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Social archaeology of housing from a Latin American perspective
A case study

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ABSTRACT
This article discusses the structuring of domination in everyday life, studied through private housing material culture, over a period of several centuries. Our case study deals with the processes of use of space and the changes in middle-class households in Buenos Aires since the late eighteenth century, highlighting both world and Latin American contexts. We show how morphological and spatial changes in households are related both to the wider world capitalist context and to local conditions, shaping people's lives. We focus on the controlling features of housing, affecting not only the middle classes, but potentially the whole spectrum of social classes. Capitalism tends to individualize space, create private environments, restrict movement and control movement in general, and houses as material
artifacts reflect these tendencies. We conclude that the study of Buenos Aires housing enables us to note that there has been a growing tendency to restrict circulation within the house, enforcing a controlling, bourgeois way of life.

KEYWORDS
archaeology of architecture ● control ● social archaeology ● South America

INTRODUCTION

The challenge of understanding material culture in terms of social context and lived experiences is a major one for archaeology in general (Meskell et al., 2001) and particularly so for archaeology in Latin America. Archaeology in Latin America has many strands, with a wide variety of theoretical underpinnings and practices. Sometimes, it is useful to differentiate South America from Central America, the Caribbean and Mexico (e.g., Politis, 2001), Spanish-speaking from Portuguese-speaking countries (Funari, 1995, 1997; Politis, 1995), or to stress the importance of local social archaeology developed in some countries as ‘Latin American Social Archaeology’ (Bate, 1998 and Fournier, 1999, with earlier bibliography) as opposed to the importation of interpretive frameworks from elsewhere (Funari, 1996, 1997). Here, we consider Latin America as an Iberian enterprise (Wade, 1994: 59) resulting in societies inserted in the modern, capitalist context, but also characterized by a series of patriarchal and hierarchical features, which have shaped unique social mixes (cf. Funari, 1998, 1999).

In this context, Argentina offers the opportunity of a particularly productive case study, as Argentine society has for centuries been at the crossroads of the most advanced capitalist and also the most traditional patriarchal influences (Zarankin, 1994; Senatore, 1995). Buenos Aires, at the end of the world and at its center at the same time, is an ideal place for the development of new social issues. The structuring of domination into everyday activities (Paynter and McGuire, 1991: 9; Podgorny, 1999) is studied through private housing material culture, over a period of several centuries, and tries to outline the main changes over time.

We aim to discuss several aspects related with the material construction of social relationships (Funari, 1996), through the study of housing as the architectural creation of a particular cultural environment. We thus consider that artifacts are active, dynamic and that they carry and create
meaning (Funari, 1986: 22–4), there being several studies that state the relevance of approaching material culture from such a critical perspective (Andrade Lima, 1999; Austin and Thomas, 1986; Funari, 1991, 2000; Hodder, 1987; Leone, 1986; Miller, 1984; Tilley, 1989).

We also consider whether material culture isolated from social context lacks significance and whether it is only within a cultural system that it acquires an active and ideological dimension (Hodder, 1987). In this context, we ask ourselves three main questions, as part of a system of meanings: how are artifacts constructed? How do they change over time, and which strategies make them legitimate? We are also interested in understanding the subjectivities contained and generated by material culture (Warnier, 2001). In order to answer these questions we must study which references are used by artifacts, and understand in what way artifacts have changed over time. We consider that ‘truths’ – in our case ‘legitimated objects’ – are built through different practices among which we include manipulation of the material world (Leone, 1984; McGuire and Paynter, 1991; Miller, 1984).

If we consider housing as a part of architecture – being itself a peculiar type of language (Fletcher, 1989; Grahame, 1995, 1997; Markus, 1993; Monks, 1992; Parker Pearson and Richards, 1994) – through the analysis of the processes affecting housing, we will be able to understand the significance it has had over time. Human landscape is built and resisted by means of a dialectical game of dominance and resistance (McGuire and Paynter, 1991; Orser and Funari, 2001). Architecture – as part of the same game – can be considered a battlefield where social strata and their ideologies fight one another. Our case study deals with the processes of the use of space and changes in middle-class households in Buenos Aires since the late eighteenth century, highlighting both the world (Orser, 1996) and Latin American (Zarankin, 1997, 1999a, 1999b) contexts.

