBAN DESIGN – SAR 1403

UNIT III- PRACTICE THEORY

The Evolution of Design as Public Policy

It has taken urban design a long time to establish a major role in planning practice in developed countries. Jonathan Barnett first coined the notion of urban design as public policy in 1974, reflecting on the instruments he used to manage the redevelopment of New York from the late 1960s onwards (Barnett, 1974, 1982). Other American cities developed sophisticated plans and review processes in the early 1970s, notably San Francisco and Portland on the west coast of the USA (Jacobs, 1980; Punter, 1999a). Through the 1980s design review took root across many American cities. Discretionary processes were overlaid upon traditional zoning and generally rather vague comprehensive plans, and both were rarely integrated into a coherent, future oriented planning framework

(Habe, 1989, Shirvani, 1981, 1992; Onaran & Sancar, 1998). In Europe design concerns have a much longer history, but significantly deepened in response to post-war development and renewal practices, and increased support for the conservation of the historic urban fabric in the face of large-scale redevelopment and suburban expansion. These concerns were expressed in a range of new approaches including a more sophisticated hierarchy of development plans, the invention of design guidelines, stronger conservation controls and additional design review processes. However, progress was often interrupted as property developers, investors, landowners and architects lobbying for quicker planning decisions and less onerous planning requirements sought to reduce levels of design intervention. The development of more sophisticated design control in Britain was reversed in the 1980s for more than a decade by a Conservative Central Government committed to deregulation, and similar pressures were experienced in Germany, Sweden and the Netherlands in the 1990s (Punter, 1999b; Schaller, 1999; Nelissen, 1999) and again in 2006 in the latter.

In general, by the mid-1990s, design was consolidated as a major concern in planning, and several new agendas were driving its development in both policy and control. These included greater public concern with the protection of a sense of place and local distinctiveness in a globalizing world, greater environmental concern with the sustainability of development at the macro and micro scale, a more strategic view of urban design as a shaper of urban form citywide, and greater concern with urban regeneration (particularly reversing the loss of population from

major cities). There was a desire to improve the attractiveness of urban settlements as places to live and work, and this was reinforced by the recognition of the role of cities in initiating and driving forward economic development.

City image enhancement and place marketing went hand-in-hand and urban design initiatives were seen as important means of attracting economic investment both in employment and property, especially in the international tourist and convention markets (Harvey, 1989a; Gospodini, 2002; Madanipour, 2006). The notion of promoting 'urban renaissance' as a fundamental plank of economic and social policy at local, regional and even national levels became commonplace in the UK (Urban Task Force, 1999) and elsewhere in the western world (Harvey, 1989b). At present 'urban design as public policy' is tending to be driven by the imperatives of 'the entrepreneurial city' and by urban competitiveness strategies, as cities respond to globalization and neo-liberalism (Cuthbert, 2006). This is most visibly expressed by flagship property regeneration projects, iconic buildings and spectacular spaces, events and festivals (Hannigan, 1998; Miles & Miles, 2004).

Urban design is often complicit in the 'serial repetition' of regeneration strategies (Harvey, 1989a), in public-private partnerships that serve the interests of capital at the expense of the local citizenry and in the delivery of unsustainable development. While local authorities selectively apply urban design practices to aestheticize megaprojects, or deliver improvements to the public realm in the areas of highest real estate value, more democratic, egalitarian and sustainable design practices are being eclipsed by resource and skill shortages, by an emphasis on the speed rather than the quality of decision making, and an unwillingness to threaten any inward or indeed indigenous investment. As Reinier de Graaf of OMA architects recently commented, in the particular context of Dubai and the other Emirates, the increased power of private initiative to shape all cities places an ever-greater importance on the public authority to develop appropriate judgment criteria and to apply these rigorously in the review process (de Graaf, 2006).

Developing a Set of Principles for Best Practice Review

Substantive critiques of design review practices were developed by academics and practitioners in the late 1980s and early 1990s, mainly in the USA but also in the Netherlands (Nelissen & de Vocht, 1988) and the UK (Punter, 1987). Richard Lai (1988) studied practices in New York and San Francisco and came up with a very useful set of practice recommendations. As a lawyer he

was able to articulate the ends and means of design control and to unravel their contradictions in practice in a particularly penetrating way. James Schuster (1990) and Brenda Scheer (Scheer, 1994) researched planners and architects' experience of design review in the USA, and the latter turned this into a trenchant critique of current practice, emphasizing a range of problems of power, freedom, justice and aesthetics. In 1991 Scheer and Preiser assembled a wide range of critical reflections on international practice by means of an international conference in Cincinnati (Preiser & Lightner, 1992; Scheer & Preiser, 1994). Integrating and extending these critiques it has been possible to develop a set of principles for best practice that can work both as an international framework for assessing existing systems (see Punter, 2002, 2005), and as a means of developing better systems of design regulation in the round (Punter & Carmona, 1997).

There are four groups of principles. They embrace questions of:

How the community might develop a vision, and the local authority a corporate programme, to develop a strategic role for urban design and provide the context for the exercise of design review;

How planning, zoning, housing and fiscal instruments might be harnessed to help develop a comprehensive and coherent approach to design review and deliver better designed projects;

What types of substantive urban design principles might underpin design policy, guidance and intervention; and

What types of review processes might be adopted to ensure fairness, efficiency and effectiveness within the decision-making process.

Principles for Progressive Urban Design Review

Community Vision

1. Committing to a comprehensive and coordinated vision of environmental beauty and design

2. Developing and monitoring an urban design plan with community and development industry support and periodic review

Design, Planning and Zoning

3. Harnessing the broadest range of actors and instruments (tax, subsidy, land acquisition) to promote better design

4. Mitigating the exclusionary effects of control strategies and urban design regulation

5. Integrating zoning into planning and addressing the limitations of zoning

Broad, Substantive Design Principles

6. Maintaining a commitment to urban design that goes well beyond elevations and aesthetics to embrace amenity, accessibility, community, vitality and sustainability

7. Basing guidelines on generic design principles and contextual analysis and articulating desired and mandatory outcomes

8. Not attempting to control all aspects of community design but accommodating organic spontaneity, vitality, innovation, pluralism: not over-prescriptive

Due Process

9. Identifying clear a priori roles for urban design intervention

10. Establishing proper administrative procedures with written opinions to manage administrative discretion, and with appropriate appeal mechanisms

11. Implementing an efficient, constructive and effective permitting process

12. Providing appropriate design skills and expertise to support the review process

Urban Infill Projects

Urban infill is defined as new development that is sited on vacant or undeveloped land within an existing community, and that is enclosed by other types of development. The term "**urban infill**" itself implies that existing land is mostly built-out and what is being built is in effect "filling in" the gaps

The term most commonly refers to building single-family homes in existing neighborhoods but may also be used to describe new development in commercial, office or mixed-use areas.

Prescriptive steps towards implementation:

1. Identify area(s) within the community that seem to be subject to inappropriate infill development or those areas that perhaps aren't dealing with infill development just yet but are in need of measures to prevent inappropriate infill in the future

2. Work with municipal staff and officials and the community to craft new regulations designed to control development within those areas

3. Keep the controls limited, focusing primarily on building height, building setbacks and lot layout

4. Test proposed regulations by mock- designing a development from start to finish as if it

were to be built according to the regulations, then analyzing whether the design meets the community's goals

5. Use existing staff and officials to provide additional commentary and reports on the proposed changes

6. Prepare staff and officials for the administration of the proposed changes

7. Adopt proposed policy changes utilizing the standard process for the municipality

RATIONALE

Urban Infill is gaining in popularity as intown or close-in locations become more attractive to prospective home buyers, and office and retail tenants. Municipalities are also encouraging the practice of infill as it is more efficient to use existing infrastructure and services than it is to extend infrastructure and services farther afield, Infill development can also help a community achieve or sustain thresholds of population density necessary for amenities such as park space, community services, retail establishments, and affordable housing. Moreover, in communities where undeveloped, run-down, or vacant properties are eyesores or safety hazards, infill development can remove the blight of these properties. Finally, many urban infill lots have remained undeveloped because they are the least desirable lots to build on due to size, undesirable locations, topographical restraints, or environmental contamination (brownfields).

EFFORT REQUIRED

The implementation of infill development is the responsibility of both the municipality and the development community.

