PROLOGUE TO A STUDY OF ROMAN URBAN FORM

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The archetypal Roman town was not the kind of urban form to which we could easily relate today. Its monotonous rectangular street grid seems unfocused and cold, like the lay out of many modern American cities. This paper is intended as a first step in applying the ideas of modern town planning to Roman cities. By studying the Roman city with the eyes of those who seek to create urban forms it may be possible to address a question that the Roman archaeologists have increasingly posed themselves in moments of self-doubt. Was the Roman town a functioning community, or was it an artificial product born out of the Roman mania for organising everything?

In considering the modern town the planner looks for certain facilities. These can be classified as buildings for community use, shopping centers, housing, industry, and transport infrastructure. I see no reason why we should not look at Roman towns the same way. Some of these topics may seem inappropriate in studying Roman towns. On the other hand we all must approach history with our modern preconceptions, and in adopting an approach based on modern town planning my prejudices at least may be more explicit.

Since the theories of modern town planning have hardly ever been used in archaeology there are an enormous number of lines of enquiry to pursue. Moreover to fully resolve many of the points I have raised would require an exhaustive consideration of ancient texts. This paper can thus only be seen as a prologue to the study of Roman urban form.

First I wish to explore the street grid. Roman cities can be divided into

two groups of forms; the 'planned' and the 'unplanned'. By 'planned' I do not mean those that were pre-meditated, but rather those whose urban design was made to follow a specific regular urban design. 'Planned' cities range from new settlements like the relatively small Republican colonies of northern Italy, to a large capital city like Carthage, which continued to expand using a regular street grid of equal size *insulae* from the first century BC to the fifth century AD. 'Unplanned' cities, may have expanded following general principals of development laid down by the authorities, but they do not have such a regular urban design. They tend to be pre-Roman settlements, or those that grew up spontaneously at river crossings, road junctions etc. In these the earlier settlement controls the form of the later one, and the significance of a road or river crossing dominates the future pattern of growth.

This distinction between 'planned and unplanned' is preferable to the traditional assumption. This sees Roman urbanism as the Roman Republican colony and its strictly rectangular street grid. Following the republican period it is then assumed that 'true orthogonal planning dwindled as erratic street patterns appeared ever more frequently' (Macdonald 1986: 25). This theory does not account for cities such as Carthage where new suburbs continued to follow the Augustan street grid and *insula* until at least the early fifth century AD (fig. 7.1). Nor does it account for the continual construction of new formally planned towns throughout the Roman period, including for example Caricin Grad in the sixth century AD.

The ideal Roman 'planned' town does not seem to have been designed for ease of 'navigation'. Whilst a rectangular street grid does lend itself to easy directions of the 'four blocks forward and one to the right' type, it does not provide direct routes from point A to point B, as anyone finding their way around a North American city knows. Although it was theoretically easy to find one's way to the forum, or capitol, by following the Decumanus Maximus, or Cardo Maximus, traveling to any other point in a regular Roman city was difficult. Macdonald (1986: 32–33) considered the streets of a Roman city as 'connective architecture' or 'continuous conduits', in which the architecture of the street facades provided 'few abrupt changes of formal ambiance once the main gate has been passed'.