ARCHAEOLOGY OF ARCHITECTURE: ARCHITECTURE AS TECHNOLOGY OF POWER

In recent decades, a new study field has been developing under the name of archaeology of architecture (Stedman, 1996), offering new analytical perspectives through which human environment can be approached. Constructions are viewed as active elements, i.e. cultural products interacting dynamically with people (cf. Blanton, 1994; Deetz, 1977, 1988; Glassie, 1975; Grahame, 1995, 1997; Hodder, 1984, 1994; Leone, 1977, 1984; Johnson, 1991, 1993; Kent, 1990; Markus, 1993; Parker Pearson and Richards, 1994; Rapoport, 1969, 1982, 1990a, 1990b; Samson, 1990, among others). In Argentina, as elsewhere in Latin America, most studies are
concerned with typology, but recent research is now discussing the relationship between the spacial-architectural structuring of sites and its socio-political connotations, concluding that manipulation of such elements can work as a vehicle for the creation and maintenance of power relationships and domination (cf. Acuto, 1999; Nielsen, 1995; Tarragó, 1987; Zarankin, 1997, 1999a, 1999b, 2001, 2002).

Several recent studies have transcended the descriptive and the mere intention of highlighting aesthetic attributes in high-style buildings (e.g. M aestri, 2001; cf. Zarankin, 1999a, 2002). From a contextual perspective in archaeology, architecture is to be interpreted as both symbolic and ideological, serving both practical and ideological purposes (Parker Pearson and Richards, 1994). Foucault (1976) emphasizes that invisible strategies are used to discipline ordinary people and to form disciplined and useful individuals, first and foremost by the use of space as a controlling device (Foucault, 1976). The panoptical form (see Figure 1) is the best example of this controlling trend (Foucault, 1976: 204).

Grahame (1995) states that architecture contributes to structure the way in which individuals meet physically in space, and the design of a building influences the possibilities of the relationships among its occupants (cf. Hingley, 1999: 146). Eco points out that architectural design connotes a global ideology, shaping the minds of architects themselves, by means of rules and codes that regulate architectural production (Eco, 1968). We move within a given building grammar, encoded in the science

Figure 1  Jeremy Bentham’s (1816) design project of a school (Bentham, UCL; Evans plan No.18)
of construction (Eco, 1968: 365), satisfying people’s demands and at the same time persuading them to live in a certain, controlled way (Eco, 1968: 367).

For a long time domestic architecture has been neglected as a way of understanding social relations, but there is a growing tendency to believe that daily actions in a built environment are an important archaeological subject (Samson, 1990). Housing is neither neutral nor passive, but active and dynamic, and in itself a generator of meaning. The household is a complex power structure, which not only shelters people and their belongings but also bears influence on them, especially during the socialization process (Zarankin, 1997). A s Bourdieu (1977) points out, socialization is deeply rooted in domestic practices, and sexual, social, economic and behavioral habits are shaped by the household itself. Habitus is thus directly linked to buildings as an opus operatum (Bourdieu, 1977: 90) and social practices are structured by them (Giddens, 1979). Space is loaded with symbolic elements expressing meaning and reproducing inequality (Parker Pearson and Richards, 1994).

Architecture, as one of the basic components of the human construction of space, can be understood as technology of power (Foucault, 1976), aimed at having people docilely favor the reproduction of power relationships, but also inevitably leading to resistance. ‘Material culture in the form both of architecture and portable artifacts is routinely read by the people and contributes to the formation of their subjectivity’ (Austin and Thomas, 1986: 46). In this case study, we deal with academic design, stressing the strategies of domination embedded in housing design, even though we also acknowledge that resistance – not mentioned in architecture – has always been an active part of housing use. In other words, our analysis is centered on domination strategies, therefore the type of house designed by both the builder and the system, leaving for further discussion all matters related to resistance tactics (de Certeau, 1980), or to opposition on the side of the occupants.

■ BUENOS AIRES AS A CASE STUDY

We study middle-class households in the city of Buenos Aires, from the late eighteenth century to the end of the twentieth century, showing how morphological and spatial changes in households are related to the wider world capitalist context and to local conditions, shaping people’s lives (Markus, 1993). Middle-class housing is directly linked to capitalism and to the control and the normative character of the modern world, playing a role as a model for popular housing. Architects are constantly pulling down slums and shanty towns and building middle-class, bourgeois houses, such
as those studied in this article, so that we here focus on the controlling features of housing that affect not only the middle classes but potentially the whole spectrum of social classes.

