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Roland Fletcher. *The Limits of Settlement Growth: A Theoretical Outline.* Cambridge University Press, 2007. xxiv + 276 pp. $57.99 (paper), ISBN 978-0-521-03810-2.

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Archaeology and Urban Planning?

Roland John Fletcher is a professor in the Department of Archaeology at the University of Sydney. *The Limits of Settlement Growt*h reports one of his long-term research programs: a cross-cultural study of urban form. Published over a decade ago in the series "New Studies in Archaeology," this book flew under the radar of most urban studies disciplines. But it's not just for archaeologists: anyone interested in cities should read it.

In brief, Fletcher argues that two measurable dimensions of settlement–interaction (essentially, density) and communication–"constitute the operational parameters of social life in settlements" (p. xxiii). His cases, spanning 15,000 years of human history, are mostly preindustrial and all are pre-1970; thus, little mass transit and no cell phones. His analysis discovers measurable density and size thresholds or boundaries that shape and limit the ultimate size of settlements. These appear to be "hard" thresholds; that is, the few exceptions–while enlightening–can be explained.

I will let Fletcher summarize his ideas: "The first class of behavioral constraint is an upper limit on tolerable residential density, referred to as an Interaction limit (I-limit). The second class of constraints concerns the limits on the areal extent of a settlement set by the distances over which communications systems can operate adequately. Such a limit is referred to as a Communication limit (C-limit).... Below a threshold density, referred to as the Threshold limit (T-limit), settlement extent is almost unconstrained or is undefinable.... The three classes of behavioral limit [*sic*] form a matrix of the interaction and communication stresses which affect human communities.... On the matrix we can therefore plot different kinds of settlement growth trajectories whose outcome depends upon the relationship between residential density, settlement size, and the material assemblage available to the occupants." (p. xxiii)

"Material assemblage" refers, in large part, to communications technologies, which of course change through history and allow transformations of the C-limit and settlement size. Fletcher sees three possible outcomes for growth: First, a community growth is "trapped" behind the C-limit of a particular communication technology. Second, a new technology and the ability to modulate interaction stress might allow a community to cross a C-limit, and sustain growth. Third, a "bypass trajectory" slides the community below the T-limit and drops to lower densities (I-limit).

To understand how these limits work together in the real world (as represented by his database), readers need to consult a graph (specifically, Fletcher's figure 4.16); unfortunately it is not possible to include a reproduction with this review. Fletcher's analyses are algorithms waiting to be written. Graphics are essential to the book. A picture in this case is worth a thousand words–or a half-dozen formulae not yet devised.

Fletcher's argument tacks between empirical patterns and theory. It's a data-rich presentation: Fletcher assembled a remarkably comprehensive cross-cultural database of villages, towns, and cities spanning continents and eons. *The Limits of Settlement Growth* is tough sledding but well worth the ride. The argument is presented in three sections, each of three heavily illustrated chapters. Part 1 ("Theoretical Context") is an extended justification for materialism–not the simple deterministic materialism of yesteryear, but a materialism with postmodern sensibilities. Part 2 ("The Limits of Settlement Growth") presents empirical, cross-cultural patterns in a series of diagrams, and interprets these patterns as regularities of an alarmingly law-like nature. Fletcher observes a series of size thresholds and explains them as intersections of his empirically derived interaction and communication limits. If Fletcher is correct (and I think he is), this is hot stuff: actual empirical data on how humans create(d) settlement–or settlements created themselves–when left

to their own devices and spared the tender mercies of planners. Part 3 ("Implications") extends his arguments to the perennial prehistoric problem of sedentism (why and how do people settle down?) and the perpetual problems of urbanism–extending from prehistory to "future urban growth."

Fletcher (and I, in an earlier review)[1] clearly hoped that scholars of contemporary urbanism and particularly planners and policymakers might use the insights and ideas in *The Limits of Settlement Growth.* The fact that I was asked to review this book in H-Urban, thirteen years after its publication, suggests that Fletcher's work has not yet diffused across those disciplinary boundaries. Some of Fletchers's cases are "mobile" (hunter-gatherers), most are pre-industrial, and many are archaeological, which may disincline contemporary urbanists against his book. Were ancient cities really cities? That depends: what's a city? If our criteria are those of London, New York, and Tokyo, then not many ancient sites were cities. But many societies had large, impressive, dynamic, central *urban* settlements. Modern cities are a special subset of a much larger population of urban places, just as redwoods are a particular sort of tree. If we define "city" in presentist terms, only Byzantium and Tenochtitlan and a handful of exceptionally large, dense ancient places will fit the bill. We will see a few big trees, but not the forest. Our understanding of cities will lack *context.* And context is critical: without it, we run the risk of circularity or teleology.

There is a danger of teleology in historical studies of urbanism, if we arbitrarily truncate the range of variation. How did cities *like ours* come about? A common tactic might be to look for earlier cities that look like ours. Studying only the few earlier examples that conform to modern criteria makes about as much sense as looking only at big plants to study the evolution of redwoods. Evolution doesn't work that way, in biology or in history. Our understanding of modern cities will be smarter if we know the rest of the story. Early cities marched to different cultural drummers, but there were regularities, and Fletcher has found them.

There are, I think, practical implications: classically trained planners plan cities and neighborhoods with only part of the knowledge they need. If we want to prescribe for community, we would do well to review the communities people built for themselves, prior to planners. Rigorous, systematic cross-cultural studies–especially with archaeological time-depth–offer those data that critical context. Constantinos Doxiadis's *Ekistics* (1968) did it well, Amos Rapoport did it better, Roland Fletcher does it best.

Archaeology may have a place at the table. Consider economic planning, and particularly Third World development. Pulitzer Prize-winner Jared Diamond lamented planning absent archaeological context:

"Archaeology is often viewed as a socially irrelevant academic discipline that becomes a prime target for budget cuts whenever the money gets tight. In fact, archaeological research is one of the best bargains available to government planners. All over the world, we're launching developments that have great potential, and that are really more powerful versions of ideas put into practice by past societies. We can't afford the experiment of developing five different countries in five different ways and seeing which four countries get ruined. Instead, it will cost us much less in the long run if we hire archaeologists to find out what happened the last time than if we go making the same mistakes again."[2]

He's right: witness the rush to restore traditional practices in areas of South Asia ruined by the Green Revolution. Planning went awry because planners didn't understand the fragile economic ecology, evolved over millennia–they lacked context. Fletcher's *The Limits of Settlement Growth* offers us the opportunity to see what's worked and what's failed in both the deep and not-so-distant past. And, perhaps, allows us to understand a few hard-wired human limits on concepts like community and city. It's a great, useful, hopeful book. Useful for scholarship, hopeful for planning.

Notes

[1]. Stephen Lekson, "A Tale (and Tally) of Many Cities," review of*The Limits of Settlement Growth,* by Roland Fletcher, *Current Anthropology* 39 (1995): 581-582.

[2]. Jared Diamond, *The Third Chimpanzee: The Evolution and Future of the Human Animal* (New York: Harper Collins, 1992), 236.

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