A number of planning theorists have stressed the importance of street design in finding one's way through a city. In the 1950s Lynch (1960) studied the mental maps of local inhabitants. He found that there were five types of significant feature – landmarks, nodes (major junctions of confluences of traffic), paths (major roads), edges (the borders of familiar street
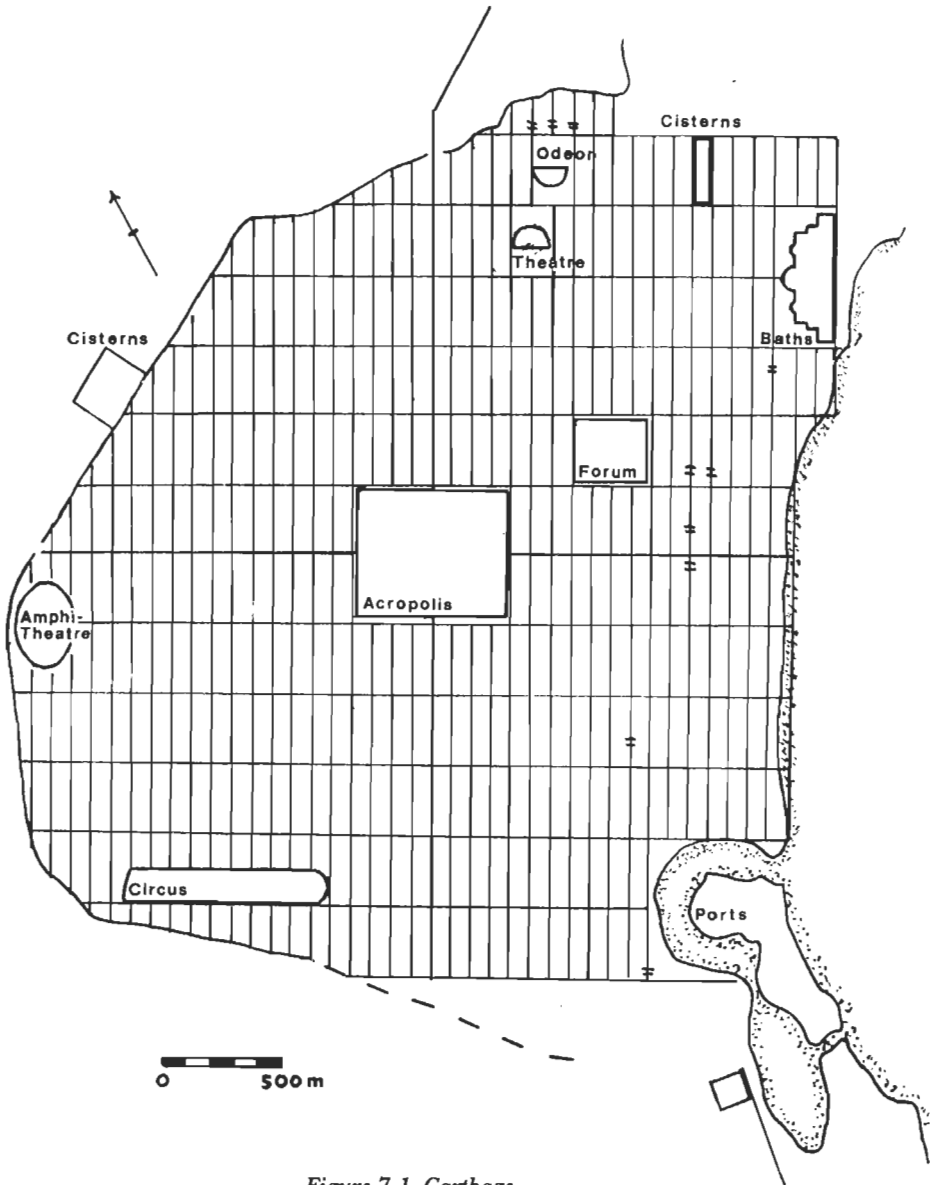
Figure 7.1. Carthage.

facades), and districts (neighbourhoods with a very strong character). When locals were asked for directions these features were mentioned rather than other less recognisable elements of the city architecture. The

degree to which a city was made up of these distinctive architectural elements made up its 'legibility'. A 'legible' city was one which had a strong distinctive character, to which its inhabitants could easily relate.

The description by Lynch (1960: 61) of the rectangular street grid of Los Angeles could be applied to many Roman towns:

> Almost every subject [questioned] could easily put down some twenty major paths in correct relation to each other. At the same time, this very regularity made it difficult for them to distinguish one path from another.

