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Space Organisation and House Planning at Hellenistic and Roman Palmyra

Światowit : rocznik poświęcony archeologii przeddziewowej i badaniom pierwotnej kultury polskiej i słowiańskiej 9 (50)/A, 141-153

2011

Artykuł został opracowany do udostępnienia w internecie przez Muzeum Historii Polski w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego. Artykuł jest umieszczony w kolekcji cyfrowej bazhum.muzhp.pl, gromadzącej zawartość polskich czasopism humanistycznych i społecznych.

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MARTA ŻUCHOWSKA

SPACE ORGANISATION AND HOUSE PLANNING AT HELLENISTIC AND ROMAN PALMYRA

Palmyra, well known for its position as a trade centre of the Roman world is also a good example of urbanism and architecture of the Hellenistic, Roman and Early Islamic Middle East. Though the space of the ancient city was composed mostly of residential quarters, they are relatively less known than monumental structures such as temples and secular public buildings which mostly attracted attention of the scholars (Fig. 1).

Apart from early documentation and general studies by Th. Wiegand (1932) and A. Gabriel (1926), which for

many years gave the only plans of houses visible on the surface of Palmyra's ruins, only few studies on domestic architecture were effectuated, the most complete being this of E. Frézouls (1976) and the recent study of M. Gawlikowski (2007). The first volume of *Topographia Palmyrena* edited by K. Schnädelbach collects all published earlier plans of Palmyrene monuments and the new detailed plan of all vestiges of the city, also the ruins of residential buildings (SCHNÄDELBACH 2010). There is still however no work dealing with the place of private houses