As regards the selection of cases for analysis, we want to state that there exists no general consensus among historians of Buenos Aires architecture on the morphological types of middle-class households built over time (Arbide et al., 1985; Arbide, 1991a; Diez, 1986; Iglesia, 1991; Torre Revello, 1928, 1934, 1957). In this case, three basic models of mono-familiar houses within the Spanish tradition (Diez, 1986), which were widely spread among the Buenos Aires middle classes, have been analyzed: colonial household, also known as ‘viceroyalty’ house (late eighteenth, middle nineteenth centuries), ‘chorizo’ house\(^1\) (late nineteenth, early twentieth centuries) and modern house (from the mid-twentieth century).\(^2\) We must first bear in mind that a ‘type’ is an abstraction in order to build, where we consider a number of cases so as to identify basic repeated patterns which differentiate them from the rest. In other words, establishing an ‘architectonic type’ consists of generating an ideal model representing many buildings made according to those basic patterns we have isolated.

\textbf{PATTERNS FOR THE ANALYSIS OF ARCHITECTONIC STRUCTURES}

Once the types of domestic households have been determined, it is necessary to define an appropriate pattern for the analysis of architectonic
structures. Although there are different methods for comparing architectural structures (Blanton, 1994; Hage, 1979; Hillier and Hanson, 1984; Samson, 1990, among others), the indexes of ‘Scale’, ‘Integration’ and ‘Complexity’, developed by Blanton (1994), with few adaptations to our case study, proved useful to our objectives and expectations (cf. Zarankin, 2001, 2002). These require the application of the ‘Gamma analysis’, proposed by Hillier and Hanson (1984). Basically, the pattern established by Hillier and Hanson allows us to break down the plant of a building in different cells and to establish communication among these, in order to reach the structure of the building (Figure 2).

One of the aspects that interested Hillier and Hanson (1984) concerns the connection characteristics presented by a given architectonic structure. Thus, they considered two types of spatial configurations: distributive and non-distributive.

Non-distributive spaces are those that you can reach or leave only through one opening.

Distributive spaces are those that you can reach or leave through more than one opening.

On studying this characteristic in one given structure in general we observe that as many distributive as non-distributive spaces are likely to appear (see Figure 2). Therefore, on analysing a structure, it is necessary to make a general evaluation in order to categorize its configuration as distributive or non-distributive. In the cases presented by Hillier and Hanson, structures B and C are distributive and A and D are non-distributive.

Distributive structures show high figures of low connections, that is one connection every node, whereas distributive structures present high figures of high connections, that is two or more connections every node.

In those structures defined as distributive, power and control are distributed homogeneously, therefore they are of more democratic character (Hillier and Hanson, 1984; Markus, 1993). On the other hand, non-distributive structures concentrate power and control heterogeneously, giving priority to some spaces over others so as to rank them hierarchically.

A further central aspect in this ‘Gamma analysis’ is related to the degree of access to spaces within a given structure. Accessibility is considered according to the remoteness of spaces to the outside. The result has to do with the isolation and access difficulty of each space.

As Grahame points out (1995: 62), the application of Hillier and Hanson’s pattern does not consist of a mere translation of designs into schemes and graphics; on the contrary, it is a very delicate job, which
involves both the decisions made by the researcher and the statement of the criteria he used in this process. In our case, these decisions imply the generation of a model, which will allow us to make a basic reading of the plans in order to establish a morphological comparison.

The indexes set by Richard Blanton (1994), which require the application of the Hillier and Hanson pattern, help achieve a comparison of the different architectural structures to one another, and can be summed up as follows.

