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## Theories of New Urbanism and the Future of Urban Development in KSA (A case study of Al-Madinah Al-Munawwarah City)

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### ABSTRACT

This paper aims to discuss the theory of new urbanism and the possibility of adopting this theory in future urban development projects in Saudi Arabia within the framework of Vision 2030. Saudi cities suffer from a clear disparity in the levels of urban development. One of the most important problems that decision-makers face in the field of urban planning is the absence of a balanced hierarchy of urban agglomerations at the regional level, and the continuous flows of migration from the countryside to urban areas because of the rapid pace of urbanization for multiple economic and social reasons. Hence, the question remains about how to form a suitable growth model for urban development in Saudi Arabia and how to adopt and support effective policies for sustainable urban growth. The paper assumes that following the principles of the new urban theory will contribute to solving the problem of the disparate urban development between Saudi cities. Al-Madinah Al-Munawwarah was chosen as a local case study to apply these principles and criteria for the theory while reviewing the experiences of three global cities that adopted the theory and benefit from the results drawn from it. The methodology of comparative analysis of the study model was used and compared with the principles and theories of the new urbanization to prove the validity of the hypothesis. The paper reached some results based on the analysis of the city's urbanization and its urban fabric, and a mechanism for dealing with the existing urban situation. The research was concluded with the results and a suggestion of recommendations within the Saudi Vision 2030.

### 1. Introduction

Since the beginning of the seventies, and with the improvement of the economic conditions of the Kingdom, the urban development rates of cities and villages have increased significantly and rapidly, not commensurate with the size and ability of the technical and administrative bodies to follow up and develop. This gap has led to the emergence of some urban problems such as the dispersion of urbanization, the random distribution of urban areas, duplication of services in some neighborhoods and their shortages in others. The Problem of the paper relates to the current urban planning methodology in Al-Madinah Al-Munawwarah. Here comes the main question of this paper on how to control urban development in Al-Madinah Al-Munawwarah as an example of Saudi cities with an accelerated urban movement. The second question is: what is the relationship between urban development and urban planning?. Finally, does the use of the new urbanism theory help in solving the problem of urban development in Al-Madinah Al-Munawwarah City? The paper Hypothesizes is that the adaptation of principles and policies of new urbanization in Al-Madinah Al-Munawwarah City leads to a positive impact on the urban development index and helps in solving urban problems.

Although the Kingdom's Vision 2030 can be visualized as a set of policies, the existence of "urban planning" as a field dealing with the physical environment can be seen in the folds of this plan, but it is not clearly defined. When looking at the 27 strategic goals, which are a detail of the six main goals of the vision, one can easily define an explicit goal that is directly related to the urban landscape, which is related to improving the quality of life in cities. This goal gained more focus by allocating one of the 13 programs that were launched to

achieve the vision, to move forward in achieving it, which is the "Quality of Life 2020" program [19].

### 2. Definition

"New Urbanism" is a new urban design approach aiming to encourage eco-friendly measures by creating adaptable locality that contains a variety of dwelling types beside jobs. This theory has been developed in the United States during the early 1980s and has steadily affected several characteristics of property development, town planning, and municipal strategic plans. The new urbanization endeavour to manage the problems related to the unplanned spreading of the City along with suburban development on the outskirts of cities. [3] "New urbanism" is greatly affected by the prevailing eminent town planning process until the automobile's advent during the last century, and they include ten basic principles [13]. All of these principles can be divided into two basic concepts: building a sense of belonging to the local community and developing environmentally friendly practices [9]. "Transects" is a topographical line across a habitat or part of a habitat applied to detect a pattern of habitats. This line can be utilized to recognize several habitats which differ by their extent and potency of the urbanized features, it is a continuation varying from the countryside to metropolitan. In cross-section planning, this variety of habitats is the foundation for systematizing the elements of the earth constructed buildings: permanent construction, lot, road, and all over constructions components of the human ecology [11].

The other expression used in new urbanism is the "smart code" is a unified form for land development and planning decree for urban development. Andres Dunay & Elizabeth Plater Zyberk & Company (DPZ) originally developed this code and is a zoned planning template based on the environmental analysis of the area to be planned,

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covering all levels of planning from one area to another until reaching the lowest level, which is a single building [7].

### 2.1. Concept of "New Urbanism".

New Urbanism concept focuses on human-scaled urban design, for example: walkable neighborhoods: A key element that is a component of "contemporary metropolitan" is the introduction of livable groups and neighborhoods. Communities ought to have all fundamental requirements and maximum vital centers and infrastructure inside on foot distance of residential regions of the network. The fundamental idea is that humans ought to have the ability to stroll to work; on foot to Educational buildings and maximum requirements ought to be inside on a close range of the house. A preferred guideline for the walkability precept of "contemporary metropolitan" is that the entirety distance withinside the network ought to be inside a 10-minute stroll. Buildings are regularly near the streets and feature windows, balconies, and doorways near the road. tiny avenue networks are usually used as parking lots.