Recent work by Hillier (Hillier and Hanson 1984) has considered the way that streets, or 'paths' in Lynch's terms, penetrate districts. Hillier noted that legibility should be hierarchical. That it should be possible to distinguish a main through road, from a side road, and from a residential street. There was thus a hierarchy of roads. If it was not possible to distinguish between a main road and a side road then traffic tended to get lost in the side streets, or through traffic could end up in residential neighbourhoods. Main roads should be distinguishable by factors such as width, or lack of pedestrian access. In residential neighbourhoods the homes should open onto smaller streets, which should be narrower or winding to emphasise that they were not designed for traffic. Hence in modern estates red brick is used instead of tarmac, and flower boxes are placed in the road to slow cars down after the German style of 'traffic calming'.

In these circumstances it would have been easier to find the way across a small ancient town than a large modern city. On the other hand ancient Carthage consisted of some 200 regular *insulae*, and must have been confusing. Later in the sixth to seventh centuries AD many streets became blocked and impassable (fig. 7.1). Though this may have caused traffic problems it may have increased legibility, since only a few streets were now major cross-town routes.

Hillier and Hanson (1984) also introduced the concept of 'permeability', which indicates the degree to which streets enter an estate. They suggested that it should be difficult enough to find one's way into an estate, so discouraging intruders yet not too difficult for the residents to find their way out. Hence a modern estate has a complex network of access roads, but often includes some pedestrian short cuts to the shops.

Hillier (Hillier and Hanson 1984: 21–22) would regard the Roman town plan as one in which the global needs of society dominate the local needs of the settlement. 'The global system is defined only by the relations between

