

Alan Kaiser (2000). *The Urban Dialogue. An analysis of the use of space in the Roman city of Empúries, Spain*. BAR Int. Series 901 (Oxford: Archaeopress). vi + 132 pp. £28.00. ISBN 1-84171-097-0.

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The Urban Dialogue stands among a growing number of publications on ancient urbanism which have left behind the constrictive framework of economic ideal types and the 'consumer city' debate, and have instead begun to explore the social aspects of the ancient city.¹ The approach adopted by Kaiser is to treat the physical fabric of the Roman city as a product of the social processes which went on within it, and therefore as a means of studying those processes. In particular, he employs various techniques of statistical analysis to explore the use of urban space, drawing on ideas and methods used by modern geographers and sociologists, and especially the spatial theorists Hillier and Hanson.²

The social approach to the Roman city which is used by Kaiser has already been applied in several instances to the extensive remains of Pompeii.³ Perhaps most significant for the genesis of Kaiser's work is Ray Laurence's book, *Roman Pompeii: Space and Society*, in which Laurence examined the social processes which shaped the development of the city.⁴ Drawing like Kaiser on the methodology of Hillier and Hanson, Laurence performed statistical analyses on the frequency of doorways and painted graffiti along streets in Pompeii, and the degree of integration between streets and the *insulae* which they defined. In this way, he was able to gauge the varying levels of social interaction along different urban streets, and to relate this to the density of settlement in an area and the degree of pressure on street frontages.⁵

Outside Pompeii, studies which approach urban space as a product of social processes, and particularly those which rely on statistics, have been less easy to pursue, since few other Roman cities are as fully-preserved or as extensively excavated.⁶ Kaiser's work on Empúries (Roman *Emporiae*), however, is a powerful reminder that other sites besides Pompeii are capable of providing suitable data for statistical analysis. *The Urban Dialogue* not only makes a convincing case for the usefulness of statistical analysis as a means of interpreting ancient urban space, but

¹ A change in direction called for especially vehemently by Grahame: see M. Grahame (1997). "Towards a theory of Roman urbanism: beyond economics and ideal types" in Meadows, K., et al. *Proceedings of the Sixth Annual Theoretical Roman Archaeology Conference* (Oxford: Oxbow Books) 151-162.

² B. Hillier and J. Hanson (1984). *The Social Logic of Space* (Cambridge: Cambridge University Press).

³ E.g., S. Tsujimara (1991). "Ruts in Pompeii: the traffic system in the Roman city." *Opuscula Pompeiana* 2: 58-86 or A. Wallace-Hadrill (1995). "Public honour and private shame: the urban texture of Pompeii" in T.J. Cornell and K. Lomas, eds. *Urban Society in Roman Italy* (London: UCL Press) 39-61.

⁴ R. Laurence (1994). *Roman Pompeii: Space and Society* (London and New York: Routledge).

⁵ Laurence (1994) chs. 6 and 7.

⁶ But successful studies based around the ideology of monumental buildings or street lay-outs have still been carried out: e.g. G. Woolf (2000). "Urbanization and its discontents in early Roman Gaul" in E. Fentress, ed. *Romanisation and the City. Creation, Dynamics and Failures* (Portsmouth, Rhode Island: JRA supplement no. 38) 115-131.

also reveals how well-suited the material from Empúries is to such investigations. The first two chapters set the scholarly and theoretical framework for Kaiser's study, summarising past debates in the field of Roman urbanism, and his own standpoint and approach. This is done clearly and succinctly, and Kaiser takes particular care to justify his use of methods drawn from other disciplines in his work. He argues that a Roman city is an appropriate subject for analytical methods designed to test the relationships between different elements of the urban fabric, since textual evidence suggests that Roman architects and town-planners were very much capable of using space to reflect and enforce social hierarchies.⁷

Chapter 3 presents a useful history of the site of Empúries, which acquaints those readers who are not specialists in Hispano-Roman urbanism with the city and its local context. It also sets out the factors which make Empúries such a fitting choice for an investigation into Roman urban space. Firstly, most areas of the city were abandoned after the end of the first century AD, although the off-shore site of the earliest Greek trading settlement (Palaiapolis) has remained occupied up to the present day. Early excavators in the twin mainland sections of the city took the decision not to dismantle the first-century layers, meaning that the visible buildings and streets of Empúries are closely contemporary, and can meaningfully be studied as a group. Secondly, the site has been subject to almost continuous professional excavation throughout the twentieth century, meaning that virtually the whole of the mainland Greek settlement (Neapolis) and around ten percent of the regularly-planned Roman city which adjoins it have been uncovered. The completeness of the plan of Neapolis in particular makes it very well suited for investigating the distribution of different structures across the city.

With chapter 4, the real core of Kaiser's study begins, as he groups the different elements in Empúries' urban fabric into categories which can then be analysed. Kaiser's categories are based on the usage of urban space, rather than building typologies, allowing structures which had a similar function, but not necessarily a similar form, to be grouped together and compared with other structures. They are also hierarchical, allowing structures to be distinguished at a very general level (e.g. public vs. private space) as well as a more specific one (e.g. elite vs. non-elite housing). The details of any such categorisation are inevitably open to debate, not least because many structures in a Roman city had more than one function. Kaiser acknowledges, for instance, the dual religious and defensive functions of a city wall (p. 22), but gives little recognition to the commercial associations of buildings such as temples and amphitheatres, through the markets which often accompanied shows or festivals. This is a small criticism, however, and has little bearing on the soundness of his overall intention to group structures by function in order to examine the distribution of different activities across the city.

