The Social and Spatial Analysis of Romano-British Villas
Four case studies from Gloucestershire

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One of the most prominent features of Romanization in the British countryside were the Romanized villas, which clearly demonstrated the adoption of Roman lifestyles. Many represented the willingness of members of the native élite to exhibit their status through the construction of residences with Roman-style architecture and materials (John, 1969: 40; Black, 1987: 7). But it is evident that, despite the obvious wealth needed to erect these Romanized structures, the level of luxury varied; this could be indicative of the differing social conditions in many complexes. Regardless of the evident inequality in wealth between some villas, they all represent a Romanizing tendency in rural Roman Britain. This ties in with the question of the social significance of these structures and the role that they performed for the owners within the broader community. Therefore, there will be two general themes focused upon within this study: the symbolism of villas as representations of Romanization, and the social role that they performed, including the divisions of space within the sites under question.

In recent studies (Ellis 1995, Witt 2000, Cosh 2001, Perring 2002, Allison 2004, Wallace-Hadrill 1994, Clarke 1991, Winsor Leach 2004), there has been a large amount of discussion concerning the function of various rooms within Roman residences, both in Britain and on the continent. The majority of these have placed a large amount of emphasis upon particular sources of evidence, such as pavements, wall décor, the associated finds or floor-plans, which have all produced interesting results with varying interpretations. It is the intention of this study to highlight the importance of taking the inter-relationship of each room into consideration. This has been achieved by using the spatial data analysis technique formulated by Bill Hillier and Julienne Hanson (Hillier and Hanson, 1984), which allows for analysis on a purely mathematical level, removing the modern scholar from a purely subjective interpretation of floor plans. Clearly the known finds and architecture of each complex are of great importance and use, but this mathematical methodology illustrates the form of these structures and the inter-relationships of each room in a fashion that can limit the subjective basis of interpretation. It is hoped that by including this style of analysis in addition to the studies already in the academic forum that a greater understanding of Romano-British villas may be achieved.

In this study, four villas from Gloucestershire have been used as case studies (Great Witcombe, Chedworth, Spoonley Wood, Wadfield) to determine the differing degrees in lifestyle, wealth and social status; which will then allow for an examination of the variation at each site. These complexes have been selected because of their geographical proximity and periods of habitation to allow for the optimal source of discussion. But initially there needs to be some clarification of the terminology to be used and their historical context in Gloucestershire before the methodology is applied.
The *Villa* and its Representation of Romanization

The Roman term *villa* was applied to a diverse group of buildings outside the urban centres (Winsor Leach, 1989: 304). The emphasis upon luxury at many villas indicates that this was often an important expression of status. As Buck has illustrated, there were several terms that were commonly used for ‘farm’, including *praedium, fundus* and *villa* (Buck, 1983: 9-10). He has also shown that the term *villa* was always used in relation to an extra-urban residence. In a legal sense there was no distinction between the different types of villa (Buck, 1983: 9-10); the variance being more concerned with lifestyle, function and position. Wightman sees villas as “all farms or country-houses built at least partly in stone” (Wightman, 1970: 139). Smith further clarifies this statement by adding that the structures must take a distinctly Romanized form of planning which was quite unlike any native farmstead (Smith, 1997: 11). The true canons of classical architecture, for example axiality and symmetry, were adopted slowly in Britain, but the use of rectangular buildings was a definite break from the native traditions of construction (Percival, 1987: 543).

However, this does not lead to the assumption that this was solely taken on by either the pre-Roman élite population or emigrating ‘Romans’. Considering that all four of the structures under discussion were constructed in masonry no earlier than the second century AD, this would have made the adoption of *romanitas* a social construct, being indicative of the *status quo*. Sites with evidence of progressive Romanization dating back to the first century, such as at the Chedworth and Barnsley Park villas, seem to be indicative of the Romanization of the traditional local élites, but this cannot be claimed with any certainty for all Romano-British villa complexes. The onset of Roman rule, typified by the introduction of planned cities and masonry villas (Frere, 1987: 229; Clarke, 1996: 72) must have changed the local society, but it also cannot be assumed that all of the native customs were altered (Adams, 2005). The varying degrees of Romanization clearly indicate that this cannot be taken on a general basis, with the *willingness* of various individuals/households/communities being the determining factor.

