

SETTLEMENT STRUCTURE AND SOCIAL INTERACTION AT EL-AMARNA

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Despite exciting recent results at sites such as Tell el-Dab^a, El-Amarna remains the best known, and most completely excavated and published royal town of New Kingdom Egypt. The remains of temples, palaces, tombs, institutional structures, and houses are all preserved and it thus provides an opportunity to examine both urban structure and domestic space within a New Kingdom town. While the question of typicality dogs the study of any remains or practices associated with the time of Akhenaten, material emerging from sites such as Tell el-Dab^a is increasingly providing an opportunity for comparison. The unique images from the elite tombs at El-Amarna (Davies 1903–1908b) also provide a valuable source for examining social relations contemporary with the architecture.

The urban structure of El-Amarna has been outlined by Barry Kemp in a number of studies (see especially KEMP 1976; 1989, 266–94; 1995) and is well known. The centre of the town is focused around the two temples to the Aten (the Great and Small Aten Temples) and a pair of palaces (the King's House and the Great Palace) which are linked by a bridge. These structures are orthogonally planned and organised in relation to the major road parallel to the river (the Royal Road). In the desert behind the King's House lie a number of institutional structures, some of which depart from the strict orthogonal organisation of the palaces and temples. The Royal Road runs from the town centre towards the cliffs to the north of the town and leads to a further two palatial structures, the North Palace and the North Riverside Palace. The Royal Road does not continue south of the Central City, and it is likely that another major thoroughfare, no longer preserved, ran south from the Great Palace, parallel to the river toward the southern part of the site.

The central royal buildings of Akhetaten are situated so that they are approximately aligned with the opening of the Royal Wadi in the eastern cliffs. Cyril Aldred suggested many years ago that this dip in the eastern cliffs might have been interpreted as a physical manifestation of the 'Akhet' or 'horizon' hieroglyph and may have influenced Akhenaten's choice of this site for his new town (ALDRED 1976). The val-

ley was certainly considered significant as the tombs of Akhenaten and members of his family were constructed within it.

The town is laid out as a ribbon development along the river and the principle routes run parallel to it. Nothing of the original river frontage is preserved although occasional representations of the riverbank are found in tomb scenes (e.g., DAVIES 1903, pl. XXV; 1908, pl. V). Behind and to the south of the town there are a number of outlying structures (KEMP 1995), religious sites such as Maruaten, the 'Lepsius building', Kom el-Nana, and the Desert Altars, as well as the north and south elite tombs and the Walled and Stone Villages. A network of cleared paths and roadways over the desert can still be made out (FENWICK 2004).

The royal parts of the town were therefore carefully planned and constructed in relation to features of the existing landscape. The domestic quarters of the town do not show the same concerns. While there are clearly areas in which private construction was either forbidden or considered inappropriate (around the Central City and along the course of major thoroughfares such as the Royal Road), houses cluster together in the residential suburbs along irregular streets and narrow alleyways and show no clear evidence of bureaucratic oversight (KEMP 1989, 294).

My recent research has focused on the structure of individual buildings and groups of buildings and investigating how the architecture simultaneously reflects and affects social interaction within the town. The approach taken here is focused on understanding the significance of the creation and control of physical setting. There appears to be no concept of 'public space' in ancient Egypt. Built places are constructed by, or on behalf of, an individual, whether a god (in the case of temples), king (for palaces) or head of household (in domestic settings). Life within a town is made up of numerous interactions between individuals and groups. Some of these interactions – chance encounters – inevitably take place outside or in between owned and controlled spaces (buildings and their enclosures) but the more formal interactions, important in structuring and maintaining rela-

tionships within the town, take place within constructed and controlled settings: palaces, temples, institutions and houses. In this paper I present some preliminary results of my investigation of Amarna domestic architecture.

AMARNA HOUSES AS FOCUSED STRUCTURES

That temples and palaces are constructed to focus attention on the gods and kings for which they are built is widely accepted. I argue here that the houses preserved at Amarna are also constructed to focus attention on an individual rather than on the household or family as a group.¹ There are two particularly prominent indications that this is the case: titles on doorways and the provision of distinguishing settings within the house.