Municipality

Local governments must ensure that their codes and ordinances facilitate practical and desirable urban infill development where it is appropriate. Left uncontrolled, urban infill development can negatively affect adjacent property or even the community as a whole. Municipalities can control the size, scale, setbacks and use of urban infill to eliminate potentially negative impacts.

Development Community

The local development community must embrace urban infill development as an alternative to greenfield development as a feasible way to build new residential and non-residential buildings. This requires coordination with local government staff to identify sites with the most potential and related funding opportunities. New development in built-out communities also

often requires more intentional communication and facilitation among neighbors and adjacent property owners.

BENEFITS

- Removes the eyesore and safety concerns associated with undeveloped or vacant property
- Allows communities to achieve or sustain population density thresholds that are needed to attract certain amenities (parks, community services, retail)
- Can be an effective tool for increasing supply of more affordable homes efficiently

RISKS

- If not properly managed by local governments, can adversely affect adjacent properties or the community as a whole
- Can contribute to the tearing down of historic building tin order to make way for new development
- May contribute to displacement of residents of homes that are being bought for tear-down and redevelopment
- Can lead to investor speculation and corresponding dramatic increases in property values

ACTION AGENT(S)

Planning Department, Economic Development Department, Building Department, Mayor and Council/Commission, community organizations

COST

Urban infill can be addressed successfully by a municipality at a relatively low cost through targeted code changes that address issues like building height, building setbacks, and lot coverage.

Brownfields Redevelopment

Brownfield redevelopment is a broad term used to describe the reuse and revitalization of abandoned, underutilized or stigmatized properties through the use of one or more local, state or federal programs.

RATIONALE

From a sustainability rationale, Brownfield redevelopment is at its core the recycling of property. Industrial and commercial property tends to have a finite life span, with the end result often being an environmentally impaired property. Brownfield Redevelopment provides a means

to convert (recycle) these properties back into productive use, while simultaneously reducing sprawl and destruction of valuable greenspace. Brownfield redevelopments return environmentally-impacted and underused properties to productive use, mitigate environmental impacts, provide jobs and tax revenue and revitalize the social foundation of communities. Brownfield redevelopment projects encompass many sustainable principles including energy efficiency, waste minimization, ecosystem preservation, natural resource conservation and local environmental quality protection.

EFFORT REQUIRED

Depending upon property size, location and extent of environmental impacts, brownfield redevelopment is rarely simple and typically involves a lengthy, legal and technical level of effort.

BENEFITS

General benefits of Brownfield Redevelopment center around the avoidance of non-tax generating blighted properties and the stewardship of new productive tax generating properties with the preservation of greenspace.

RISKS

Normally, where a brownfield redevelopment program is involved, there is also a real estate transaction. Sometimes this transaction is a necessary element of the program, other times it is not. A stakeholder must keep in mind that, in addition to the brownfield redevelopment program requirements, the real estate transaction has the same pitfalls as any other, such as financing, etc. However, where a real estate transaction incorporating a brownfield redevelopment program falls through, it is almost always due to the real estate considerations common to any real estate transaction, not due to the special requirements of the brownfield redevelopment program.

ACTION AGENTS

The successful application and implementation of a brownfield redevelopment program takes the knowledge, skill and teamwork of several stakeholders. All parties involved, however, have a vested interest in seeing that these sites once again become valuable and useful properties. The following stakeholders (or action agents) are typically involved: property owners, government, regulatory agencies, environmental consultants, the general public, attorneys, financiers and real estate developers.

COSTS

Due to the substantial number of cost variables, it is impossible to provide generic cost estimates for brownfield redevelopments.

ECO-CITY

Benefits of Developing Eco-cities and Eco-Townships

There are several benefits of developing Eco-cities and Eco-Townships; which among other things, are largely green and eco-friendly. These include: efficient land-use, habitat preservation and restoration, effective transport management and energy efficiency, efficient use of resources, emissions and pollution control and enhanced quality of life for the occupants as detailed below.

Efficient Land-Use In today's scenario, development has become synonymous with physical expansion or growth. There is a need for significant changes in the pattern of land use and construction that will provide communities with better quality of life and at the same time conserve natural resources. Green Township rating system addresses the impacts of urban sprawl by encouraging compact, mixed-use developments and promotes higher urban densities without affecting the quality of life. Habitat

Preservation & Restoration Conventional development is generally insensitive to natural environment. Such developments may scar the landscape, take prime agricultural land out of production or destroy biodiversity and natural habitats. The Green Townships rating system is designed to facilitate restoration and preservation of the natural environment by encouraging strategies that aid interface between the built environment and natural environment. This approach will not only enhance the fabric of the planned development but also provide environments conducive for living and working.

Efficient Transportation Management Traffic congestion, long distance commuting, rising levels of air and noise pollution are pressing issues in today's cities. Efforts to relieve congestion such as, constructing flyovers, road widening etc., are good initiatives but may not address issues such as fossil fuel consumption and associated emissions. 'Green Townships' rating system addresses these issues by encouraging effective and efficient transportation management strategies. Such strategies include increasing opportunities for bicycling, encouraging pedestrian friendly network; reduction in the number of automobile trips, promoting public transportation and use of alternative vehicles.

Efficient Use of Resources Perhaps the most challenging problem facing our cities today is to meet the ever-rising demand for power, water supply and waste management. Meeting this demand requires enormous amount of investments infrastructure. Efficient and effective use of resources is thus vital in augmenting the existing infrastructure.

Water EfficiencyMost of the Asian countries are water stressed, and in countries like India, the water table has reduced drastically over the last decade. Green townships encourage use of water in a self - sustainable manner through reducing, recycling and reusing strategies and can save potable water to an extent of 30 - 50%.

Energy Efficiency Green townships can reduce energy consumption of infrastructural equipment through energy efficient street lighting, motors, pumps etc. The energy savings that can be realized by adopting this rating program in infrastructural equipment can be to the tune of 20-30%. Further, on-site power generation using various renewable energy technologies and other clean fuels can significantly reduce the load on grid power supply.

Enhanced Quality Of LifeThe place that we live in has profound effect on our lives. People have a natural predisposition to feel better and perform better in livable&safe environments. Green township developments are beneficial to the individual and community. Mixed land use and compact planning are the characteristic of a green development, which reduces dependency on automobiles and associated green house emissions. The outdoor air quality is enhanced by providing landscaped areas, encouraging the use of clean fuels for vehicles. Noise levels are reduced by provision of vegetative buffer. Green buildings and energy efficient infrastructure further aid in reducing the green house gas emissions. Public landscaped areas, walkable streets, bicycling lanes, community gardens and public spaces encourage physical activity and help in improving public health.

An eco-city is a city built off the principles of living within the means of the environment, an ecologically healthy city

Benefits to Developers There is wide spread perception that environmentally responsive developments are time consuming and financially less rewarding. However, in reality well executed green developments perform extremely well financially, as they require lower operating costs, increase health and productivity of the citizens and have higher marketability. The immediate benefits include reduction in water and energy demand right from the initial stages of

operation.

Eco-City and Eco-Town: Innovations and Economics

An eco-city is a city built off the principles of living within the means of the environment. The ultimate goal of many eco-cities is to eliminate all carbon waste, to produce energy entirely through renewable sources, and to incorporate the environment into the city; however, eco-cities also have the intentions of stimulating economic growth, reducing poverty, organizing cities to have higher population densities, and therefore higher efficiency, and improving health.

Origins

The concept of the "eco-city" was born out of one of the first organizations focused on eco-city development, "Urban Ecology." The group was founded by **Richard Register in Berkeley,** California in **1975**, and was founded with the idea of reconstructing cities to be in balance with nature ("Urban Ecology"; Retrieved 21 November 2011; Roseland, 1997). They worked to plant trees along the main streets, built solar greenhouses, and worked within the Berkeley legal system to pass environmentally friendly policies and encourage public transportation. Urban Ecology then took the movement another step further with the creation of The **Urban Ecologist**, a journal they started publishing in 1987. Urban Ecology further advanced the movement when they hosted the first **International Eco-City Conference** in Berkeley, California in 1990. The Conference focused on urban sustainability problems and encouraged the over 700 participants to submit proposals on how to best reform cities to work within environmental means. In 1992 Richard Register founded the organization **Eco-city B**uilders which has acted as convener of the conference series ever since. Eco-City Conferences have been held in Adelaide, Australia; Yoff, Senegal; Curitiba, Brazil; Shenzhen, China; Bangalore, India; San Francisco, United States; Istanbul, Turkey; Montreal, Canada; Nantes, France and Abu Dhabi (2015) ("Eco-city Builders"; Retrieved 21 November 2011).