Contact element: The most predominant substantiality function inside the "New Urbanism" as the fundamental idea is the opportunity of on foot. This manner that there ought to be a chain of interconnected avenue streets that alleviate visitors worries and offer citizen routes to stroll from one area to another. Besides the streets which are used for avenue visitors, buildings area that is planned which depended on this idea has narrow roads, streets, and alleys in which there is rarely any or no visitors on the street in which humans can effortlessly stroll from one area to another. Without visitors. Also, those streets are regularly coated with bushes to offer color for pedestrians as they stroll from area to area.

Neighborhood shape: The primary idea is that individuals who stay in those groups have to have the ability to stroll and now no longer want a vehicle to get entry to work, school, purchasing malls, network centers and different facilities. The shape of recent city neighborhoods is that there is a described center and edges of neighborhoods. This method that withinside the center of the neighborhood, which is a 10-minute stroll far from the rims, is the town center. In the central region, there are retail institutions, authorities' buildings, transportation centers and different effortlessly available business institutions inside taking walks distance of the rims of the neighborhood depended on this idea.

Diversity: gives the "contemporary metropolitan" style of human beings a lot of significance to the institution that stay in a single neighborhood. This method that there must be neighborhoods and groups with human beings of all ages, profits level, background, ethnicity, and cultures. This motion is called "New Urbanism" and it is far all about ethnic harmony, the blending of human beings of various backgrounds in addition to human beings of various ages, old and young who stay together [14].

The aim to enhance the great of lifestyles: The well-known aim of "New Urbanism" is to enhance the great of lifestyles for citizens in groups and neighborhoods.

### 2.2. The Principles of "New Urbanism".

New Urbanism theory includes several important concepts to assist fundamental policy and advancement performance: applications, town planning and scheming as follows [5].

#### 2.3. The District: Downtown, municipality, and township

- Urban areas are limited locations with intervening obstacle originated from the landscape, landmarks, shoreline, agricultural lands, nearby recreation grounds, and catchment areas. The town is composed of more than one centers which might be cities, towns, and villages, every with its identifiable center and edges.
- the region of metropolitan is an essential economic unit of the modern-day world. Governmental cooperation, public policy, urban planning, and economic methods ought to mirror this new actuality.
- The region of metropolitan is distinguished by an important vital sign and delicate to its agrarian terrain and topography. The link is ecological, economical, and intellectual. Agriculture and its environment constitute an essential impact on the region of metropolitan and simultaneously the gardens do to the buildings.
- Patterns of the evolution need to now no longer blur or get rid of the rims of the region of metropolitan. Infill improvement inside current cities preserves natural resources, economic investment, and

material culture whilst rehabilitation of low-value properties and insignificant zones. Large cities areas need to create procedures to empower such infill improvement over fringe expansion [5].

#### 2.3.1. The Neighborhood, The District, and The Corridor

- The neighborhood, the district, and the corridor are the critical elements of development and redevelopment withinside the metropolis. They form identifiable areas that encourage citizens to take responsibility for their safety and evolution.
- Neighborhoods must be compact, pedestrian-friendly, and mixed-use. Districts usually emphasize a unique single-use and must examine the standards of neighborhood format whilst possible. Corridors are nearby connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and parkways.
- Many sports activities of each day dwelling must get on foot at close range, for granting freedom for pedestrians, particularly the youth and adult. roadway network is required to be planned to motivate on foot strolling, reduce the amount and period of automobile trips, and maintain vigour.
- In the entire neighborhoods, a broad type of residences and amount can supply humans of all ages, races, and earning potential onto each day interrelationship, sustaining the non-public and civic bonds critical to an authentic community [5].

#### 2.3.2. The Residential Block, The Road, and The Premises

- A number one venture in the entire city structure with its panorama layout is the bodily description of roads and communal areas as locations of common amusement.
- Exclusive constructional tasks ought to be harmoniously connected to their environment. Such an issue overrides working practice.
- The rehabilitation of city locations relies upon protection and security. The layout of streets and homes ought to enhance secure environments, however now no longer on the cost of convenience and simplicity.
- It has been noticed that in modern cities, improvement should safely accommodate motor cars. It ought to accomplish that in methods that appreciate the pedestrian and the shape of public space [5].

