Crossing the threshold : a critical analysis of Levantine domestic architecture

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Summary

Archaeologists studying ancient domestic architecture are often confronted with highly fragmentary architectural remains. This lack of data could lead to a focus on the visual comparison of floor plans as the most reliable and accessible source of information, or the exclusion of fragmentary structures altogether. It is argued, however, that all architectural remains carry a wide range of possibly meaningful information, which can be analyzed using an equally wide range of approaches. As an example, a set of highly fragmentary houses from the Northern Levantine region, dated to the Iron Age I period, was subjected to a quantitative, formal, technological, contextual and urban analysis, offering a diverse picture of the ancient architecture and its inhabitants.

Samenvatting

Archeologen die onderzoek verrichten naar huisarchitectuur uit het verleden worden vaak geconfronteerd met zeer slecht bewaarde architecturale resten. Een dergelijk gebrek aan data leidt gewoonlijk tot een focus op de visuele vergelijking van grondplannen (die vaak als de meest betrouwbare en toegankelijke informatiebronnen worden beschouwd), of men bant de fragmentaire structuren volledig uit het onderzoek. Hier wordt echter gesteld dat alle architecturale resten een brede waaier aan mogelijk betekenisvolle informatie dragen, die op een al even gevarieerde wijze kan worden benaderd. Als voorbeeld wordt een dataset van zeer fragmentaire IJzertijd I huizen uit de Noordelijke Levant onderworpen aan een kwantitatieve, vormelijke, technologische, contextuele en stedelijke analyse, wat leidt tot een zeer divers beeld van de architectuur en haar bewoners.

1. Introduction

Scholars studying ancient domestic architecture are often confronted with highly fragmentary remains, which only reflect a selection of the past environments in which humans lived, cooked, slept, interacted and died. These remains have been used by archaeologists as primary sources in order to formulate hypotheses on household sizes (Naroll 1962), the function of specific dwellings and rooms (Kent 1990), the exchange of cultural traits (McClellan 1997 : 37), social differentiation within past societies (Faust 1999), and even the identification of ethnic groups (Yeivin & Avi-Yonah 1955). While one could argue about the degree to which some of these aspects are reflected in architectural remains, no archaeologist will deny that these sources allow a glance on the everyday lives of their inhabitants. Yet sometimes the available archaeological evidence is deemed so fragmentary, that no meaningful conclusions can be drawn from it. In

such a case archaeologists might even be tempted to draw direct analogies between poorly preserved structures and well-known domestic architecture from different regions or time-periods. If not done critically, this can lead to an interpretation of the structures based on features they do not possess. In this way archaeologists might actually be filling up the gaps in our knowledge of ancient houses to better fit their research aims, rather than focusing on the information inherent in the remains.

In this article we will demonstrate that even the most fragmentary architectural remains carry meaningful information about people, events and environments in the past. By pointing out the diverse nature of the archaeological evidence and the wide variety of methods, one can approach and value this evidence. Some of these methods will be applied to Northern Levantine architecture from the Iron Age I period, a highly fragmentary dataset, for which it has been argued that it would not allow a thorough architectural analysis (Braemer 1982 ; Braemer 1997 : 61 ; Lund 1986 : 187-188).

2. An archaeology of domestic architecture?

In reports of archaeological excavations the architectural structures are often visualized on plans and grouped per chronological or archaeological phase. These representations follow conventions that are easily understood by most archaeologists, and are therefore highly successful in communicating the excavation results. The way ancient architecture is represented, however, also determines the way we analyze it, which often leads to a focus on the form of dwellings.

However, a house is and was not limited to its floor plan: the dimensions (length, width, surface, room volume), orientation, construction techniques, building materials and the internal relationship of the rooms are all aspects that often survive in the archaeological record, and might aid any attempt at understanding a construction. Furthermore, we are informed on the evolving activities that took place within a house or room thanks to stratigraphic or floor levels and their associated material culture, decorations and fixed or moveable furniture. The location of a house within the urban network, its topographical location and the relationship between built and non-built space might be an indication of the social position of its inhabitants in a community, as well as for the urbanization of the site in general.