**Scale index**  This consists of counting the number of nodes\(^3\) in the diagram (if possible, the surface of the area and the number of inhabitants should be added) in order to get the measure of m\(^2\)/person.

\[
\text{scale index} = \text{number of nodes}
\]

**Integration index**  This index is linked to the circulation within the structure and expresses the degree of restraint within it. It is the result of dividing the number of nodes by the number of doors or passages in the structure.\(^4\) One (1) is the smallest possible figure, because a room has at least one connection. Then, the highest restraint figure is 1, and it decreases as the integration index increases. A way of achieving integration is creating alternative circuits so that many potential routes go from one place to another.

\[
\text{integration index} = \frac{\text{number of connections}}{\text{number of nodes}}
\]

**Complexity index**  In his model, Blanton refers to the functional variation of the usage of space. If the information of activities or specific functionality is scarce, the author proposes that calculations should be based on the degree of accessibility or intercommunication of each node. In this way we know not only the number of connections in the structure, but also the degree of accessibility and the circulation within each node.

\[
\begin{align*}
\text{complexity index A} &= \text{number of connections among nodes} \\
\text{complexity index B} &= \text{accessibility of each node to the outside} \\
&\quad \text{(number of spaces that need to be crossed)}
\end{align*}
\]

Finally, taking the plans of each house as a basis, we generate a ‘gamma’ diagram to which we apply the scale, integration and complexity indexes.
The result allows us to compare qualitative and quantitative data among the different ‘types’, and therefore to observe the changes in buildings over time.

**The colonial house**

The Spanish colonial system applied the pattern of the Roman-Pompeyan courtyard-house – with very few structural modifications – in Buenos Aires as well as in many other Latin American towns (Diez, 1986; Furlong, 1969; Nadal Mora, 1951; Torre Revello, 1928, 1934, 1957; Waisman, 1997). The colonial house consisted of one-storey, the front of which looked onto the street. The entrance consisted of a large door opening to a passage. This passage led to the first yard, which was surrounded by the main rooms in the building. Nevertheless, no formal differences among the rooms would mark the function of each one. It was only through decoration, furniture and spatial location that function and hierarchy could be inferred. A second passage opened onto a second yard surrounded by the kitchen, the pantry, the bathroom and the maid’s quarters. In one of the two yards there was an ‘aljibe’, or cistern, which gathered the water from the roofs and, just as
in the Roman impluvium and the Arab al jib, was the source of drinking water (Figure 3).

The structure shows a highly symmetrical plant. The integration and complexity indexes show the degree of interconnection and communication of spaces with one another. Nevertheless, it is worth mentioning that the accessibility average – complexity index B – for this house is 3.3 nodes; that is to say it was necessary to go through 3.3 nodes or spaces in order to reach the street. This result is probably linked to the existence of a back part of the main structure, far away from the outside, which was meant to give housing to servants and slaves.

Both in this house and in the ‘chorizo’, function and status of the rooms and inhabitants are expressed by means of the location and the use of objects – furniture, pictures, cutlery, mirrors, curtains and so on. This fact shows that the choice of the function for each room is dependent on its inhabitants (Monks, 1992).

The ‘chorizo’ house

The ‘chorizo’ house, or Gringo’s house, appears linked to the growth and consolidation of industrial capitalism during the nineteenth century and the first half of the twentieth century. Several researchers trace its origins to the colonial house; therefore rooms, corridors and yards and their distribution in the house structure repeat patterns, which are familiar (Lecuona, 1979; Moreno, 1997).

The ‘chorizo’ house used to be built over the remains of previous constructions – in those places where there was a previous structure – reusing part of the foundations and some walls (Zarankin et al., 1998). The yard was still the central axis of the building as all the rooms open onto it (Lecuona, 1979). Nevertheless, the yard no longer bore the function of working area, since at that time people already lived and worked at separate places, and it might be considered as the survival of past traditions.

As a rule, the entrance door is located to one side of the front of the building which generates an asymmetric pattern. The idea shown by the design is that of an indefinite number of rooms, equal to one another, which are placed following a longitudinal axis. An open-roofed corridor is incorporated as a standard element in this kind of house. The kitchen and the toilet are still placed at the end of the structure.

As was the case in the colonial house, the chorizo house was a consistently popular building type over several decades and was used as a model in the design of many multifamiliar houses built at the beginning of the twentieth century (Arbide, 1991a, 1991b; Arbide et al., 1991; Diez, 1986).

Unlike the colonial house, the chorizo house (Figure 4) had an asymmetric plant. Nevertheless, when analyzing the results of the gamma
pattern, it can be seen that the structure is still relatively symmetrical. There, meantime, exists a process of reduction in the integration and complexity indexes, leading to a higher degree of node isolation when compared with the colonial house. Nevertheless, this house still presents a significant degree of communication of space, evidenced in the integration index (1.4, meaning that each node has almost one and a half connections with other spaces).

