

The Development of the New Urbanism Theory and Reflections on its Application at Florida's Seaside

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Abstract: This article reviews the background, preparation, development and birth stage, and the main content and framework of the new urbanism theory, then understands new urbanism from a historical perspective and then discusses how the seaside project in Florida developed a smalltown community with a strong community atmosphere and a beautiful environment, guided by the theory of New Urbanism. This is followed by an in-depth analysis of the high construction and maintenance costs of New Urbanism in practice, the impact on the privacy of residents' lives, the relative reduction of community ties, and other problems, and finally, it gives opinions on the sustainable development of the New Urbanism theory in the future.

Keywords: Urban Sprawl; New Urbanism; Development; History; Seaside; Reflection

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1. Introduction

Faced with a series of urbanization problems brought by the disorderly sprawl of suburbs, the United States launched the New Urbanism movement at the end of the 20th century. The New Urbanism movement has a profound impact on American cities. Under the influence of this theory, the pattern of community development and the spatial layout of cities in the United States has changed to a certain extent. The new urbanism theory advocates the development of multiple transportation modes led by public transportation, promotes the traditional neighborhood community form, and is committed to the development of rich, diverse, compact, and walk-friendly communities ^[1]. This article reviews the background, preparation, development and birth stage, and the main content and framework of the new urbanism theory, then understands new urbanism from a historical perspective and then discusses how the seaside project in Florida developed a smalltown community with a strong community atmosphere and a beautiful environment, guided by the theory of New Urbanism. This is followed by an in-depth analysis of the high construction and maintenance costs of New Urbanism in practice, the impact on the privacy of residents' lives, the relative reduction of community ties, and other problems, and finally, it gives opinions on the sustainable development of the New Urbanism theory in the future.

2. New Urbanism Theory

2.1. The history of the New Urbanism theory development process

The New Urbanism movement originated in the 1970s. After the Second World War, the rapid development of urbanization in the United States, and problems such as congested roads and dilapidated houses appeared in the central areas of industrial cities. Therefore, in order to pursue a broader living space and a more comfortable living environment, the middle and high-income people have moved to the suburbs far away from the city center ^[2]. However, some low-income people and people from the bottom of the society cannot afford the expensive rents in the suburbs and the transportation costs between the city center and the suburbs,

so they can only live in the crowded and run-down center of the city. Subsequently, various types of commercial and office areas have gradually moved to the suburbs, which has caused the decline of the city center, and the economic center has also changed from the original city center to the city suburbs ^[3]. Moreover, the disorderly expansion of the city has led to the continuous increase in the difficulty and cost of the construction and maintenance of water supply and drainage, roads, and other infrastructure in the city ^[4]. Therefore, in order to solve social problems such as suburban sprawl, people's excessive dependence on private cars for travel, and high commuting costs, the United States has set off a wave of the New Urbanism movement ^[3].

In the 1980s, the New Urbanism movement was preparing and developing, during which scholars not only denounced the political, economic, environmental, and social problems caused by suburban sprawl but also pondered the essence and flaws of traditional urban planning theories. During this period, the New Urbanism theory was embraced and refined by scholars such as Leon Krier, as well as the implementation of some specific cases, and the theoretical outline and content of the New Urbanism movement were gradually improved ^[5].

In 1991, a group of architects, represented by Peter Katz, discussed the current state of urbanization in the United States and how to solve the problems that arise in the development process. The conference resulted in a document that resisted suburban sprawl, The Ahwahnee Principles, and was important in facilitating the birth of the New Urbanism movement ^[6]. In October 1993, Peter Calthorpe, Elizabeth Moule, and others held the New Urbanism Congress in Alexandria, Northern Virginia, USA, which represented the formal birth of New Urbanism theory.

From the late 1990s to the present, the New Urbanism movement has been growing, and more and more professionals have explained and refined this theory in detail, and some urban planning and community transformation projects have been practicing and applying the New Urbanism concept, such as a Sustainable Transect Planning Model proposed by Elizabeth and Duany^[5].

2.2. The main content of the New Urbanism theory

The New Urbanism movement alleviates the phenomenon of urban suburbanization by developing traditional communities. There are two main development models, the traditional neighborhood development model (TND) and the traffic-oriented development model (TOD).

