



Contents lists available at ScienceDirect

Habitat International

journal homepage: [www.elsevier.com/locate/habitatint](http://www.elsevier.com/locate/habitatint)

## New Urbanism and Smart Growth: Toward achieving a smart National Taipei University District



Wann-Ming Wey\*, Janice Hsu

Department of Real Estate and Built Environment, National Taipei University, 151 University Road, San Shia District, New Taipei City 23741, Taiwan

### ABSTRACT

#### Keywords:

New Urbanism  
Smart Growth  
University district  
Spatial planning  
Neighborhood development

New Urbanism and Smart Growth are relatively new approaches to urban design that deals with environmental problems, housing issues, and community well-being. The implementation feasibility and significance of the planning ideas however can vary from place to place. Based on the planning principles of New Urbanism and Smart Growth, this study rigorously and realistically identifies key principles and investigates their relative importance for the planning and designing of the National Taipei University District (Taiwan). An extraction model first elicits knowledge from experts for the purpose of locating key principles. Next, key principles are fed into a simulation model to identify which of the principles should take precedence. This permitted an explicit consideration of local characteristics and background issues in the planning process. Results show that walkability is perceived by experts as the most important principle. While providing for various transportation options is found to be important to the development of the study area, green transportation is clearly not included. These findings suggest that the concept of sustainability is still very abstract and has not become an important planning criterion. Also, stakeholder engagement may be vital to community development planning such as the City of Irvine in the United States, but it is less important in Asian city-region. The results also show a less important role open space preservation has in creating better communities in a small island with a high population density like Taiwan. Thus, although New Urbanism and Smart Growth principles have important impacts on urban design, local circumstances must be taken into account instead of merely following the principles.

© 2013 Elsevier Ltd. All rights reserved.

### Introduction

Urban sprawl and city congestion have become the inevitable development trend in the process of economic growth. At the early stage of urban development, there lacks of design and control strategy toward planning. The pursuit of better living conditions and the expansion of car ownership induce the outward spreading of a city and its suburbs. Such encouragement of sprawl development leads to low-density land-use patterns. Residents of sprawling neighborhoods also tend to emit more pollution per person and suffer more traffic fatalities. They therefore long for solutions in an attempt to create a better and more sustainable place to live, play, and walk. The rise of New Urbanism brings new energy and new ideas to communities that commit to manage growth. Urban design hence becomes more visible within planning because design is incorporated into growth management programs. Comprehensive

plan planners also begin to connect more strongly with affordable housing advocates and public health professionals, broadening their focus beyond the more traditional set of issues revolving around land-use, transportation and the environment (Chapin, 2012). All of these changes contribute to the transition into the Smart Growth movement, which concentrates growth in compact walkable urban centers to avoid sprawl.

New Urbanism and Smart Growth have been seen as alternative approaches to suburban sprawl in urban planning and architecture in the United States (Bohl, 2000). These two approaches inspire the construction of new communities that are designed to respond to suburbia's cultural conformity, social isolation, ugliness, and environmental concerns. According to the study of Forsyth (2005), one of the most successful New Urbanism communities in the United States is the City of Irvine. The city was built in the late 1960s. Different from other residential communities constructed in the earlier times of urban sprawl, the city drew a master plan with a mixed land use pattern that provided a variety of planning areas to meet the needs of local residents. Each planning area was divided by six-lane roads, had a unique theme, and included conveniently located retail and office and public facilities to support residential

\* Corresponding author. Tel.: +886 2 86741111x67428; fax: +886 2 86715308.  
E-mail addresses: [wmwey@mail.ntpu.edu.tw](mailto:wmwey@mail.ntpu.edu.tw) (W.-M. Wey), [macyhsu09@hotmail.com](mailto:macyhsu09@hotmail.com) (J. Hsu).

development. Also, Irvine was designed to have amenities, such as various scales of parks, schools, open spaces, comfortable sidewalks and bike lanes. Thus Irvine is a New Urbanism community; but, it also provides support for “smart growth” proposals. The city’s planning applied the following principles of New Urbanism and Smart Growth: walkability, connectivity, mixed-use & diversity, compact building, increased density, quality architecture & urban design, community identity, preserve open space, community–stakeholder partnership, and quality of life. Where it did not, in areas such as housing affordability and transportation choices, it offers important insights for planners, developers and others interested in incorporating new forms of development into their designs.