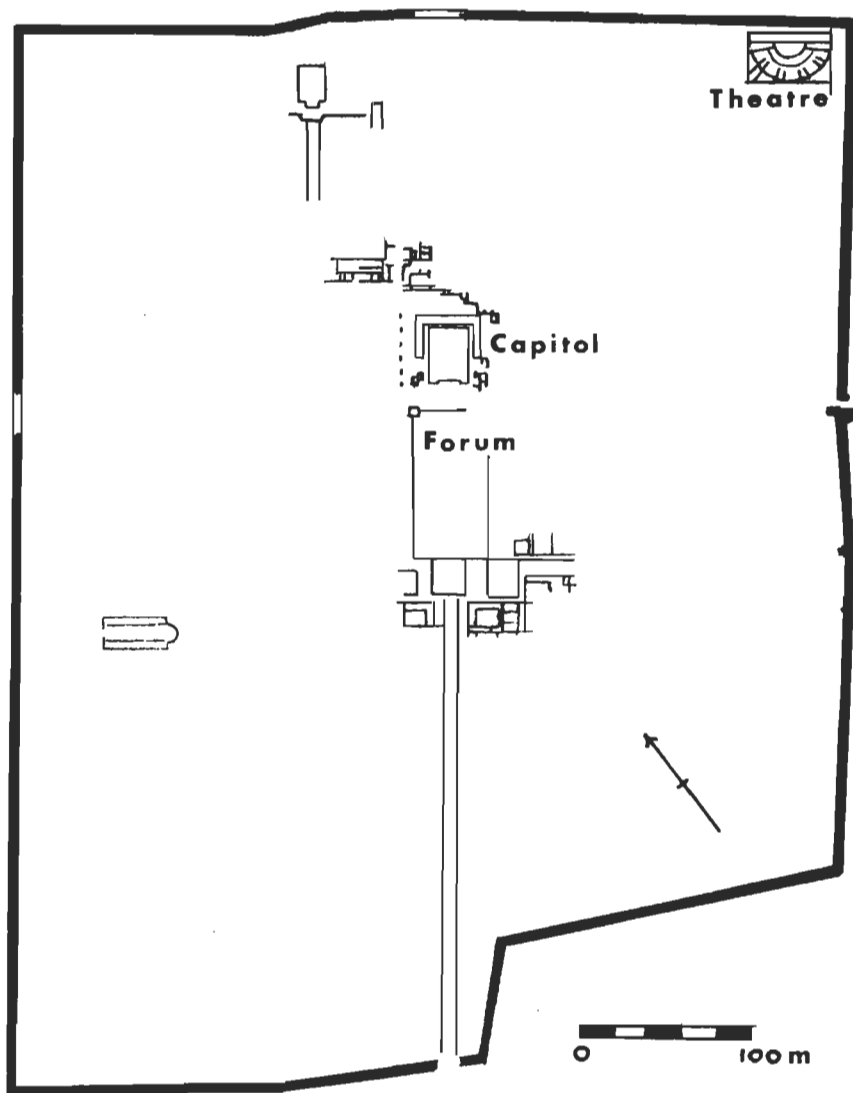*Figure 7.2. Luna (after Frova).*

the major ceremonial buildings linked as they are by "causeways".' The local system is one like that of a medieval town, in which intricate street networks give full play to street life, and neighbourhood formation.

The relative uniformity of Roman street grids and frontages, discouraged 'legibility', and the formation of neighbourhoods. In Hillier's terms 'perme-

ability' was too great since it was easy to travel right across the city on most roads. The Decumanus or Cardo Maximus might be somewhat larger than other streets, but otherwise there was little to distinguish the frontages, or colonnades. Instead the Roman would have had to use distinctive land-marks. In other words the principle was one of 'turn left after the Baths of Caracalla' rather than 'go down the street with all the bay windows'.

The lack of differentiation in the width of streets also suggests that the Romans were not much concerned with traffic flow. It is quite common for a wide main street of a Roman town to have steps across it. Provincial settlements grew up around clearly distinguishable major through routes between major towns, but in a planned town like the second century BC colony of Luna (Fig. 7.2), the Via Aemilia, one of the grandest routes of the empire, just looks like a rather wide street when it passes through the town. There is no indication of measures to deal with any resulting traffic conges-tion.

When spontaneous 'unplanned' settlements, such as many of the small rural towns of Roman Britain, grew up the settlement orientated itself towards the major road which is as a consequence clearly identifiable. Houses open onto the main thoroughfare: side streets are narrow and of lesser importance. These points can be illustrated by the plans of two important cities of the Roman period Ephesus and Dougga. Though both were founded in pre-Roman times they saw a considerable amount of re-building in Roman times.

EPHESUS (FIG. 7.3) ————

Ephesus was a great classical city with a long history. Although its plan was partly determined by two hills on the east of the site, it can in many ways be seen as a prototypical example of Greek and Roman urban design.

Foss (1978: 56–57) notes the difference between the two main late antique streets of Ephesus, the Arcadiane and the Embolos. The Arcadiane ran from the harbour to the centre of the town, at the theatre. At 10.7m in width plus colonnades on either side it was the grandest street in the town, yet to Foss it is 'cold and lifeless' compared to the Embolos. The Embolos was a narrower street that curved uphill from the theatre to the municipal buildings. It was lined with large numbers of statues. There were numerous late antique graffiti on the facades and the pavement.