The social significance and analysis is the main feature of this study. The purpose of this is to ascertain the nature of social activities that occurred in Romano-British villas by applying space syntax or ‘gamma analysis’ to four sites from the Gloucestershire region. This has primarily focused upon regions used for entertaining guests in each complex, particularly in relation to dining. Black has shown that the evidence for large-scale dining is substantial, possibly being tied in with a continuation of native practices (Black, 1994: 106-7), although the latter is questionable (Perring, 2002: 212-3). The importance of social activity at these complexes was intrinsically connected to the social statement made by such Romanized villas: they were declarations of success, wealth and status. In order to determine the extent to which social activity was provided for at these complexes (Great Witcombe, Chedworth, Spoonley Wood and Wadfield) the accessibility of each room must be ascertained, which can be shown mathematically by the use of the Hillier and Hanson ‘gamma analysis’ method.

**The Hillier and Hanson ‘Gamma Analysis’ Methodology**

The nature of the social activity (public/private) has been taken into consideration for these Romano-British villas using the Hillier and Hanson gamma analysis. Owing to the dearth of extant material at many complexes this has its limitations, but this method of
analysis has shown the different roles that existed at each site under consideration. This method has been previously applied to Romano-British villas by Scott (1990: 149-72), by which she attempted to establish that there had been a major social change through the introduction of the corridor to Romano-British villas. This rather ambitious approach received significant criticism (Samson, 1990: 173-80; Clarke, 1998: 28-40; Perring, 2002: 156-7), which was largely owing to the unsubstantiated conclusions that were drawn from this analysis. The present study has sought a more attainable result by simply limiting the focus to determining the accessibility of areas that could have served a social function. The application of the gamma analysis to these sites has illustrated the presence of both private and public regions (inaccessible/accessible) within these structures. Allison has already shown that a ‘formal’ public/private division did not exist within her survey of thirty Pompeian townhouses (Allison, 2004: 123). But the use of the Hillier and Hanson method in this instance is intended to illustrate the variation in accessibility and location within these Romano-British villas as a group in order to show their differing social uses. The results of this analysis have been shown in the relevant Access Map among the Figures. But overall, the use of the Hillier and Hanson [space syntax] method is a useful experiment to see if it can highlight a consistent pattern of public to private accessibility in Romano-British villas and thus their capacity for social activity.

The division of spatial data has been made according to the method of ‘gamma analysis’ outlined by Hillier and Hanson (1984: 143-63), but this method has been used in association with the approach suggested by Grahame in connection with his spatial analysis of Pompeian residences (Grahame, 2000: 32). The study of Grahame has illustrated that the ‘gamma analysis’ (or what will generally be referred to in this study as ‘spatial data analysis’) of bounded space within residences can provide insight into the “spatial topology of a building” through the use of Access Maps (Grahame, 2000: 32). The division of space within this study for the ‘gamma analysis’ of particular sites has been made according to the principles of bounded space. ‘Bounded spaces’ are those that have a clear boundary that defines their separation from other areas (Hillier and Hanson, 1984: 73ff). ‘Unbounded divisions’ are spaces that have divisions that are not as clearly defined as solid walls, but are still evident, such as through a change in the flooring, being on different levels or different décor. The unbounded divisions have only been applied when such archaeological evidence indicates an unbounded division of space.

This spatial data analysis makes references to several statistical calculations that have been used to determine the levels of accessibility for each room within the structures under discussion in the Gloucestershire region. These values are titled ‘Control Value’, ‘Depth from Exterior’, ‘Mean Depth’, ‘Relative Asymmetry’ and ‘Real Relative Asymmetry’. Control Values determine the level of control exerted by each room upon its accessibility and that of its neighbouring rooms. If a Control Value is over 1 it is a ‘controlling space’, or in other words it controlled access to at least some of its neighbours. If it was below 1 its access was controlled by at least one of its neighbouring rooms. Depth from Exterior measures the number of spaces between a room and the closest entrance into the building, which also clarifies its accessibility.