In some of the largest houses at Amarna, the names and titles of the head of household were carved into doorjambs and lintels at the main entrance to the house and sometimes also on important doorways within the house. The titles here clearly relate to a single individual (BORCHARDT and RICKE 1980, 339–47.²

The ground plans of houses at Amarna are laid out according to a tripartite system outlined by RICKE (1932). The innermost rooms of the house include a single room, usually in a corner of the house with a niche at its innermost end (see Fig. 1, no.7). Analysis of the orientation of these rooms by ENDRUWEIT (1984, 89–119) strongly supports the suggestion that the niches supported wind-hoods or *mulqafs*, a suggestion supported by Amarna period representations of houses and palaces which show a raised triangular roof above a room at the rear of the building (e.g. DAVIES 1903, pls. X, XVIII, XXV–VI; TRAUNECKER 1988, figs. 1–3). These representations also suggest that the floor within the niche (which is often slightly raised)

was intended to support a bed. These bedrooms are only present in medium to large houses as the inner rooms in smaller houses tend not to be wide enough to leave space for such a construction (they are rare in houses smaller than 100 m²).³ However large a house is at Amarna, and whatever the number of its inhabitants, there is usually only a single niched bedroom.⁴ This is also true of palaces such as the North Palace at Amarna or Kom el-Abd (see plans in STEVENSON SMITH 1981, fig. 304; SPENCE 2007, fig 7.5).⁵ The bedroom, often associated with a bathroom, distinguishes the user from the rest of the household and serves as the culmination of a sequence of spaces leading through the tripartite structure of the house. It thus focuses the inhabitant or visitor on the person of the individual occupant of this set of rooms – the head of household. Other features of the house, such as the provision of a raised dais within the central hall again suggest focus on an individual.

I thus argue that the layout of each house was focused on the head of household who, nominally at least, controlled activity within it. Such an interpretation is compatible with sources such as the Middle Kingdom letters of Hekanakhte (ALLEN 2002), which show an individual who clearly attempts to control the lives of members of his household *in absentia*, although presumably not all heads of households were as domineering and cantankerous as Hekanakhte himself! It is likely that the head of household was usually male, although our textual evidence is heavily weighted towards state-run sites such as Deir el-Medina and Kahun where access to housing was presumably usually dependent on holding an official post. Evidence for the ownership of land and property by women (ROBINS 1993, 127–41) suggests that female head of households could have been

¹ The bulk of the domestic architecture from the site was published by the Deutsche Oerint-Gesellschaft and the Egypt Exploration Society (see BORCHARDT and RICKE 1980; PEET and WOOLLEY 1923; FRANKFORT and PENDLEBURY 1933; PENDLEBURY 1951). For secondary interpretation of the houses in the main city see especially RICKE 1932; KEMP 1977; 1989, 292–317; TIETZE 1985; 1986; ROIK 1988. Fuller references for the houses, including those in the Walled Village, can be found in SPENCE 2004.

² Although note a single example of a female name and title from around a false door niche in inner room in the house of Ramose (BORCHARDT and RICKE 1980, 345)

³ Figure derived from an excel spreadsheet compiled for SPENCE 2004; this spreadsheet contains all houses at Amarna in which the location of the entrance, niched bedroom,

and stair can be established and the floor area measured. Of 152 houses studied, only 12 have floor areas of less than 100 m². Over 90% of houses with bedrooms included in that study are of Tietze types 2e and 3e (see TIETZE 1985).

⁴ There are only four exceptions (less than 3% of houses studied). Houses O48.14, J49.1 and J53.1 (BORCHARDT and RICKE 1980, pls. 61, 68, 112) each have two niched bedrooms but in each case the two rooms are differently oriented with one facing west and one north. House K50.1, the largest excavated house at Amarna, has two bedrooms, both oriented north (PEET and WOOLLEY 1923, pl. III). All of these houses have floor areas of over 400 m².

⁵ Although note that the Main palace at Malqata has a niched bedroom associated with the south-east subsidiary suite as well as the principal suite (STEVENSON SMITH 1981, fig. 279).

more prominent in settlements where houses were privately owned.

How were the houses experienced by their inhabitants?

The houses have clearly defined physical boundaries and are predominantly inward looking with relatively small windows set high in the wall: they served to let light in and heat out rather than creating a visual connection with the exterior. While smaller houses tend to be contiguous with yards and alleyways left to provide access, the larger houses often have high enclosure walls, serving to further demarcate space and ancillary structures controlled by the head of household.

With each dwelling understood as controlled space focused on the head of household, any social interaction taking place within the house is necessarily structured in relation to that individual. Within the structured setting of the house and its grounds interaction takes place between household members and between visitors and members of the household, including the head. Factors such as how far into the house an individual is admitted, the room and setting within which he or she is received, along with the gestures, demeanour and words of the host and visitor, or household members, all serve simultaneously to establish and reflect the nature of the interaction taking place within. Clearly it is not possible to reconstruct all these factors but some progress can be made in examining spheres of interaction within the domestic setting.

The household, made up perhaps of extended family, along with servants, retainers and hangers-on in the wealthier families, would have been thoroughly familiar with their domestic setting. However, there are indications of control and restriction by the head of household within the house, suggesting that there are likely to have been boundaries to movement, restricting access and the settings for interaction between particular members of the household. Two examples will serve to illustrate this. Firstly, movement within inner parts of the house is controlled to

a very high degree through the central hall (see Fig. 1). In the majority of houses at Amarna no-one could enter or leave any of the inner rooms, or the upper storey, without passing through this room, which also seems to have served as the main reception room of the house and the place in which the head of household sat to receive visitors and perhaps also to conduct business.⁶ It is likely that access to some parts of the house were restricted: in particular to the upper rooms, which seem to have been more private than the ground floor of the house, and also to the niched bedroom. Many of the niched bedrooms have brick-lined crypts built into their floors, suggesting storage of valuables within the room associated most closely with the head of household and where he probably slept.⁷ It is very likely that access to the location of stored valuables was restricted, even within the household.