Having defined his categories, Kaiser created a database of the structures at Empúries, assigned functions to them, and linked the database to a digitised plan of the site. This allowed him to manipulate his data using a GIS (Geographic Information Systems) program, a technique which has still only rarely been applied to

⁷ Chs. 1 and 2 *passim*, but esp. pp. 1 and 8-9.

urban sites of the classical period.⁸ Kaiser begins his analyses in chapter 5 by testing the degree of clustering or dispersion of structures with similar functions; that is, the extent to which they are found either grouped together or spread randomly across the city. His technique of quadrat analysis is similar to that used by Richard Raper in testing for clustering at Pompeii.⁹ However, since it is one of Kaiser's stated aims to challenge Raper's thesis that there was very little patterning in the use of space at a Roman city, he has modified and extended Raper's methods. In this way, he is in fact able to identify patterns in the use of space at Empúries; most notably that no one insula contained more than one elite house, and that these houses were consistently divided from one another by non-elite houses and streets.

Kaiser continues by examining the nature of the streets at Empúries, looking at features such as their accessibility from outside the city, the proportions of different structures fronting onto them, their width, and the levels of social interaction along them. Through these investigations, Kaiser reveals a number of interesting correspondences between the nature of a street and the functions of the buildings which front onto it. He notes for instance that industrial structures tended to be located on streets which were relatively inaccessible and saw little social interaction, while elite houses were usually on streets which saw high levels of activity. Finally, Kaiser uses the capacity of a GIS for calculating the area visible from a given point to model the viewsheds of various buildings at Empúries. This technique, as Kaiser recognises, has only limited applicability on an urban site, where buildings are closely packed and obscure each other. However, he does demonstrate that elite houses are rarely visible from within the city, even where, as on the eastern edge of the Roman city, they could have been made highly prominent.

In his final chapter, Kaiser reviews the results of his analyses, and interprets them in terms of the different social groups which existed at Empúries and the interactions between them. Importantly, he does not simply leave the statistics to speak for themselves, but compares his results with other sources of evidence for social processes in the ancient city. Some of Kaiser's conclusions confirm principles of Roman spatial organisation which are already established; for instance, that shops were generally situated along the major roads through a city, or that tombs were placed outside the city but in highly visible locations. It could be argued that statistical analysis was not necessary to reach these conclusions. However, in the context of the other, more unexpected patterns which Kaiser's results also suggest, it is encouraging to see that his methods are capable of identifying modes of spatial organisation which we would expect to be displayed at Empúries. Of greater interest, and carrying greater implications for our understanding of Roman urbanism, are a number of conclusions which could not have been so easily predicted. Most importantly, he feels able to conclude that 'the use of space at the Roman urban site of

⁸ GIS has been applied to Athens by Smith, but in order to interpret Pausanias' literary description of the city rather than the social processes which shaped it: N. Smith (1995). "Towards a study of ancient Greek landscapes: the Perseus GIS" in G. Lock and Z. Stancic, eds., *Archaeology and Geographical Information Systems* (London: Taylor and Francis) 239-248. GIS-based projects using data from Pompeii, Corinth and Wroxeter are also currently under way.

⁹ R.A. Raper (1977). "The analysis of the urban structure of Pompeii: a sociological examination of land use (semi-micro)" in D.L. Clarke, ed. *Spatial Archaeology* (London, New York and San Francisco: Academic Press) 189-221.

Empúries was highly structured' (p. 67). This statement is based on the findings from several of Kaiser's calculations, including the segregation of elite houses and the methods used to channel visitors along particular routes through the city. It directly contradicts Raper's interpretation of space at Pompeii in the 1970s, but the research of Laurence, Wallace-Hadrill and others at Pompeii means that this does not come as a complete surprise; rather, it builds on the existing conclusions of others concerning the ability of the Romans to manipulate urban space.

Kaiser's greatest achievement in *The Urban Dialogue* is undoubtedly to demonstrate the capacity of statistical analysis for aiding our understanding of Roman urban space; a capacity which as yet remains largely un-tapped. Not all classical archaeologists are comfortable with statistical methodology, or believe it to be appropriate for the study of the ancient city. For the many cities which are known only through partial glimpses, this may well be true, but it would be difficult to come away from a thorough reading of Kaiser's book feeling that there was genuinely nothing to be learnt from the application of statistical analysis to a site such as Empúries. Here, Kaiser has drawn attention to a valuable but much overlooked site, and succeeded in bringing out its full potential through his analyses. He has adapted and improved existing statistical methods, and has also applied a wider range of different types of analysis to Empúries than yet employed at Pompeii. This allows Kaiser to compare the results of different calculations, noting for instance the correlation between the nature of a street and the buildings found along it. Kaiser also manages to retain a clear and lucid style throughout the book, even where explaining the fine details of his calculations. This means that his findings should be perfectly comprehensible even to those who feel ill at ease with mathematics. The wealth of tables and city-plans which back up and illustrate each stage in his analyses also makes his results clear and accessible, and provides an important visual key to the statistical patterns which he describes.

The real test of Kaiser's methods, and indeed of his conclusions, will of course be to discover whether they can be matched at other Roman urban sites. As Kaiser himself makes clear, his methods were designed with Empúries in mind, but they can certainly stand as examples of techniques which could be applied elsewhere, and with relatively small adjustments they could be adapted to suit other contexts. The use of extensive statistical analyses on sites such as Pompeii, some of the North African cities, or perhaps even a British site such as Silchester would then be very interesting, although any site other than Pompeii would naturally throw up very difficult problems of dating and contemporaneity. The interest of discovering whether Kaiser's conclusions concerning the highly organised nature of space at Empúries could be matched elsewhere, however, would make these problems very much worth tackling.