Research about

Modern City Planning



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•What is city planning?

Different definitions

City planning is the planning and design of all the new buildings, roads, and parks in a place in order to make them attractive and convenient for the people who live there.

the technique, profession, etc. of planning and coordinating the development or rehabilitation of urban areas.



City planning is the activity or profession of determining the future physical arrangement and condition of a community, involving an appraisal of the present condition, a forecast of future requirements, a plan for the fulfillment of these requirements, and proposals for constructional, legal, and financial programs to implement the plan.





City planning has come a long way since then, but these early ideas still influence how we design cities today.

• What are the elements of city planning?

A well-designed city is like a well-orchestrated symphony, where every part plays its role harmoniously.

- 1. **Efficient Transportation:** Smooth roads, functional public transport, and cycling lanes reduce traffic congestion and air pollution.
- 2. Green Spaces: Parks and open areas offer relaxation, cleaner air, and a break from urban life's hustle and bustle.
- 3. Sustainable Buildings: Modern structures save energy, using green technologies. They promote both green living and sustainable city development.

- 4. Cultural & Educational Centers: Religious Places places, Museums, theaters, and art spaces enrich the city's soul, providing education and entertainment.
- 5. **Community Involvement:** Engaged citizens play a crucial role in decision-making, ensuring that the city serves its people well.



Model City of Today

Today, we shine a light on a remarkable city that exemplifies the best in urban planning: **Singapore**. What sets it apart?

Efficient Transport: Singapore's MRT (Mass Rapid Transit) system is a model of efficiency, making commutes a breeze.

Green Architecture: The city-state boasts modern skyscrapers filled with greenery, an urban oasis.

Sustainability: Singapore's commitment to sustainability includes water management, renewable energy, and green policies.

Cultural Integration: With diverse communities living harmoniously, Singapore is a case study in cultural coexistence.

Future Focus: This city is ever-evolving, using cutting-edge tech and design to adapt to the changing needs of its residents.

Singapore isn't just a city; it's a living example of how intelligent planning leads to a thriving metropolis. There are valuable lessons we can learn from this dynamic city for the betterment of our urban environments.





Future Cities

As our cities grow and evolve, we must anticipate the changes they will undergo. One major factor is population growth. Imagine an augmented reality where your city knows your needs

and adapts to them. With technological advancements, smart cities are no longer science fiction. For example:

Sustainable Infrastructure: We may soon see roads that charge electric cars as they drive, reducing the need for massive charging stations.

Waste Recycling: Smart bins that sort recyclables from nonrecyclables can streamline waste management.

Urban Agriculture: Vertical farms in skyscrapers might become the norm, making cities more self-sustaining.

Efficient Transport: Self-driving cars and advanced public transit systems could reduce traffic congestion.Urban landscapes are set to transform into dynamic, responsive environments, catering to both the needs of the present and the uncertainties of the future.

Community Engagement: Residents' input is crucial for wellplanned cities. They can identify their needs, advocate for change, and offer invaluable insights.

Adaptation: Cities that withstand the test of time adapt to shifts in technology, demography, and culture. Just think of the Industrial Revolution and its impact on urban design. **Evolution:** The cities we see today aren't as they were centuries ago. Change is constant, and we shape our urban landscapes as we change and grow.

The future of our cities is in our hands, influenced by our past, molded by the present.

•What is the definition of a modern

city?

According to **Jasper Owens**, a researcher and writer from Tennessee:

A modern city can be defined as an urban area with contemporary infrastructure, amenities, and technologies that support a large and diverse population. It is characterized by well-planned transportation networks, effective public services, advanced communication systems, and access to a variety of cultural, educational, and recreational opportunities. While modern cities often feature new architecture and urban planning, many also preserve their historical roots by maintaining and integrating older architectural styles and structures. Numerous cities around the world showcase a mix of old and new architecture, with ancient buildings made of stone, similar to those found in Rome or Florence, Italy.

