

7PLAN027W.1 Urbanism and Design: Form, Context, and Philosophies

Coursework 3

Topic 4: *What are the distinctions between landscape urbanism, eco-cities, and so called 'green' cities? Discuss with examples.*

The following essay will discuss landscape urbanism, eco-cities, and 'green' cities; their definitions, origins of development, and both successful and unsuccessful examples, focusing primarily on addressing the distinctions between the three topics of discussion. Each topic will also be compared with the others in terms of scale, meaning, and success.

Landscape Urbanism

The origins of Landscape urbanism date back to the 1980s. At the time, Charles Waldheim was a student at the University of Pennsylvania. Influenced by landscape architects and academic professors James Corner and Ian McHarg, Waldheim developed his own thoughts on the topic of discussion by integrating the ecological advocacy of McHarg with the urban design theories and visions of Corner, creating the concept of landscape urbanism. (Steiner, 2011) According to Charles Waldheim, "Landscape Urbanism describes a disciplinary realignment currently underway in which landscape replaces architecture as the basic building block of contemporary urbanism. For many, across a range of disciplines, landscape has become both the lens through which the contemporary city is represented and the medium through which it is constructed." (Waldheim, 2012) The idea of landscape urbanism is taking an area of a city and conforming it to its natural landscape, while also considering the urban setting of the space as well. Landscape urbanism consists of significant potential such as: "the ability to shift scales, to locate urban fabrics in their regional and biotic contexts, and to design relationships between dynamic environmental processes and urban form." (Waldheim, 2012) Landscape urbanism projects can be very minimal, small-scale, or much larger scaled such as a few hundred-acre park. Strategies and examples of projects also include regenerating waterfronts, regenerating ecosystems, avoiding noise pollution, and generally creating landscapes in urban settings. (Fernández Per, 2011) Most projects focus on land

reclamation and restoration of landscapes, while incorporating the natural resources that the space may already have to offer.

Since landscape urbanism is the newest concept and smaller scaled, it leaves the projects open to lots of opportunity for development. When architects and planners are looking into proposing a design or project with landscape urbanism in mind, they usually pick an issue within the environment, such as noise pollution or urban regeneration. By tackling a small scale project and issue, the concept of landscape urbanism can eventually lead to creating a greener city through fixing the minor issues.

Eco-Cities

Richard Register and a few of his friends created and founded Urban Ecology in Berkeley, California in 1975. The goals of Urban Ecology as a non-profit organisation was to “rebuild cities in balance with nature.” (Roseland, 1998) With Register’s publication of *Eco-City Berkeley* (1987) and Urban Ecology’s journal *The Urban Ecologist*, this idea of an eco-city became more and more influential as it gained momentum. In 1990, Urban Ecology hosted the First International Eco-City Conference in Berkeley, made up of about 700 people from across the globe who came to discuss issues within urban settings, develop proposals, and submit goals to help improve cities to become more ecologically friendly. (Roseland, 1998) In 1996, Urban Ecology developed 10 principles or missions for how an eco-city shall be created. While Register’s concept has widely influenced and impacted the overall knowledge and idea of eco-cities throughout the world, for the previous 40 years the concept has been floating around.

As Eco-cities are increasing popularity as the number of people moving towards the city life is rapidly increasing and urbanisation becomes a more popular idea, it is important to not the similarities and key concepts of what makes up an eco-city. Many can agree that dimensions include appropriate technology, community and economic development, social ecology, green movement, bioregionalism and sustainable development. (Roseland, 1998) According to Caprotti, “Eco-city projects are increasingly popular globally: they are often marketed as ‘new’ urban environments focused on achieving sustainable urban living while promoting a low-carbon technological and industrial base...they can be conceived as experiments in

entrepreneurial zero- or low-carbon urban economies” (Caprotti, 2013) Twenty years after Richard Register has created the convention and brought upon the knowledge of what an eco-city consists of, Eco-cities have become increasingly popular, with China in the process of building 285 eco-cities alone. There have been many successes and many failures around the world, and while these cities can take quite a few years to develop, noted successful cities are Masdar City and Dongtan, China (see example explained below).

‘Green’ Cities

While the terms landscape urbanism and eco-city were developed by a particular person or multiple people’s ideas, ‘Green’ cities (or sustainable cities) does not have a definitive time period to which it can be credited to. The concept of ‘Green’ cities was around when landscape urbanism and eco-cities came about, however, ‘Green’ cities can be defined as more of a loose concept or idea that becomes when eco-cities and landscape urbanism projects are developed within the city. The ‘green’ in ‘Green cities’ implies a focus on the environment. Sustainable cities are synonymous to ‘Green cities’ in that their primary focus is on the environment; sustainable development and sustainable policies that will protect and enhance the environment. Eco-cities and ‘Green’ cities share similar focuses, stated by UNEP and World Bank, superior environmental quality and liveability is achieved by compact, mixed-use developments, low-energy transportation, renewable energy generation and a reduced overall ecological footprint. (Joss, 2013) It has become difficult to balance a major cities ecological footprint and create sustainable infrastructure at the same time. There is a list of the worlds’ most ‘green’ cities, consisting of Copenhagen, Vancouver, Amsterdam, Stockholm, Singapore, etc. many of which have ecological footprints several times the size of them, but also display significant developments for transportation, reduction of emissions, and walkability in the city centre.

‘Green’ Cities are a difficult concept to analyse because they can mean a variety of things. Green cities can measure the amount of green spaces or how sustainable a city is. However, a sustainable city does require there to be adequate green space in order to approve air quality.