An eco-city is an ecologically healthy city. Into the deep future, the cities in which we live must enable people to thrive in harmony with nature and achieve sustainable development. People oriented, eco-city development requires the comprehensive understanding of complex interactions between environmental, economic, political and socio-cultural factors based on ecological principles. Cities, towns and villages should be designed to enhance the health and quality of life of their inhabitants and maintain the ecosystems on which they depend. Eco-city

development integrates vision, citizen initiative, public administration, ecologically efficient industry, people's needs and aspirations, harmonious culture, and landscapes where nature, agriculture and the built environment are functionally integrated in a healthy way. Eco-city development requires

a. **Ecological security**: clean air, and safe, reliable water supplies, food, healthy housing and workplaces, municipal services and protection against disasters for all people.

b. **Ecological sanitation**: efficient, cost-effective eco-engineering for treating and recycling human excreta, gray water, and all wastes.

c. **Ecological industrial metabolism**: resource conservation and environmental protection through industrial transition, emphasizing materials re-use, life-cycle production, renewable energy, efficient transportation, and meeting human needs.

d. **Eco-scape (ecological-landscape) integrity**: arrange built structures, open spaces such as parks and plazas, connectors such as streets and bridges, and natural features such as waterways and ridgelines, to maximize biodiversity and maximize accessibility of the city for all citizens while conserving energy and resources and alleviating such problems as automobile accidents, air pollution, hydrological deterioration, heat island effects and global warming.

e. **Ecological awareness**: help people understand their place in nature, cultural identity, responsibility for the environment, and help them change their consumption behavior and enhance their ability to contribute to maintaining high quality urban ecosystems.

AEco-cities and Eco-Towns decrease the residential and commercial dependence on automobiles

Eco-city Development Criteria

There are currently no set criteria for what is considered an "eco-city," although several sets of criteria have been suggested, encompassing the economic, social, and environmental qualities an eco-city should satisfy. The ideal "eco-city" has been described as a city that fulfils the following requirements:

• Operates on a self-contained economy, resources needed are found locally

• Has completely carbon-neutral and renewable energy production

• Has a well-planned city layout and public transportation system that makes the priority methods of transportation as follows possible: walking first, then cycling, and then public

transportation.

• Resource conservation—maximizing efficiency of water and energy resources, constructing a waste management system that can recycle waste and reuse it, creating a zero-waste system

• Restores environmentally damaged urban areas

• Ensures decent and affordable housing for all socio-economic and ethnic groups and improve jobs opportunities for disadvantaged groups, such as women, minorities, and the disabled

• Supports local agriculture and produce

• Promotes voluntary simplicity in lifestyle choices, decreasing material consumption, and increasing awareness of environmental and sustainability issues

In addition to these initial requirements, the city design must be able to grow and evolve as the population grows and the needs of the population change (Graedel, Thomas, 2011). This is especially important when taking into consideration infrastructure designs, such as for water systems, power lines, etc. These must be built in such a way that they are easy to modernize (as opposed to the dominant current strategy of placing them underground, and therefore making them highly inaccessible). Each individual eco-city development has also set its own requirements to ensure their city is environmentally sustainable; these criteria range from zero waste and zero-carbon emissions, such as in the Sino-Singapore **Tianjin Eco-city** project and the Abu Dhabi Masdar City project, to simple urban revitalization and green roof garden projects in Augustenborg, Malmö, Sweden. Using a different set of criteria, the International Eco-Cities Initiative recently identified as many as 178 significant eco-city initiatives at different stages of planning and implementation around the world. To be included in this census, initiatives needed to be at least district-wide in their scale, to cover a variety of sectors, and to have official policy status.

Practical Achievements of Eco-City

Economic Impact

One of the major and most noticeable economic impacts of the movement towards becoming an eco-city is the notable increase in productivity across existing industries as well as the introduction of new industries, thus creating jobs. First, the movement away from carbon producing energy sources to more renewable energy sources, such as wind, water and solar power, provides local economies with new, thriving industries. The creation of these industries,

in turn, births an increase in the demand for labor; thus, not only does total employment increase, but an increase in wages also mimics increasing employment. Moreover, one of the main priorities of a sustainable city is to reduce its ecological footprint by reducing total carbon emissions, which, economically speaking means increasing productivity. Merely increasing the rate of productivity in an industry reduces costs, both monetary and environmental; that is, as an industry becomes more productive, it can more efficiently allocate and use both its physical and human capital, reducing the time it takes to make the same amount of goods which also allows for a higher wage (because employees are doing more) and a lesser environmental impact. In all, although the initial movement towards becoming a sustainable city may be quite costly for a smaller, poorer city, the benefits of such movement are plentiful in the long-run economic model.

Improvement of Environmental Standards

Although local environmental standards may differ across eco-cities, each city nonetheless has its own appropriate and practical goals and expectations that have provided the foundation for their recognition as a sustainable city. Differences in these goals and expectations are to be expected, however, due to the limitations of technology and local financing. The primary goal for all sustainable cities is to significantly decrease total carbon emissions as quickly as possible in order to work towards becoming a carbon-free city; that is, sustainable cities work to move towards an economy based solely on renewable energy. Actions towards carbon-reductions can be seen on both the corporate and individual levels: many industries are working towards cleaner production, but individuals are also moving away from environmentally costly forms of transportation to more sustainable methods, such as public transportation or biking. On this note, another common environmental goal is to increase and make more efficient the public transportation systems. Many sustainable cities also work towards becoming more densely populated (urban density); having its citizens living closer to energy production means less environmental costs of transporting said energy to citizen households.

Technology and Urban Layout for Eco-City and Eco-Town

Transportation

By decreasing urban sprawl, Eco-cities and Eco-Towns decrease the residential and commercial dependence on automobiles. Concurrently, improved public transportation further decreases the

demand for cars. The development of metro station and light rail transit systems provide mass transit not only within sectors of a city but between cities. Furthermore, many eco-cities are employing expanded “clean” bus routes in order to decrease the emissions from single household vehicles. Critics note, however, that the high price of “clean” diesel, CNG/LNG, hybrid electric buses, and super capacitor-powered buses may not prove “economically and operationally viable” (World Bank, 2009).

Coping with Urbanization Trend

Eco-cities as well as Eco-Towns may also seek to create sustainable urban environments with long-lasting structures, buildings and a great livability for its inhabitants. The most clearly defined form of walkable urbanism is known as the Charter of New Urbanism. It is an approach for successfully reducing environmental impacts by altering the built environment to create and preserve smart cities which support sustainable transport. Residents in compact urban neighborhoods drive fewer miles, and have significantly lower environmental impacts across a range of measures, compared with those living in sprawling suburbs ("Towards a Green Economy"; **United Nations Environment Program**; Retrieved 17 November, 2011). The concept of Circular flow land use management has also been introduced in Europe to promote sustainable land use patterns that strive for compact cities and a reduction of Greenfield land take by urban spraw. In sustainable architecture the recent movement of New Classical Architecture promotes a sustainable approach towards construction, that appreciates and develops smart growth, walkability, architectural tradition and classical design. This in contrast to modernist and globally uniform architecture, as well as opposing solitary housing estates and suburban sprawl.

Landscape Development Focus

Eco-cities primarily employ green roofs, vertical landscaping, and bridge links as methods of decreasing the environmental impact of land use. Constructing green roofs and investing in vertical landscaping create natural insulation for residential and commercial properties as well as allows for rainfall collection. Additionally, green roofs and vertical landscaping lower urban temperatures and help prevent the heat island effect. Bridge links allow for development of a walkable city without disrupting the soil to run utility lines by connecting buildings with above ground walkways.

Energy Management Priority

Eco-cities look to employ renewable energy sources, such as wind turbines, solar panels, and biogas, to reduce emissions. Wind turbines present the opportunity of being able to provide both localized districts within eco-cities and the larger region as a whole with emission-free renewable energy that can additionally supplement existing power sources. Furthermore, by designing buildings with natural ventilation systems, eco-cities reduce the need for air conditioning, thus, drastically decreasing commercial and residential energy use. The energy generated can come from large scale energy production systems such as solar farms which supply many homes and businesses or from individual buildings energizing at least in part their own energy from solar photovoltaic or small scale wind turbines or biomass. Many eco-cities additionally look to deploy solar thermal energy. By installing solar collectors, developers will be able to provide hot water for space heating and individual and community needs while reducing dependence on gas fueled boilers. While solar thermal energy appears to be a more efficient source of renewable energy, many urban planners also view photo-voltaic as a viable source of energy. Photovoltaic directly converts solar energy into electricity; however, the extensive costs associated with developing this technology on the city-scale may limit its use when compared to its potential payback. Biogas technology is also deployed as a source of renewable energy as the organic material from wastewater is converted into fuel.