It has been argued by Cutting (2006 : 225) and Kamp (1993 : 293) that, although the built environment is extremely important for both expressing and structuring social interactions, there exists no single methodology for the study and interpretation of architecture. The variety of information on domestic architecture listed above can be analyzed through both descriptive and quantitative approaches. These approaches are often applied individually, making use of only a limited number of attributes of ancient architecture. We believe, however, that any attempt at interpreting domestic architecture, how it was built, by whom and how the created spaces were used, should include as many aspects as possible of the already fragmentary archaeological record, thus combining a variety of both qualitative and quantitative methods.

We shall briefly discuss the following approaches for the analysis of domestic architecture: architectural form, dimensions, technological analysis, access analysis, contextual analysis, urban analysis and ethnographic analogies.

2.1. Architectural form

The most widely used approach for the analysis of Near Eastern domestic architecture is a descriptive study of its form (e.g. Ben-Dov 1992 ; Braemer 1982 ; Castel 1992 ; Foucault-Forest 1997 ; McClellan 1997 ; Netzer 1992 ; Shiloh 1973 ; Yon & Callot 1995). The composition of floor plans are compared, which often leads to a typology classified according to those principles the researchers deem significant. Although this method allows archaeologists a clear view over a structured mass of data, the results will be dependent on and influenced by the classification principles used. In addition, the form of the structures will dominate other meaningful aspects of the architecture (Braemer 1997 : 61-62 ; Castel 1992 : XI ; Weippert 1988). By limiting research of domestic architecture to a formal typology, we project a highly diverse volumetric past onto a two-dimensional Cartesian plane, thus accepting a reconstruction of the past through a modern worldview. It is argued in this paper that in order for any classification to be successful or even useful, it should include as many meaningful aspects of the architecture as possible.

2.2. Dimensions

In his study of North Syrian houses from the Late Bronze Age, McClellan (1997 : 33-36) indicates a strong correlation between a house's design and its size, as well as between the sizes of houses on a single site. He stresses that, although the relative wealth of an individual might have influenced the size of his house, there is no direct relationship between size and wealth, as considerable parts of a dwelling might have been used for artisanal activities (*ibid* : 36-47). So the total room surface of a house and the space it occupies in the urban network might hold some interesting clues about their former inhabitants, and should definitely not be considered simple consequences of assumed function or social standing (Kent 1990). These and other dimensions (e.g. wall thickness, door openings) are often available for the most poorly preserved structures, and therefore provide the ideal data for statistical analysis.

2.3. Technological analysis

The building materials and construction methods used are often clearly visible in the architectural remains, and therefore provide us with an unambiguous primary source of information[1]. Although these data are usually mentioned in analyses of ancient Levantine houses, they are often assumed to carry very straightforward information : where rocks were available, people would build stone houses and where there was good clay, mudbrick walls might be preferred. Although we do not contradict such simple interpretations, we would like to stress that it also generalizes the meaningful variation in the available evidence and does not explain unique differing situations. Archaeologists should realize that the building materials and construction methods we are confronted with reflect intentional choices of individuals in the past (Kamp 1993 : 305-306 ; Kamp 2000 : 87-89). A preference for stone or the use of a certain masonry technique could be economically, functionally, socially, climatically, culturally, individually or technologically motivated and should therefore be discussed.

2.4. Access analysis

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[1] Although one could argue about the degree to which these sources have already undergone interpretation through the process of excavation and publication (Hodder 1986 : 120, 171-172).