The view that individuals within a household may not have had access to all parts of the building should not be in any way surprising: it is to be expected in the complex architecture of a hierarchical society and was, for example, the norm in the larger households of medieval, pre-modern and early-modern Europe. However, it is likely to become more marked as the scale of dwellings and households increases up the social scale. The smallest Amarna houses would have housed smaller family groups within which hierarchy would have been less marked, and this, coupled with the pressure imposed by limited physical space, serves to reduce the likelihood that access to specific parts of the house would have been restricted. However, as the scale of the houses increases, pressure on physical space decreases, particularly with the presence of yards and enclosures which allow ancillary service structures to be built outside the main dwelling and remove related activities from the main house. The wealthier families would also have had a greater range of servants and retainers creating a more visible hierarchy within the household.

Control of the house is likely to have been manifest spatially in access restrictions. Such restrictions

⁶ This will be explored further in another paper, but it is likely that much of the business carried out by wealthier Egyptians would have centred on their residences. This is shown clearly by examples such as the house of the sculptor Tutmosé (P47.2) which contained workshops next to the house; most of his workforce seems to have been housed just outside the back gate to his enclosure (BORCHARDT and RICKE 1980, pl. 27). Widespread evidence for grain storage

suggests that wealthy householders may have managed estates from their dwellings at Amarna, as well as keeping livestock within the house compounds at Amarna itself.

⁷ The very largest houses often do not have these crypts but have instead additional chambers in this part of the house, frequently opening from the bedroom, which may have served a similar purpose.

are likely to have been highly variable between houses and between individuals within the same household depending on the nature of relationships and the personalities involved, and they may also have varied over time. Reconstructing such personal maps of movement and accessibility within any given house is clearly impossible but recognition that such spatial restrictions are likely to have existed does lead to a number of conclusions.

Firstly, different inhabitants of the same spatial setting (house) are likely to have had different understandings of that same setting and different movement patterns within it, although these may often have been largely subconscious. Secondly, control within the household is in part both exerted and marked through restrictions of access. Individual patterns of movement and degrees of access to certain areas of the house are therefore likely to play a role in expressing status and favour within the household. Thirdly, limitations in movement patterns will have restricted the number of possible settings for social interactions between household members and may have further coloured the nature of any interaction taking place within, depending, for example, on how comfortable an individual felt within that given setting, and the balance of authority within it.

How were houses experienced by visitors?

Following the same principles, rather more progress can be made in attempting to determine how the houses would have been understood by visitors, in more formal circumstances than the quotidian interaction of members of the household. This progress can be made because, in the majority of cases, there is only one route into the house, so the movement of the hypothetical visitor can be predicted with some certainty in relation to the known formal settings of the head of household, in particular the dais in the central hall. Although there are likely to have been many variations in personal relationships reflected in posture, speed, demeanour, gesture, and where on the normal route into the house the encounter took place, a probable norm can at least be outlined and taken as a starting point.

As has already been mentioned, the Amarna houses are enclosed, inward-looking and probably without direct visual connection to the exterior in the form of low windows. To enter a larger house the visitor first has to pass through a high enclosure wall via a gateway, cross a courtyard and pass through a series of rooms, taking a number of ninety-degree turns to enter the central hall of the house (see Fig. 1). Such a sequence is clearly designed to screen the interior,