Water Supply Economy

Eco-cities aim to decrease water consumption by employing technologies that reduce the amount of water that is needed for irrigation and sewage flow while also preventing black-water and grey-water runoff from entering ground water sources. Developers generally suggest installing low flow fixtures, rainwater harvesting systems, and sustainable urban drainage systems to meet eco-city standards. Additionally, advanced irrigation systems (xeriscaping) aid in maintaining green infrastructure while decreasing green space consumption of water for irrigation.

CASE STUDY OF CHANDIGARH

Geometry is the means, created by ourselves, where-by we perceive the external world and express the world within us. Geometry is the foundation. lt is also the material basis on which we build those symbols, which represent us to perfection and divine.

.-..The age in which we live is therefore essentially a geometrical one; all its ideas

are oriented in the direction of geometry.

Chandigarh is one of the most significant urban planning experirnents of the 20th century. It is the only one of the numerous urban planning schemes of Le Corbusier to have actually been executed. It is also the site of some of his greatest architectural creations. The city has had a far reaching impact, vshering in a modern idiom of architecture and city planning al1 over India. It has become a symbol of planned urbanism. It is as famous for its landscaping as for its architectural arnbience. Most of the buildings are in pure, cubical form, geometrically subdivided with ernphasis on proportion, scale and detail

Edict of Chandigarh set by Le Corbusier

The object of this edict was to enlighten the present and future citizens of Chandigarh about the basic concepts of planning of the city, so that they become its guardians and save it from individualistic ideas. This edict as set by Le Corbusier sets out the following basic ideas underlying the planning of the city:

The city of Chandigarh is planned to human scaie. It puts us in touch with the infinite cosmos and nature. It provides us with places and buildings for al1 human activities by which the citizens can Iive a full and harmonious Iife. Here the radiance of nature and **heart** are within our reach.

Each sector catered to the daily needs of its inhabitants, which varied from 5,000 to 25,000 and had a green strip oriented longitudinally in north direction stretching centrally along the sector in the direction of the mountains. The green strip was to stay uninterrupted and accommodate schools, sports fields, walks and recreational facilities for the sector. Vehicular traffic was completely forbidden in the green strips, where tranquility shall reign and the curse of noise shall not penetrate. The roads of the city were classified into seven categories, known as the system of 7 Vs.

V-1 Fast roads connecting Chandigarh to other towns;

V-2 Arterial roads;

V-3 Fast vehicular roads;

V-4 Free Flowing shopping streets;

V-5 Sector circulation roads;

V-6 Access roads to houses;

V-7 Footpaths and cycle tracks

Certain areas of Chandigarh were of special architectural interest, especially where harmonized and unified construction of buildings was aimed at. Absolute architectural and zoning control was to remain operative where skyline, heights, character and architecture of buildings as planned were not to be altered. No building was to be constructed north of the Capitol Cornplex. The central plaza in Sector 17 was designed by as 'Pedestrian's Paradise'. No vehicular traffic was to bepennitted in the plaza. In the industrial area only such industry as that powered by electricity would be permitted, so that the atmosphere could be saved from pollution- The Lake was considered a gift of the creators of Chandigarh to the citizens. **Its** tranquility was to be guaranteed by banning noises.

Le Corbusier stressed that the faithfulness to the mandated materials of constructions, concrete, bricks and stone and so on was to be maintained in al1 buildings constructed or to be constructed. The edict of Chandigarh was important reflection of the thought process of Le Corbusier.

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Genesis of the city

lndia attained lndependence in 1947, but in the process the territory of British lndia was partitioned to form lndia and Pakistan. The large and prosperous Province of Punjab, was divided and Lahore, its capital, fell within the borders of Pakistan, leaving lndian Punjab without a capital. Those who had been compelled to migrate to lndia keenly felt the loss of Lahore, a city much loved by its inhabitants. In March 1948, the Government of Punjab in consultation with the Government of India, approved a 114.59 sq. km tract of land at the foot of the Shivalik hills as the site of the new capital. An existing village gave its narne (Chandi = Goddess of Power + garh = fortress) to the new city.

The decision to build a new city seerned like an extravagant decision to some at the tirne, but there were practical justifications. After partition, the population of **all** the existing towns in East Punjab had more than doubled on account of the migration of displaced persons from Pakistan. As a government publication pointed out: "Most of these towns, even before partition, lacked essential amenities such as adequate drainage and water supply and none of them had schools or hospitals which could meet the normal needs of the population according to modern standards

for such services."

The new city was needed not only to serve as a capital but also to resettle thousands of refugees who had been uprooted from West Punjab. India's first Prime Minister, Jawaharlal Nehru enthusiastically supported the project and took sustained interest in its execution. When he visited the project on April 2, 1952, he declared: "Let this be a new town symbolic of the freedom of India, unfettered by the traditions of the past, an expression of the nation's faith in the future .... The new capital of Punjab will be christened as Chandigarh-a name symbolic of the valiant spirit of the Punjabis. Chandigarh is rightly associated with the name of Goddess Chandi =Shakti, or power."

The Biological Analogy

Le Corbusier liked to compare the city he planned to a biological entity: the head was the Capitol, the City Center was the heart and work areas, and the institutional areas and the university were regarded as hands and the industry as the limbs.

Aside from the Leisure Valley traversing almost the entire city, parks extended lengthwise through each sector to enable every resident to lift their eyes to the changing panorama of hills and sky. Le Corbusier identified four basic functions of a city: living, working, circulation and care of the body and spirit. Each sector was provided with its own shopping and community facilities, schools and places of worship. 'Circulation' was of great importance to Le Corbusier and determined theother three basic functions. By creating a hierarchy of roads, Le Corbusier sought tomake every place in the city swiftly and easily accessible and at the same time triedto ensure the tranquility and **safety** of living **spaces.**

Of al1 'bodily elements', it was the 'head' i.e. the Capitol, which rnostly engaged the master architect's interest. It was here that Le Corbusier always looked for a chance to make dramatic staternents in the context of Chandigarh, and particularly the Capitol. Incidentally, the priorities of the lndian government and Le Corbusier's natural inclination converged.

Le Corbusier perceived a city and the kind of relationship he established with a city treating it as a living being.

WHAT IF WE BUILT OUR COMMUNITIES AROUND PLACES?

As both an overarching idea and a hands-on approach for improving a neighborhood, city, or region, **placemaking** inspires people to collectively reimagine and reinvent public spaces as the

heart of every community. Strengthening the connection between people and the places they share, placemaking refers to a collaborative process by which we can shape our public realm in order to maximize shared value. More than just promoting better urban design, placemaking facilitates creative patterns of use, paying particular attention to the physical, cultural, and social identities that define a place and support its ongoing evolution.

With community-based participation at its center, an effective placemaking process capitalizes on a local community's assets, inspiration, and potential, and it results in the creation of quality public spaces that contribute to people's health, happiness, and well being.

When Project for Public Spaces surveyed people about what placemaking means to them, we found that it is a crucial and deeply-valued process for those who feel intimately connected to the places in their lives. Placemaking shows people just how powerful their collective vision can be. It helps them to re-imagine everyday spaces, and to see anew the potential of parks, downtowns, waterfronts, plazas, neighborhoods, streets, markets, campuses and public buildings.

Placemaking begins at the smallest scale.

Placemaking is not a new idea. Although Project for Public Spaces began consistently using the *term* "placemaking" in the mid-1990s to describe our approach, some of the thinking behind Placemaking gained traction in the 1960s, when our mentors like Jane Jacobs and William H. Whyte introduced groundbreaking ideas about designing cities for *people*, not just cars and shopping centers. Their work focuses on the social and cultural importance of lively neighborhoods and inviting public spaces: Jacobs encouraged everyday citizens to take ownership of streets through the now-famous idea of “eyes on the street,” while Holly Whyte outlined key elements for creating vibrant social life in public spaces. Applying the wisdom of these (and other) urban pioneers, since 1975 Project for Public Spaces has gradually developed a comprehensive Placemaking approach.