Mean Depth measures the accessibility of a room in relation to the other rooms in the complex. If a space has a high Mean Depth, it means that access to it was more
restricted. Relative Asymmetry is used in relation to determining the potential for social interaction. If a room has a low Relative Asymmetry value, it has a high potential for social interaction. Real Relative Asymmetry values are used in the same way, but are more reliable because they take into consideration the number of rooms within each structure. When all of these methods are used in conjunction with each other it is possible to determine the accessibility of each room and, in turn, its public/private role.

Following from these calculations, the role of each space, according to their public or private role, has been illustrated on the floor plan (grey regions indicating a public role, black showing a private function and white illustrating a partially restricted area). This differentiation has been based upon the Real Relative Asymmetry results, which have been compared to the other statistical values. The highest and lowest scores were found, then their difference was calculated and the results divided into thirds. This was intended to provide a clear illustration of the differing degrees of accessibility at each complex and the amount of public/private space provided at each complex. For the purposes of the present analysis, the results have been based upon the floor plans of each structure in the final period of habitation at each site in order to avoid unnecessary complications.

The Villas Under Question in Gloucestershire

There are four villa complexes in Gloucestershire that have been analysed (Great Witcombe, Chedworth, Spoonley Wood and Wadfield), some of which that expressed exceptional degrees of wealth, notably Great Witcombe and Chedworth (Adams, 2005: 33). However, the choice of these complexes has been because of their varied layouts and levels of wealth in order to provide the best comparison. It is also possible to discern that more than one household resided at each of these establishments by examining their plans with little emphasis upon centralization.

The Great Witcombe villa was a well-appointed structure located near natural springs (Clifford, 1954: 5), around 8 kilometres from Gloucester (Fig. 1)(Leach, 1998: 1). The springs affected the design of the complex because of the resulting instability, which led to an unusual plan (McWhirr, 1981: 92). The basic plan is that of a corridor villa connected to a courtyard (Fig. 2)(Scott, 1993: 73). Before the construction of the Romanized villa there was some evidence of habitation, with a few discernible buildings dating from the pre-Roman period to the mid-second century AD (Leach, 1998: 2, 49). The greatest portion of this complex, which can be dated to roughly AD 250 (McWhirr, 1981: 92), was built as two equal-sized suites of rooms, which constituted the east and west wings, linked by a long gallery (Leach, 1998: 2).

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The Spatial Data analysis (Fig. 3) has produced some useful results. Firstly, when the colour spatial diagram is viewed (Fig. 4) it is notable how dominant the accessible regions of the complex are, with the more inaccessible regions being located in the eastern and western wings. The average Real Relative Asymmetry score is 1.8066, which is located within the middle sphere of results (White). This is despite most rooms being placed in the lower scale (Grey regions). All of the White rooms had higher Mean Depth and Depth from Exterior values as well. Only three of these rooms were also controlling rooms (Rooms 6, 8, 28). The high level of inaccessibility in the Black regions is also illustrated in their Depth from Exterior scores (ranging from 12-14) and their highest Mean Depth values, but this
should not be surprising for this group of baths (Adams, 2005: 48), which were not going to be easily accessible by uninvited visitors.

The Great Witcombe Villa had the largest number of rooms within this case study, but by using the Real Relative Asymmetry values this is taken into account. These results illustrate the wide-scaled accessibility throughout the complex, but conversely it also exhibits the complexity of the structure in its final phase of habitation. This is shown by the accessibility of most rooms when compared to each other. But when the average Real Relative Asymmetry (1.8066) is compared to the other structures, it is significantly higher, illustrating its greater accessibility. Leach has argued (1998: 126, 129) that both Rooms 15 and 26 served as dining rooms, and therefore social roles. This is significant because, judging from the gamma analysis of this villa, they served quite different roles. Room 15 was clearly used for a public occasions, which is also shown by its central location (Perring, 2002: 155). Room 26 is quite different, having a higher Depth from Exterior (7) and Real Relative Asymmetry value (1.7385), indicating its more private role. This differentiation in accessibility represents the presence of two possible dining areas that served for different kinds of occasions and possibly a different clientele.