### 2.4. Advantages of "New Urbanism".

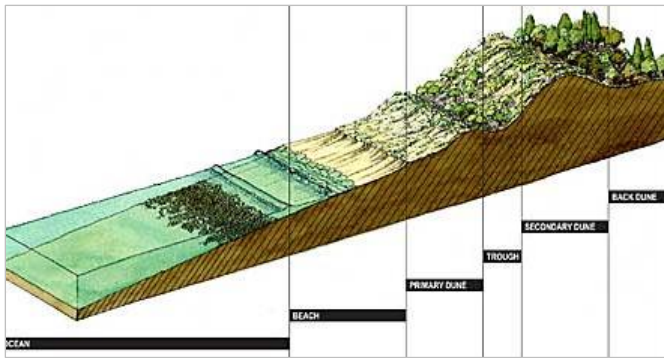
There are many blessings to the government, citizens, and actual property builders from making use of the New Urbanism principle. If the entirety is inside strolling distance of citizens, then it is miles very handy to stay in this type of neighborhood. People can purchase the entirety nearby; Children can stroll to school, and that they also can stroll to the workplace. Motors driving is always slight, hence saving time and funds for the citizens of those neighborhoods, at the same time as at the identical time keeping the environment. urban planning idea emphasizes green neighborhood making plans and innovation is a key thing in accomplishing this goal. Businesses in those neighborhoods have an extra threat of getting customers residing close to them due to the fact New Urbanism principle is predicated on the increase populace density inside neighborhoods. The modern urban design fosters a combined community with human beings of all ethnic groups, generations, and earnings levels. On the other hand, it encourages the housing range idea in a single neighborhood. In this manner, less expensive houses are to be had in regions that still have high-end houses. An aggregate of those who stay in concord is the destiny of the sector we stay in today [2].

### 2.5. The Tools of "New Urbanism".

The "New Urbanism" movement has many tools that are integral to the understanding, a few of which are explained below [6].

#### 2.5.1. The First tool "Transects".

Andreas Duany in Transect Planning stated that the transect is a city making plans method primarily based totally on ecological principles, however, it is also a critical analytical tool. Duany stated Transect technique entails taking a linear reduce throughout a landscape, generally horizontal, alongside which a variety of structures and habitats is sampled, measured, and analyzed. A town cross-phase is a reducer direction via a part of the surroundings that suggest a selection of various habitats.



**Figure 1** Diagram based on Alexander von Humboldt's "theory that everything has its place in nature. Given the theory of " zoning" [9].

Humans additionally thrive in specific habitats. Some humans decide upon dwelling in city centres to rural areas, whilst others thrive in rural or suburban areas. Before the car, towns had been walkable, as metropolis neighbourhoods had been much less city. Urbanization may be analyzed via the evaluation of natural sections, via way of means of studying and coding conventional patterns. A common country-to-metropolis segment changed into divided into six cross-sectional areas, or T-zones, for the utility to zoning maps. The requirements are written for the primary cross-segment-primarily based codes, in the end turning into the Smart Code which launched in 2003 via way of means of Duany Plater-Zyberk & Company [9].



**Figure 2** Schematic diagram of the zoning designations [9].

The New Urbanism planning instruments substitutes traditional separated-use regulations structures which having endorsed an automobile-based way of life and land-consuming sprawl. The six Transect Zones as an alternative offer the idea for actual neighborhood structure, which calls for pedestrian zones, mixed-use district zoning, transportation substitutes, and housing multiplicity. The T-zones range aided by ratio application and stage of depth in their natural, built, and social fabric. that could be systematized with all scales of planning, from the place through the scope of the society arriving at the parcel and premises, however, the new zoning itself is implemented on the network (municipal) scale. In brief, Today's urban planners consult with the fabric of the countryside-to-city cross-section adopted in such a manner as "cross-section." The benefits of using the cross-section involve a shared dialect for a new pattern setting the capacity to grip cross-sectional basis codes and complementary modules created through distinctive specialists concerned with the planning designing, beside the ecological ability of the consecutive fields for groups until conforming elegantly and environmentally Sustainable and continuous between generations. regulations and constructional sample's books primarily which is based totally at the cross-section need to be measured for every place, to mirror neighborhood person beside its shape. Build upon the locality, it could be little or extra T-zones decided via way of means of analysis.