Throughout our experience working with over 3,500 communities—in all 50 U.S. states and in over 50 countries—Project for Public Spaces continues to show by example how adopting a collaborative community process is the most effective approach for creating and revitalizing public spaces. For us, placemaking is both a process and a philosophy. It is centered around observing, listening to, and asking questions of the people who live, work, and play in a particular space in order to understand their needs and aspirations for that space and for their

community as a whole. With this knowledge, we can come together to create a common vision for that place. The vision can evolve quickly into an implementation strategy, beginning with small-scale "Lighter, Quicker, Cheaper" improvements that bring immediate benefits both to the spaces themselves and the people who use them.

WHEN YOU FOCUS ON PLACE, YOU DO EVERYTHING DIFFERENTLY

Unfortunately, the rigid planning processes of the 20th century have become so institutionalized that community stakeholders rarely have the chance to voice their own ideas and aspirations about the places they inhabit. Placemaking can break down these silos by showing planners, designers, and engineers the broad value of moving beyond the narrow focus of their own professions, disciplines, agendas. Experience has shown us that when developers and planners welcome this kind of grassroots involvement, they spare themselves a lot of headaches. Common problems like traffic-dominated streets, little-used parks, and isolated or underperforming development projects can be addressed—or altogether avoided—by embracing a model of placemaking that views a place in its *entirety*, rather than zeroing in on isolated components.

Even though cities ultimately fail or succeed at the scale of "place," this is the scale that is so often overlooked.

KEY PRINCIPLES OF PLACEMAKING

The Projectfor Public Spaces placemaking approach can be a springboard for community revitalization. Emerging from forty years of practice, our 11 Principles of Placemaking offer guidelines to help communities (1) integrate diverse opinions into a cohesive vision, (2) translate that vision into a plan and program of uses, and (3) ensure the sustainable implementation of the plan. Turning a shared vision into a reality–into a truly great place–means finding the patience to take small steps, to truly listen, and to see what works best in a particular context.

Just as community input is essential to the placemaking process, it is equally important to have a mutual understanding of the ways in which great places foster successful social networks and benefit multiple stakeholders and initiatives at once. The 11 Principles, along with and other tools we've developed for improving places (such as the Power of 10), have helped citizens bring immense changes to their communities–changes that are often far more extensive than

the original vision had imagined.

The Place Diagram is one of the tools Projectfor Public Spaces has developed to help communities evaluate places. The inner ring represents a place's key attributes, the middle ring its intangible qualities, and the outer ring its measurable data.

FROM THEORY TO PRACTICE: PLACEMAKING GROWS INTO AN INTERNATIONAL MOVEMENT

Placemaking is at the heart of Project for Public Spaces's work and mission, but we do not trademark it as our property. It belongs to anyone and everyone who is sincere about creating great places, and who understands how a strong *sense of place* can influence the physical, social, emotional, and ecological health of individuals and communities everywhere. We do feel a responsibility to continue protecting, practicing, and advocating for the community-driven, bottom-up approach that placemaking describes. To be successful, this process requires great leadership and action on all levels. Leaders need not, and certainly should not, have all the answers, and by acknowledging this, and providing space for experimentation and collaboration, Placemaking allows an even bolder process to unfold.

Today, the term "placemaking" is used in many settings–not just by citizens and organizations committed to grassroots community improvement, but also by planners and developers who use it as a "brand" to imply authenticity and quality, even if their projects don't always live up to that promise. But using "placemaking" in reference to a process that isn't really rooted in public participation dilutes its potential value. Making a place is not the same as constructing a building, designing a plaza, or developing a commercial zone. As more communities engage in placemaking and more professionals come to call their work "placemaking," it is important to preserve the meaning and integrity of the process. A great public space cannot be measured by its physical attributes alone; it must also serve people as a vital community resource in which function always trumps form. When people of all ages, abilities, and socio-economic backgrounds can not only access and enjoy a place, but also play a key role in its identity, creation, and maintenance, *that* is when we see genuine placemaking in action. Placemaking pays close attention to the myriad ways in which the physical, social, ecological, cultural, and even spiritual qualities of a place are intimately intertwined, and we continue to be inspired by the visionary placemakers who have worked to promote this vision for

generations.

Placemaking belongs to everyone: its message and mission is bigger than any one person or organization. As a "backbone organization," Project for Public Spaces remains dedicated to supporting the movement, growing the network, and sharing our experience and resources with placemakers and allies everywhere.

Placemaking *is*

- Community-driven
- Visionary
- Function before form
- Adaptable
- Inclusive
- Focused on creating destinations
- Context-specific
- Dynamic
- Trans-disciplinary
- Transformative
- Flexible
- Collaborative
- Sociable

Placemaking *is not*

- Top-down
- Reactionary
- Design-driven
- A blanket solution or quick fix
- Exclusionary
- Car-centric
- One-size-fits-all
- Static
- Discipline-driven
- One-dimensional

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DEPARTMENT OF ARCHITECTURE

UNIT – IV - URBAN DESIGN – SAR 1403

UNIT 4 – URBAN DESIGN POLICY

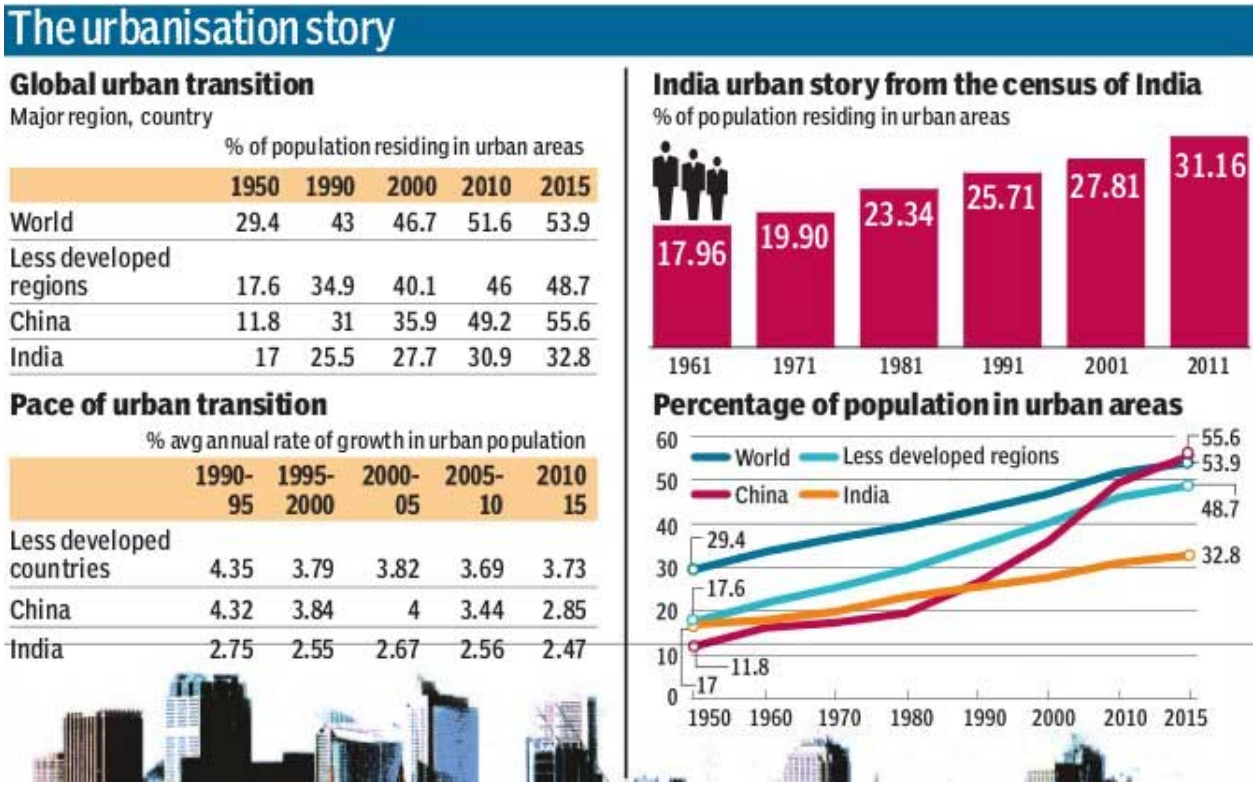
1) Urban Renewal

Urban renewal is a program of land redevelopment often used to address urban decay in cities. Urban renewal is the clearing out of blighted areas in inner cities to clear out slums and create opportunities for higher class housing, businesses, and more. A primary purpose of urban renewal is to restore economic viability to a given area by attracting external private and public investment and by encouraging business start-ups and survival. Modern attempts at renewal began in the late 19th century in developed nations, and experienced an intense phase in the late 1940s under the rubric of reconstruction. The process has had a major impact on many urban landscapes and has played an important role in the history and demographics of cities around the world. Urban renewal is a process where privately owned properties within a designated renewal area are purchased or taken by eminent domain by a municipal redevelopment authority, razed and then reconvened to selected developers who devote them to other uses.