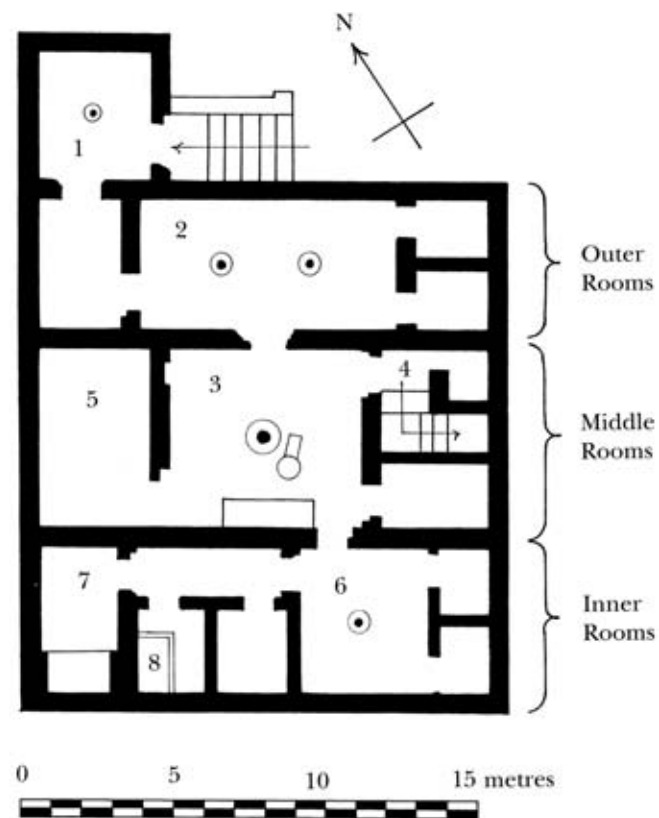


Fig. 1 Plan of a large Amarna house, M47.4. After BORCHARDT and RICKE 1980, pl. 17. The most important rooms are numbered. 1: porch; 2: outer hall; 3: central hall; 4: stair; 5: second broad hall (or west hall); 6: inner hall; 7: bedroom; 8: bathroom

and the visitor has to move through a number of liminal spaces to enter. Some of these may have been watched by servants ready to challenge or delay less important visitors. The sequence also seems to be designed to be disorienting to the occasional visitor as on the route into the house the visitor has to make a number of ninety-degree turns. Although houses of comparable scales tend to feature a similar number of right-angled turns, the directions that these turns take differs from house to house. Smaller houses also have screened entry systems and right-angled turns although these tend to be less complex than in the larger houses.

The sense of disorientation achieved through the entry sequence is heightened by the lighting conditions of the entry route; lighting conditions are similar in the majority of houses as a result of the orientation patterns of the houses (the majority oriented north or north-west) and their similar three-dimensional forms (SPENCE 2004). From the bright sunlight outside the house (Fig. 1) the visitor to the larger houses enters a relatively dark porch (no. 1) which can only have been lit through the doorway and per-

haps a small high window. The visitor then enters another small darkish room before moving into the outer hall (no. 2), a long room usually lit with diffuse northern light through windows high in the outer wall. Turning again through ninety degrees the visitor enters the central hall (no. 3), lit with shafts of bright sunlight through high clerestory windows in the upper parts of the walls above the inner parts of the house. Whilst adjusting to these dazzling shafts of light, the visitor then had to ascertain where within the room the dais on which the head of household sat was situated. While the visitor was dazzled, the head of household, seated in shade on the dais could observe the visitor.

The protracted entry sequence in the larger houses also provides a number of different potential settings for social encounters within the entry sequence itself. For example, some might not be permitted access to the house itself and might wait outside to encounter a member of the household as he or she left, or might even wait outside the enclosure.⁸ Some might expect to wait in the outer hall while others of greater importance were admitted directly to the central hall, and it is also possible that some were admitted to the presence of the head of household within the privacy of the innermost rooms. The head of household might get up and move into the outer rooms or the porch to greet a particularly important visitor. Gesture, demeanour and words were presumably also key to establishing and maintaining relative status and relationships between individuals in these domestic encounters.

How typical are the Amarna houses?

The question of the typicality of the Amarna houses can also be assessed through consideration of form and access arrangements. There is disagreement over whether or not Amarna houses can be seen as typical of Egyptian domestic architecture at the time. LACOVARA sees them as atypical arguing that they represent a 'conscious borrowing from traditional New Kingdom palatial architecture' and should be seen 'not as a typical example of Egyptian domestic architecture, but as an aberration' (LACOVARA 1997, 60). However, others have argued that they are part of a broader tradition in Egyptian architecture with RICKE (1932, 13, note 1) tracing the origins of the tripartite house back

to earlier periods of Egyptian history, through observations on early tomb design and ARNOLD (1989) drawing comparisons between houses at Amarna and those at other sites. KEMP (1977) has pointed out that the houses fall into expected patterns distributions of scale (see also CROCKER (1985)). Increasingly, comparative material from sites such as Elephantine and Tell el-Dab'a is suggesting that the Amarna houses form part of an established tradition of domestic architecture (VON PILGRIM 1996; PUSCH 1999, 15).

KEMP (1989, 294) points out that the plans of the houses are 'remarkably uniform, irrespective of size' but also remarks on the fact that all the houses are subtly different. These two observations, taken together, form powerful evidence that the layout and form of the houses were deeply intertwined with social practice in ancient Egypt and thoroughly engrained in architectural tradition. To add to arguments already put forward, I will present access diagrams of a cross-section of Amarna houses. My intention here is to show the continuity of broad patterns of accessibility and permeability from the largest to the smallest Amarna houses. Such patterning would be extremely unlikely had there been any attempt to change domestic architecture as a result of state intervention.

