

Neglected? Strengthening the morphological study of informal settlements

Shelagh McCartney

School of Urban & Regional Planning, Ryerson University

350 Victoria Street, Toronto, ON M5B 2K3, Canada

shelagh.mccartney@ryerson.ca

Sukanya Krishnamurthy

Faculty of the Built Environment, TU Eindhoven

P.O. Box 513, 5600 MB Eindhoven, Netherlands

S.Krishnamurthy@tue.nl

The world is now an urbanized planet with 95% of the urban population growth predicted to occur in cities of the developing world by 2045. Slums are the single most pervasive element in the development of rapidly growing cities. One of the challenges of rapid urbanization in the twentieth century is the burgeoning growth of urban poverty and slums, both spatially and demographically. Currently one-third of the global urban population lives in slums (UN-Habitat, 2003), with this number predicted to increase, causing an “urban tsunami” (Forman, 2008).

While many of these areas are considered “unplanned” or fringe areas, these peripheral urban landscapes are characterized by houses built on land for which the ownership is typically in question. Communities of the “urban tsunami” are strategic spaces in which the future growth of a city is occurring, and where many of the twenty-first century’s gravest ecological, political and social issues are arising. While informal settlements can be seen as a response to certain socio-economic conditions (UN Habitat, 2003), they are also tied to factors such as the growth limit of the broader city (built-up area), the terrain and steepness of land and building conditions (Appadurai, 1996; Benton et al., 1989; Gilbert and Vines, 2000). Within informal settlements, blurring of boundaries between questionable property ownership and right of use, access to infrastructure and hazardous site, function and form, and public and private spaces, introduces a set of dynamics that existing methods of morphological study do not sufficiently address. If informal settlements are potential sites of future city growth, more attention should be paid to their distinct morphological characteristics.

As an established field of study, urban morphology expanded on three broad geographical differentiations within the broader city (Conzen 1958; Whitehand, 2009). First, the separation of function, form and location; second, the physical and socio-economic characteristics of the areas within which urban development and change take place, influencing the form of what is added or changed in terms of units of property ownership (Ward, 1982); third, the association with certain “morphological periods” (Conzen, 1960). Within urban morphology these three broad patterns of analysis (including the role of geographical differentiation through lot lines) has long been acknowledged (Conzen, 1958, 1960, 2004; Whitehand, 1992, 2009). Despite the development of

methodologies to study the urban form (Whitehand, 1992, 2009; Gauthier and Gilliland, 2006; Sima and Zang, 2009), the study of morphology of informal settlements has been largely neglected. Morphological models were developed in regions with long-established, precise legal property delineation that could be legally protected, and clearly were not developed to explain ambiguities of spatial ownership of developing-world slums. This article identifies the complexity of spatial forms of slums and methods through which morphological structure of slums can be articulated.

Sobreira (2005), Fabricus (2008), Duarte (2009) and Belsky et al. (2013) are bringing to notice how informal settlements are a neglected part of morphological analysis. With the growing visibility of informal settlements in academic and broader literature (Castillo, 2000; Neuwirth, 2005; Davis, 2006; Gilbert, 2007; Brillembourg and Klumpner, 2008; Fabricus, 2008; Duarte, 2009), we intend to expand the understanding of informal areas based on their morphology and morphological representation. Studying slum morphology under the auspices of urban morphology requires an adaptation of current methods of study that better accommodates the forces shaping the morphology of informal settlements. We advocate for inclusion and contextualisation in identifying morphological distinctiveness of informal settlements and mapping their urban structure.

To study informal settlements and their morphology while extending and adapting the existing methods developed as by Conzen (1958) and Whitehand (2009), the authors propose the addition of five scaled analytical patterns. The first, comprises non-spatial social, economic, and political factors that have spatial impact (including risk of eviction), the second comprises the influence of the broader city, and situational factors shaping slum settlements (including location and adjacencies to built and social infrastructure). The third comprises the influence of site factors such as topography and its rate of change on the form of informal settlements. The fourth focuses on circulation space configurations of both public and private movements due to ambiguities of ownership. The fifth, constitutes building typology as defined by the permanence of their built form. Although these proposed additions are by no means an exhaustive list, they can help initiate a discussion on how transformative dynamics vary within informal settlements. And, why traditional and long-established methods of urban morphology developed for precise property delineation were clearly not aimed at explaining the ambiguities of spatial ownership may be restrictive. By developing a systematic process and contextual framework within which slum morphology can be studied and understood, we aim to bridge the distinction between the study of morphology of the broader city and slum settlements.

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Paper presented at the RC21 International Conference on “The transgressive city: Comparative perspectives on governance and the possibilities of everyday life in the emerging global city” Mexico City, 21-23 July 2016. <http://rc21-mexico16.colmex.mx/index.php>