For example, maximum cities do now no longer have a T-6 Urban Core Zone. While the version T-region portrayal is primarily totally rested on ideal American urban planning, several achievements had

been found restyling the cross-section method to match with the conventional styles in different countries, together with a few west, east European countries, Mexico, and the Bahamas. This can be conceivable since almost all settlements have several gradients from rural to urban areas and rules of conduct. The constituent incorporates the arrangement, layout, and purpose of premises, passages, and urban expanse, which are harmonized by T-zone number to guarantee "fascinating surroundings," i.e., civilizations' territories with a distinguishing character. The Smart Code, published in 2003, is an innovative cross section-based code. Nevertheless, the professional is currently researching regional cross-sections to utilize in a detailed work plan and future inter-governmental planning. The Territorial Division Plans of the SmartCode underlying regional-based cross-section, besides infrastructures as an example current or intended railroad tracks and RBT

[10] The Principles of "Transect" introducing by The Centre Applied Cross-Sectional Studies (ACSS) furthers comprehension for the urban setting in the context of the habitat, through the planning methodology of the rural-to-urban transect. ACSS support multidisciplinary studies, publishing, instruments, and education program for the shaping, encoding, create and documentation of cross-section -based flexible communities. ACSS is loyal to cross section-based ecological and urban development ethics which are encouraging the findings below: [4]

- walk on, crossing-over-the linked localities.
- extensive urban planning reform.
- contextual based passageway arrangement and organizing.
- low-income housing and income range.
- provisional, domestic, and single-food production.
- negative metrological response in construction and civic plan [14].

### 2.5.2. The Second Tool "Smart Code"

Smart Code is a standard-established code that incorporates the principles of smart growth and new urbanism. It is a uniform development law that addresses urban development at all levels of design from territorial planning to the building. The smart code is based on dividing the city from rural to urban rather than dividing by land use and thus can integrate a whole range of different urban environments. And the principles of "Smart Code"

- It uses a kind of zoning category that systematically ranges from wilderness to city core.
- It enables and qualifies smart growth society patterns that include cluster land development, traditional neighborhood development, regional center development, and transit-oriented development.
- It integrates the scope of planning interest from the territorial to the community, all the way to the individual plot, and if desired, to its architectural elements.
- Integrates the design process across professional disciplines.
- It integrates environmental protection, open space preservation and water quality control methods.
- It integrates subdivisions, public works, and Transfer Development Rights standards.

Because smart code depicts intended results based on known patterns of urban design, it is a more concise and effective document than most traditional codes. Supporters of the new urbanism say, if the smart code is properly implemented, it allows planners to map the plot area to any location and then use the plot to select the appropriate elements for that area. Donnay writes: "With a full understanding of the corridor, planners can identify the various urban densities that appear and toning appropriate and to their location." as an example, a farm will not deliver the intrinsic trait of the inner city, while a tower block of flats will help [7].

**Table 1** zoning area descriptions. These tables provide descriptions of the urban character of each region by zoning, [7].

T-1 Nature		
General character:	Landscape with some agricultural uses	General character: Natural areas (T-1) consist of lands close to or due to a terrestrial state, including lands unfit for settlement due to topography, hydrology, or vegetation.
Building placement:	do not apply	
Facade types:	do not apply	
Typical building height:	do not apply	
Type of civic space:	Parks, green roads	
T-2 Rural		
General character:	Primarily agricultural with forests, wetlands and scattered buildings	General Character: Rural areas (T-2) consist of lands with little settlement in open or cultivated countries. These include forests, farmland, grassland, and irrigated desert. Typical buildings are farms, farm buildings, cabins, and villas.
Building placement:	Variable defections	
Facade types:	do not apply	
Typical building height:	1- to 2 floors	
Type of civic space:	Parks, green roads	
T-3 Suburban		
General character:	Lawns and green spaces surrounded by separate single-family homes; Sometimes pedestrians	General Character: Sub-urban areas (T-3) consist of low-density residential areas, walkable to higher T-Zones of mixed use. Home and outbuild professions are allowed. Farming is normal and building recessions are relatively deep. Lumps may be large and paths irregular to accommodate natural conditions.
Building placement:	Large, variable setbacks and patios in the front and side patios	
Facade types:	Balconies, fences, and natural tree planting	
Typical building height:	1- to 2 floors	
Type of civic space:	Parks, green roads	
T-4 Public Urban		
General character:	A mix of townhouses, townhouses, and small apartment buildings with scattered commercial activity; Balance between landscapes and buildings; Presence of pedestrians	General character: Public urban areas (T-4) consist of mixed use but mainly a residential urban fabric. It may contain a wide variety of building types: single, side, and row houses. Setbacks and changing landscapes. Streets with sidewalks and sidewalks define medium-sized blocks.
Building placement:	Shallow rebounds to the center front and side	
Facade types:	Balconies, fences, and doors	
Typical building height:	2- to 3 floors with a few taller mixed-use buildings	
Type of civic space:	Squares, and greens	
T-5 Center of Urbanization		
General character:	Mixed stores with townhouses, larger residential homes, offices, workplace and civic buildings; Outbuildings mostly; Trees within the general right of passage; Great pedestrian activity	General Character: The urban center areas (T-5) consist of high-density mixed-use buildings housing retail stores, offices, live businesses, and apartments. It has a narrow network of streets, with wide sidewalks, planting street street and buildings near the sidewalks.
Building placement:	Shallow setbacks or nothing, street-oriented buildings define street wall	
Facade types:	Ceilings, storefronts, and galleries	
Typical building height:	2- to 5 floors with some variation	
Type of civic space:	Gardens, plazas and squares, intermediate landscaping	
T-6 Core of Urbanization		
General character:	Medium to high-density buildings, recreational, civic and cultural uses. Outbuildings forming a continuous street wall; Trees within the general right of passage; Highest pedestrian and transit activity	General Character: The urban core areas (T-6) consist of the highest density and height, with the largest variety of uses and civic buildings of regional importance. She may have larger lumps. The streets have steady tree plantations, and the buildings are located near wide sidewalks. Usually only large cities and towns have a primary urban area
Building placement:	Shallow recoil or none; Street-oriented buildings, defining the street wall	
Facade types:	Rooftops, dooryards, front patios, storefronts, art galleries and galleries	
Typical building height:	4 story building into skyscrapers with a few short buildings	
Type of civic space:	Parks, plazas, and squares. Medium landscape	