Just a few cities that have preserved their historical architecture alongside modern developments include:

1. Paris, France: The city is known for its iconic landmarks like Notre-Dame Cathedral, the Louvre, and other centuries-old stone buildings, as well as modern structures like La Défense and the Pompidou Centre.



2. Istanbul, Turkey: Istanbul has a rich history with architectural marvels like Hagia Sophia, the Blue Mosque, and the Topkapi Palace, coexisting with modern buildings and infrastructure.



3. Barcelona, Spain: Barcelona boasts a mix of Gothic architecture, such as the Barcelona Cathedral, and modernist landmarks like Gaudí's Sagrada Família.



4. London, England: The city is home to historic buildings like the Tower of London, St. Paul's Cathedral, and Westminster Abbey, alongside modern structures like the Shard and the Gherkin.



5. Prague, Czech Republic: The historic city center of Prague, a UNESCO World Heritage site, features stunning examples of Gothic, Renaissance, and Baroque architecture, such as the Charles Bridge and Prague Castle.



These cities demonstrate how old and new architecture can coexist, creating a unique urban landscape that blends historical charm with modern conveniences.

In recent times, architects and urban planners have sought to integrate elements of traditional or historical styles, including the use of stone, into new building designs. This approach, often referred to as "**contextualism**" or "**new traditionalism**," strives to create harmony between old and new architectural elements and preserve the cultural heritage of a location.

• Ways that modern architecture approaches city planning

Architecture has never been just a career option - it was always an art form.

Architecture has been around ever since the emergence of civilization. We've always sought to combine gorgeous visuals with premium functionality and comfort. Numerous forms of design go into architecture, and all of these things combined give us our modern cityscapes.

But, newer districts, blocks, and city-regions have become more and more uniform in their exterior design, and interiors have all began to look alike. This is because modern architecture is closely related to city planning as a whole.

Humans are highly visual creatures, and whole cityscapes that look similar enough to be uniform but different enough to peak our interests have become the industry standard.

So, how does the modern architecture approach and influence our city planning? Well, it happens in numerous different ways, such as:

Tall Buildings and Skyscrapers

Tall buildings and skyscrapers seem to be more and more prevalent in today's cities, but why?

Well, tall buildings and skyscrapers fulfill many different needs for both their residents and the architects who are hard at work designing them.

Tall buildings are a part of modern urban designs and have been popular ever since people decided to move to cities.





Urban cityscapes are filled with tall buildings, and all of them vary in their style, depending on their purpose. While residential buildings might employ older, brick and mortar designs, office buildings and other places of work tend to strive for a more glassy look.

Glass is a gorgeous material that is skyrocketing in popularity as a building material. While the infrastructure of the building is not built out of glass, the facade tends to be.

This is not regular glass, though, as it is a more robust, thicker version of the ones we use in our windows.

Glass is so popular because it gives a building a neat, clean look.

While glass might be the king of facades in office buildings, residential buildings follow a different trend. Since there is a rising housing shortage, architects are working hard to design bigger and bigger buildings to fulfill the demand.

Working with at this scale lets the architect give more attention to detail. The thing that seems to be the most popular when it comes to architecture trends is minimalism.

<u>Minimalism</u>

Minimalism is so far the most popular modern style of architecture. Attractive, minimalistic buildings aren't only impressive, but having bigger buildings gives architects more space to play around it. Minimalism does not mean minimum effort. Minimalism is best combined with high functionality to provide for a quality building, and both residential and commercial architects are jumping on the bandwagon.

Architecture is nothing, if not an art form, and artists express themselves on a minimalistic canvas. Minimalism has found its way in urban design due to its simplicity and appealing nature.



Urban city planning is an essential thing in every city, as it dictates what things buildings have to fulfill before being approved. Urban city planning is giving minimalism a priority, and the amount of minimalistic structures is only rising.

With city planning being integral to the city's aesthetic infrastructure, uniformity is key to the preservation of said aesthetics.

