Architects have looked back upon the Roman city as a city of precise planning and order. For adherents to neoclassicism and to modernism, the ancient city and in particular Pompeii holds a strong position in histories of architecture. The archaeological remains of Pompeii directly or indirectly influence the form of the modern city. However, it would appear that the historian’s and archaeologist’s conceptions of the ancient city are in turn influenced by the modern city, in which they live or interact. This paper is about the search for a methodology for the interpretation of the urban landscape in Pompeii. It addresses the problem of how we interpret the built environment, and how this interpretation is influenced by present concerns: in other words, the dialogue between the architectural present and past. Finally, I will offer an interpretation of the organization of public space in Pompeii.

Pompeii as an artefact presents not only the past, but also the present. Pompeii is part of a heritage industry in which vast numbers—4–5,000 daily—visit the site, the appeal being the possibility of empathizing with the past, or of seeing daily life as it was! The appeal of Pompeii would not appear to permeate into present-day academic archaeology. Little analytical work has been attempted. Why such a situation should arise is strange. The information-set available in Pompeii is large, although it has been recorded in a variety of manners. A reason for shying away from analytical work in Pompeii might be that there was a feeling that the destruction of Pompeii left a microcosm of Roman life, and was not really the concern of archaeologists. However, it is becoming increasingly clear, from Penelope Allison’s work upon artefact assemblages in Pompeian houses, that the processes of deposition in Pompeii are as complicated as in any other archaeological site.

The questions and methods that we use in the analysis of Pompeii depend upon what we expect to find. These expectations can be divided into two types, both of which are culturally conditioned. The first set of expectations is that the excavated data from Pompeii should correspond to the written evidence of Vitruvius and other classical authors. Such a view could be justified on the
grounds that both the archaeological and the written evidence come from the same historical and cultural context. However, the classical authors wrote about Rome predominantly. In terms of population, area of the city and type of city, Rome and Pompeii in no way resemble each other. Another objection to the imposition of the classical authors as determinate in our interpretation of the archaeological evidence is that their writing is limited and may in no way correspond to any extant urban landscape. In many ways the limited nature of analytical work in Pompeii reflects the limitations of Vitruvius’ analysis of architecture. However, the Vitruvian evidence can contribute to our conception of urban society in Roman Italy. But this contribution should be controlled and should be seen as a guiding principle, rather than as the determining paradigm.

