

Chapter 11

Space Syntax Approach for Articulating Space and Social Life

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ABSTRACT

This chapter sets out to provide a detailed description of the relationship between space and society. It begins by discussing how people co-live in spaces and how such spaces co-live as communities. Understanding the relationship between space and society requires shedding light on how (1) communities emerge and work and (2) people build their social network. The chapter's main premise is that spatial configuration is the container of activities and the way we construct our cities influences our social life. Therefore, the urban environment should be analyzed mathematically using urban models in order to evaluate and predict future urban policies. The chapter reviews a space-people paradigm, Space Syntax. It defines, elaborates, and interprets its main concepts and tools, showing how urban space is modelled and described in terms of various spatial measures including connectivity, integration, depth, choice, and isovist properties.

INTRODUCTION

The connection between the physical urban environment and society is obvious and whilst sometimes neglected; it is something that we have to consider when planning for people. The urban system allows societal processes to develop in a conditional sense. Meanwhile, the urban system is mostly a product of socio-cultural, economic, and administrative processes (Klaasen, 2003). Put differently, society shapes buildings and the way we organize these buildings influences our social life situations. However, the literature on social theory shows that historical changes have received more attention over space and geography. In fact, space was virtually absent in social affairs (Netto, 2007). Differentiation between traditional society and modern society of the nineteenth century was the core on which many paradigmatic approaches to social aspects were built. Near the end of the twentieth century, the role of space

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as a key element in (re)producing a society with its various socioeconomic conditions has been asserted by many experts in sociology, geography, anthropology, architecture and urban planning.

Among the question underlying discussions about space and society, three are perhaps key: (1) How does the type of society influence one's behavior? (2) How do certain social choices relate to architecture and design? Or how can we understand our societies as spatial systems? (3) How can we measure the local and global properties of urban space? What follows is a selective discussion of theories on space and society, starting with theories from sociologists like Karl Marx and Max Weber, and ending with those from urban morphology pioneers like Bill Hillier and Julienne Hanson.

The Impact of Society on Space

This section reviews paradigmatic approaches that discuss the issue of social cohesion. Reviewing approaches from classic to more recent works show that scholars understand society-space interrelations differently.

Solidarity, Conflict, and Space

Abd El-Rahman Ibn Khaldun (1332-1406), a Muslim scholar, contrived a theory of social conflict based on his studies of nomadic and sedentary societies. At the basic of this theory is the concept of 'group feeling' or solidarity (*asabiyyah*) (Giddens, 2009, p. 22). According to Ibn Khaldun, groups with strong social bonds, Nomadic Bedouin tribes, dominate and rule those with weaker internal ties, sedentary town-dwellers (Elshater, 2015, p. 26). Accordingly, the Bedouin's lifestyles turn more urbanized with weaker solidarity leaving them vulnerable to attack from external enemies. This circular system of rising and decline explains states-formation (Giddens, 2009). Another earlier initiative for explaining how societies work was introduced by Auguste Comte (1798- 1875) who was concerned with social changes after the French revolution. Comte tried to reconstruct the French society arguing that sociology like physics and chemistry can use scientific techniques to explain the social world. He postulated that inequalities and social fragmentation caused by industrialization could be overcome by producing a new moral consensus that would enhance bonding society (Giddens, 2009).

Progressively, Spencer (1872) conceptualized the theory of organic analogy which states that society is analogous to an organism. In this model, the various organs in the body integrate together to keep the whole system functioning and regulated. Likewise, "the various parts of society (the economy, the polity, health care, education, etc.) work together to keep the entire society functioning and regulated" (Stolley, 2005: 23).

Emile Durkheim (1858- 1917) was influenced by Spencer's work on social evolution and the organic analogy, and by Comte's ideas. Nevertheless, he described Comte's work as vague and speculative, arguing that Comte failed to establish sociology scientifically (Giddens, 2009). In the book, *The Division of Labor in Society*, Durkheim (1893) differentiates between two types of solidarity, mechanical and organic solidarities, according to societal changes through the growing division of labor (Durkheim, 1893; Vaughan, 1999; Magda, 2003; Stolley, 2005; Netto, 2007). This approach is known as functionalism. In it, Durkheim suggested that the type of solidarity in pre-industrial society, traditional society, was mechanical, where societies share the same identity, values, and beliefs. In this model, strong bonds emerge vividly within clearly recognizable boundaries where society is small and organized around kinship affiliations. Here, solidarity is derived from the collective conscience. The other model of social

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