Although the form, size and construction methods are the most commonly studied aspects of ancient architecture, they tell us very little on how it was perceived by people in the past. The relationships between these elements and more specifically the way the available space was structured into rooms, halls and courtyards might give us an indication of how people used space, how they walked through a house and experienced it. Access analysis or space syntax was originally developed as a way of determining the connectivity of spaces in modern architecture and the way people use and move through them (Hillier & Hanson 1984 ; Hillier 1996 ; Hanson 1998). It also provides archaeologists with a method to identify, compare and interpret circulation patterns within houses (Cutting 2003 : 3). Access analysis has been applied to archaeological data with varying success (e.g. Brusasco 2004 ; Cutting 2003 ; Fairclough 1992 ; Foster 1989), among other things to determine the private or public nature of rooms in a Roman house (Grahame 1997). As was noted by Cutting (2003 ; 2006 : 233), however, this method is of limited value where structures are incompletely preserved and no supplementary data (such as literary sources) are available. Therefore, she concludes, archaeologists should consider access analysis as a qualitative "tool to think with" rather than an objective quantitative method. Nevertheless, for some ancient architecture access analysis does provide an innovative and highly informative way of thinking about the use of space. The author believes that a combination of this method with other descriptive or quantitative approaches, such as analyzing the human perception of architecture (Letesson & Vansteenhuyse 2006 ; Moore 1996 ; Tilley 1994), and 3D modelling techniques using viewshed analysis and agent-based simulations (Paliou 2008), might mark a new chapter in our quest for an archaeology of architecture.

2.5. Contextual analysis

The first three approaches focus on the reconstruction of the architecture as it was built, while access analysis allows us to think about the structuring of spaces. These methods will not succeed, however, in critically addressing the question most studies in ancient Levantine architecture are bent on answering : 'what activities took place within each room or building?' (e.g. Finkelstein 1988 ; Jamieson 2000 ; McClellan 1997 ; Meijer 1989 ; Yon & Callot 1995 ; Yon & Callot 1997). A direct correlation between architectural form and function is no longer acceptable (Kamp 1993 : 307-309 ; McClellan 1997 ; Meijer 1989 : 221), given the enormous range of complicating factors : the function as well as the owners of rooms and buildings can change through time (Kamp 1993 : 309-310), rooms can be multifunctional (Cutting 2006 : 230 ; Kamp 1993 : 306-307), the archaeological evidence only informs us on the last activities that took place in a house, which does not necessarily correspond with its overall use (Cutting 2006 : 228-230 ; Putzeys 2007 : 43-45, 389-399). Moreover, a distinction can be made between utilitarian and symbolic function of a room or house, and both functions might have influenced the activities performed (Kamp 1993 : 310-311 ; Meijer 1989). Bearing these restrictions in mind, Putzeys (2007 : 5-11) proposed a method for contextual analysis of ancient architecture based on the study of architectural space (through access analysis), site-formation processes and the analysis of artefact assemblages[2] Such a contextual analysis will deliver the best results when performed on a dataset containing well-preserved structures, micro-stratigraphic knowledge and a complete documentation of the artefact assemblages. We would like to stress, however, that for sites for which such data are not available a contextual analysis is not impossible (as we will demonstrate in the case study below). As was noted by Papaconstantinou (2006 : 95-97),

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[2] The method of Putzeys can be considered a reaction on and refinement of the contextual approaches by Ciolek-Torrello (1984 ; 1985), Nevett (1999), Cahill (2002) and Allison (2004) (Putzeys 2007: 5-11).

archaeologists should not condemn old excavations because of their archaic excavation, selection and publication techniques, but should include these in their research in a constructive but critical way. Old and new excavations with both good and poorly preserved structures should complement one another in a reconstruction of past activities (Putzeys 2007 : 389-399).

2.6. Urban analysis

The life of people in ancient times was not restricted to interior spaces. Many activities such as cooking, sleeping or entertaining were and are still performed outdoors, on roofs or in courtyards (Kamp 1993 : 305). The location of a house in the urban network, its orientation, the available exterior space and the relationship to other houses or public buildings influenced everyday choices of the inhabitants, including the distribution of activities (Kent 1990). In his analysis of domestic architecture from Hazor, Faust (1999) even used these aspects to determine the socioeconomic position of its inhabitants. Other approaches include the estimation of the average floor space required by individuals to 'people' ancient settlements (Naroll 1962 ; discussion summarized in Byrd 2000), and comparing cities' areas of roofed or built space to unroofed or unbuilt areas in an attempt to understand the socioeconomic and cultural diversity of its population (Finkelstein & Zilberman 1995). Although the use of such studies is dependent on the degree of preservation of its data, we may conclude that it is worth crossing the threshold to the exterior to confront individual domestic units with their urban context.