## 2.6. Examples of "New Urbanism"

We observe many neighborhoods in urban and rural areas around the globe today adopting the essentials of the "new urbanization" notion. In, the USA, Europe and China, there are neighborhoods of a new urban character as the basic concept of urban planning. The 'New Urbanism' aims to improve the quality of life, encourage environmental sustainability and make neighborhoods more aesthetic. This type of planning is a futuristic concept that more and more urban planning experts are using as a sustainable option in the 21st century.

### 2.6.1. "New Urbanism" in Florida, USA

A summary of the problems that have been solved by the experience of the American city of Florida by using New Urbanism are as follows:

- Solve traffic jams by creating pedestrian paths between converging, narrow, shaded, well-designed buildings that are walkable, safer, more beautiful, and enjoyable, and by compressing open spaces and reducing miles travelled.
- Preventing urban sprawl through the mixed use of land and the operation of the city center in the same way as the shopping center.
- To revive the neglected city center, as it has been redeveloped and turned into a means of comfort to attract residents, create markets and restaurants, and restore historical places.
- Eliminating environmental degradation and exploiting open spaces in the form of small gardens throughout the community [18].



**Figure 3** A figure of seaside explains the idea of distributing civil services near homes while minimizing the size of the streets and focusing on pedestrians to access urban services [11].

**2.6.2. “New Urbanism” in Yuelai, China**

A summary of the problems that have been solved by the experience of Yuliya Moon Economic City by using New Urbanism are as follows:

- Segregation of uses into areas with a single function that lacks the diversity that leads to massive crowding.
- A cancellation of planning to rely on the superblock which causes urban sprawl.
- Absorbing the population explosion and the reverse migration from rural areas to Chinese cities
- Reducing gas emissions, relying on pedestrian roads, and creating a much finer network, blocks between 90 and 150 meters tall and portioned into a mixture of access roads, free-of-car-roads, and paired roads of unidirectional, and perfectly, a high potential passenger's transit stations and spaced at of 800 meters distances each [15]



**Figure 4** A figure of Yuelai city showing following the Marymount

**Table 2** Comparison of the community space for the New Urbanism and the current planning process in Al-Madinah Al-Munawwarah, [9] [12] [21]. Adapted by the researchers.

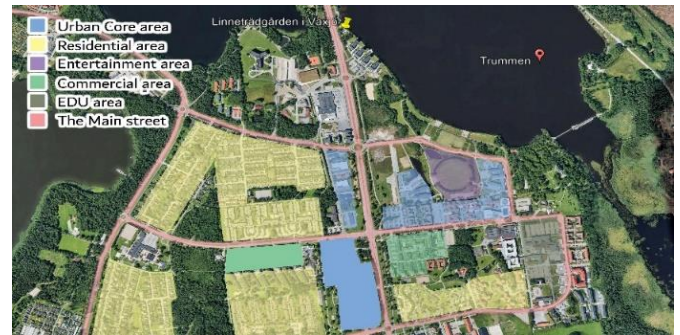
	Community Design in New Urbanism	Community design in the current Al-Madinah Al-Munawwarah urban planning
Regional Development	Establishing facilities at the regional level, Good connectivity between public facilities, transit stations, and newly developed public facilities around public transport, System. Figure (10)	Prepare facilities for each community separately. The full function of every community, not considering the surrounding urban environment. Figure (6)
The Range	Reducing the size of the living space according to the scale of human activity. Each neighborhood scale is 16-18 hectares, and a radius of no more than 0.4 km, ensuring a 3-minute walk to the park, and a 5-minute walk to the center of the square. Figure (10)	The scale based on the urban road network structure. The distance between the urban road is generally 1000 meters, so the housing unit) area (is usually more than 100 hectares .Figure (7)
Organizational Chart	Neighborhood, block, and corridor. Figure (10)	Residential Community, Residential Neighborhood, Residential Community
Public Places	The community center usually consists of a square and parks. Figure (10)	Lack of an urban center and community center.
Openness	Good connection with public transport. Figure (10)	The community and the region are relatively closed .Take a variety of techniques to separate the inside and outside.
Mixed-Use	With a telescopic radius walking distance of the foot and the establishment of shops, services and green spaces, school, and activity center.	The position within the residential community is relatively one. Figure (7)
Regional Features	Planning and design combine with regional features. Continuing local history, culture, and architectural style, enhancing the population's sense of belonging.	Urban construction ignores the protection and use of the existing building. Demolition of the reconstruction strategy, lack of respect for the natural environment.