Urban renewal is most often undertaken to make life safe, more secure and comfortable to the urban dwellers, to attract wealthier individuals to live in that area or to boost economic base or activities in that area. Urban renewal which may be also known as urban redevelopment is a veritable social gentrification technique. The bursting rate of urbanization has been one of the major issues/challenges which many national and local government authorities in developing nations/economies have to grapple with. The main challenges of urbanization in most urban cities are acute shortage of shelter/housing, waste/garbage disposal, traffic jams or congestion and the deplorable state of the roads in some instances, flooding, crime and other social vices. Others include increase in demand for urban services namely- housing, education, public health and a generally decent living environment, loss of biodiversity and green house, warming, desertification, degradation of agricultural land, air and water pollution, environmental decay, slums, insanitation, overcrowding, housing congestion, crime and violence, etc.

Urban centres are characterized by a dominant feature which is degrading state of the physical environment. The steps involved in urban renewal include planning, sensitization/consultation of

the citizens or public hearing, land acquisition (revocation of rights of occupancy), displacement and relocation, site improvement and supporting facilities/infrastructure, disposition of improved land and new construction/development. Effective urban renewal actions are inevitable in our contemporary urban cities if our cities would compare with those of the developed economies or comparable developing economies. To this effect, specific policy issues and strategies should be put in place and conscientiously pursued and implemented.



Nearly 30 per cent of India's population lives in urban agglomerations. The fast-paced urbanisation in the country, which is closely linked to the overall economic progress, has led the cities to encounter some serious challenges on the socio-economic front such as unemployment as well as excess load on existing infrastructure in cities like housing, sanitation, transportation, health, education, utilities, etc. In order to upgrade the quality of life of people, especially the urban poor, the Ministry of Housing and Urban Development has been actively introducing new schemes and reinventing the existing schemes which deal with these specific issues.

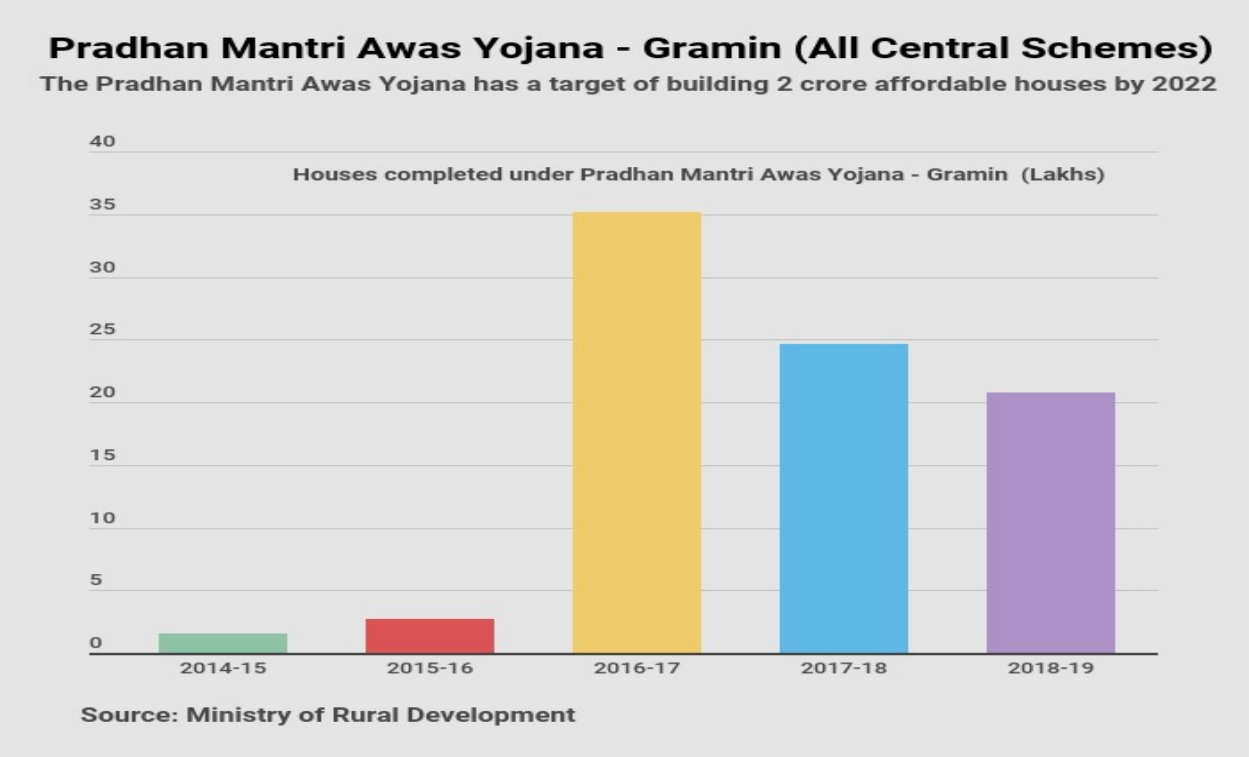
2) Smart cities mission

Smart Cities MissionLaunched on June 25, 2015, the Smart Cities Mission is a flagship scheme under the Ministry of Housing and Urban Affairs. This ambitious programme by the Indian Government aims at building 100 Smart Cities across India with focus on planned urbanisation and sustainable development as a support system for the neighbouring cities. It also involves the development of high-quality infrastructure with provision of basic amenities, education, health services, IT accessibility, digitisation, e-governance, sustainable development, safety and security. Global cities such as Singapore, Japan, and the USA are offering valuable support to India's mission, which also emphasises on economic development of urban centres by creating more jobs and enhancement in income.

The mission involves as many as 3,183 projects worth Rs 1,45,245 crore. But so far, work has been finished only in projects worth Rs 4,960 crore, amounting to only five per cent of total projects. The target of completion of the projects was extended from 2019-20 to 2022-23 for execution of projects in cities selected in round four. Funds worth Rs 500 crore will be released for the top 15 cities as per data released by Ministry of Urban Development.

3) PMAY

Pradhan Mantri Awas Yojana (PMAY) (Urban) or Housing for AllThe scheme was launched on June 25, 2015 for providing 20 million affordable homes for the urban poor including slum dwellers by March 2022. The beneficiaries include Economically weaker section (EWS), low-income groups (LIGs) and Middle-Income Groups (MIGs). Implemented as Centrally Sponsored Scheme with two components - PMAY (Urban) and PMAY (Rural), the mission involves providing central assistance to implementing agencies through States and UTs. As per recent data by the union ministry, 51 lakh houses against the required 1 crore are approved in last 3 years of implementation, over 28 lakh houses grounded and in various stages of construction and 8 lakh houses have been completed with around 8 lakh houses occupied by the beneficiaries.