Both streets were fronted by shops but as Foss concludes the Arcadiane 'was a monument and vital artery, but not a centre of urban life'. The nar-
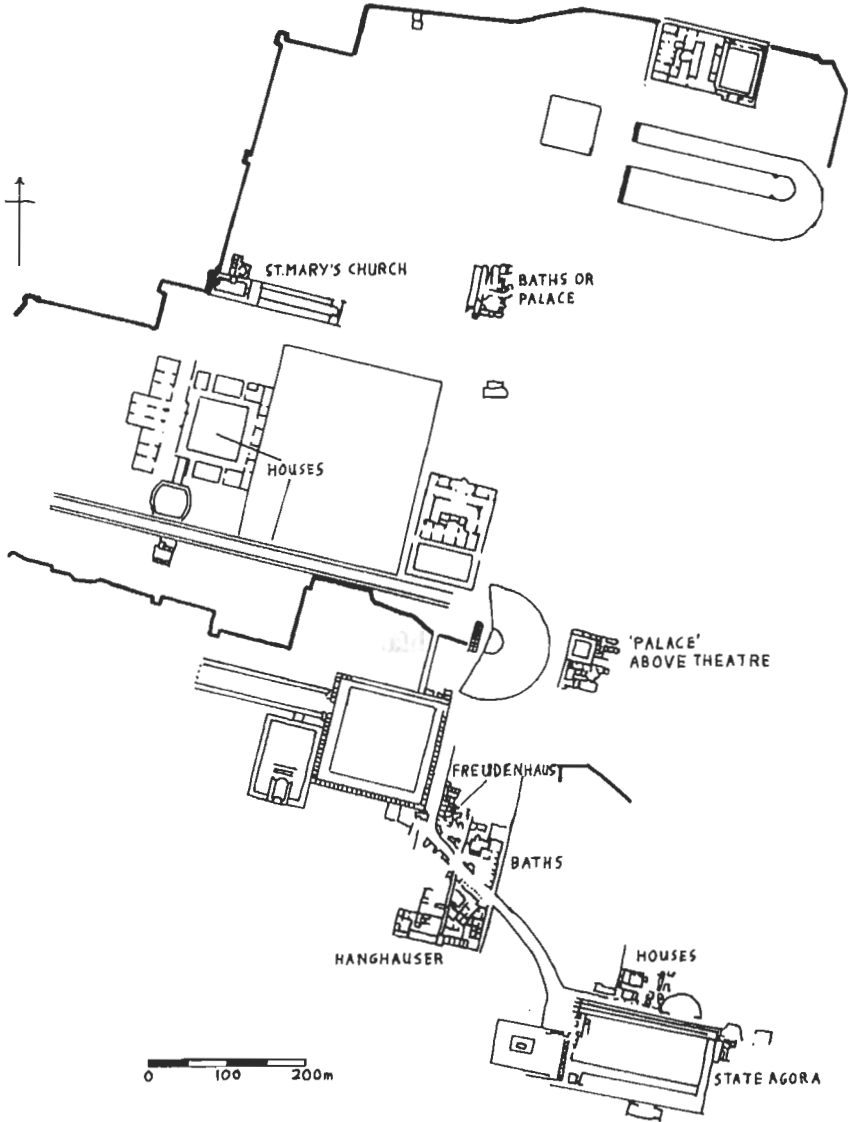
Figure 7.3. Plan of Ephesus (after Foss).

rower width and steep slope of the Embolos meant that it was less suited to wheeled, or four legged traffic. At the same time its position outside the municipal buildings lined with statues of past politicians made it an ideal centre for political discussion and abuse. In the case of the Arcadiane there

seems to be a contradiction between its monumental aspect and its use as a 'main artery'. I am inclined to think that it was the monumental aspect that was most important, and that it was designed for ceremonial processions of dignitaries who had arrived by sea. Though its great width made it eminently suitable for wheeled traffic I think its ceremonial function was more important than its commercial one.

In Hillier's terms the Arcadiane was the 'causeway' built by the central administration to link the main public buildings. Although the Embolos was lined with statues of civic dignities it had a great deal of 'character'. This character was created by its lively street life, its narrow width and winding route, the statues along it, and a great variety of building facades (e.g. Temple of Hadrian). To Lynch it would be a very 'legible' street. The facades would create two clear edges to the districts on either side. To the west there were civic buildings set against the steep hill of the acropolis. To the east there were rich houses, set attractively on a gentler slope overlooking the street.