Smart Buildings and Automation

Another thing that is rising in popularity is the application of smart devices into our home lives. When you think of smart devices in your home, you most likely envision the Google Assistant or Amazon Alexa, yet buildings have been smart for much longer than you might think.

Smart buildings are taking the world by storm, and have been for quite some time now. This removes the need for numerous different security features, as they are included within the smart system that runs the operations of the bundling.

Smart systems provide a wide array of different services, such as:

Entry/Exit Control

Entry and exit control has been in operation in one way or the other for quite some time but has recently become automatic through a smart building system.

In the past, residential and office buildings might have had a doorman or bellhop on building floors controlling who enters and exits a building. These days, this process is automatic through surveillance cameras.



Security

One of the most important things people want in a building is premium security. Feeling safe is one of the essential things overall, and the safety of smart buildings is way more advanced than you might think.

While buildings might have had a security guard on sight in the past, these days, some buildings employ smart security systems, with automatic distress calls, locking capabilities, and advanced security features.



Light Control

One of the first things that smart buildings implement in their infrastructure is lighting control. Automatic on/off lights have been present for some time now, but modern smart buildings control lighting based on the outside.

Lighting can be dimmed if the room is filled with natural light. The system determines this through a set of smart sensors that send signals to the system, informing it of the amount of light in the room.

Automatic Garages

Everyone drives a car these days. Residential and especially office buildings have their garages. While in the past, this process required personnel on-site to regulate who can enter and park in the garage, this process is now automatized, though card reading and facial recognition technology.

While smart buildings might be rising in abundance, architects need to plan ahead when it comes to their design. Smart buildings have quite a lot of requirements to fulfill, and the rising demand for them in combination with skyscrapers has had quite an impact on urban city planning.

With the emergence of planned cities all around the world, whole planned smart cities that work in unison to achieve a common goal of safety, security, sustainability, and accommodation are not that far in the future.



Combining Old and New

Minimalism is the dominant style in designing new buildings, but what of the existing old buildings?

Well, architecture is an art form, after all, and it is currently striving to create a combination of old and new. Modernizing old buildings has been in effect for quite some time, giving numerous modern commodities.

The only exception to this rule being buildings of historical value, which are preserved without any modification.

Older buildings are modified to fulfill the commodities and requirements of the modern man in numerous ways. While functionality is essential, aesthetics have raised quite a problem for contemporary architects.





Architects work to implement new designs with the old, making a beautiful combination. With the rising popularity of residential complexes and skyscrapers, some architects have created a merger, designing new buildings influenced by archaic design fads known as neo-traditional style.

Styling is essential when it comes to buildings, and bringing old design trends to new design laws, regulations, and styles are what the future holds for modern architecture.

City planning regulates a lot of things, such as floor amount, ceiling height, overall building height, and to an extent, the building style.

Some older buildings do not fulfill all of these standards and regulations and are more often than not renovated to satisfy these requirements.

If a building is deemed unfit for occupation due to improper construction, design, or security issues, it is most often demolished to erect a new building. This new building might accommodate the same purpose but will fulfill the laws and regulations of urban city planning.

Sustainability and Strategy

Sustainability and strategy are both integral parts of urban city planning, and modern architecture has to work to accommodate both into its modus operandi. Sustainability, strategy, and overall placement of buildings need to follow regulations and fulfill many different needs, to achieve the maximum optimal functionality of a particular structure.

Urban planning regulates this so that there is never too much of anything in one single place. To paint a picture, imagine a residential building complex that contains ten gyms and five supermarkets, to accommodate the 200 people living in the said complex.

Strategic placement of buildings in a particular area has not only a residential accommodation purpose but has a significant impact on administrative centers, transport, and numerous other aspects of modern life.



According to Wasim Alsadi

Landscape Architect | Gardens Designer | CGI Designer | Gaming Environments Creator

Public parks and gardens are one of the basics of modern city planning To be public facilities for cities and villages for a picnic and spending days resting and having a good vacation for the residents and their own entertainment.