The TND model was born in the United States in the 1980s. Andrés Duany and Elizabeth Plater-Zyberk are the main implementers of the TND model. This model mainly emphasizes returning to traditional neighborhoods and communities, focusing on the planning of blocks, historical architectural styles, public spaces, and social relations. The community under the guidance of the TND model design has multiple functional lands and building types, more compact building space, more diverse public areas, and streets are more suitable for walking and cycling. Kentlands is located in Gaithersburg, Maryland, USA. It is one of the relatively complete and successful cases of the TND model. Kentlands has a variety of housing types, green belts, and community public spaces (see **Figure 1.**). Each community has different styles and characteristics. The distinctive architectural style, wide sidewalks, and beautiful walking environment make the Kentlands project a typical representative of the TND model ^[7].

The transportation-oriented development (TOD) model appeared on the West Coast of the United States in the 1980s. Although the TOD model is also based on the traditional development model of small towns in the United States, it focuses on the development of urban pedestrian systems and public transportation-led transportation systems, emphasizing the connection between communities and public transportation^[7]. For example, Orenco Station in Hillsboro, Oregon is a successful practice of the TOD model. Under the guidance of the TOD model, the transportation system of Orenco Station has been replanned and integrated. Orenco Station has shifted from reliance on private cars to a pedestrian and public

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transportation-based mode of transportation (see **Figure 2.**). The number of people who choose to walk and public transportation to travel is about 2.6 and 3.6 times that of other regions, respectively ^[8].



Figure 1. Kentlands Site Plan and Study Sites Kentlands Information Center, DPZ Architects & Planners



Figure 2. Theoretical framework. Comparative case studies: trip and parking generation at Orenco Station TOD, Portland Region and Station Park TAD, Salt Lake City Region

2.3. Understanding the New Urbanism from a historical perspective

New urbanism criticized the concept of urban design in the twentieth century. In a sense, new urbanists

hope to restore an ideal past. New urbanism emphasizes the rediscovery of ideal traditional buildings and communities. These traditional architectural and community design techniques have built a large number of beautiful and livable neighborhoods for the United States, such as the German town, square, and distribution center in Philadelphia ^[9]. New urbanism is to find experience and methods from these commendable traditional communities. Some new urbanists draw inspiration from these traditional urban planning cases to design new communities ^[10]. Camillo Sitte and Raymond Unwin are committed to discovering the aspirations and instincts of past urban planning, and they want to summarize these approaches and get a model of an excellent city ^[9]. For example, Unwin has studied a large number of plans and photographs of historical cities from different aspects in the preparation of Town Planning in Practice ^[11]. In addition, Phillip Landgon believes that many historical architecture and communities have added a lot of understanding of people when designing, for example, how to influence the relationship between people through the design of space, and how to promote family happiness and neighborhood harmony. If modern designers ignore these historical experiences, serious consequences will result ^[12].

3. Application of New Urbanism in Seaside, Florida

Seaside is a small private community in Walton County, Florida. It was built in the 1980s. It is one of the first projects designed in accordance with the concept of new urbanism in the United States. It is of great significance in the fields of architecture and urban planning. Robert Davis is the main designer of the seaside project. His goal is to build a real, immortal community that reflects local characteristics and has a historical shadow. He advocated learning from traditional American community models and architectural styles but did not completely copy history. He advocated the development of a pedestrian-based transportation system, the construction of rich and diverse public spaces, and the creation of harmonious neighborhood relations. The Seaside project is designed under the guidance of the TND concept and has

3.1. Compact land use and walk-friendly transportation system

The concept of new urbanism advocates the construction of a compact spatial layout, which in turn promotes the construction of a pedestrian-friendly public transportation system in the community. Compared with the low-density community development model in the suburbs, in the Seaside project, the area of private housing is smaller. Peter Calthorpe believes that the separate development of pedestrian and vehicle systems is not only does not conducive to reducing the use of cars but will generate an upward trend. Therefore, in the seaside project, the designer did not consider the walking and car system separately but made an overall layout. Planners achieved the goal of reducing the use rate of private cars and choosing walking and public transportation through a series of methods such as compact functional layout, reduction of road width, and improvement of road center greening rate (see **Figure 3.**).

