he recognizes that their merit lies primarily in using existing opportunities well.

But Hall also writes with assurance. His intimate knowledge of both the political/procedural and of the substantive issues comes through in his account of the city's experience and in his description of specific plans and projects. Although the lessons he presents are not very original, they are based on solid evidence and sound analysis. Hall is right that senior planners who have achieved success in their career must write about it 'so that others may benefit from it' (p. vi). Best-practice books such as his are useful to younger professionals in giving them a sense of what it is possible to achieve and an understanding of how to achieve it. Hall must be thanked for telling us his story, and for telling it well.

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Urban paleontology: evolution of urban forms by *Ming Tang* and *Dihua Yang*, Universal Publishers, Boca Raton, Florida, USA, 2008, 233 pp. ISBN 978-1599429496.

Analogical reasoning is a prominent tool for effectively familiarizing the unfamiliar. Organic analogy based on biological references to the wholeness of an organism has been a powerful design conception in art and architecture (Steadman, 2008). This approach is reflected, for example, in normative and analytical urban theory, with the organic metaphor of the city as a vibrant, growing and regenerating entity (Marshall, 2009). Within this framework *Urban paleontology* provides an addition with regard to evolutionary emergent urbanism.

As a research domain, transformation of urban form viewed as a developmental or evolutionary process – morphogenesis – is far from being a new branch of scholarly thinking. However, Tang and Yang propose a further perspective incorporating a series of concepts borrowed from palaeontology. In their conceptual framework, each emerging pattern is explored on the basis of its previous condition. The method of analysis is based on decomposing the whole fabric of districts. The conceptual link between palaeontology and urban morphology is concisely provided in the first chapter. Homologous and analogous structures, 'urban fossil', 'urban plasm' and 'urban stratum', are presented as the key concepts in the subsequent relational framework.

In the following two chapters palaeontological concepts are exemplified by case studies, termed 'urban excavations', in Beijing, China and Savannah, USA. The basic unit of analysis in 'excavations' is the street with layer-based illustrations of pattern transformation allowing for the identification of 'urban species', that is typological elements of the urban fabric. 'Species' are types of street structure and buildings: their solidness, location, integration, and evolutionary characteristics. Whilst demonstrating the nature of 'species', their adaptations in relation to external factors ('magnetic fields') are also depicted. In this way, relating physical development and transformation processes to the socio-cultural and political aspects enriches the morphological analysis.

In the last chapter of the book, the authors define their overarching conceptual schema – the 'urban evolutionary tree'. Within the definition of the family-tree the primary argument is that different urban patterns are rooted in the same ancestor. In terms of another concept – 'interrelated reproduction' – the authors suggest that the formation of street patterns is the product of the iteration of the same genetic codes by different individuals. But, as the authors point out, development of the method in a more comprehensive way is reliant upon integrating case studies in the future. Only then can a general theory of morphological urban elements be developed.

The major weakness of the book is the lack of sufficiently detailed explanations. The lack of textual elaboration is especially evident when linkages are made between the key concepts of palaeontology and urban form. In addition, a clear definition of the selection criteria of the scale levels for determination of the sites and urban species is required.

Reflecting the professional standpoint of the authors, the book does not end with grand analytical statements. The main motivation of the authors is to present a new working basis for

design. A key point is that urban conservation strategies do not necessarily need to be based on the preservation of architectural units and built-up fabric. The underlying structure/pattern of the urban fabric provides a relevant reference for the regeneration of historical urban sites. As the authors state in their introduction, 'with such knowledge, we will be able to understand our cities better and guide their development accordingly'.

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The genealogy of cities by *Charles P. Graves, Jr*. Kent State University Press, Kent, Ohio, USA, 2008, 367 pp., with CD containing 1000 downloadable city plans. ISBN 978-0-87338-939-6.

The genealogy of cities is an urban designer's A–Z reference atlas of 226 city ground plans from various parts of the world, shown at often random points in their growth history to illustrate different visual patterns of street systems and built-up areas. The plans are severely simplified in order to be represented by four different styles of figure-ground drawings, and are shown at many different scales so the plans can fill the page. A compact disk accompanying the book contains digital files of these and others to offer 1000 urban plans overall in downloadable format.

The book's title is misleading, because it would seem to promise a genetically-based classification of urban ground plans. In fact, the classification is of a historical parade of plan features and partial characteristics from different periods that can be found embedded in the ground plans of many cities. It is certainly not a classification of individual urban ground plans in all their composite historical complexity. Thus, particular cities are included because they contain – and have been chosen to illustrate – one, and only one, plan feature across the entire classification scheme. (For example, the ground plan of Como, Italy, is classified as typical of a plan type Charles Graves terms 'Medieval on early fabric', but it could equally well demonstrate two others he has defined: the 'Roman colonial' or the 'Grid expansion' type.) So, 'genealogy' here is simply a loose metaphor for a range of plan features that have appeared in the historical development of urban planning practice.

The key purpose of the work, however, is to provide inspirational examples of different plan configurations – past and present, real and contemplated – for graphic training and urban design projects. To the extent that figure-ground cartography fulfills such a goal, the book's appeal would seem to be great. The mapping technique, while it has lost ground in architectural work to three-dimensional computer visualizations, remains useful in urban design courses as a graphic discipline. Graves seeks to enhance its utility by investing it with interpretive value, and this possibility, given the sheer abundance of city plans collected here and their great historical and geographical sweep, prompts the question whether the work might also serve as a plan source for comparative work in urban morphology.

The heart of the book is a large collection of city ground plans, one per page, arranged alphabetically, and assigned a significance related to one of 28 plan features considered important in the history of urban design worldwide. These features are discussed briefly in a preceding expository chapter ('Historical typologies') that represents a forced march through more than 2 millennia of selected urban planning highlights. Examples of the typological categories are 'Early cities', 'Greek colonial,' 'Islamic', 'Medieval new town', 'Renaissance ideal', 'Grid expansion graphed onto earlier fabric', 'Formal expansion', 'Company towns', 'Garden city', 'Early modern and Fascist new towns', 'New urbanism', and 'New modernism'. Given the space allotted to this (only 21 pages, with copious graphics) the choice of highlights, and therefore plan features identified, is understandably lean. For urban morphologists, however, many of the 'types' will appear problematical. For example, 'Medieval on early fabric', 'Medieval linear, spinal, or multiarms', 'Medieval circular or free growth', and 'Medieval new town' by no means exhaust, typify, or even accurately specify the various forms recognized in the morphogenetic analysis of medieval urban plans.

As to the towns and cities selected, European