The main goal of these gardens or parks is to be a place to practice some sports such as walking and running, and places for children to play, seating areas, restrooms, and other entertainment.

Planning criteria for the establishment of public parks and parks, Planning rates for parks and gardens generally depend on the local conditions of each city and are assigned to each, an individual from the city's population has a specific area of green space and is divided as follows:

1- Green areas between buildings

2-Green areas in city centers

3-Public green spaces

In general, the planner must take into account the following planning criteria in choosing the locations and spaces of gardens and parks:

1-The spaces allocated for gardens and parks should be commensurate with the density of the population.

2-The location of the garden or park should be appropriate according to the purpose of use.

• What are the types of cites?

A <u>city</u> is a <u>human settlement</u> with a large <u>population</u>. While <u>cities</u> have been a <u>feature</u> of <u>human</u> civilisations for many centuries, they have only become the predominant way of <u>life</u> as a result of industrialisation, with rapid <u>urbanisation</u> meaning that more than half the world's <u>population</u> now <u>lives</u> in <u>cities</u>. This figure is predicted to <u>rise</u> to more than 70% by the second half of the 21st century.

Categorization of the cities is done this way:

There are a range of different definitions and ways of categorising cities depending on the data-analysing organisation, census records or country. Cities can be determined by the number of inhabitants, the role they play within a larger political context, the role they play as a hub for the larger surrounding area and so on.

In the UK, city status traditionally depended on the presence of an Anglican cathedral. It was not until 1889 that this requirement was dropped. The UK's official criteria for defining a city today is not completely clear, but those which have been in place since 1907 must contain at least 300,000 inhabitants, have a good record of local government, and have a distinct identity that is the centre of a wider area. Other definitions suggest city status can be associated with having a cathedral or a university, a particular form of local government, or simply having a large population. More recently, city status has been granted through a series of competitive bids, managed by the Ministry of Housing, Communities and Local Government (now the Department for Levelling Up, Housing and Communities).

Types of cities

1. Twin cities

<u>Twin cities</u> (or <u>metroplex</u>) are <u>metropolitan areas</u> made up of two anchor <u>cities</u> in <u>close proximity</u> and of nearly equal <u>size</u> and <u>significance</u>. The term encompasses their <u>suburbs</u>, which may merge over time. <u>Twin cities</u> sometimes originate with the <u>construction</u> of an <u>airport</u> that serves both anchor <u>cities</u> and the surrounding <u>suburbs</u>.

2. Megacity

Megacities are metropolitan areas with a total population of more than 10 million people. This definition generally refers to the population of the whole urban agglomeration, that is, it includes people living in the immediate suburbs outside of the established border of the city...

A megalopolis (or megapolis) is a network of large cities and surrounding metropolitan primarily by transportation infrastructure. This results in a continuous flow of movement and commerce driven by economic development that supports the collective growth of the region.

3. Smart city

Smart cities are cities where there is effective integration of physical, digital and human systems to deliver a sustainable, prosperous and inclusive future for its citizens. Smart cities optimise the use of technology in the design and operation of infrastructure and buildings in a way that meets the current and future needs of their citizens.

4. Metro city

Metro cities are cities of between 500,000 and 1 million people.

5. Garden city

Garden cities are holistically planned new settlements which enhance the natural environment and provide high quality housing and locally accessible jobs in beautiful, healthy and sociable communities.

6. Conurbation

A conurbation is a region comprising a number of cities, large towns and other urban areas that, through population growth and physical expansion, have merged to form one continuous urban and industrially developed area.

7. Metropolis

A metropolis is generally a large, important, densely populated urban area that is the main city of a country, region or county.

8. Municipality

A jurisdiction such as a town, city or district that has its own powers of self-government.

9. Cosmopolitan city

A city might be considered cosmopolitan if its inhabitants interact freely despite being from a wide range of backgrounds and places and having

varied belief systems. Cosmopolitan cities are diverse but harmonious.

10. City state

The term city state refers to an independent, self-governing country that exists entirely within the boundary of one city.