4) Swacch Bharat Mission

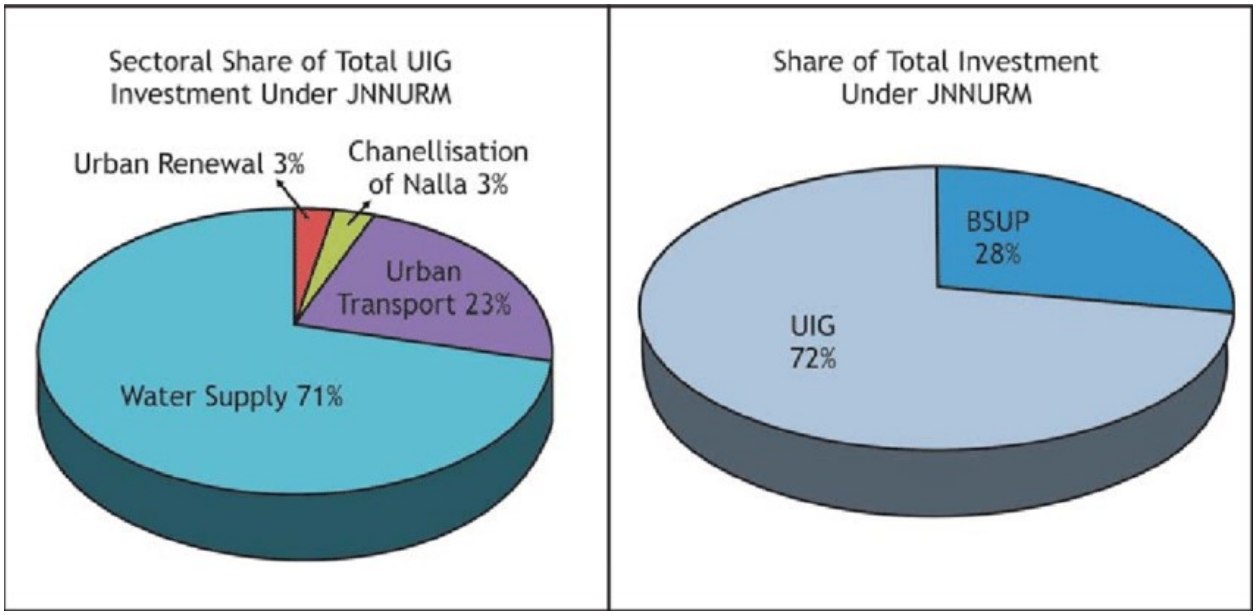
Swachh Bharat Mission - Urban (SBM - U)Launched on October 2, 2014, The Swachh Bharat Mission is the government's nationwide flagship programme with the objective of universal sanitation coverage in urban areas with a budget allocation of Rs 41,765 crore for 2018-19. It is a comprehensive sanitation scheme which aims to make the country open defecation free by 2019, promote 100 per cent collection and scientific processing of municipal solid waste, encourage healthy sanitation practices and equip the urban local bodies (ULBs) to design, execute and operate systems. The overall estimated cost for the SBM is Rs 62,009 crore of which Rs 14,787 crore is the centre's share.

rogress so far: As on March 31st 2018, 52 lakh individual household toilets and 3.2 lakh public toilets have already been built. The Housing and Urban Affairs Minister, Hardeep Singh Puri, recently announced that the government will meet the target of building 72 lakh toilets one year ahead of its scheduled time.

5) JNNURM

Jawaharlal Nehru National Urban Renewal Mission (JNNRUM)Launched in 2005, Jawaharlal Nehru National Urban Renewal Mission was a city-modernisation scheme with an investment of over $20 billion over seven years. It covers two components viz. provision of basic services for urban poor (BSUP) and an Integrated Housing and Slum Development Programme (IHSDP). The scheme was designed to raise investment in urban infrastructure, build better civic amenities, ensure universal access to basic utilities as well as create affordable homes for the urban poor, slum dwellers and people of economically weaker sections.

As many as 65 mission cities were identified under the scheme. The sub-missions of JNNRUM were to promote widespread integrated development. The mission period of the scheme was extended upto March 2015 to complete ongoing works. JNNRUM has been replaced by another similar city-modernisation scheme AMRUT.AMRUT (Atal Mission for Rejuvenation and Urban Transformation)Launched in 2015, the focus of the AMRUT scheme was on infrastructure creation that has a direct link to provision of better services to the citizens. Closely connected to the Swachh Bharat Mission, the scheme includes provision of water supply facilities, sewerage networks, storm water drains, urban transport, and open and green spaces, across the selected 500 Indian cities. The allocated budget under the scheme is around Rs 50,000 crore for the period 2016 - 2021.Progress so far: Work on the projects is underway across 20 cities and towns.



The objectives of the JNNURM are to ensure that the following are achieved in the urban sector;.
(a) Focused attention to integrated development of infrastructure services in cities covered under the Mission;.
(b) Establishment of linkages between asset-creation and asset-management through a slew of reforms for long-term project sustainability;.

(c) Ensuring adequate funds to meet the deficiencies in urban infrastructural services;.
(d) Planned development of identified cities including peri-urban areas, outgrowths and urban corridors leading to dispersed urbanisation;.
(e) Scale-up delivery of civic amenities and provision of utilities with emphasis on universal access to the urban poor;.
(f) Special focus on urban renewal programme for the old city areas to reduce congestion; and
(g) Provision of basic services to the urban poor including security of tenure at affordable prices, improved housing, water supply and sanitation, and ensuring delivery of other existing universal services of the government for education, health and social security.

Scope of the Mission
The Mission shall comprise two Sub- Missions, namely:

(1) Sub-Mission for Urban Infrastructure and Governance: This will be administered by the Ministry of Urban Development through the Sub- Mission Directorate for Urban Infrastructure and Governance. The main thrust of the Sub-Mission will be on infrastructure projects relating to water supply and sanitation, sewerage, solid waste management, road network, urban transport and redevelopment of old city areas with a view to upgrading infrastructure therein, shifting industrial and commercial establishments to conforming areas, etc.

(2) Sub-Mission for Basic Services to the Urban Poor: This will be administered by the Ministry of Urban Employment and Poverty Alleviation through the Sub-Mission Directorate for Basic Services to the Urban Poor. The main thrust of the Sub-Mission will be on integrated development of slums through projects for providing shelter, basic services and other related civic amenities with a view to providing utilities to the urban poor.

6) Other urban development schemes

National Urban Sanitation Policy (NUSP): The National Urban Sanitation Policy was formulated in 2008 which laid out the government's vision to provide hygienic and affordable sanitation facilities for the urban poor especially women as well as addressing the challenges with effective city sanitation plans.

Heritage City Development and Augmentation Yojana (HRIDAY): The scheme was introduced on 21st January 2015 for the holistic development of heritage cities. It deals with preserving and reviving the soul of the heritage city, as well as the development of core heritage infrastructure projects and revitalization of urban infrastructure for areas around heritage assets.

National Urban Livelihoods Mission (NULM): Launched on 24th September 2013 by the Ministry of Housing and Urban Poverty Alleviation (MHUPA), the scheme is a livelihood promotion programme to reduce poverty and vulnerability of the urban poor households by enabling them to access gainful self-employment and skilled wage employment opportunities thereby enhancing their livelihood. It also addresses the livelihood concerns of urban street vendors. It has been implemented across 790 cities.

National Urban Transport Policy, 2006: The National Urban Transport Policy involves incorporating urban transportation as an important parameter at the urban planning stage. It also

focuses on the introduction of intelligent transport systems, reduction of pollution levels and encouraging greater use of public transport and no motorized modes through central financial assistance.

7) Finance & Policy proposals

Value Capture Financing (VCF): The VCF policy framework was introduced by the Ministry of Urban Development in February 2017. VCF is a principle that states that people benefiting from public investments in infrastructure should pay for it. Currently when governments invest in roads, airports and industries in an area, private property owners in that area benefit from it. However, governments recover only a limited value from such investments, constraining their ability to make further public investments elsewhere. VCF helps in capturing a part of the increment in the value of land due to such investments, and use it to fund new infrastructure projects. The different instruments of VCF include: land value tax, fee for changing land use, betterment levy, development charges, transfer of development rights, and land pooling systems. For example, Karnataka uses certain value capture methods to fund its mass transit projects. The Mumbai Metropolitan Region Development Authority (MMRDA), and City and Industrial Development Corporation Limited (CIDCO) have used betterment levy (tax levied on land that has gained in value because of public infrastructure investments) to finance infrastructure projects.

Municipal bonds: Municipal bonds are bonds issued by urban local bodies (municipal corporations or entities owned by municipal bodies) to raise money for financing specific projects such as infrastructure projects. The Securities and Exchange Board of India regulations (2015) regarding municipal bonds provide that, to issue such bonds, municipalities must: (i) not have negative net worth in any of the three preceding financial years, and (ii) not have defaulted in any loan repayments in the last one year. Therefore, a city's performance in the bond market depends on its fiscal performance. One of the ways to determine a city's financial health is through credit ratings. Credit rating of cities: In September 2016, the Ministry of Urban Development started assigning cities with credit ratings. These credit ratings were assigned based on assets and liabilities of the cities, revenue streams, resources available for capital investments, accounting practices, and other governance practices. Credit ratings indicate what projects might be more lucrative for investments. This, in turn, helps investors decide where to invest and determine the terms of such investments (based on the expected returns). Other than credit ratings, the Ministry of Urban Development has also come up with other data indicators around cities such as the Swachh Bharat rankings, and the City Liveability Index (measuring mobility, access to healthcare and education, employment opportunities, etc). These rankings seek to foster a sense of competition across cities, and also help them map their performances year on year.