Another well-appointed complex in Gloucestershire that also possesses evidence for the co-habitation of different groups of residents is the Chedworth villa (Adams, 2003). This villa (Fig.1) clearly represents the desire of the local wealthy inhabitants for status. The location of the villa was probably due to the availability of water, as there was a natural spring in the northwest corner of the complex. The initial complex was unpretentious, being established in the early/mid-second century (Adams, 2005: 49; Richmond 1959: 6), originating as separate buildings on three sides of a courtyard, which was gradually connected over time (Smith, 1997: 163). The addition of well-appointed facilities to the villa occurred early in the fourth century AD (Goodburn, 1998: 13). The previous structure may have originally been constructed in timber in the form that it later took in stone, representing a gradual process of Romanization from form to material adaptation (Smith, 1997: 251). Between the late third/early fourth centuries it was replaced in a larger form with baths and more rooms (Fig. 5)(Wacher, 1971: 200-2).

The Spatial Data analysis (Fig. 6) has produced an average Real Relative Asymmetry result of 1.2367. This score is placed within the middle section of these results. The Chedworth Villa produced fewer extreme scores in comparison with the Great Witcombe Villa, which is shown by the even spread of accessible/inaccessible regions throughout the structure (Fig. 7). There was a higher concentration of rooms in the middle (White) area of results, of which most were controlled, having only Rooms 3 and 24a as controlling rooms that is shown by their Control Values. This has produced a greater variation in the consistency of the Depth from Exterior and Real Relative Asymmetry values for these inaccessible areas, but illustrate a continuing correlation between the Real Relative Asymmetry divisions and the Mean Depth values. The results have also highlighted that the well-appointed western wing of the Chedworth Villa was largely accessible from both the exterior and other regions of this complex.

For an understanding of social activity at the Chedworth villa, the only known entertainment space was Room 5, which has been classified as a dining room (Goodburn, http://www.anistor.co.hol.gr/index.htm
Unlike Room 15 in the Great Witcombe villa, access to this space was relatively restricted to visitors, judging from its relatively high Depth from Exterior (4) and Real Relative Asymmetry result (1.2). It was by no means the most restricted space within the complex, but it was clearly not intended for a highly visible social role, with its access being controlled by Room 5b. This corresponds well with the changing focus of the owner during the fourth century, where the emphasis for *luxuria* was primarily upon the internal facilities rather than the external, with the creation of the utilitarian courtyard.

The Spoonley Wood complex (Fig. 1) was not as well-appointed as the previous villas, but was still reasonably furnished and exhibited a contrast in degrees of affluence within its structure (Adams, 2005: 39; Percival, 1976: 163). Even though the suites in either wing were essentially the same, the southern wing was superior owing to their heating and bathing facilities (Black, 1985: 88-9). Smith points out that the interruption in the *porticus* between the house and the north wing would have further emphasized the social inequality that existed (Smith, 1997: 269). The building was an aisled villa (Smith 1963: 1-30), being a simple rectangle, with subdivisions (Fig. 8). The most well-appointed area within the villa was the southern wing, including a bipartite room for entertaining favoured and less-favoured guests separately (Rooms 13-14). This would have created a social distinction that was designed to impress and, therefore, advance the social aspirations of the owner. There were also large amounts of *tesserae*, coins and animal bones discovered at the site (Adams, 2005: 39), with one of the most interesting finds being a marble statuette of Bacchus (Henig, 1984: 170).