DOUGGA (FIG. 7.4) ————————

By contrast to Ephesus, there is very little of the 'planned' in Dougga (Poinssot 1983). For much of its history Dougga remained part of the territory, or *pertica* of Carthage. There was a community of Roman citizens in the town from 46 BC, but the town did not gain full municipal status until AD 205.

Nevertheless it would be wrong to imagine that the city grew without guiding principles. It is commonly stated that the plan of Dougga derives from that of the earlier Numidian settlement. In truth there is little clear archaeological evidence for the plan of the Numidian settlement. Dougga is a typical hill top town and like such settlements all over the world, of all periods, its streets simply follow the topography of the ground.

Most of the public buildings in Dougga date from the later second century AD. Many (like the theatre, the Temple of Caelestis, and the Temple of Saturn) are sited to take advantage of views across the rich agricultural valley that provided the city's wealth. There were virtually no straight streets anywhere in the town. At first sight this would seem to make it very hard to find one's way across town, but I would suggest the opposite is true. Public buildings are spread evenly across the town, and wherever a pedestrian was there would always be one nearby. The public buildings would be useful landmarks in directing people. Their various
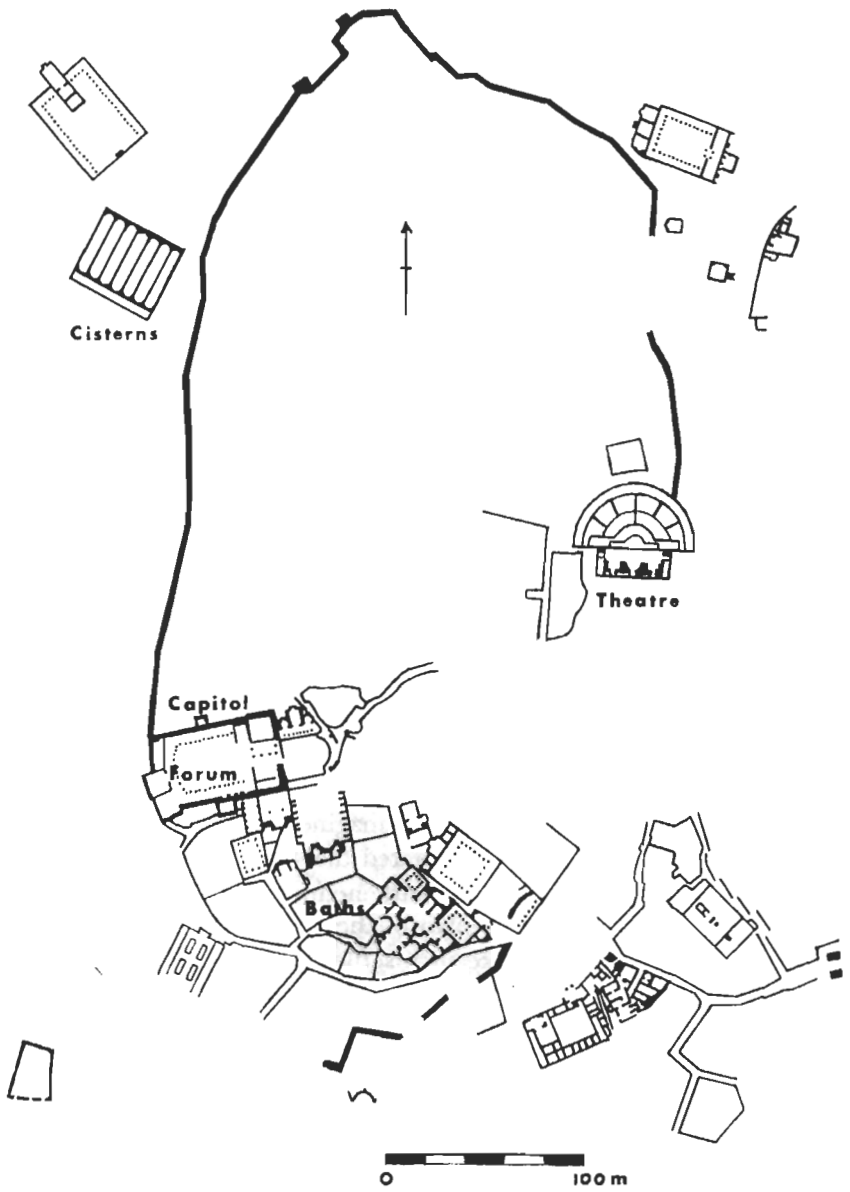
Figure 7.4. Plan of Dougga, Tunisia (after Poinssot).

