

# Chapter 1

## A Crowdsourcing Approach in Urban Design: A Bibliographic Review of Cities of Singularity

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### ABSTRACT

*This chapter examines the problem of excessive similarity when designing new cities. It focuses on the generating of innovative ideas through urban design paradigms. The purpose of this work is to support the efforts of planners and designers toward the creation of new cities based on the concept of cities of singularity. This chapter is a bibliographic review of some conventional Western paradigms in urban planning and design. Based on this work, the three initial singularities of cities can be sketched as being architecturally singular (artwork-like/artistic and organic), societally singular (social, economic, and transcultural), or technologically and informationally singular (smart) in nature. The analytical reading depends on content analysis—which follows the potentiality of exploring the meaning of singularity and its characteristics, indicators, and principles. It collects the interrelationships of the old and new paradigms. The outcomes provide a framework for creating ‘cities of singularity’ based on a crowdsourcing approach.*

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## INTRODUCTION

This chapter offers an attempt to rediscover a relatively undiscovered aspects of the term *singularity*, which has emerged since the 1960s in the field of architecture of the city (Gehlawat, 2011). That aspect of singularity believes that the architecture of the city should answer the crucial issue: Is it necessary that the design of any new city differ from existing ones? Many theorists have directly adopted this course of thought regarding urban singularity (Lynch, 1960; Lefebvre, 1984; Sitte, 1986; Baudrillard & Nouvel, 2002). Others have implemented their theoretical work in a practical way. For instance, Le Corbusier (1947) established his principles of design by using these ideas to create the northern Indian city of Chandigarh (Gehlawat, 2011). In addition, this concept emerges when Christopher Alexander (1965) identified the discrepancy between *natural* and *artificial* cities (Harary & Rockey, 1976). First, this was done by Le Corbusier based on the ideas of India's first Prime Minister Jawaharlal Nehru regarding the design of the northern Indian city of Chandigarh in 1947. In his view, the city should serve as a symbol of the new India via creating two forms of singularity: the singularity of the "historic moment and an aesthetic singularity" (Gehlawat, 2011, p. 353). In another vein, Alexander sees natural cities as having arisen spontaneously—and *artificial cities* as having been *planned from scratch* (Harary & Rockey, 1976, p. 375). As well, he saw a *real city* as being a *complex human institution* (p. 384 including social, economic, and physical—interacting—phenomena. This endeavor revolved around the efforts of Western thinkers to propose new architectural products based on innovative ideas—ideas which would make the new cities not alike.

Research into the planning and design of new cities has a long tradition dating from the 19th century until today, as is illustrated in Figure 1. For instance, Linear city (Soria mata, 1844), Garden city (Ebenezer Howard 1898), Industrial city (Tony Garnier, 1917), Contemporary city (Le Corbusier, 1922), Radiant city (Le Corbusier, 1933), Broadacre City (Frank Lloyd Wright, 1935), Eco-city (Register, Richard (1975), Collage City (Colin Rowe and Fred Koetter, 1978), Informational city, (Manuel Castells, 1989), A global, or alpha city or world centre, in the global economic system (Saskia Sassen, 1991), The Organic City (Caroline van Eck, 1994), The Generic city, (Rem Koolhaas, 1995), The Mechanic City (Ash Amin and Nigel Thrift, 2002), City branding, place marketing and place promotion (Graham Hankinson, 2004), An intercultural city (Phil Wood and Charles Landry, 2008), Ubiquitous city or u-City (J. Hwang, 2009), Cosmic, Machine And Organic Cities (Martin Johncox, 2009), Great city (Gary Warnaby, 2009).

The leading problem in over-similarity of planning and design is that the continuous employment of single ideas derived from some Western paradigms in city planning and design inevitably leads to similarity. Currently, this similarity is not only occurring between the layouts of those cities but also in their urban form. This is particularly so if these layouts are generated artificially and the clustering of their districts and neighborhoods follows strict hierarchies. Arguably, the new Egyptian cities that have emerged since the 1970s have built their basic planning ideas on a single Western intellectual orientation. This employment of single ideas was based on three essential determinants as follows: Urban hierarchy, planning grids, and standardization (as determined from profiling models of housing units).

Thus, the current problem, particularly during the transition from the 1970s to the present, is that the planning and design of the new cities need to enhance the efforts of architects in order not only to apply the latest innovative ideas but also to offer differences in plans and designs continuously. These issues discuss the ability of planners and designers adapted to the requirements of the *contemporary city*, which should be related to the concept of a city's singularity.

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