Some of the readings suggest that this house legitimates itself through the use of elements borrowed from previous shapes, included in both design and building: on the one hand, central yards and structuring axes around which rooms are placed and on the other, re-use of pre-existing structures in the building of the new house. The presence of these features in both the colonial and the chorizo house can be explained as validation of the new orders by repossession of previous traditions from different approaches, bearing new meanings.

We believe that this asymmetric plant is related to the increasing social differentiation of the period and above all to the segregation of living and working places (home and factory). The asymmetry becomes a symbol of division.

Figure 4  The chorizo house
The modern house

The morphology of modern houses shows a radical fracture with previous architectural designs. Based on rational and functional conceptions (Benton and Benton, 1975), such elements as concrete, iron and glass are used in their building (M. oreno, 1997). In the façades of such houses the building materials appear uncovered. This fact is related to the conception of international style, which considers that decorative elements work as masks covering the building and calling observers' attention to irrelevant aspects of the building (Frampton, 1980). Another important aspect to be considered is that this architecture proposes a complete fracture with previous models, stating the need for a compromise with modernity and the future. According to these ideas, architecture must be not only a witness but also an agent in the creation of a new society, pleading for a unique ecumenist style (Nuttgens, 1983).

Notwithstanding the fact that these principles rule logic in this movement, there does not exist a single typological pattern for the modern house. Furthermore, if we consider aesthetic aspects, there seems to be an infinite number of houses that are completely different from one another.
Nevertheless, on studying their structure we realize a repetition of common elements. Among these general features, which can be identified in most modern houses, are mono-functional rooms, distribution halls and passages, high reaching construction, spaces hierarchically ranked because of their specific characteristics or location, grouping of people according to age, sex and family position, rooms presenting varied comfort and morphology, and a markedly asymmetric plant.

The modern house (Figure 5) shows a completely asymmetric plant and structure. It is designed across different floors, each one having a different function and presenting a high number of rooms of varied morphology. Circulation inside the house is achieved by means of ‘distribution halls’, which are control sectors only through which the different rooms in the house can be reached. When considering the high integration index these houses have, we must bear in mind that this result is influenced by the existence of these halls: the high interconnection of these halls hides the fact that most of the rooms only have one door or connection.

In the modern house, the traditional yard has been replaced by the garden, although there exist cases in which this structure can still be found as a roofed yard in the center of the house, which helps the airing and lighting of inside rooms. Notwithstanding the fact that façades may be made of brick, concrete, stone or tile, that rooms may be round, rectangular or square, or that decoration may be completely different, under this apparent heterogeneity, the same basic principles of spatial organization are always present. Underlying an alleged freedom of choice, there is a greater control over individuals. In the modern house, spaces and their functions are predetermined, for example dining room, bedroom, garage and so on. The spatial and morphological characteristics of each room make it difficult to give a space a different function according to one’s own needs. Therefore, occupants are restricted and conditioned at the time of decision making. This dialectical difference, that is to say between what it is and what it seems, makes individuals internalize the inequalities in the system as natural categories.

The increase in control over people is achieved by means of the introduction of restrictions both in space and activities. Thus, more control leads to greater restriction. The hierarchical ranking of spaces is another significant variable, since it is closely related to pre-established functionality. Rooms that are smaller and smaller and at the same time more heterogeneous keep house occupants away from one another. According to Foucault, discipline is derived basically from the distribution of individuals in space. An effective strategy consists in decomposing collective implantations, avoiding grouping and localizing each individual in one place: ‘every individual in his place’. In the author’s own words: ‘disciplinary space tends to be divided into as many units as there are bodies or elements to be allotted...’ (1976: 145–6).
In the design and use of buildings, power may eventually be distributed or concentrated in order to produce asymmetry (Markus, 1993: 23). Thus, inside a house, every member’s hierarchy and role is represented by his or her place inside the structure, by the amount of space, and by the type of material objects and comfort inside it. Everybody knows that the best room — the one with an adjacent bathroom or the largest — should be used by the parents. A similar differentiation exists among siblings according to variables such as age and sex. Thus, this is a mechanism through which the ideas of inequality are made explicit. Individuals are taught to accept and respect the place that has been pre-established for them. A nether idea underlying this message is that one day they will be occupying the high rank in the hierarchy, as long as they follow the set rules.