facades, as at the Embolos in Ephesus, would combine with the winding routes of the streets to create a strong neighbourhood identity.

Dougga was thus a very 'legible', easily understood city. Town planners have found that people today generally prefer a town with strong character and 'legibility'. Given the choice between living in a planned Roman colony and Dougga I expect most people today would choose the latter.

In the law of 45 BC, the *Lex Heraclea* (*CIL* I: 593) Caesar decreed that after the tenth hour in the evening, only vehicles were allowed to travel the streets of Rome. The streets, he said, were too crowded with pedestrians in the day time, and only in this way could passage be secured for wheeled traffic (Carcopino 1940: 62–63). Nevertheless the law was not extended to the rest of the empire until the second century AD.

The impression is that Roman towns were not designed for wheeled or hoofed traffic. At both Ephesus and Dougga it is possible to find many streets which have steps across them or which are very narrow. Ease of access never appears to have been considered when locating important buildings. At Ephesus, it was the social context which determined the form of the streets rather than the need for access. If a visiting dignitary arrived at the city by sea expecting to give an important speech at the civic assembly, his triumphant procession up the Arcadiane would have been followed by a more ignominious climb up the narrower, steeper, bustling Embolos.

The Roman town was inturned and closed like the Roman house, which presented a blank exterior to the outside world (see further below). If, as I have been implying, it was often difficult to find one's way round a 'planned' Roman town then it is legitimate to ask who the towns were designed for. Did the Roman towns function more for residents or for outsiders and regular visitors? Residents would have been more familiar with the landmarks that would have been used for finding one's way according to Lynch's theory. Visitors may have found it very difficult, and the whole experience may have seemed rather daunting if they came from the countryside and had not seen cities before. Simon Clarke has shown in this volume how the location of Romano-British towns can be explained by an aim to obtain the best possible location for an administrative, or market centre. The arguments in his paper and mine bring out the use of towns to 'control' a society. This does not necessarily mean military or political control. It may rather be control over the movement of goods and people, guiding them along certain routes, which can be observed or from which they can be directed to certain key locations.

The tendency in the western provinces to place all the public buildings in a single central location, could be seen as an attempt to create legibility of the town plan. It can also be seen as a way of making sure that most visitors to the town are directed towards the political and economic centre of the settlement. Two major factors can be found to influence the location of major public buildings, politics, and available land, but not access.

In modern town planning preparing for major new developments, involves what is known as the 'land assemblage' problem. This involves buying up the plots of many smaller owners to assemble the site for a very large building. As more and more small owners sell up the developer becomes more and more financially committed to the project, because of the purchase of so much land, and pragmatically because he is increasingly the owner of a large part of the site. The last pieces of land to be bought, or 'assembled' are known as the 'ransom strip'. This is because the developer is so committed that he can be held to ransom by the last of the small owners who can demand an exorbitant price. If the developer does not pay, he is left owning three quarters of the land, but unable to build.

At Carthage it is notable that all the major public buildings of the second century AD – theatre, baths, circus, amphitheatre, lie outside the kernel of the ancient city. Recent excavations suggest that these major buildings were built at the edge of the urban area of that time. It is not possible to tell whether this was an attempt to avoid site assemblage problems, but it does indicate a desire, at the very least, to avoid the political problems of demolishing the property of, and dispossessing, a large number of citizens.