Access patterns within the houses

In order to illustrate the relationships between rooms within houses and the ordering of the sequence of rooms I have produced access diagrams. Access diagrams (or 'justified permeability maps') were developed by HILLIER and HANSON (see primarily 1984) as part of quantitative analysis methods they termed 'alpha-analysis' and 'gamma-analysis', intended to aid the design of settlements and dwellings respectively; the approach is more commonly known as 'access analysis'. A number of archaeologists have attempted to use access analysis, with varying success, and its use has been robustly critiqued in reference to archaeological applications.⁹

Access diagrams are extremely reductive. For example, they do not show the nature of the rooms represented (which could be small storage rooms or major spaces), whether rooms are connected through main doors or side doors, whether the approach is axial or convoluted, or the degree of

⁸ In the Story of the Eloquent Peasant, the peasant Nemty-nakht intercepts the High Steward Rensi "coming out of the door of his house" (LICHTHEIM 1973, 171).

⁹ GRAHAME (2000) provides a useful overview and commentary on the method and its critics.

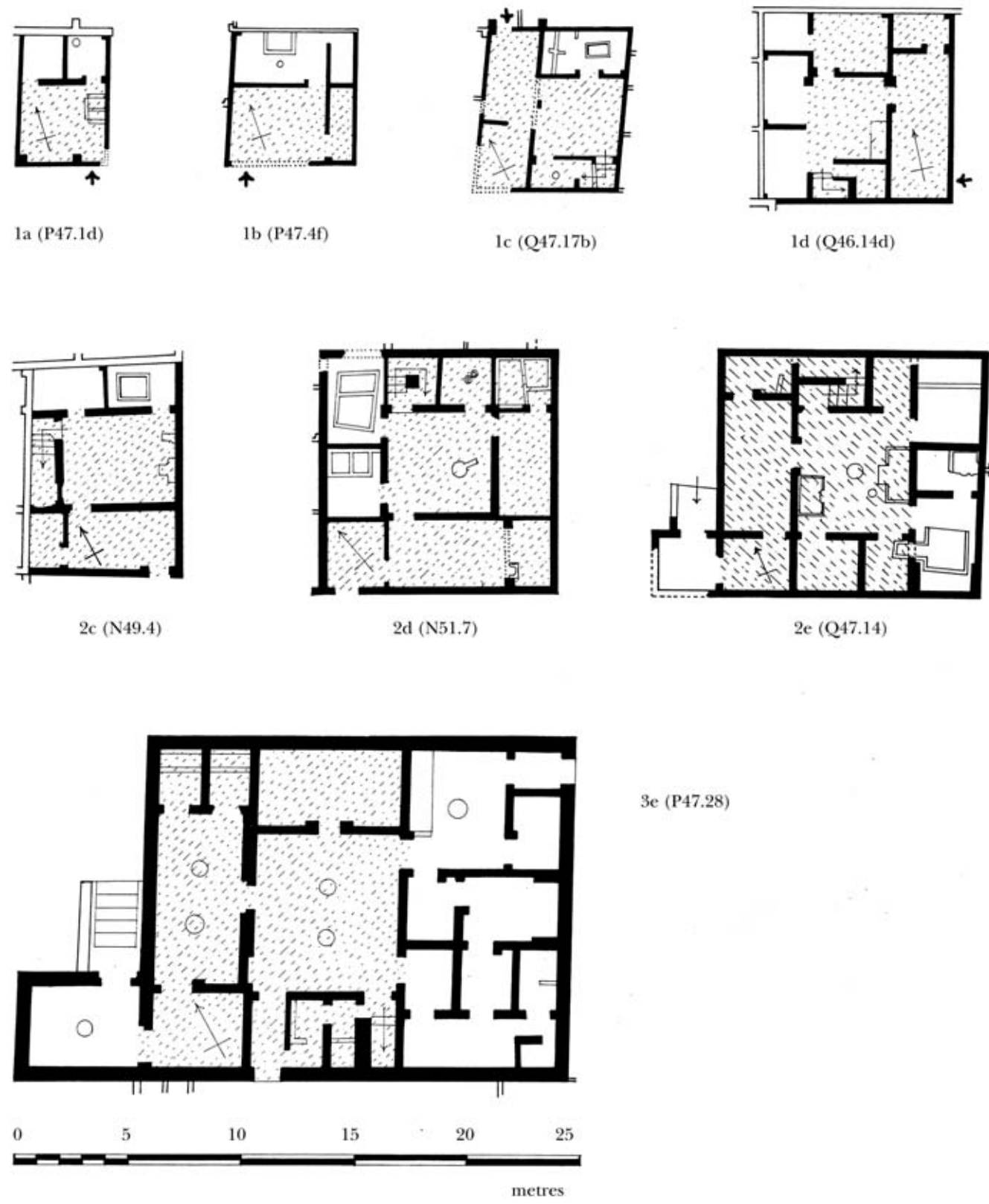


Fig. 2 Tietze's typology of Amarna houses according to complexity and wall thickness. After TIETZE (1985), plans redrawn from BORCHARDT and RICKE 1980, plans 27, 28, 46, 9, 70, 110, 44 and 34 (reading left to right, top to bottom). The probable extent of the upper storey is hatched (after SPENCE 2004, fig 2)

inter-visibility between spaces. However the diagrams are useful for illustrating patterning in the interconnectivity between rooms for a sequence of houses ranging from the smallest on the site (Tietze's type 1a) to the largest (Tietze's type 3e). I make no attempt to apply the quantitative approaches of access analysis to this material here.