On considering the changes with regarding to accessibility in leaving and reaching the room and inter-room communication, there is a clear tendency to non-distributive patterns. In the last examples there is only one door per room, notwithstanding the fact that the modern house has the greatest number of rooms.

CONCLUSION

Capitalism as a totalizing system is a formation, the structures of which go into and can be found in most of the aspects of social, cultural and economic life (Johnson, 1993, 1996). From this perspective, changes in architecture — in this case in familiar households — and the development of the capitalist system can be related to each other.

Every house type makes sense if we analyze it within the historical and regional context within which it was developed. Therefore, the colonial house of the end of the eighteenth and the nineteenth centuries is related to a mercantile capitalism, during which a well-to-do merchant class flourished; the chorizo house is related to industrial capitalism; and the modern house to monopolistic-cybernetic capitalism (as defined by the authors following Forrester, 1996, 2000). The basic socio-economic aspects of each period can be observed in Table 1.

Transformations taking place in aspects such as space segmentation, asymmetry in plants and building structures, hierarchical space allocation, and institutionalization of pre-established functions, among others — if considered as non-verbal communication models (Fletcher, 1989) — allow us to interpret the deep structures present in architectural language. Thus, comparing the results obtained, certain trends, which have lasted over time, may be observed:

- First, there is a tendency to make spaces cellular (Foucault, 1976). This means that there are more spaces related to the number of occupants (in a house the average is two or three rooms per person). Furthermore, these spaces tend to have specific pre-established
Table 1  Mercantile, industrial and cybernetic capitalism. The basic socioeconomic aspects of each period

<table>
<thead>
<tr>
<th>Social context</th>
<th>Social context</th>
<th>Social context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercantile capitalism</td>
<td>Industrial capitalism</td>
<td>Cybernetic capitalism</td>
</tr>
<tr>
<td>Period</td>
<td>End of the second half of the 19th century and beginning of the 20th century.</td>
<td>Second half of the 20th century and most notably from the 1970s.</td>
</tr>
<tr>
<td>Family</td>
<td>Extended family comprising dependants and centered around a patron. Patriarchal organization. Hierarchical organization based on family origins rather than on money, old stock privileges.</td>
<td>Extended family comprising several nuclear units belonging to the same lineage.</td>
</tr>
</tbody>
</table>
functions (laundry room, dining room, bedroom, study, etc.) as well as different degrees of comfort.

- Second, there is a reduction in the integration index over time. This clearly shows a restriction in connection of spaces with one another. Thus: (1) alternative circuits of inside circulation disappear; (2) some rooms (halls of distribution) become unavoidable.

- Third, the decrease in access to, or increase in remoteness from, the outside for each of the different rooms in the house needs consideration. This is clearly seen in modern houses, which present high complexity indexes and panoptic structures.

- Finally, the composition of the family occupying the houses under study should be considered. As a general rule, the number of occupants of the houses studied tended to diminish over time. Several social scientists relate this process – which can be seen in Western societies on a widespread scale – to the economic, political and ideological needs of the system (Lawrence, 1990).

Thus, the design trends observed show an increase in the restrictive aspects, as a means of materializing the control criteria, among which the isolation of activities and individuals is particularly noteworthy. This is achieved by means of different mechanisms, such as the addition of new spaces or subdivisions of those existing. The relationship between the growth of control elements and architectonic design, in the modern house, is materialized through fixed elements such as walls, semi-fixed ones such as pieces of furniture and non-fixed ones such as behaviors (Monks, 1992). In the case of colonial and chorizo houses this relationship could only be measured by means of the second and third categories. The use of fixed elements in modern houses may be interpreted as the legitimization and formalization of the inequality principles. From a structural point of view, these changes reflect the increase in complexity and in social differentiation among individuals groups and classes in society (McGuire and Schiffer, 1983).

Summarizing, this comparison makes evident a continuous process of transformation aimed at a non-distributive, restrictive and asymmetric model of house, of which the modern house is the clearest example.