The second set of expectations would appear to be conditioned by present concerns about the city. This can be demonstrated from the debate concerned with the advent of town planning in England and Wales in the early 20th century. The Town Planning Act of 1909 formalized a movement for a change in the structure of cities, from being mere aggregations of people into consciously organized communities. The act gave the local corporations the power of compulsory purchase and the ability consciously to organize space in cities. Reading the architectural literature of the time is instructive. Town planning was seen as the solution to urban socio-economic problems. Further, it gave the planner the power to organize what Adshead called the juxtaposition of the classes. There would appear to have been a conscious decision to separate social groups into different areas. At the time, architects were most interested in the archaeological past and in particular in the classical city. At the fourth Conference on Town Planning held in London, in 1910, papers were read by three archaeologists. Gardner gave a paper upon the planned growth of the Greek city; Haverfield gave a paper upon planning in the Roman city; and Ashby gave a paper upon the irregular growth of Rome. Both Gardner and Haverfield emphasized the straight streets and the right angles associated with these straight streets. Haverfield was later to write: “whenever ancient remains show a long straight line or several correctly drawn right angles, we may be sure that they date from a civilized age”; a civilized age presumably similar to that which was to be created by the 1909 Town Planning Act. It is interesting that Haverfield was incredulous to find that in Pompeii there was an appearance of symmetry, but that “there is hardly a right angle or even an approach to a right angle at any (street) corner”. His expectations of the ancient city were the straight streets and the right angles of an organized and planned urban environment.
What are our own expectations of the city? Geographers report that zones exist in cities in the western world. Indeed, it would appear that scholars expect there to be distinct zones in Pompeii, and these are loosely attributed. Two scholars can attribute the same area as a “plebeian stronghold” or an aristocratic centre in the course of their arguments. The relevance of models of zoning to the study of the ancient city is limited. In the context of the preindustrial city, the specialization of land use is not as great as that of the Western 20th century city. For example, the separation of work and residence does not occur. Where zoning does appear in the preindustrial city, it is seldom due to economic rationality. This might explain why Raper in his study of land use in Pompeii found little evidence of socio-economic zoning. The attribution of a single function to land use in the context of Pompeii is to confine the ancient world to our conceptions of land use. For example, an atrium house could perform the function of a place of work, residence, entertainment, agriculture, etc. These activities were not neatly defined or separated. Therefore, to apply models of modern 20th century zoning directly to the context of Pompeii is anachronistic. We expect to find zoning in Pompeii, because we experience zoning in the modern city. However, we are not comparing like with like. Pompeii is not as big in either area or population as a modern city. In area, it is 167 acres inside the walls. Therefore, geographical models of zoning are of little help. Although some congregation of activities did occur, congregation is not the same as economic zoning.
An alternative strategy for the evaluation of space is required. The work by Hillier & Hanson addresses the problem of space in the built environment, and the social logic of space in particular.\textsuperscript{18} They question the three major facets of modern design: separation is good for the community, the hierarchization of space is good for relations between groups, and finally space works only if an area is defined as belonging to a group of individuals.\textsuperscript{19} In other words they question the preconceptions of zoning, and the transformation of the organizing unit of the city from the street into the estate. In fact what they question is how we have been conditioned to think of space in the 20th century.

Hillier & Hanson had a fundamental problem, that is also common to both archaeology and ancient history: there was no discrete system from which they could build a theory of space.\textsuperscript{20} In fact to build a theory of space, you need to understand the spatial entity, in this case society. To have such a conception is almost impossible if the theory is to be universal.\textsuperscript{21} To overcome such problems they began to work upon the random patterns that can be observed and in particular the controls upon randomness that appear in the urban environment.\textsuperscript{22} A glance at Pompeii reveals that there is a rather confusing pattern of settlement types. However, one of the controls upon this pattern would appear to be the street structure itself.\textsuperscript{23}

The problem was then formulated as follows: what do we measure to understand the controls upon randomness in Pompeii? The street was selected as the public area of the city, in which public social interaction occurred.\textsuperscript{24} The street was chosen because it is the organizing unit of public space in

Figure 4.2 Pompeii, Vicolo di Mercurico: low occurrence of doorways.
the pre-modern city. Our modern conception of the street has been adjusted to the conditions of 20th century transportation. A street was primarily an area of social interaction; now in the 20th century the street’s primary rôle is that of a transport corridor.  

In Pompeii, there is obviously no direct evidence of street activity, for the simple reason that it is no longer occurring. However, there would appear to be a degree of evidence for the underlying structure of the street. The interaction and encounter patterns within the urban environment are directly affected by the nature and structure of space, as defined by the built environment. In each street we know where doorways were that opened onto the street. These mark the interface between public and private space. Also, we have information about where graffiti occur in the street. The position of the crossing stones in Pompeian streets is more related to poor drainage than to any form of social activity. How the streets link together is also important. Therefore, what we have in Pompeian streets is the syntax of street activity. This is rather like reading a sentence in which there is only punctuation. However, in the examination of space this syntax orders the arrangement of street activity.