The City of Irvine in the United States and the National Taipei University (NTPU) district in Taiwan have characteristics that are the same or similar with each other. For example, they both have neighborhood schools within walking distance that can provide local education. Another example, they have mixed land use that can be developed to have a variety of types of activities within the community. Both also acquire elements that correspond to New Urbanism and Smart Growth principles. However, will there be a problem with applicability in concept and scale to the NTPU district, which has a larger different planning background and development status than that of Irvine? Also, the preferences of urban planners may not be the same. Accordingly, the objective of this study is to introduce a methodology that would incorporate the New Urbanism and Smart Growth concept, local characteristics, and the local planner’s perspective for planning and designing the NTPU district. To conduct this study in a rigorous and realistic manner, it is necessary to adopt Fuzzy Delphi method (FDM) to select key New Urbanism and Smart Growth principles for the development of the NTPU district. The FDM enables the selection to incorporate the viewpoints of relevant policy makers, planners, and stakeholders and to deal with these human judgments that are approximate rather than fixed and exact. The Analytic Network Process (ANP) technique is then used to assess which of the key principles should take precedence under local needs and resources. In this way, this study also constructs a development index for planning and designing the study area. By applying consistent planning principles, modeling methods and assessments to the study area, this paper draws robust conclusions on spatial planning and design, and to judge the extent to which results are scale and context dependent.

## New Urbanism

The rise of the automobile of the 1920s led to urban sprawl and leapfrog development, which in turn caused traffic congestion and environmental concerns. Research has shown that these concerns can be alleviated through an integration of transportation planning, land use, and management of human settlements (Sim, Malone-Lee, & Chin, 2001). Accordingly, in the late 1980s, New Urbanists in the United States (particularly communities planned by Andres Duany) began to influence private developers and public officials looking for alternatives to the sprawling nature of suburban housing (Moore, 2010). Later, in 1993, the Congress for the New Urbanism was founded in order to “create buildings, neighborhoods and regions that provide a high quality of life for all residents, while protecting the natural environment” (Congress for the New Urbanism, 2002).

As noted by Day (2003), New Urbanism is an approach that advocates design-based strategies to help arrest suburban sprawl and inner-city decline by building and re-building neighborhoods, towns and cities. Its planning principles are therefore incorporated within the goals and agendas of individuals and organizations from

other fields, including environmental protection, sustainable development, historical preservation, growth management/smart growth, transit, pedestrian and bicycle planning and main street programs. Initially, planning principles are identified most often with suburban, “greenfield” settings. For example, the Congress for the New Urbanism (2002) claims the following three principles to guide public policy, development practice and urban planning: (1) the region: metropolis, city and town, (2) the neighborhood, the district and the corridor, and (3) the block, the street and the building. Increasingly, however, they are adopted to revitalize urban, “brownfield” settings (Bohl, 2000; Pyatok, 2000) in order to help promote pedestrian-friendly and walkable neighborhoods with good access to public transit systems and work places. Now, the planning principles shown in Table 1 are applied to projects at the full range of scales from a single building to an entire community.

Moreover, supporting diversity in neighborhoods is an important goal of New Urbanism. The preamble to a book titled *Charter of the New Urbanism* states that the Congress for the New Urbanism views “the disinvestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society’s built heritage as one inter-related community-building challenge” (Congress for the New Urbanism, 2002: p. v). The U.S. Department of Housing and Urban Development also echoes this goal in its guidelines for HOPE (Housing Opportunities for People Everywhere) VI projects: “the goal of new urbanism is to promote diverse and livable communities with a greater variety of housing types, land uses, and building densities – in other words, to develop and maintain a melting pot of neighborhood homes serving a wide range of household and family sizes, ages, cultures, and incomes” (U.S. Department of Housing and Urban Development, 1996: 5–6).

Day (2003) argues that New Urbanism relies in an ideal of ‘community’ that makes its suitability for these contexts questionable. The author examines the use of New Urbanism to revitalize neighborhoods with diverse populations, and she reaches the following conclusions: (1) physical change may not be the best solution for the social problem that often faces such neighborhood, (2) the New Urbanist idea may have different meanings to different groups of neighborhood residents, (3) New Urbanist neighborhood renovation may displace low-income residents, and (4) the New Urbanist participatory design process may not accommodate diversity. Whereas, Iris Young’s ideal of city life offers a theoretical alternative to “community” as the planning basis for diversified urban neighborhoods (Yong, 1990). This ideal seeks to accommodate social differentiation without exclusion. Rather than a single shared vision, neighborhood planning supports variety including multiple and varied activities, lifestyles and identities. Thus, to balance the primacy of the private sector under New Urbanism (Williamson, 2002), design encourages real publicness and creates spaces for encountering difference as well as for affirming sameness (Walzer, 1986).

Furthermore, even if New Urbanism’s strategies for physical design are cohesive and are frequently sound (Shibley, 1998), as long as its planning principles are based on a scale (such as an American small town), its goal and ideal may not be universally applicable for all kinds of community developments. The study of Saleh (2004) supports this argument, and states in his study that the physical design of space either public, semi-public, semi-private, or private can hinder or enhance cultural and climatic requirements as well as improve the security of the community. Talen (1999) further argues that our current understanding of the relationship between town design and sense of community is largely without empirical basis and is therefore deficient. And what evidence is there that residents want (or are even willing) to consider

Download English Version:

<https://daneshyari.com/en/article/1047971>

Download Persian Version:

<https://daneshyari.com/article/1047971>

[Daneshyari.com](https://daneshyari.com)