Karl Marx once said that ‘the architect builds the cell in his mind before he constructs it in wax’ (Marx, 1867/1976: 284) and the minds of architects are shaped by ruling ideas: ‘also der Verhältnisse, die eben die eine Klasse zur herrschenden machen, also die Gedanken ihrer Herrschaft’ [hence of the relations which make the one class the ruling one, therefore, the ideas of its dominance] (Marx, 1847/1976: 182).

The household is central for the reproduction of the social system and the symbolic power associated to it strongly contributes to the internalization of social rules (Bourdieu, 1989), disciplining people into social life. Changes in world capitalism are directly reflected in academic housing
patterns and, increasingly, the family household can be considered as a disciplining device (Foucault, 1976; Grahame, 1995). A s Donley-Reid (1990) has suggested, it is possible to relate morphological changes in household plans to changes in society at large, especially to global capitalism.

From this perspective, the changes over time in middle-class, familial households are sending messages linked to the handling and exercising of power. They have also worked as a self-disciplining strategy of the bourgeoisie, which has been later expanded (as real and universal truths) to the rest of society. Following this approach, the familial household may be considered as a disciplining/taming element of the system, which uses aspects linked to feeling and everyday life to achieve its goals.

Disciplining, not in the sense of an obligation forced down on the individual, but kept through a symbolic domination which tends to be a more effective and in some sense a more brutal oppression. (Bourdieu, in Funari, 1991: 124)

It is clear that in order to guarantee the working and reproduction of the capitalist system, the idea of inequality among individuals should be accepted as a natural, unquestionable truth. In this sense, the familial household plays a fundamental role as a taming/disciplining element of the system, the ideological effect of which, once internalized, will be present along the whole of every individual’s life. Foucault said, referring to the effect of prison architecture on convicts (1976: 204): ‘prisoners are in a power situation, being themselves agents of their own submission . . .’.

Finally, we can say that a social archeology of housing can play a major role both in future archaeological research in Latin America and in contributing to engagement with society in order to empower and emancipate people (Funari, 1993, 1994, 2002; Miller and Tilley, 1996: 11). We are satisfied if this article is a step in this direction.

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Notes

1. This type was adapted for different social strata using the number of rooms, differences in ornamentation and location as variables.

2. For this we built an ideal model of each using those elements which characterize them.

3. By number of nodes we understand the number of circumscribed physical spaces, defined within an architectural structure. Contrary to Blanton (1994: 52), we do not consider outside spaces as nodes.

4. In our case, and due to the examples taken, it is useful to divide the number of connections by the number of nodes.

5. In this case, it comes from the addition of each connection.

6. The ‘number of connections among nodes’ comes from the addition of ‘number of connections’.

7. The work is done with the averages of the addition of the ‘outside distance’ and its division among the number of nodes.

References


Funari, M. Hall and S. Jones (eds) Historical Archaeology: Back from the Edge,
Public Archaeology 1: 239-43.
Funari, P.P.A. (2002) ‘Class Interests and Struggle in Brazilian Archaeology’, Inter-
national Journal of Historical Archaeology (in press).
Giddens, A. (1979) Central Problems in Social Theory: Action, Structure and
Glassie, H. (1975) Folk Housing in Middle Virginia. Knoxville: University of
Tennessee Press.
lished PhD thesis, Faculty of Arts, Department of Archaeology, Southampton
University, UK.
Hage, P. (1979) ‘Graph Theory as a Structural Model in Cultural Anthropology’,
Annual Review of Anthropology 8: 115-36.
University Press.
for a New Understanding of Social Change’, in P.P.A. Funari, M. Hall and S.
Jones (eds) Historical Archaeology: Back from the Edge, pp. 137-50. London:
Routledge.
University Press.
Archaeology. Cambridge: Cambridge University Press.
and Tombs’, in M. Parker Pearson and C. Richards (eds) Architecture and Order:
Approaches to Social Space, pp. 73-86. London: Routledge.
Iglesia, R. (1991) Identidad Cultural y Construcción del Hábitat: Orientándose en el
Washington, D.C: Smithsonian.
Kent, S. (1990) Domestic Architecture and the Use of Space. New Directions in
Archaeology. Cambridge: Cambridge University Press.
Housing in Switzerland’, in S. Kent (ed.) Domestic Architecture and the Use of
Space, pp. 73–91. New Directions in Archaeology. Cambridge: Cambridge University Press.


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