11. Intermediary cities

Intermediary cities (intermediate cities or i-cities) are cities with a population of 50,000 to one million that perform a linking role, helping ease the transition between rural areas and larger cities.

12. Global cities

Global cities (sometimes referred to as power cities, world cities, alpha cities or world centres)

are cities that form primary urban hubs in the global economy.

13. Gateway cities

Gateway cities are key entry points to countries or regions, typically with major ports and/or airports, but also hosts of trade fairs, exhibitions and cultural events or other cultural assets that may be the first destination of international tourists.

•What is Land use?

Land use planning is the collective effort to develop and approve a land-based project and is generally regulated by government authority. It and restricts certain uses development of land in a conserves resources, promotes social gathering, enhances a community, and provides for transportation, industry, and economic needs.

• What is zoning?

In <u>urban planning</u>, zoning is a method in which a <u>municipality</u> or other tier of <u>government</u> divides land into "zones", each of which has a set of regulations for new development that differs from other zones. Zones may be defined for a single use (e.g. <u>residential</u>, <u>industrial</u>), they may combine several compatible activities by use, or in the case of form-based zoning, the differing regulations may govern the density, size and shape of allowed buildings whatever their use. The planning rules for each zone determine whether planning permission for a given development may be granted.



• Why is land use planning

important?

In today's society, there is a growing awareness of our impact on the environment. We understand that each of our activities leaves a carbon footprint. This growing consciousness means that we are paying attention to our living and working patterns, how they intersect, and how to live in a way that preserves the environment.

There is a burgeoning need for walkable communities, mixeduse developments, and green spaces for people to live, work and play within short distances to reduce commute times and encourage low-emission transportation options, such as walking or biking. Our land-use planning company in Utah and our Utah architects have developed many such initiatives throughout Salt Lake City and Park City, Utah.

These initiatives are for one purpose—to create a sustainable environment.

When done right, land use planning considers the needs of today and extrapolates those into what the needs of the future may be, and then creates a long-term, sustainable vision that allows the development of land that meets those needs.

Here are some reasons why:

- Reduces pollutants
- Improves air and water quality
- Prevents flooding

- Promotes safe transportation and routes
- Reduces noise and light pollution
- Keeps the environment ecologically balanced
- Protects potentially endangered species
- Mitigates disaster risks
- Safeguards public health and minimizes hazards
- Maintains and improves the fiscal health of a community
- Preserves open space
- Manages growth

•What are the common types of land use planning?

1.RECREATIONAL

Recreational land is the type of spaces provided for recreational use, such as equestrian centers, parks, open spaces, golf courses, sporting fields, playgrounds, fishing ponds, and swimming pools.

2. TRANSPORT

This type of land is used for interstates and highways, bus stops, trains, light rail, airports, and other land needed to facilitate transportation. Municipal transportation buildings such as bus stations, subway stations, airports, and other facilities fall within this zoning type.

3.AGRICULTURAL

Land zoned for agricultural use may allow for growing and harvesting crops, farm buildings, fields for livestock, and other types of farm activities. many animals may be kept, what types can be raised, or what crops might be planted, Agricultural use often has water rights and restrictions that are included.

4.RESIDENTIAL

Residential zoning can vary based on the density and types of houses that are allowed to be built within the area. These may range from low-density single-family residences to mediumdensity townhomes and condominiums up to high-density multi-family apartment buildings or multi-use complexes. Multi-use or mixed-use developments that have a combination of residences, commercial buildings, and recreational spaces have a different zoning category.

5.COMMERCIAL

Commercial zoning allows for office buildings, warehouses, restaurants, or other commercial uses. Since there is a wide variety of commercial use, there are separate sub-designations within zoning ordinances that place restrictions on the types of commercial activity that are allowed.

Additional zoning categories and land-use planning factors include industrial, tourism, and public-use buildings, including firehouses, police stations, and hospitals. Emergency resources and their immediate availability is critical to community landuse planning.

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