pattern, one of the new urbanism patterns, explaining the hierarchy through the road network, the separation of traffic and the elimination of the boring and repetitive routine of the city [14].

**2.6.3. “New Urbanism” in Swedish cities**

A summary of the problems that have been solved by experimenting with the "Lomma Harbour", "Välle Broar" by using the New Urbanism are as follows:

- Reducing vehicle movement and reliance on buses and trains and increasing priority for pedestrians and grades.
- Increasing urban growth by increasing population density by merging the urban area and connecting it well with the rural area.
- Solving the problem of the scattered urban fabric by transforming it into a high-density civilized area linked to gardens and the river and using the riverside pattern.
- Eliminating the acute ugliness resulting from the old industrial city by creating a stamp for the dwellings in that region inspired by the garden city and creating wooden houses facing the sea. [20]



**Figure 5** A photo from the aerial photographer of a Välle Broar city explaining the current state of the new urban planning shooting from google earth of a Välle Broar city & Adapted by the researchers.

**3. Analyzing Results**

The theory of New Urbanism is not used in Saudi city planning at the present time and since the paper aims to show the advantages of using the theory of New Urbanism over the planning of Saudi cities represented in Al-Madinah Al-Munawwarah as a case study. The following tables No. (2), (3) and (4) illustrate the comparison between The current layout of Al-Madinah Al-Munawwarah and among the criteria used in the theory of New Urbanism.

And the following illustrate the tables analyzing a summary of global experiences and comparing them with the current Al-Madinah Al-Munawwarah urban experience.

**Table 3:** Traffic network comparison and road space design for the New Urbanism and current planning in Al-Madinah Al-Munawwarah, Source: [9] [12] [21]. Adapted by the researchers.

	Community Design in New Urbanism	Community design in the current Al-Madinah Al-Munawwarah urban planning
Traffic regulation	The new urban theory calls for walking and public transportation, and is against the notion of forked roads, with a grid-style road	The road is the traffic carrier for cars just simply.
Road space design	Make the street become an important public space for residents. Under planning laws, lower the turning radius to lower vehicle speeds, improve landscapes, and improve congestion areas. Reduce the number of miles travelled	The purpose of the street construction is the passage of the vehicle .Generally, two lanes and another lane for cars are on either side of the streets. Cars and people separated differently. The mileage is greater compared to the New Urbanism. Figure (7)

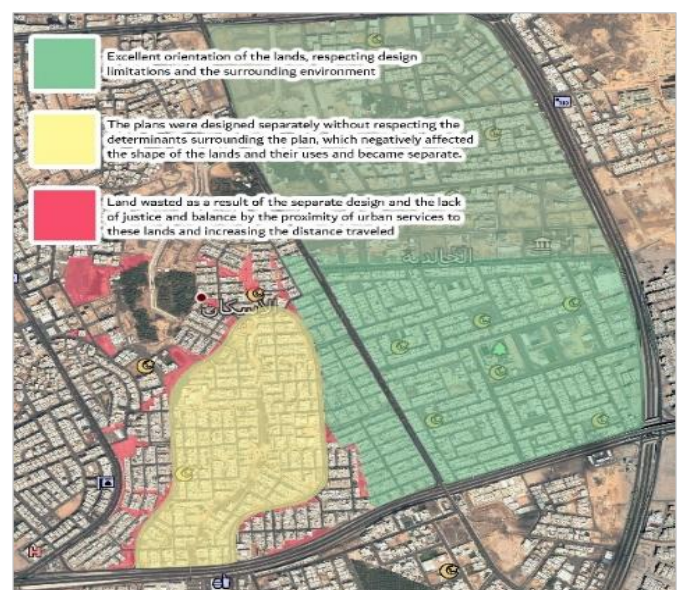
**Table 4:** Comparison of block design for New Urbanism and current planning in Al-Madinah Al-Munawwarah, [9] [12] [21]. Adapted by the researchers.