2.7. Ethnographic analogies

Ethnographic research in Near Eastern rural communities (e.g. Aurenche 1998 ; Horne 1994 ; Kamp 1993 ; Kamp 2000 ; Kramer 1982) allows archaeologists to assess how socioeconomic factors can influence and be reflected in architecture. Moreover, it forces us to recognize the fact that societies organize their lives differently (Cutting 2006 : 233). In addition to general insights into the construction and design of houses, Cutting (2006 : 234-239, 241) identified three areas of archaeological investigation that could benefit from ethnographic analogies : the functional use of space and seasonal variation, patterns of movement, and social organization. Although it is tempting to draw direct analogies between modern ethnographic research and ancient architecture, these modern observations should be used cautiously as to "not force the past into a mould derived from knowledge of the present" (Watson 1979 : 6). We believe that the purpose of ethnographic observations to archaeology lies in confronting us with the existence of a wide variety of possible interpretations, rather than providing us with the right answer.

To summarize, architectural remains consist of a diverse range of features which can inform us about the construction of ancient houses, the activities that took place within them, and the socioeconomic position of their inhabitants. A variety of, sometimes overlapping, approaches can be applied to analyze these data. An analysis of the architectural form, dimensions and construction methods allow a reconstruction of the building process of ancient houses, and the choices made during this process. Access analysis, contextual and urban approaches study the way rooms and houses were used and perceived, while ethnographic analogies can be used cautiously to indicate a variety of possible interpretations.

In the following part of the article some of these methods will be applied to a set of Northern Levantine houses from the Iron Age I period, consisting of very fragmentary structures on which the validity of said methods will be tested.

3. Northern Levantine domestic architecture in the Iron Age I period

While browsing through the published literature on Northern Levantine architecture from the Iron Age I period, our scarce knowledge of the nature of these structures becomes immediately apparent. A small number of excavated and published sites, and the limited information on architectural remains and their contexts in the available literature results in a meagre set of data. In addition, the degree of preservation of these structures is almost invariably poor, which makes it difficult to define individual houses. The only attempt at an analysis of these houses was performed by Braemer (1982 : 155-157 ; 1997 : 70), who had to conclude that the available data were just insufficient to draw any conclusions about the nature of Northern Levantine domestic architecture in this period (Lund 1986 : 187-188).

We can, however, express two remarks about Braemer's work. Firstly, in both studies Braemer omitted a considerable number of Northern Levantine structures, only focusing on the best preserved houses.[3] Secondly, the overwhelming majority of his sources are from the Southern Levantine region. In his 1982 work this resulted in a typology based on Southern Levantine house forms, which was projected onto the Northern Levantine architecture. This approach does not succeed in understanding the unique nature of the Northern Levantine architecture, and resulted in Braemer (1982 : 89-92) classifying nearly all Northern Levantine structures in his "alternative" category. Although Braemer's 1997 article was not concerned with Southern Levantine houses, he still approached the Northern structures through analogies with the South.

We can therefore conclude that the Northern Levantine domestic architecture in the Iron Age I period has scarcely been examined, due to the fragmentary nature of the structures and a limited use of the available data. The following analysis is an attempt at understanding fragmentary architectural remains on their own terms, by approaching it through different methods using a variety of data. Where relevant, reference shall be made to Kamp's (1993 ; 2000) ethnographic work in the Syrian village of Darnaj.

3.1. The dataset

We will discuss architecture from the Northern Levantine region, corresponding to the Turkish province of Hatay (the 'Amuq valley where the Orontes river flows into the Mediterranean), the Syrian coastal strip and Orontes valley, and the Lebanon (Fig. 2). In recent archaeological and historical research (Mazzoni 2000), the first Iron Age is the period from 1200 BC to 900 BC. Taking these geographical and chronological demarcations into account, ten sites can be included in this analysis: Tell Afis (Mazzoni 2005 ; Venturi 2000), Ras el-Bassit (Courbin 1986)[4], Chatal Hüyük (Braidwood & Braidwood 1960 ; Haines 1971), Hama (Fugmann 1958), Ras Ibn Hani (Bounni *et al.* 1979 ; Bounni *et al.* 1981), Tell al'Judaidah (Braidwood & Braidwood 1960 ;