INSTITUTIONS IN HOUSING MARKET AND HOUSING FINANCE IN INDIA

INSTITUTIONS IN HOUSING MARKET OF INDIA:

The following institutions have been instrumental in developing the housing finance market in India. They are:

the Central and State governments RBI and NHB.

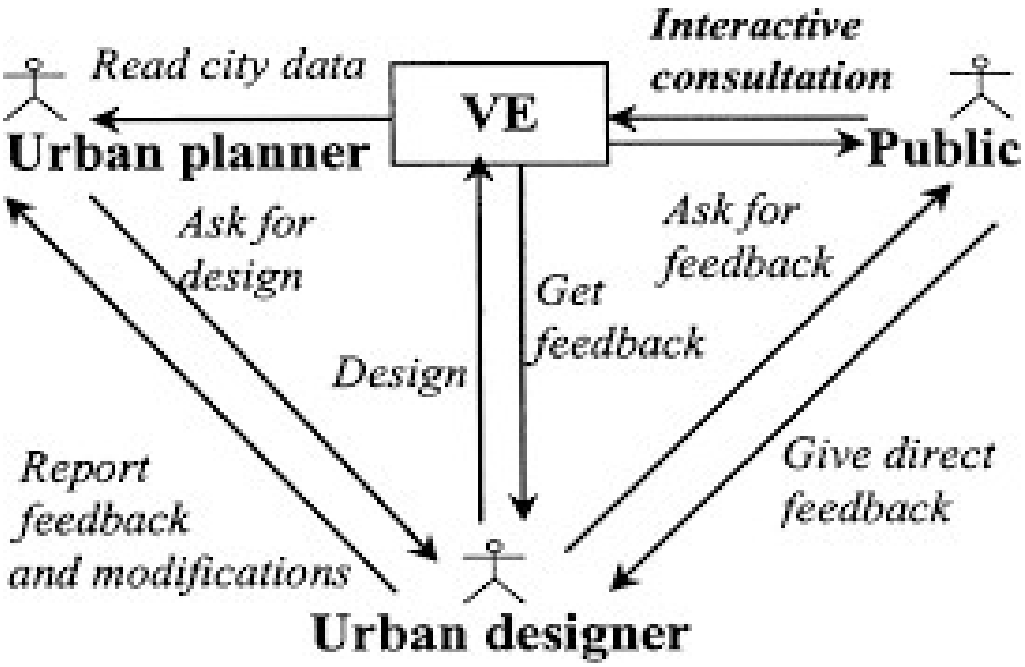
ROLE OF GOVERNMENT IN HOUSING MARKET:

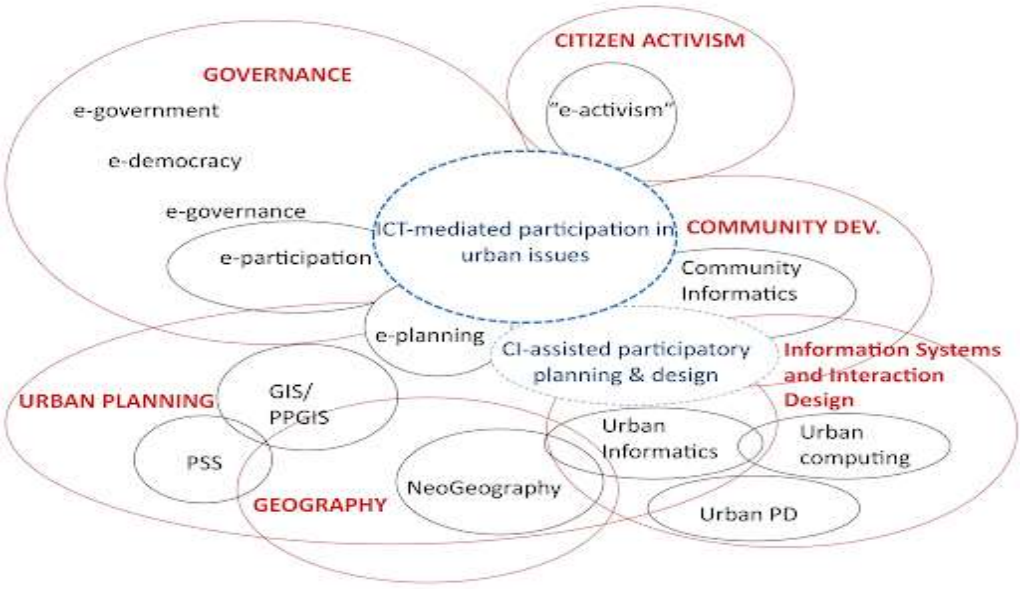
POLICY/ORGANISATION	YEAR	FUNCTION
Five Years Plans	1951	had assigned housing sector a prominent place in the economy
National Buildings Organization (NBO)	1954	Started under the Ministry of Housing and Urban Poverty Alleviation for technology transfer, experimentation, development and dissemination of housing statistics.
Housing and Urban Development Corporation Ltd. (HUDCO)	April 25, 1970	To deal with the problems of growing housing shortages, rising number of slums and for fulfilling the pressing needs of the economically weaker section of the society
National Housing Policy	1988	To improve the conditions of the inadequately housed and providing a minimum level of services/amenities to all
National Housing bank	1988	under an Act of the Parliament **to function as a principal agency to promote housing finance institutions and to provide financial and other support to such institutions.**
National Buildings Organization (NBO) -revised	1992-2006	revised keeping in view the current requirements under the National Housing Policy, and various socio-economic and statistical developments connected with housing and building activities.
The National Housing and Habitat Policy	1998	It was formulated after a thorough review of the earlier policy
National Urban Housing and Habitat Policy- revised	2007	It was formulated in view of the changing socio-economic parameters of the urban areas and growing requirement of shelter and related infrastructure.

supportive government measures like easing regulations , releasing more land for housing purposes, offering tax concessions, rationalization of stamp duty ,computerization of land records in many states , repealing of the Urban Land Ceiling Act in most states across the country and Opening up the real estate sector to FDI have had a positive impact on the growth of housing finance in India.

8) Public Participation and Urban Governance

Public participation, also known as citizen participation, is the inclusion of the public in the activities of any organization or project. Public participation is similar to but more inclusive than stakeholder engagement. Generally public participation seeks and facilitates the involvement of those potentially affected by or interested in a decision. This can be in relation to individuals, governments, institutions, companies or any other entities that affect public interests. The principle of public participation holds that those who are affected by a decision have a right to be involved in the decision-making process. Public participation implies that the public's contribution will influence the decision. Public participation may be regarded as a way of empowerment and as vital part of democratic governance. Public participation is part of "people centred" or "human centric" principles, which have emerged in Western culture over the last thirty years, and has had some bearings of education, business, public policy and international relief and development programs. Public participation is advanced by the humanist movements. Public participation may be advanced as part of a "people first" paradigm shift. In this respect public participation may challenge the concept that "big is better" and the logic of centralized hierarchies, advancing alternative concepts of "more heads are better than one" and arguing that public participation can sustain productive and durable change





Urban governance refers to how government (local, regional and national) and stakeholders decide how to plan, finance and manage urban areas. It involves a continuous process of negotiation and contestation over the allocation of social and material resources and political power. It is, therefore, profoundly political, influenced by the creation and operation of political institutions, government capacity to make and implement decisions and the extent to which these decisions recognize and respond to the interests of the poor. It encompasses a host of economic and social forces, institutions and relationships. These include labour markets, goods and services; household, kin and social relationships; and basic infrastructure, land, services and public safety. Large gaps often exist between poor and better-off urban residents in terms of access to social, economic and political opportunities (particularly decision-making) and the ability to participate in, and leverage, the benefits associated with urban living. According to Slack and Côté (2014:7), urban governance:

plays a critical role in shaping the physical and social character of urban regions;

influences the quantity and quality of local services and efficiency of delivery;

determines the sharing of costs and distribution of resources among different groups; and

affects residents' ability to access local government and engage in decision-making, influencing local government accountability and responsiveness to citizen demands.