	Community Design in New Urbanism	Community design in the current Al-Madinah Al-Munawwarah urban planning
Block	The length control range at 183 meters, the perimeter is 549 meters.	Urban road architecture defines the scope of a residential area 'The reasonable distance between two main roads is 800-1000 meters. Figure (7)
Planning system	Emphasize the concept of neighborhood, enclosed in the yard before Building .The inner space is the space of activity.	The most common style in society and region is the neat arrangement of buildings in rows. Figure (6)

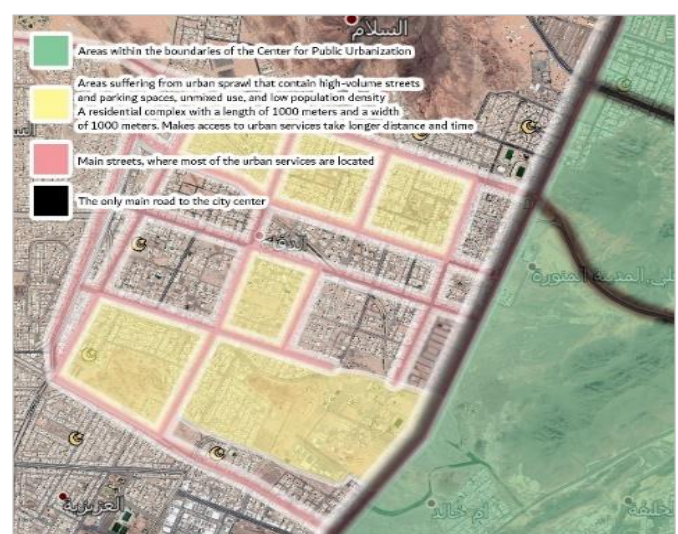
#### 4. Conclusion

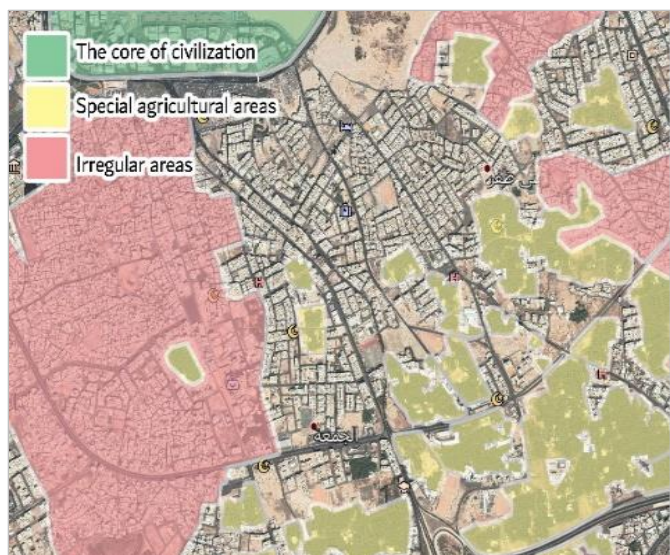
Through the comparison, it becomes clear to us that using the principles and theories of New Urbanism is the closest to increasing and achieving the goals of 2030 within the Quality-of-Life Program in Al-Madinah Al-Munawwarah, as well as increasing urban development because it addresses the following points:

- What we notice from the table regarding the planning of the Al-Madinah Al-Munawwarah compared to the New Urbanism is that there is separation due to urban sprawl and the large planned areas and the divergence of districts due to the large area of the Al-Madinah Al-Munawwarah and the full function gradually decreases as we move away from the city center towards the countryside and nature (outside the Al-Madinah Al-Munawwarah) as is done ignoring the environment of civilization surrounding example housing district of the city of Al-Madinah Al-Munawwarah , where missing to commercial services within the neighborhood and must cut a great distance if they were measured for pedestrians and find the neighborhood separated socially from the neighborhoods surrounding it where we find the difficulty of penetration of the neighborhood and the lack of common cultural services between neighborhoods such as parks Playgrounds, squares and commercial complexes, which gives the neighborhood the character of cultural isolation
- As can be seen urban sprawl and large - scale residential and difficult access to cultural services for pedestrians and humanitarian activity where we find it clear Al-Aziziya district in Al-Madinah Al-Munawwarah where we find cultural services combined near the main road and less gradually on the borders of the neighborhood to become almost non - existent from the cultural services as we find it difficult for pedestrians to reach the edges of the neighborhood.
- We find the organizational structure for the planning of Al-Madinah Al-Munawwarah is inconsistent, and the neighborhood does not contain a clear hierarchy, as is the case in the Al-Mabowth district in Al-Madinah Al-Munawwarah , where we find a large residential complex whose layout differs from the adjacent residential neighborhood in the same neighborhood and we find it difficult to determine the hierarchy of the main streets as well as the entrances and exits of different sizes Organizational structure On the contrary, concerning the New Urbanism, we find the hierarchy starting from the neighborhood and gradually decreasing to the blocks and then to the corridors.
- For the public places, the squares and pedestrian paths and gardens are considered a few where we find it difficult to provide in the neighborhoods of old and random as we find in some neighborhoods organized and planned 'such as Al-Masania district Al-Madinah Al-Munawwarah .
- Openness, ease of access, and good connectivity with public transport, we find it difficult, as previously mentioned, in the Al-Iskan district in Al-Madinah Al-Munawwarah .