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[3] In his 1982 work Braemer did not include the structures from Ras el Bassit, Tell Sukas, Sarepta and Tyre (maybe because it was hard to divide them into individual houses and because the excavators believed that in some levels they housed production centres for beads (Tyre) or pottery (Sarepta)). In his 1997 article Braemer made limited reference to structures in Sarepta, Tell Kazel, Tell Sukas, Ras Ibn Hani, Ras el-Bassit, Tell Mardikh, Tell Afis, Tell Mastuma and Tille Hüyük, but only where they conform to his 1982 typology.

[4] Although the excavation report mentions Iron Age I structures no plan was published, and the limited information in the publications makes a reconstruction of these phases impossible. Therefore, the architecture of Ras el-Bassit will not be included in the current analysis. An overview of the available evidence is provided in Brughmans 2008 : appendix 1 : 11-12.

Haines 1971), Tell Kazel (Capet 2003 ; Capet & Gubel 2000), Sarepta (Anderson 1988), Tell Sukas (Lund 1986 ; Riis 1970) and Tyre (Bikai 1976). Following McClellan's example (1997), the functional interpretations of the excavators did not lead to a selection of strictly 'domestic' structures. The excavators' chronological interpretations were not questioned and all construction levels dated to the Iron Age I period were included in the analysis, which are represented in Fig. 1.

3.2.   Quantitative analysis

The dimensions best represented in the fragmentary architecture of the dataset are the wall widths (n = 278 + 62 uncertain), as the limits of buildings were often unknown (n = 17 + 18 uncertain) and bounded rooms were small in number (n = 46 + 36 uncertain). A brief look at the room surfaces allows two conclusions (Figs. 9-10) : the largest rooms within the dataset often belong to single-roomed free-standing buildings (Figs. 3bcIV, 5pI, 5qI, 5yII), and a very high frequency of small rooms is obvious. An analysis of the wall widths shows a clear coherency between the averages on all sites: medians and modes around 70 and 60, and slightly higher means due to some outliers (Figs. 7-8). However, these averages tell us very little about the things we are interested in, namely the individual walls and their relation to other structures. So what about the variation within the sites?

The variance of all sites is almost uniformly high, indicating a great spread in wall widths for each site. In Hama a considerable number of walls are a metre or more thick, and these mainly belong to the large buildings near the highest point of the tell (Figs. 4mn). Conversely, a significant amount of thin walls (ca. 40 cm) was unearthed in Tell al-Judaidah, corresponding to small rectangular structures on the eastern side of the site (Figs. 5vw). For Tell Afis, Tell Kazel and Tell Sukas the great spread of widths seems to be caused by differences within individual buildings.

Four interpretations can be provided for these variations. The most obvious one is the direct correlation between the wall width and the weight of the superstructure it had to support. This correlation allows us to make inferences concerning the existence of possible storeys, but more importantly, the identification of load-bearing walls (mainly exterior and communal walls). As such, some possible individual buildings can be identified in Chatal Hüyük (Figs. 3iI, 4oII), Hama (Fig. 4mI-II-III), Tell Kazel (Fig. 6zI) and Tell Sukas (Fig. 6aeI). Secondly, the utilitarian and symbolical function of a room or building can influence wall thickness (Kamp 1993 : 312-315 ; Meijer 1989 ; Trigger 1990 : 121-122). This can explain the extreme thickness of city walls which served a defensive purpose but might also have functioned as symbols of a city's power and prestige. The thin-walled small buildings of Tell al-Judaidah, on the other hand, might have functioned as storage rooms. Thirdly, wall thickness can be dependent on the building materials used, which is itself influenced by the availability of resources, the architectural tradition of a builder or community, and the personal preference of the owner (Kamp 1993 : 305-306; Kamp 2000 : 87). This brings us to our last interpretation, which stresses the influence of an individual (builder, owner or inhabitant) in the construction of a house (Baines & Yoffee 1998 ; Richards & Van Buren 2000 ; Trigger 1990). These last two interpretations might prove crucial to understand the variation that manifests itself in this and the following analyses.