The Spatial Data analysis of the Spoonley Wood Villa (Fig. 9) has produced an average Real Relative Asymmetry of 1.0030, which is the only example among these case studies placed within the accessible (public) section of its results (Fig. 10). The high degree of accessibility throughout this complex is complemented by there only being three rooms with restricted access (Rooms 1, 31, 32), which had the highest Depth from Exterior and Mean Depth scores, illustrating their internal and external inaccessibility. The open-styled layout of this structure is also shown by the lower average Real Relative Asymmetry (1.0030) in comparison to the Great Witcombe and Chedworth Villas. As with the Great Witcombe Villa, the rooms with the middle and high range of scores were located on the extremities of this complex, particularly on the northern and southern sides. When the results are particularly applied to the bipartite dining room (Rooms 13-14) it provides mathematical evidence that there was a higher degree of privacy in Room 14, suggesting a social differentiation in their functions. Owing to the large doorway, the location and this social distinction, it would further the interpretation that these rooms were used as a bipartite dining room. This was the only known designated social area, which is significant as it represents a combined accessible (Room 13) and restricted (Room 14) region within the central domain of the villa (Perring, 2002: 155).

Only two and a half kilometres from the Spoonley Wood Villa was the villa at Wadfield (Fig. 1). The floor plan consisted of three wings around a courtyard, with baths in the southern range (Fig. 11)(Adams, 2005: 40). The walls of the structure were immense, but irregular, and the courtyard was paved in a rough fashion (Scott, 1993: 76). The nature of this workmanship suggests that the villa residents were not as wealthy as the previous examples, but that they were using their available means to appear Romanized. The

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accommodation quarters and a main reception room were located in the western wing, whereas the utilitarian rooms were in the northern wing (McWhirr, 1981: 97). The difference in decoration between western and northern wings also demonstrates the separate households within the villa.

The Spatial Data analysis of the Wadfield Villa (Fig. 12) has produced the lowest average Real Relative Asymmetry result (0.9823), illustrating the close connection that existed within this small complex (Fig. 13). However, for the size of this structure there was a high degree of differentiation in accessibility. This was governed by the connection to the central courtyard (for a comparison see Grahame, 2000: 95), with rooms placed onto it serving as controlling rooms, as shown by their Control Values and Depth from Exterior results. As with the previous examples, the division of Real Relative Asymmetry results has correlated with the Mean Depth values. The scores from the Wadfield Villa (Fig. 13) have illustrated a similar division in degrees of accessibility, which also would have been expected at the previous sites, but the variation between each complex and their levels of accessibility are clearly evident. There are three rooms that have an identified entertainment function within this complex (Rooms 1-3). It is notable that both Room 1 and 3 were clearly more accessible than the private Room 2 (Fig. 13). This indicates a provision for both public and private occasions, which in turn suggests a wider social role for this complex. This is particularly notable owing to the limited provision for such varying occasions in the larger complexes at Chedworth and Spoonley Wood.

Conclusions
It appears that the majority of villas in Gloucestershire did not appear until the middle of the second century and most of these were not originally as lavish as their later counterparts, such as the Great Witcombe villa. A good example of a villa built in the early/mid-second century can be seen in the development of the Chedworth complex, from its unpretentious origins into the well-appointed complex of the third century. When the origins of these structures are compared with the introduction of masonry townhouses at Cirencester in the middle of the second century (Adams, 2005: 52), there is an interesting correlation. It seems that both urban and rural masonry buildings were not widespread until the middle of the second century, probably being built by the same members of the community. To further emphasize this development, most large-scale public building works had been completed by this time, which must have given the local wealthy élites more expendable capital for the expression of their status (Millett, 1990: 137).

This allowed for the social identity of each owner to be expressed through the construction of residences such as well-appointed masonry villas. This expression of romanitas was not only conveyed to visitors, be they invited or uninvited, but also to the local community who also viewed these structures from afar. Villas such as the Great Witcombe and Chedworth complexes were grand statements, illustrating the social identity of their owners, which were gradually expanded over time to further this impression. The construction of large Romanized villas communicated this social identity to both internal and external audiences, but judging from the gamma analysis results, there was clearly variation between various owners in regard to which audience was a higher priority.