Fig. 2 shows the houses chosen by TIETZE (1985) to illustrate his typology of dwellings at el-Amarna, classed according to complexity and wall thickness. The houses have been redrawn from the original excavation records. As only a small number of dwellings could be represented here, TIETZE's examples were chosen in order to preclude my selecting

examples according to conformity with the features I am examining.¹⁰

Access diagrams of these dwellings are shown in Fig. 3. Each room is represented by a hollow circle and connections between rooms (i.e. where there are doorways and it is possible to move from one room to another) are shown by lines. The space outside the house is represented by a circle containing a cross.¹¹ The staircase is shown by a solid circle.¹² The plans of the upper rooms cannot be reconstructed precisely, hence the dotted lines indicating continuation of the diagram to more rooms upstairs and further possibilities for penetrating the innermost parts of the house.¹³

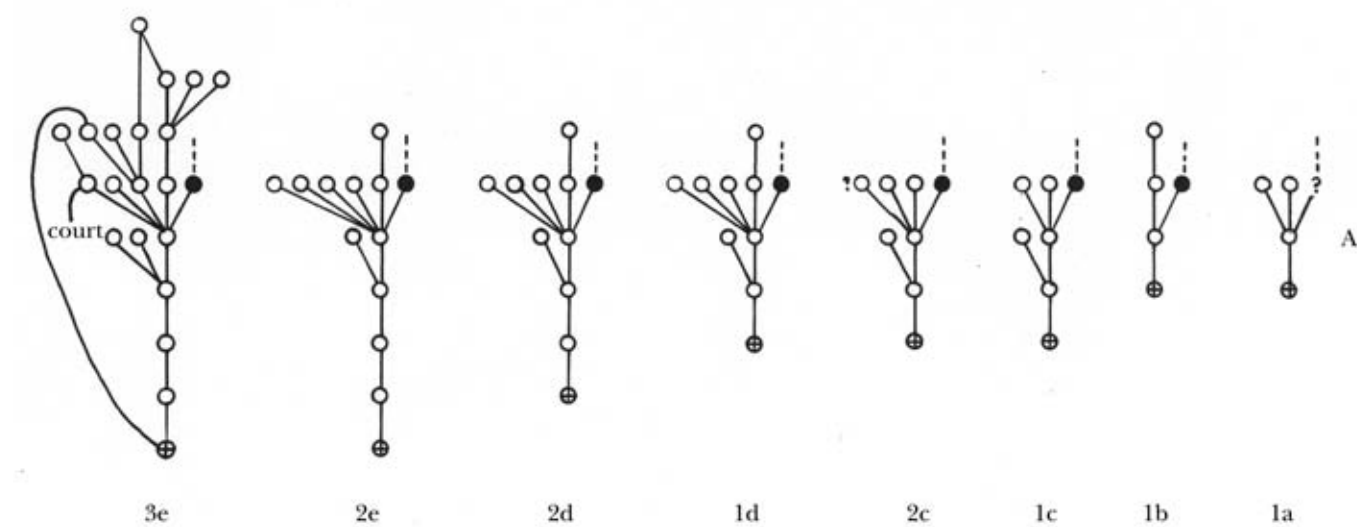


Fig. 3 Access diagrams (or 'justified permeability maps') of the houses shown in Fig. 2. Rooms within the houses are shown by open circles, stairs with solid circles and outside space with a cross within a circle. Interconnections between spaces are shown with lines. The circles on row A from which further rooms are shown opening represent the central halls in the larger houses

¹⁰ TIETZE's examples (1985) were not ideal for this purpose. In some cases the houses were damaged and the plans have been partially reconstructed. In particular, in three cases (1a, 1b, 1d) the location of the main door is not clear on the original plan. However, with the exception of house 1d the room into which the main door leads is clear. In the case of house 1d, I disagree with Tietze's suggestion for the location of the main door and have altered this (in comparison of the entry sequence in structures such as 2c); this alteration does not affect the interpretation given in figures 2 and 3 as we agree as to the room into which the entrance leads. House P47.28, used by Tietze as an example of houses of type 3e is also unusual in that it has three doors to the exterior; the vast majority of houses of all scales have only one external door. Despite the problems with these examples, it was felt to be appropriate to use a group of houses selected for another purpose and to show that even these show clear patterning.