Project Examples

The High Line, New York City 2004 (Landscape Urbanism)

The High Line project located in Manhattan, New York, New York, is an abandoned rail line that weaves about 22 blocks through Manhattan. Designed by Field Operations and Diller Scofidio + Renfro, the 1.45-mile long abandoned rail track has since been converted into a 6.7-acre park over the streets of Manhattan. After opening in June 2009, this site has become a major tourist attraction, a recreational area and a generator of economic development. (Steiner, 2011) The High Line is a successful example of how abandoned urban areas and spaces that were once something of importance can be regenerated and developed into something special for the community and visitors in that community.

Lower Don Lands Proposal, Toronto, Canada 2007 (Landscape Urbanism)

In a proposal developed by Chris Reed and StossLU, a 300-acre site just east of downtown Toronto revitalises the waterfront and river, creating new habitats for fish and wildlife along the river as well as enhancing a new type of green city. (Steiner, 2011) The key focuses for this project and proposal address flood protection, habitat restoration, and naturalisation of the Don River mouth, along with new development areas and transportation infrastructure. This project's main focus was to redevelop the waterfront and create an area to connect people with nature and the environment a bit more.

Dongtan, China, (Eco-City)

The masterplan for Dongtan, China in Shanghai, what was seen as possibly the world's first sustainable city, is due to be completed by 2050. The plans were developed by various architecture practices across Europe and North America and eventually had to be adapted from a population of 50,000 to a population of 500,000. (Cohen, 2011) The goal was for Dongtan to have its first phase of development completed by 2010, ready for the Shanghai World Expo, and to serve as a tourist attraction. The development of the project stalled in 2006 due to illegal activity including bribery and fraudulent real estate transactions, causing the "world's first sustainable city" to fail.

Masdar City, Abu Dhabi, (Eco-City)

Masdar is the initiative of an eco-city developed in Abu Dhabi. Designed by Foster and Partners, Masdar City is hoped to be the “green’ envy of all.” (Cohen, 2011) With an estimated completion date of 2030, Masdar aspires to follow and become a zero-carbon, zero-waste city, car-free area, adopt and commercialise sustainable energy technologies, and focus on searching for solutions to securing energy sources, dealing with climate change, and educating its members of society on sustainability. (Cohen, 2011) With a wide range of diverse ideas from small-scale projects that tackle one small idea to larger scaled zero-waste concepts for new sustainable developments and sustainable cities, Masdar City is one of the most complex projects to be created. Masdar City is one of a kind, and a first in its sector, leading investors to become interested and partnerships to be created around the world in hopes that Masdar City will become successful eco-city and can eventually be implemented and adapted elsewhere. One of the key influences in Masdar City’s development are the policies and politics. As Abu Dhabi is one of the richest places in the world, politics and economics can play a major part in the successes of a city. As the threat of climate change, energy security, and hyper-urbanisation increases, it is important that the government acknowledges these threats and supports the expansion of policies to combat them. Masdar City’s investors and government acknowledges them, and its working towards creating an efficient place for people to live sustainably.

Vancouver, Canada, (‘Green’ city)

Urban planners and architects have started using the term *Vancouverism*, when it comes to talks of city planning and sustainable development. Vancouver, Canada, is on the top of the list for most sustainable cities in the world, but that does not necessarily mean it is sustainable. “Because of the growth of per capita land, transport, and goods consumption, as well as absolute population growth, Metro Vancouver has an ecological footprint—the hypothetical area required to sustain a city's resource use and waste absorption—almost 300 times its geographical area. (Cohen, 2011) With Vancouver’s large population living in the downtown area, the city contrasts many North American cities that are affected by urban sprawl. There is an absence of highways in the central city and investments in public transportation which consist of 200 bus routes, sea buses, commuter rail, and SkyTrain. (Cohen,

2011) Planning officials consider Vancouver a 'green' city because of its ability to promote sustainability and emphasise walkable and transit-oriented spaces.

Stockholm, Sweden ('Green' city)

Stockholm, Sweden thrives off of its access to the Baltic Sea and Lake Mälaren. Stockholm is known to be one of the more successful cities when it comes to environmental sustainability. In 2005, they lowered their greenhouse gas emissions by 25 percent, leading the city to create the goal of becoming free of fossil fuel use by 2050. (Cohen, 2011) Stockholm is not only a 'Green' city, but it is also a green city, with parks and green space totally about 56km, more than most cities its size. In 2006, Stockholm imposed a congestion charge, which reduced vehicular emissions by 10 percent, and increased air quality by 5 percent. (Cohen, 2011) With over 700km of cycling paths and an affordable and reliable public transportation system, Stockholm makes it easy for people to get around without a car. In 2009, the European Green City Index names Stockholm the second greenest European major city, behind Copenhagen, determined by the evaluation of CO2 emissions, energy, buildings, transport, water, air quality, waste and land use, and environmental governance. (Cohen, 2011)

Conclusion

Taking a look at each concept, they all overlap in some way or another. Landscape Urbanism is the most conceptual, as it is strictly project based and does not require a complete urban redevelopment proposal or policy implementation. Eco-cities and 'Green' cities require an expansion on policies and proposed developments that will help lower the cities ecological footprint and become more environmentally efficient cities. However, they may include types of landscape urbanism proposals or projects to increase their connection with nature and the environment. As for eco-cities, there are currently multiple projects underway that are due for completion within the next 20 years, but policies may take longer to implement within the city. 'Green' cities are still in the process of defining themselves, and with rapid growth and the need for expansion into further areas (urban sprawl) it is becoming difficult for big cities to lower their ecological footprints while providing the necessary infrastructure for expansions. Whilst there are minimal distinctions between the three concepts; their scale and successes being the two main distinctions, they can all contribute as types

of methods to be used in the planning and design process, creating a sustainable environment through sustainable development and ecological urbanism.

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