3.3.   Architectural form

A visual inspection of the floor plans (Figs. 3-6)[5], without taking any existing typologies into account, reveals some formal similarities. Rooms with a comparable surface are often grouped together. Some of these rooms lie with their long sides next to each other, and will be referred to as parallel buildings (Figs. 3bcII, 3gI, 5sI, 5tII, 5uII, 6aeI). Others are in line with one another, connecting on the narrow side (Figs. 3bcd, 5tII, 5uII, 6ag-aj). We can also discern buildings consisting of a single exceptionally large room (as was noted in the quantitative analysis), which will be referred to as one-room buildings (Figs. 3bcIV, 5pI, 5qI, 5yII).

Some rooms with a large surface are related to clusters of smaller rooms. We can distinguish three groups depending on the side on which the clusters are arranged, and the number of small rooms: a large room with a single small room on its narrow side (Figs. 3iI, 6zII ?, 6afV), a large room with two small rooms on its length (Figs. 3iII, 4oI), a large room with multiple small rooms on its length (Figs. 6zI, 4mII ?). Such a combination of small rooms with a larger room allows a higher degree of functional differentiation within the house, but also within the large room itself (Kamp 1993 : 306-309 ; Kamp 2000 : 84).

As the exact location of the doorways, the limits of individual buildings and possible upper storeys are unknown, an access analysis will be impossible. We can, however, study the circulation patterns of those buildings for which the limits and doors are well-known. The parallel building in Fig. 3bcII has a door on the north side leading from the street to a first room, and another door leading to the second room. The first room might have been used for more public activities as it was accessible from the street, while the second room had a more private character. In the buildings consisting of a combination of large and smaller rooms, the large rooms often provide access to the smaller rooms (Figs. 4mIII, 4oI, 6zI). These large rooms therefore had a controlling function in the circulation, and must have played a central role in the lives of the inhabitants.

3.4.   Technological analysis

A study of the building materials and construction methods used shows some patterns. Nearly all stone structures were built using the same masonry technique, consisting of a facade of large fieldstones and a core of smaller stones. Some well-formed ashlars were included in the walls of Ras Ibn Hani and Sarepta, but only in Hama were they used on a large scale (exclusively for the buildings near the acropolis, Figs. 4mn). Moreover, the latter site contains the only use of basalt as a building and decorative material. The architecture of area I level 7 of Chatal Hüyük provides us with another extraordinary situation (Fig. 4k). These were the only structures on the site belonging to a stone building, the thresholds were made out of mudbrick and the courtyards as well as the rooms were paved with stones (both unique features within the dataset).

A clear distinction between sites with stone architecture and sites with a combination of stone and mudbrick in walls could be discerned (Fig. 2). There even seems to be a geographical pattern linked to these construction methods : stone walls can be found in coastal sites (Ras Ibn Hani, Sarepta, Tell Sukas, Tyre), and mudbrick walls in inland sites (Tell Afis, Chatal Hüyük, Hama, Tell Al-Judaidah). The only site straying from this overall pattern is Tell Kazel, a coastal site with a combination of stone and mudbrick walls. Although this pattern could be easily explained as being a result of the geographical position of a site, the local climate and the available resources, the evidence in Tell Kazel suggests caution with such generalising statements.

[5] Possible individual buildings are marked on the plans with Roman numbers.

3.5.   Contextual analysis

As we had to rely on published information for the current study, our knowledge on site-formation processes and artefact assemblages is limited to the degree of detail of the excavation reports. We shall therefore limit our contextual analysis to a critical re-evaluation of the functions and activities that the excavators attached to the structures, based on the evidence they refer to.

For the structures in Chatal Hüyük and Tell al-Judaidah no functional statements can be made, due to a complete lack of contextual evidence. Strong post-depositional disturbances in Tell Sukas make interpretations about past activities difficult, although the presence of silos, waste pits, grinding stones and a mortar and pestle seem to indicate a domestic function. An exclusively domestic function is also assumed for buildings I and II in Ras Ibn Hani.