¹¹ In their gamma-analysis of dwelling units, HILLIER and HANSON (1984, 147-8) take 'outside' to be 'outside the cell'

which in the case of the Amarna houses would mean outside the enclosure wall, where this exists. For the purposes of these diagrams I have represented only the actual house buildings for comparison and have not taken into account any additional enclosure around the house.

¹² HILLIER and HANSON (1984, 155) use solid circles to represent transitional spaces (circulation spaces such as corridors, lobbies and stairways). I find the distinction between functional and transitional space to be highly problematical in relation to ancient Egyptian architecture (and I suspect also many other building traditions) and therefore distinguish only 'stairways' as a means of getting to the upper floor.

¹³ Elsewhere I have argued that Amarna houses were intended to have an upper storey covering around two-thirds of the ground floor (SPENCE 2004, 126-36). It is not possible to reconstruct the layout of the upper rooms of the house, and it should be noted that this is likely to form a serious obstacle to reliable quantitative analysis of the permeability of the houses.

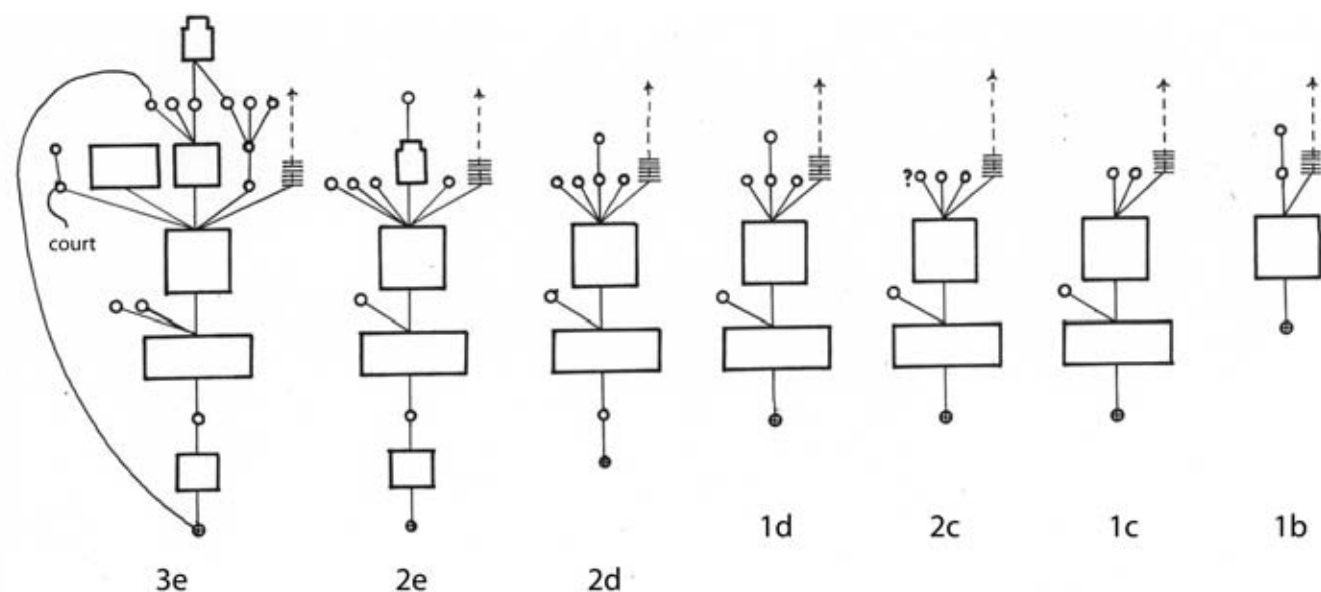


Fig. 4 Access diagrams of houses shown in Fig. 2, adjusted to show the proportions of the most important rooms in the entry sequence

Although the complexity of each diagram varies according to the scale of the house, it is clear that there is similarity in the overall shape of the diagrams. Two significant features can be pointed out immediately. Firstly the existence of a single room within the house from which all the inner rooms or suites of rooms open (Fig. 3, line A): this is what is termed the 'central hall' in the larger houses. Secondly, there is an entry sequence leading to this room in all but the very smallest houses; in the larger houses this comprises a number of rooms which must be traversed in sequence to enter the inner parts of the house. Both of these features have been discussed in more qualitative terms above: the central hall as a point of control over the inner rooms and thus movements of the household, and the entry sequence as a series of spaces (each with its own potential for structuring interaction) leading into the central hall as a structured setting for formal interaction; the disorienting nature of this sequence has been discussed in qualitative terms and it is worth noting that attributes of movement into the building such as whether direction is axial or requires reorientation of the body, and lighting conditions are not reflected in any way in the diagrammatic representation of the sequence here.