In Rome a more radical solution to the site assemblage problem, as suggested by ancient authors, was to start a fire in the area (Plutarch *Crassus* 2.5; Suetonius *Nero* 16). Though there could be large open areas in Roman towns these would still have been under private ownership and site assemblage problems would have resulted. Arson is said to have been a successful strategy as it made the price of the land crash.

The public baths is perhaps the institution of the Roman world which most closely resembled a modern community centre, and thus had the potential to 'control' the lives of the townspeople. In the Mediterranean there were normally several distributed throughout the town. Thus the Baths can be said to be a neighbourhood facility. On the other hand there were not really enough baths to cover every neighbourhood. Baths were normally financed by private munificence rather than by systematic state provision, and were maintained by an entrance charge (Juvenal *Satires* II). The impression is that people had their favourite baths and would travel

across town to visit it. Perhaps the best analogy is the modern leisure centre, of which their can be two or three in larger towns located in 'main centres'. If we accept this view then it seems inescapable that in Roman Britain the systematic construction of public baths as part of the forum complex was a deliberate attempt to encourage Roman behavior in the natives, as Agricola is said to have intended (Tacitus *Agricola* 21). The Romans were deliberately using urban design to influence local people.

Some Roman cities had formal markets. Sometimes these were stalls in the forum. In other places for example at Wroxeter in Britain, there were purpose-built market buildings. However the majority of shops seem to have been spread throughout the town. In large Roman cities it is common to see shops flanking the entrances to the big houses. The shopkeepers were presumably tenants, and had the added advantage of providing more security to the big house.

Shop-keepers also found themselves under obligation to the community. In late antique Antioch shopkeepers were obliged to provide lamps to light the porticoes outside their premises (Amm Marc 14.1.9). Street lighting was also provided in late antique Alexandria and Constantinople, but not in early imperial Rome (Foss 1979: 56–57, Bean 1979: 140). In Romano-British towns, shop-keepers and traders often lived in the traditional 'strip houses' with a shop on the street, living quarters behind, and a yard, or workshop to the rear again. There is much debate amongst classical historians, as to whether trades were concentrated in particular streets or neighbourhoods (MacMullen 1974: 66–70). The evidence does not seem conclusive. Suffice to say there was no form of 'shopping centre', or anything to compare with the medieval 'souq'.

The Roman house has more in common with the modern oriental types of house than with those of present day Europe. The Roman house was in-turned as regards both its architecture and its life. It did not present many openings onto the street. There was often an entrance corridor, and reception suite, but these formed a part of the house. This is different to the 'intermediate zone' between house and street, that is formed by the modern front garden, or the verandah. This intermediate zone, studied by Glassie (1975: 137), and other analysts of urban form, creates an area, which is half in the house, and half in the street. Residents can feel they are still at home, passers-by can feel they are not intruding, and interaction can take place freely.

The shops and stalls in the colonnades of streets such as the Embolus at Ephesus, appear to create such an intermediate zone, but this is deceptive.

Most interaction with the Roman householder took place inside the house in an area clearly under the control of the owner (Wallace-Hadrill 1988; Ellis 1991). The fact that much of Roman political and economic negotiation took place behind closed doors helpd to explain the conspiratorial nature of Roman politics. Though many Roman cities, especially those in the Mediterranean clearly had a sense of 'community', at least as expressed in the munificence of their leading citizens, the closed nature of the Roman house did not allow for open socialising in a local neighbourhood.

The conclusion from this brief overview of planning in Roman towns is that, in terms of the overall plan, and in terms of the location of the main public buildings within that plan, the Roman town was an environment which exerted a large amount of control over its inhabitants movements. There is also evidence that control was exerted through particular types of buildings. Social pressure was placed on the inhabitants in the public baths, and the residences of the rich were used by their owners to enhance their power over others.

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