For Tell Afis the published evidence provides us with a more specific picture of past activities. Given the numerous waste pits, plastered silos, small ovens and a plastered basin, levels 9a-8 of field E North (Fig. 3a) probably consisted of waste disposal, storage and cooking areas (Venturi 2000 : 507-509). The transition to architectural levels 7-6 also signified a functional shift towards a more domestic area, with possible weaving activities in building I (Fig. 3b-c). Venturi (2000 : 512, 529) interpreted building IV as a public or religious building, based on the absence of domestic installations, a formal resemblance to later religious buildings in Sarepta (Pritchard 1975 : 14-15, Fig. 2) and Tell Sukas (Riis 1970 : 59, Fig. 19), and the presence of a polished tile. The existence of a small oven near the northern wall, its location in a domestic quarter and the changing of the entrance from the long side to the narrow side throughout this phase (which must have had a significant impact on possible religious activities), indicates that a cultic interpretation based on meagre evidence can be questioned. We prefer to interpret this one-room building as a domestic structure with a relatively large living room (ca. 22 m²; Figs. 9-10) and a very limited functional differentiation (given the lack of permanent internal divisions; Kamp 1993 : 306-309 ; Kamp 2000 : 84). In levels 5-3 the area consisted of domestic units ordered around a large paved courtyard (Fig. 3d).

Another large (ca. 47 m²) one-room building was excavated in Hama (Fig. 5q). The three floor levels and multiple repairs indicate a long period of occupation for this structure. A small podium against the south-western wall in floor level 2 and the size of the building might indicate a religious function, although such a podium could serve for a variety of activities. Another impressive structure is building III in Hama's sectors N16-017 (ca. 185 m², Fig. 4m). Although the sheer number of rooms might indicate a large functional differentiation, the lack of clear evidence for these activities and a serious plundering of this level do not allow a more detailed reconstruction.

In Sarepta a pottery kiln, unprocessed clay and large amounts of kiln refuse leave no doubt that this area was a potter's workshop in level E, with possible accommodation for the potters in the western room 38 (Fig. 6aa-ab). Although the small pottery kiln in level D2 possibly suggests continuity with these earlier levels, the absence of any other evidence of industrial activities and the massive amounts of fine ware bowls, storage jars and cooking wares indicate a functional evolution of the area in level D towards predominantly domestic activities. For Tyre, the production of beads and weaving activities are assumed, as well as some cooking areas (Bikai 1976 : 25-36).

Thanks to a destruction layer on field II of Tell Kazel that sealed the Iron Age I level, the architectural phases and their contexts are well documented and allow a functional analysis (Fig. 6z). The presence of small ovens, storage jars, fine wares and grinding stones in nearly all rooms of field II suggest a domestic function for the entire sector. We can, however, identify some specific activity areas. Large amounts of storage jars in rooms I and A might indicate that these were used as depots. Rooms W, D and C were probably used for the preparation of food, given the presence of domestic ovens, grinding stones, pestles, cooking pots and animal bones. A more intriguing situation is provided in rooms O, S, R and Q, which were considered as a separate building based on the thickness of the surrounding walls. Some of these walls were possibly decorated and the doorway to room S shows "monumental features" (Capet 2003 : 107). An elaborate set of table wares was found in this building, unlike any other assemblages encountered on field II. Rooms R and Q might be interpreted as storerooms due to the presence of storage jars and goblets, while in room S a workbench and a stone possibly belonging to a press installation, might be remains of the artisanal activities performed here. Another possibly meaningful aspect is the absence of a domestic oven in this building and their presence in nearly all other rooms and courtyards of the site, although the small ovens in area M might have been used by the inhabitants of the building. We might interpret this large building (ca. 170 m²) as a domestic unit consisting of storage rooms, activity areas, a possible vestibule (M) and courtyard (L), and a large central living room in which food was prepared, goods were stored and meals were held. But what do these results tell us about the inhabitants? Was this the house of a notable citizen? Or could it have been a communal storeroom and public building in which feasts were held? Or were the "dinner party" remains the result of reuse after the original inhabitants had gone? However, size does not always correlate with wealth (Kamp 1993 : 296-299), so the building might have just been the home of a large or composite household. On field IV near the religious centre of Tell Kazel a female figurine, a terracotta plaque and some metal artefacts were found in and round the large room of level 4 (ca. 30 m² ; Fig. 5x). In level 3 the same location was occupied by a large one-room building (ca. 137 m² ; Fig. 5y). The position near the religious centre, the unique finds and the sheer size of these structures might indicate a religious function.