**Figure 6** explain how to Prepare facilities for each community separately.

The full function of every community, not considering the surrounding urban environment shooting from google earth of Al-Iskan district in Al-Madinah Al-Munawwarah 2021 & Adapted by the researchers

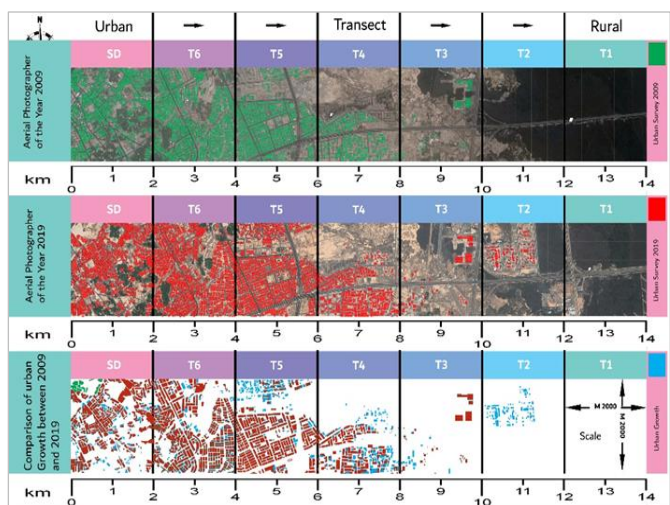
**Figure 7** explain urban sprawl and large - scale residential and difficult access to cultural services for pedestrians and humanitarian activity where we find it clear Al-Aziziya shooting from google earth of Al-Aziziya district in Al-Madinah Al-Munawwarah 2021 & Adapted by the researchers



**Figure 8** explain the misuse of land near the urban core of the city, where there is a very large area of agricultural land that negatively affects the urbanization index of the city and urban development according to transect tools shooting from google earth of Bini Zafar district in Al-Madinah Al-Munawwarah in 2021 & Adapted by the researchers



**Figure 9** explain the community and the region are relatively closed. Take a variety of techniques to separate the inside and outside shooting from google earth of Alia mall in Al-Madinah Al-Munawwarah in 2021 & Adapted by the researchers



**Figure 10** Comparison of urban growth between 2009 and 2019 explain how to be should Al-Madinah Al-Munawwarah divided into transect tools and Measure the Urban Growth shooting from google earth of Al-Madinah Al-Munawwarah between 2009 and 2019 & Adapted by the researchers.



**Figure 11** explain the new urbanism way to design a city, town, village according to smart code [1]

**5. Recommendations**

Al-Madinah Al-Munawwarah have found great interest from the wise leadership of the Kingdom, and this is evidenced by the care found by urban growth and the good establishment of the infrastructure for urban agglomerations, but Al-Madinah Al-Munawwarah, considering the Kingdom's 2030 vision, will be an attractive and stimulating environment for many interventions and tremendous experiences! The goal of the "Quality of Life 2020" program is to enter at least three cities in the list of the 100 best cities in terms of quality of life in the world, and this inevitably highlights the vital role of urban planning in this transformational era.

To achieve the Kingdom's Vision 2030, this research paper recommends several recommendations that help decision-making and urban planning bodies within the Al-Madinah Al-Munawwarah to achieve the goals of Vision 2030 through the following:

- The paper recommends using the principles and theories of New Urbanism to increase urban development and achieve the goal of increasing the quality of life within the Kingdom's 2030 vision.
- Creating a Saudi code for urban planning related to the Zoning Classification Tool and the principles of new urban planning.
- Using the area classification tool for the restoration of Al-Madinah Al-Munawwarah and evaluating the urban planning process by re-classifying the city's areas from urban to rural. After that, the specifications and standards of the Saudi Code for Urban Planning are applied.
- Increase mixed-use to reduce the distance travelled and increase the utilization of land plots.
- Preserving the lands in the central area near the Prophet's Mosque to accommodate the new expansion.
- To reduce the price of land in Al-Madinah Al-Munawwarah , The paper recommends increasing services in rural areas to create job opportunities, reduce dependence on the city center for business, and increase the demand on rural lands, alleviate the burden on the large demand for urban land.

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