To analyze the syntax of streets three basic methods were devised. The first was to measure the occurrence of doorways in a street. This was done by counting the number of doorways in a street and then dividing that figure by the length of the street. The result is a measure of the occurrence of doorways every \(x\) metres. The highest occurrence of doorways was every 2.5m in Via dell’Abbondanza, and the lowest was every 86m in the street between insulae II. 4 and II.6. The median occurrence of doorways was every 7.3m. Hence, the variation was high. These data are presented in a cartographic form in Figure 4.3. It should be stated that the median occurrence of doorways was taken to divide the data into two groups; subsequently each of these groups was divided into two, to form four groups of data. Streets have a doorway occurring every 0–5m in Figure 4.3a, and so on to streets which have doorways occurring less often than every 15m in Figure 4.3d.
A pattern emerges. The highest occurrences of doorways were in those streets that formed through routes from the gates of the city. There are two exceptions: the streets leading from Porta di Sarno and the Porta Marina have lower occurrences. In the case of Porta Marina the figure is altered by the presence of public buildings which, although they are associated with high levels of social activity, do not have many doorways. The streets to the east of the forum were also found to have high occurrences of doorways. Interestingly, this area does
not conform to a grid pattern, and less attention has been paid to it by Pompeianists. The lower occurrences of doorways tended to be in streets that had a grid pattern. Via di Mercurio, with high doorway occurrences, was an exception.

The second method was to measure the occurrence of street messages or graffiti. Rightly or wrongly, it was assumed that these street messages were set up for maximum viewing figures. Therefore, the messages would reflect the occurrence of activity in a street. The problem with these two assumptions is that they give the human subject a rationality that may not exist. In any case, there is some discrepancy in the recording of graffiti in Pompeii between the earliest and the 20th century excavations. However, from Figure 4.4 it would appear that the greatest occurrence of street messages was on the through routes. This method also identified some streets with few doorways occurring in them, that had high frequencies of message occurrence. Initially, this appears hard to explain. However, in a street that has significantly fewer doorways occurring in it, there is a greater extant area in which to write graffiti. To account for this it would be necessary to set a further control upon the data that reflected the amount of wall space available for graffiti. Such a reconstruction of extant wall space at the time of recording the graffiti is now impossible.
The third method was developed to reflect the different types of doorways in Pompeii. There are two types of doorway in Pompeii. Type 1 forms a corridor distancing inhabitants from the street, normally referred to as a fauces.\textsuperscript{30}
Figure 4.4 Occurrence of messages in Pompeii: (c) 9–12 m; (d) 13+m.
Figure 4.5 Pompeii, doorway (type 1).
Type 2 opens directly into the street, emphasizing contact between the property and the street. The two types of doorway in a street are compared as a ratio of type 1:type 2 (corridor:open). Again, plotted as a map the pattern is interesting (Fig. 4.7). The area with the highest ratio is in those streets to the east of the forum. It is noticeable that in Via di Mercurio there are fewer type 2 doorways, although there was a high occurrence of doorways in this street. In combination, these two aspects suggest that in Via di Mercurio there was competition for street frontage, but at the same time the occupants of the street wanted to emphasize their distance from the street.
Figure 4.7 Ratio of type 1: type 2 doorways: (a) 1:6; (b) 1:4–6.

How do we interpret this information? What does it all mean? The highest occurrences of doorways and street messages were found to be along the through routes from the city gates into the centre of the city.\textsuperscript{31} This implies that the social relationship between the inhabitant and visitor was strong in Pompeii. In other words interaction with the city’s rural hinterland or even other cities is stressed in the spatial structure of Pompeii. This emphasis upon these through routes also stresses the importance of movement from the city gate to the forum. Movement to the amphitheatre is not stressed, perhaps because it was not in use every day.
Given this stress upon movement from city gate to forum, it is unusual that the area to the east of the forum is highlighted.

The visual narrative, as described by MacDonald, leads the stranger to the forum. The stranger tends not to deviate from a wide linear route into a narrow street which is not straight. If this is the case, the social relationship between inhabitant and inhabitant is more usual in this area. If I wanted to attribute a zonal model for Pompeii, I might describe this as a lower-class zone. As I am no longer obsessed with finding zones in Pompeii, I would stress that the spatial configuration of these streets causes the pattern of doorway occurrences. In fact, this area forms the integrating core of the city. The streets join together the through routes from the gates to the forum. It is centrally placed between Via dell’Abbondanza, Via della Fortuna, Via Stabiana, and the forum. The irregular street pattern would also appear to facilitate the rôle as an integrating core. Regio VI in contrast is not an area of distributive streets, partly because of its position and street structure. There would be little reason to enter this area, unless there was a specific purpose and destination in it.