3.6.   Urban analysis

Although for all sites only small areas were excavated, we can still draw some conclusions about the urbanization and the position of a house in the urban network. We can distinguish between sites with a low density (Chatal Hüyük, Hama, Tell al-Judaidah, Tell Sukas) and sites with a high density of built-up space (Tell Afis, Ras Ibn Hani, Tell Kazel, Tyre and possibly Sarepta). For Tell Kazel and Tell Afis the density of urbanization can be explained by the geographical location of the excavation trenches : districts near the political or religious centre, often situated at the highest point of a tell, might have been desired building land. The small total size of tell Sukas might be an indication that this was never a densely occupied settlement. The political role of the town might also influence the degree of urbanization : Hama was the centre of an Aramean city-state in the Iron Age II period, which explains the freestanding monumental buildings with predecessors in the Iron Age I period (Figs. 4m-n).

But what were the structuring elements that influenced the builders and made the houses as we see them today? An indication might be the similar orientation of the architecture in each site, which always seems to correspond with the orientation of streets (Figs. 3b-d, 5t-u, 6ac-ad, 6ah-ak), courtyards (Figs. 3d, 5t-u, 6ac-ad, 6ag-ak) and communal walls (Figs. 5s, 6z). These

boundaries were even respected throughout different architectural phases. Another structuring element is the clusters of small rooms which are often grouped around courtyards (Figs. 5t-u, 6z, 6ag-ak). These rooms have doors to the courtyard but not to the surrounding streets, which is an indication of the controlling function these courtyards exercised in the urban circulation, and they might have functioned as transitions between public and private spaces. Lastly, the evidence from Tell Kazel provides us with an example of structures oriented on a monumental (possibly religious) building (Figs. 5x-y). We can therefore conclude that the form and dimensions of a house were not always determined by the cultural tradition and individual will of the builder, but also by the available space and the urban context, as is still the case in modern cities. In addition, the physical location of a house and its relationship to public spaces and buildings through doorways should also be considered as a meaningful factor. A strong variation in floor plans thus becomes obvious.

4. Conclusion

Quantitative, formal, technological, contextual and urban analyses were performed in an attempt to understand the unique nature of Northern Levantine domestic architecture in the Iron Age I period. It proved very hard to formulate any generalising statements about these highly fragmentary structures, indicating that the only universal feature is the sheer structural variation between sites and houses. Rooms and buildings were rather small and their form was strongly influenced by their position in the urban network. In Hama and Tell Kazel, however, some unusually large buildings were excavated, which were interpreted in the light of the historical, religious and social composition of the site. A division in building materials used was obvious, with stone architecture at coastal sites and stones and mudbricks for the inland sites. Yet again, Hama and Tell Kazel catch our attention. The first with its architectural and decorative use of ashlars and basalt, the latter by its unique architectural tradition as a coastal site, which combines some mudbricks and plaster in predominantly stone structures. With the exception of the artisanal activities in Sarepta and Tyre, the monumental complexes in Hama, and the possible temple in Tell Kazel, all of the structures should be assigned a predominantly domestic function. The high frequency of smaller rooms in most buildings, however, indicates a high diversity of activities within the house.

So, referring to the main question of this article, should old excavations and fragmentary structures be excluded from an architectural analysis? We hope that the analysis of Nothern Levantine architecture showed that even the most incomplete architectural remains (e.g. Sarepta) and even the least documented sites (e.g. Chatal Hüyük) can help us understand ancient architecture and its inhabitants, if done critically. Archaeologists should recognize the diversity of the archaeological record, and should address this variety of information using a combination of analytical methods. This review identified architectural methods to tackle the limitations of the archaeological evidence, and acknowledged the necessity of crossing this threshold towards a new and more integrated archaeology of architecture.

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