3.2. Comfortable living environment

A comfortable living environment is essential to community design. The designers of the seaside project have adopted the following methods to create a good and comfortable community environment. First, the seaside project has designed small public spaces in each small community group and created enclosed spaces through changes in the layout of buildings and groups. For such a compactly arranged community, these small public spaces space is deeply loved by residents both in terms of scale and landscape. Second, it can be seen from the pictures that the building area of each residential land is quite large, so the private outdoor space is squeezed, so that not only can the rich and diverse building appearances be used to change

the landscape on both sides of the street, it can also attract people to the public space of the community (see **Figure 4.**). The type of people's activities change from privacy to publicity, and the atmosphere of the community becomes stronger ^[13]. Third, there are many types of housing models in this community, not only expensive high-end villas but also townhouses that can be affordable for low- and middle-income families. The rich housing types are for different social classes People of different social classes can live in the same community and enjoy the same public service system. The public space in the neighborhood becomes a communication area for different groups of people. This method effectively solves social isolation and the problem of polarization between rich and poor.



Figure 3. Photo of Seaside Florida



Figure 4. Buildings of Seaside, Florida

3.3. Protect the environment and sustainable development

The New Urbanism movement emphasized the protection of the environment. In the Seaside project, the natural vegetation occupies a high rate of land, and large lush dwarf oak trees. In the seaside community, foreign objects are not allowed to be planted here, and people can only plant plants that can grow locally ^[13]. In addition, the color of the building should also be similar to the surrounding natural environment. For buildings close to the coast, the exterior color is consistent with the light color of the waves. In the inland areas far from the coast, the color of the houses in small towns is mainly It is dark, and the purpose is to blend with the surrounding plant colors. In the seaside community, there are some private bridges around the coast. These bridges are not only for landscape decoration, but to protect the fragile beach and the ecological balance between plants ^[13].

4. Evaluating the Application of New Urbanism in Seaside, Florida

Although the seaside is a successful attempt of new urbanism, this concept still exposes many significant problems in the application of this project. First, as a practice of new urbanism, the seaside has high design, development, maintenance, and publicity costs. The reasons for the high cost include meeting the needs of the concept itself, such as a walkable transportation system, a pleasant living environment, abundant public space, and high-quality architecture ^[14]. In addition, the price of the house before the construction of the project was set according to national standards, but after completion, its unique style made it widely sought after. Therefore, a large number of wealthy people began to buy houses here, resulting in continuous development and maintenance costs. Increase ^[15]. Second, because the new urbanism emphasizes the compact layout of community functions and the indispensable neighborhood public space, this will occupy part of the residential area. At the same time, this compact layout mode will also cause the neighboring residents and the residents to public. The distance between the regions is too close, and the private life of residents may be affected to some extent ^[16]. Third, the New Urbanism advocates the development of neighborhood relations within the community, which has relatively complete functions within the community, which has led people to pay more attention to the exchanges between the neighborhoods within the community, and between communities and communities. The connection between other spaces in the city will be relatively reduced. Fourth, in the Seaside project, the TND model requires a mixture of multiple types of houses, which results in families with different incomes living in the same community, and the affordable housing area has a higher building density, but some wealthy or middle-class people do not want to live in crowded residential areas, which creates the contradiction between solving social isolation and meeting the living needs of different groups of people^[17].

This paper introduces the stages and main content of the development of new urbanism, understands the New Urbanism theory from a historical perspective and discusses how new urbanism is applied in the seaside project. Although the theory has a complete content and system at this stage, it is actually applied in the process, there will still be excessive costs, affecting the privacy of residents' lives, relatively weakening of the connection between communities, and the inability to truly solve the problem of social isolation. In fact, in the process of applying the concept of new urbanism, the external performance of the building, and the pure site space design should not be the focus of the designer's attention. The design goal of the project should be consistent with social and environmental goals. The goal of the project should consider which design method to achieve social goals. Besides, the concept of new urbanism needs to be supported by policies or plans at the regional level so that it can develop sustainably ^[3].

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