The pattern of doorway occurrences also reflects the internal structure of the buildings adjoined to the street. There appears to be a direct relationship between the frequency of doorway occurrences in a street and the number of spaces and the depth of the internal spaces within a building. The number of spaces corresponds to the number of rooms and corridors contained within a building. The depth of these spaces is measured from outside the building. When doorway occurrences are frequent, the mean number of spaces within the adjacent buildings was low. When doorway occurrences were less frequent, the mean number of spaces within adjacent buildings was higher. When doorway occurrences were frequent, buildings tended to be shallow. When doorway occurrences were less frequent, the buildings tended to be deeper. Therefore, it seems that there was a relationship between the nature of the internal and external space in Pompeii.
To conclude, it would appear from the Pompeian evidence that the arrangement of public space, streets, had a certain logic to it. This logic caused the variation in the number of doorway occurrences, message occurrences and the ratio of type 1:type 2 doorways. Emphasis was laid upon the through routes as the streets with the greatest competition for street frontage. This suggests that the relationship between inhabitants and visitors was more dominant than the inhabitant-inhabitant relationship. Further, it suggests a high frequency of visitors to the site who did not live there. Another observation is that...
these through routes were integrated at the core of the city, by an area of irregular streets. The grid pattern may not be a system that promotes the integration of streets; rather it would appear that the irregular pattern of streets had a greater integrating rôle between streets. The separation of properties from the street was most pronounced in areas that were the least integrated within the street system. This would appear to be related to the amount of control a property has over its internal, rather than external, space.

This paper has been greatly influenced by Hillier & Hanson’s work upon the social logic of space, which is a product of the recent architecture debates. In applying their methods I am only too conscious that I might be seeing the present in the past as much as Haverfield saw the expectations of the Town Planning Act realized in the Roman city. Questions of methodology still remain to be answered. How do we generalize from one site with a unique set of data, particularly, as this data set does not offer a diachronic view of space? Further, to generalize about urban society in Roman Italy from the evidence of Pompeii may be to reduce regional variation to a version of Pompeii.

Notes

1. I would like to thank the British School at Rome for the support of this project. Whilst at the British School at Rome, I benefited from discussion of space with two architects, Jane Burnside and Hugh Petter. The present paper has evolved from earlier versions given at the British School at Rome, at the Theoretical Archaeology Group’s 1990 Conference in Lampeter, for the Inter-Academy Seminar at the Canadian Academic Centre in Italy and the London conference. Finally, I would like to thank Jerry Paterson for his patient encouragement and advice. Upon all occasions the discussion was productive, but any present errors are my own.


7. W.C. MacDonald, *The architecture of the Roman empire II: an urban appraisal* (New Haven, Conn., 1986), p. 3, stresses that Vitruvius (1.4.9) was mainly concerned with the need to return to the old methods in architecture.
12. Ibid., pp. 64–5.
14. J.E. Vance, *This scene of man: the rôle and structure of the city in the geography of Western civilization* (1977), p. 37, states that industrialization led to the most dramatic morphogenesis that congregated classes and separated the workplace from the residence.
17. Vance, *This scene of man*, p. 35.
19. Ibid., p. 28
22. There is not space to summarize their experiments upon randomness here. For full explanation see Hillier & Hanson, *The social logic of space*, pp. 33–53.
24. Rykwert, Streets in the past, pp. 15–28; Ellis, The spatial structure of streets, pp. 115–33.


28. This applies to all cartographic representation of data in this paper.


30. Le Corbusier, Towards a new architecture, p. 183, observed that the fauces “frees your mind from the street”.

31. Raper, The analysis of the urban structure of Pompeii, p. 208, observed that the distribution of shops was upon an optimizing basis along the major arteries.