More fundamentally, however, the clear patterning in the diagrams illustrates the embeddedness of the social practices discussed above in relation to the larger houses across the social scale. This provides strong grounds for arguing that the houses were of traditional and well-established layout, with each

commissioner or builder of a house applying an understanding (quite possibly subconscious) of how a house should be, based on broad experience of houses in other settlements around Egypt. The limited broad variation (although with infinite minor permutations) in house plans across the site – clearly visible also in the published ground plans – suggests that this understanding is likely to have been widespread geographically within Egypt in addition to being well established temporally.

Negotiating space

I have argued above that there were clearly established patterns of access to houses at Amarna, but also that the entry sequence was designed to screen, and, to a certain extent, to disorient visitors to the houses. Given that houses were inward looking, that most had little decoration and that they were presumably for the most part sparsely furnished, the question of how the visitor oriented themselves within the house and the way in he or she assessed his or her location relative to the head of household emerges.

Fig. 4 is an adaptation of the access diagrams of Fig. 3, showing in addition the approximate proportions of important rooms in the entry sequence. I would suggest that room proportion is the key factor in negotiating space within the Amarna houses. It is noticeable in particular that the proportions of the outer and central halls are extremely stable, with the central hall always nearly square (but rarely precisely so) and the outer hall an elongated rectangular

space, often of proportions approximating to 2:1, although there is some variation.¹⁴ Both rooms tend to have columns in the larger houses, but the proportions are maintained even in the smaller houses where no columns are necessary to span the spaces. While it is difficult to reconstruct the proportions in three-dimensions, it is likely that relative proportion was carefully considered in establishing ceiling heights with the central halls routinely taller than the surrounding rooms in order to admit clerestory light (SPENCE 2004).

In addition to consideration being given to room proportion, the nature of the contiguity and connection between rooms also seems significant in some cases. The majority of rooms are interconnected close to corners. However, the outer hall and central hall are always contiguous and open into each other. In the majority of the larger houses the interconnection between these rooms is axial creating a clear indication of the dominant direction of movement within the house (see Fig. 1 and Fig. 2, examples 2e and 3e).

CONCLUSIONS

In conclusion, I would argue that the town can be viewed as structured through hierarchical dependencies forming social networks, alongside interpretations of its physical layout and structure. These social networks were played out in part spatially through patterns of restricted and formalised access patterns within buildings and enclosures, which were viewed as owned and controlled spaces. Each individual within the city had his or her own set of relationships played out spatially within and without the household to which he or she belonged, and such patterns of access would have been visible to contemporary observers and read as indicative of identity, social grouping and status.

Space was controlled, and I have argued that entry to a domestic structure was understood in relation to the head of household. The head's position was marked spatially through distinct settings such as the

bedroom, bathroom and the dais in the central hall; this latter position controlling movement within the inner parts of the house as well as serving as the main reception point for visitors. Within the house the entry sequence was disorienting, but attention was refocused and understood through the proportions and inter-relationships of rooms, in particular the outer and central halls. Through networks of interaction with those of higher social status and ultimately with officials and courtiers within institutions and palaces, those of lower status were drawn into compact hierarchies with the king at the top. These were most probably symbiotic relationships of service in return for patronage, inclusion and material reward, and would have been marked through bearing, gesture and speech as well as through physical presence and movement in structured spatial settings.¹⁵

Heads of households at Amarna were therefore able to construct and control their own domains in proximity to the sources of their own power, whether they were institutions, palaces, temples or the houses of their immediate superiors. The short life-span of the city will presumably have meant that those present at the site were there because of direct dependency on the king, state, or on others within this hierarchy, suggesting perhaps that, at Amarna at least, few existed outside this hierarchical social structure.

Ultimately, none of this is very surprising: concern with identity, social control and hierarchy can be readily identified in many aspects of Egyptian life. What is more surprising is the fact that this can be seen so clearly on the ground at Amarna in the layout of the houses and other structures. The low density of the settlement as it grew on the site left plenty of room for Egyptians to construct houses approximating to their ideal, within the limitations of their wealth (SHAW 1992). The consistency of these ground plans, visible in the plans themselves and in the access diagrams constructed for a cross section of the houses (figs. 3 and 4) show how deeply embedded both the domestic social practices and the spatial configurations tied up with them must have been.

¹⁴ The square central hall is present in the large Middle Kingdom houses at Kahun (see, for example, LACOVARA 1997, fig. 55), but at this stage the room leading into this was narrower and more corridor-like than the outer hall of the Amarna houses, although there were columns fronting the large houses at Kahun. The Amarna outer hall could be interpreted as combining the entrance corridor and exter-

nal columned space of the Kahun houses into a single internal columned space.

¹⁵ In SPENCE 2007 and forthcoming, I explore issues related to the social interaction of king and courtier and the spatial configurations of these interactions in palace architecture, with particular reference to El-Amarna and the Window of Appearance.

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