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When the results of the Spatial Data analysis are compared it illustrates the great variation in the levels of accessibility at each complex. This is particularly notable when the Great Witcombe and Wadfield Villas are compared (Figs. 4, 13), having such a different level of facilities and number of rooms, but also entirely differing formats of accessibility throughout their structures. The Great Witcombe Villa seems to be the most analogous with the Spoonley Wood Villa (Figs. 4, 9), but this is largely because of the dominance of their large central corridors for distributing accessibility (Rooms 14, B respectively). The results have also shown a distribution of accessible/inaccessible space that is somewhat surprising because it does not follow a consistent pattern. However, this is the major benefit of the Hillier and Hanson method. It removes the need for subjective judgement by using a mathematical formula instead of relying upon varying perceptions.

By using this method and the division of Real Relative Asymmetry values, it has been shown that the division is a plausible method of analysis and that it corresponds well with the Mean Depth values of each room, representing a global view of their accessibility in conjunction with the Depth from Exterior and Control Value results. The overall scores have also shown how room number does not necessarily equate with accessibility. The natural conclusion would be to assume that a larger number of rooms would lead to a greater number of rooms in either public or secluded areas, as was shown in the Chedworth Villa (Fig. 10). However, the greater variation in the Wadfield Villa than the Great Witcombe Villa has clearly shown that the two do not necessarily correlate. This would suggest that the Public/Private division of space was not as straightforward as would be expected, at least on a functional level. The theory of perceived public/private space is certainly applicable, but each structure varied widely when compared to their counterparts in the division of use.

One of the clearest conclusions one draws when examining the development of villas in Gloucestershire and indeed anywhere throughout the province of Roman Britain is that not all villas are of equal standard. When the splendour of the Great Witcombe and Chedworth Villas are compared with the simplicity of Wadfield the difference in wealth is quite obvious. Despite this, the reason for their construction remains the same: a desire to appear Romanized and to connect the owner with this social identity. The only difference is the amount of capital that was available. One should remember that the majority of the population continued to live without such pretensions. A good example of this is shown at the Brockworth farm that lay between the villas at Great Witcombe and Hucclecote. This settlement continued to use native style housing even when it may have adopted Roman measurement for land allotments (Rawes, 1981: 45-77). The contrast between Brockworth and Great Witcombe reflects the realities of the Roman occupation. Not all Britons adopted Romanized housing and lifestyles, only those with aspirations to appear Romanized.

Nevertheless, the most significant result that has been exhibited within this study is the varied social priorities of the owners. Judging from the gamma analysis results it is evident that the owners of both the Chedworth and Spoonley Wood villas placed more emphasis upon communicating their social identity to an external audience, having only limited provisions for internal social activity. This is further emphasized at the Chedworth villa by the dining area being located in a controlled region of the villa. This is in clear contrast to the Wadfield villa, which had not only more rooms that fulfilled a social
function, but also a greater variation in their accessibility, indicating greater emphasis upon social activity at the complex. This disparity is further accentuated by the differing levels of décor and facilities at either complex, which adds to the suggestion that the design of Romano-British villas was indicative of the owner’s priorities as well as their expendable capital. Nevertheless, this variation should be expected: some owners would have sought privacy rather than social activity, whereas others would have sought the opposite. In general, the desire to communicate a social identity to the community was a central theme behind the construction of these villas and their later additions. Even so, the role that they served, in a social context, was determined by the social inclinations of their owners.
Figure 1
Map of the Gloucestershire Region

Figure 2
Floor-Plan of the Great Witcombe Villa

http://www.anistor.co.hol.gr/index.htm
Figure 3
Access Map of the Great Witcombe Villa

Figure 4
Access Differentiation within the Great Witcombe Villa

http://www.anistor.co.hol.gr/index.htm
Figure 5
Floor-Plan of the Chedworth Villa

Figure 6
Access Map of the Chedworth Villa
Figure 7
Access Differentiation within the Chedworth Villa

Figure 8
Floor-Plan of the Spoonley Wood Villa
Figure 9
Access Map of the Spoonley Wood Villa

Figure 10
Access Differentiation within the Spoonley Wood Villa
Figure 11
Floor-Plan of the Wadfield Villa

Figure 12
Access Map of the Wadfield Villa

http://www.anistor.co.hol.gr/index.htm
Figure 13
Access Differentiation within the Wadfield Villa
Bibliography


