It would also need to include issues of equity and social and environmental justice and political legitimacy. 'Whether this can be achieved within the social relations of capitalist production remains at best an uncertain prospect' (p. 325).

The version of theory (new Marxism) for which Hudson wishes to argue is also a critical theory that has specific sociopolitical aims. He writes, 'it is a theory that seeks to represent the world in particular ways with a view to changing it in particular ways politically. By bringing critical concepts such as exploitation or value into view theoretically, the terms of political debate and the possibilities of public discussion may (but not necessarily will) be altered for the better' (p. 11). Against such new Marxist approach, postmodern theorists cry to 'wage a war on totality' and 'grand narrative'. They argue that efforts to grasp society as a whole and to use this type of theory to serve radical or reformist mass movements have culturally and politically repressive consequences. Moreover, they hold that cultural fragmentation has destroyed the sociocultural matrix for the modern style of historically based social criticism and progressive social movement. Despite this interesting criticism, Hudson's perspective contributes to our understanding of production and its geographies in late capitalist modernity. This is to say that *Producing Places* is highly worth reading.

Yosef Jabareen Ben-Gurion University of the Negev

BIOPOLIS: PATRICK GEDDES AND THE CITY OF LIFE by V.M. Welter. Cambridge, Mass.: The MIT Press, 2002.

Biopolis: Patrick Geddes and the City of Life is a new book by Volker Welter about the life of the Scottish biologist and sociologist that turned out to be one of the few founders of the modern planning profession. Patrick Geddes (1854–1932) lived his full, exciting life in times when urban and regional planning was not yet a profession, even though cities and regions were rapidly growing and changing. Like some of his contemporaries, such as Ebenezer Howard, Patrick Geddes had no formal background in any design profession. Moreover, Geddes himself was having difficulties in drawing much of his ideas and designs, and in many plans he collaborated with his son-in-law, the architect Frank Mears. Nevertheless, he was a fruitful planner that took part in numerous plans of various kinds, ranging from single buildings, museums and institutions, to university campuses and city squares, and coming to whole fabrics of cities. Living in Tel Aviv, that in its early years was planned by Geddes in his last urban comprehensive plan, I found the book about his work and thought doubly interesting and illuminating.

First and foremost, Geddes was an intellectual and significant theoretician. Though recognized as one of the founding fathers of modern planning thought, it is most interesting to discover the fundamental differences between Geddes' points of view on the cities and regions and those of modern urban tradition. The common path

of modern planning is based on analyzing single-dimensional aspects of the built environment and then reassembling them into urban plans. In contrast, Geddes' analytical tools are based on his famous holistic triad place-work-folk, corresponding to the geographical, historical, and spiritual points of view on the city. In his work—for example, in the many reports he wrote on cities around the world—Geddes has shown that these aspects provide deep, comprehensive understanding of places. Thus, his 'thinking machines', well described and explained in the book, are actually guided tours for the widening of these aspects in a way that a live and dynamic picture of a town or a city can be constructed.

Much of Geddes' holism stemmed from his biological training. Nevertheless, his approach in relation to the city was far more sophisticated than common metaphors of urban fabric as an organic entity. Geddes' systems view of social issues and the uses of biological metaphors for modeling the built environment were ahead of its time. His 'valley section' diagram, published in 1909, is a systemic model of a region. It explains the occurrence of settlements and their development into villages, towns, and cities. It also describes the commencement of a variety of occupations as well as the evolution of art, symbolism, and social life. In Geddes' words, that bring to mind the objectives of systems theory of the 1960s and 1970s, the model is an attempt to 'follow the development of civilization from its simple origins to its complex resultant.' (p. 64). But unlike the somewhat procedural synthesis offered by systems theory, Geddes adopted biological observation and modeling methodologies that aimed at maintaining the profound unity he saw in the city and region throughout the study. The same methods later served his urban manifestation of the section, and the comparison he offered of Edinburgh and Athens' Polis.

Another significant characteristic of the Geddesian view on urban and regional studies relates to rational thinking and analysis. Unlike modern urban tradition, the central apparatus of which is scientific rationalism, Geddes believed that rational analysis might be useful only as a complement to observing, understanding, and feeling. At the same time, he found much substance in spiritual and metaphysical aspects of places, which modern urbanism basically ignored. His orientation towards spiritualism and mysticism grew during his tours to India, when he became acquainted with eastern beliefs. He was also strongly inspired by Greek philosophy and by the form of religion in the Greek polis. In particular, Geddes was impressed by the dominant presence of temples in the city and its implications on everyday life of the republic. Geddes conceived the temples as the union between soul and body, science and religion, spiritualism and materialism. Hence, during his career he planned many temples and temple-like structures, such as botanic gardens, museums and institutions. He also tried to transfer the symbolic representation of higher expressions of life into the city structure. He saw crystal-like hexagon and octagon shapes as the incorporation of the city spirit. In his papers he describes each side of the geometrical form as dedicated to a different aspect of human life, and the whole shape as a symbol to unity. For example, in his plan for Tel Aviv in 1925 he used this symbol for the reunion of old and new. Geddes structured the northward extension of Tel Aviv with a simple grid of north-south and east-west streets. At the geographical center of the enlarged city he located an octagonal open space that turned out to be Dizengoff Square—for many years a true and lively meeting place (although, the architect Genia Averbouch who designed Dizengoff Square in 1935 planned a circular space).

As a biologist, Geddes was well aware of the town-country conflict. Nevertheless, due to his claim for comprehensiveness, he did not see any true fundamental clash between the built environment and the natural environment. Geddes deeply understood that once mankind has started to imitate the creation of natural environments, the borders between built environments and nature untouched by man could no longer exist. An example to Geddes' typical stand is given in his attitude towards the development of a water-driven power station in the waterfalls of Foyer in Scotland's Inverness district. Geddes refused to oppose the plan. However, he recommended the developer, the British Aluminum Company, to make sure that the power station is constructed in a way that would allow the waterfalls to continue to run, at least periodically. In addition, he advised that the building's outline would be accurately planned by an architect to fit the natural beauty of the environment. Bearing in mind the present atmosphere toward environmentalism, it seems that in this point too Geddes was ahead of his time.

Thus, while sociologists of his time searched for deep social structures and regarded ownership of the means of production as the cause to urban problems, Geddes believed that class conflicts were the result of misadaptation of natural life to the urban domain. He felt that both conception and planning of the urban fabric could benefit from methods of comprehensive thinking. In his eyes, it was the knowledge of environment that could offer explanation to variations and competition between people. For this reason, Geddes was deeply interested in a search of the biological virtues of cities and regions. This is also the source of his attempt to discover the economics of city and society out of the economics of nature.

Loyal to Geddes' holism, Volker Welter's book avoids dismantling Geddes' vision into single aspects. In addition, Welter did not write a biography of Geddes, although a timeline of Geddes' life is included. Instead, the book is structured along Geddes' broad perspective on cities and regions: geography, history, and spiritualism.

The book, based on Welter's doctoral thesis, assembles Geddes' many writings and designs, found in numerous 'books, essays, typescripts, manuscripts, notes, diagrams, photographs, drawings, and sketches', as Welter himself testifies. Welter examines Geddes' ideas in the context of nineteenth-century biology and sociology, thus providing the necessary background for evaluating his work.

To sum up, *Biopolis* is a valuable and important book. It is a significant resource for those who are interested in urbanism and planning, and wonder 'how did it all start?' Although it is centered on Geddes' work, it provides a wide-ranging background on sociological, biological and planning thought.

Nurit Alfasi Ben-Gurion University of the Negev