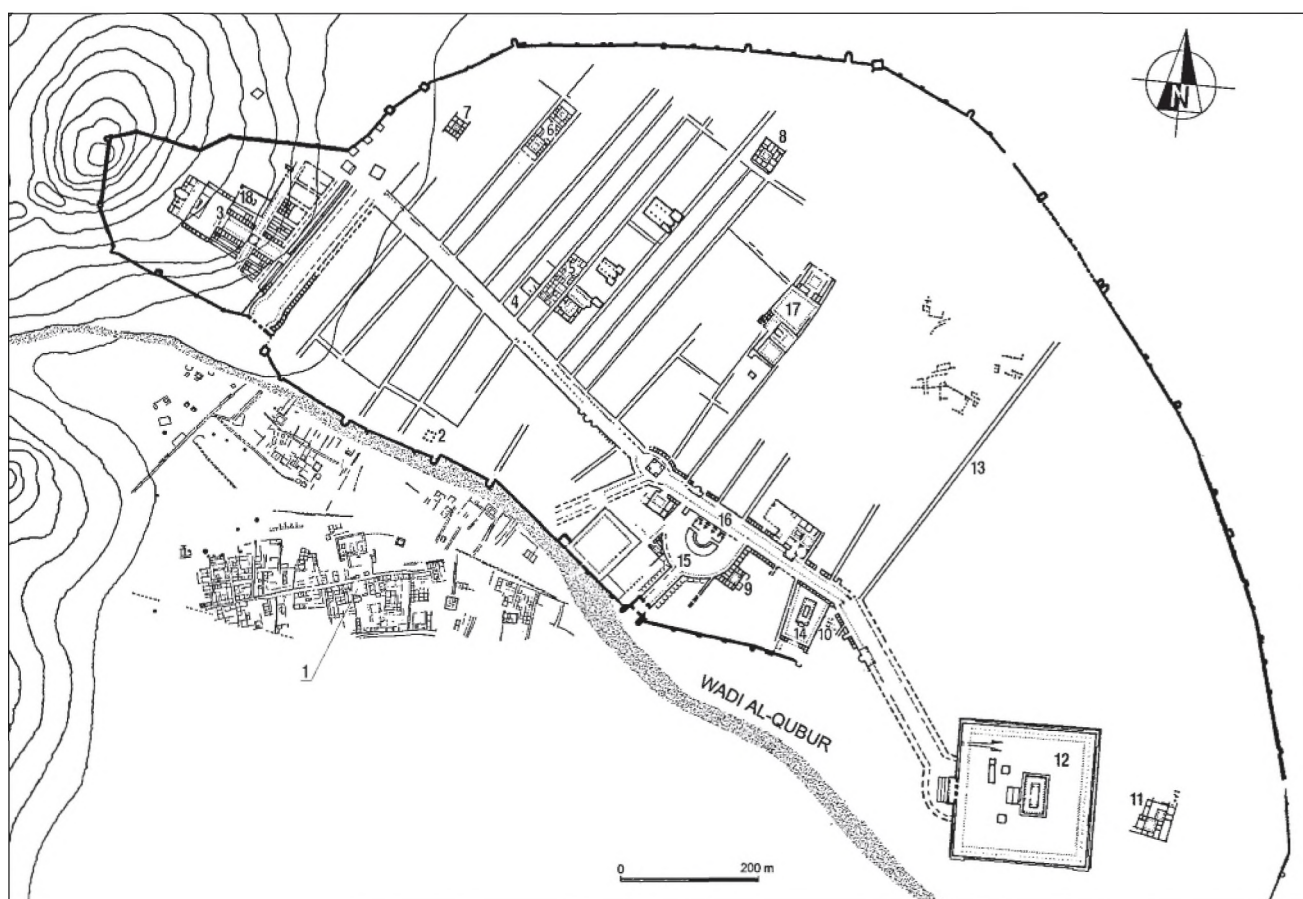


Fig. 1. Plan of Palmyra with the location of documented houses and main public buildings: 1 – House excavated in the Hellenistic Quarter by the Syro-German mission; 2 – House excavated in the Southern Quarter by the Syro-Italian mission; 3 – House under the Forum of the Camp of Diocletian; 4 – House in Insula E; 5 – House F; 6 – Houses 39 and 40; 7 – House 38; 8 – House 45; 9 – House S-E of the Theatre; 10 – Houses east of the Temple of Nabu; 11 – Houses of Kassiopea and Achilles; 12 – Temple of Bel; 13 – Northern Colonnade; 14 – Temple of Nabu; 15 – Theatre; 16 – Great Colonnade; 17 – Temple of Baalshamin; 18 – Temple of Allat (M. Żuchowska; cf. ŻUCHOWSKA 2005: fig. 2; SCHNÄDELBACH 2010: 35–67 – Maps 2000).

Ryc. 1. Plan Palmyry z lokalizacją omawianych budynków mieszkalnych i głównych budowli publicznych: 1. Dom badany przez misję syryjsko-niemiecką w Dzielnicy Hellenistycznej; 2 – dom badany przez misję syryjsko-niemiecką w Dzielnicy Południowo-Zachodniej; 3 – dom na terenie późniejszego Forum Obozu Dioklecjana; 4 – dom w Insuli E; 5 – Dom F; 6 – Domy 39 i 40; 7 – Dom 38; 8 – Dom 45; 9 – dom na płd.-wsch. od Teatru; 10 – domy na wschód od Świątyni Nabu; 11 – Domy Kasjopei i Achillesa; 12 – Świątynia Bela; 13 – Kolumnada Północna; 14 – Świątynia Nabu, 15 – Teatr; 16 – Wielka Kolumnada; 17 – Świątynia Balsamina; 18 – Świątynia Allat.

in the urban planning of Palmyra. Despite a general lack of archaeological data concerning habitats of different periods it seems to be possible to find some particularities and connection between house planning and urban planning of Hellenistic and Roman Palmyra.

Residential Quarters

As it was mentioned before, all quarters of Palmyra, except the monumental centre of the city and the temenos of Bel, had a mainly residential character. They were designed and remained in use in different periods of time and as a result, unlike typical Greco-Roman cities in the East, Palmyra represents a few different models of urban space organisations. The division into quarters proposed below is based on the analysis of the urban layout and chronological data. Some units can be easily distinguished and were probably designed as individual parts of the city, other developed separately and then were incorporated in the urban complex. Some of them could be probably divided into smaller parts but the lack of evidence does not allow to do so.

The so-called Hellenistic Quarter lies on the southern bank of the Wadi al-Qubur (Figs. 2:A, 4). Archaeological research brought evidence of occupation of this area from the 3rd c. BC to the 3rd c. AD and it seems obvious that this zone has been definitively abandoned after construction of the new fortification system at the end of the 3rd c. AD if not earlier (PLATTNER, SCHMIDT-COLINET 2010: 419–420). The research on the urban layout of this quarter can base only on two plans, one based on the archival aerial photography from 1930 (DENTZER, SAUPIN 1996: fig. 3), the other, more detailed, on the geomagnetic survey by the Syro-German mission (AS'AD, SCHMIDT-COLINET 2000: fig. 3). Needless to say, this kind of study is restricted by the lack of chronological data. The observation of the plan shows that the space is organised here along two principal streets forming a bifurcation. Excavations of the Syro-German mission showed however that this is true only for the period starting at the turn of the 2nd c. BC, while an earlier plan connected with the vestiges dated to the 2nd c. BC, definitely different, is still impossible to determine (SCHMIDT-COLINET, AS'AD, AS'AD 2008: 455–459). The space around the two main streets is covered by

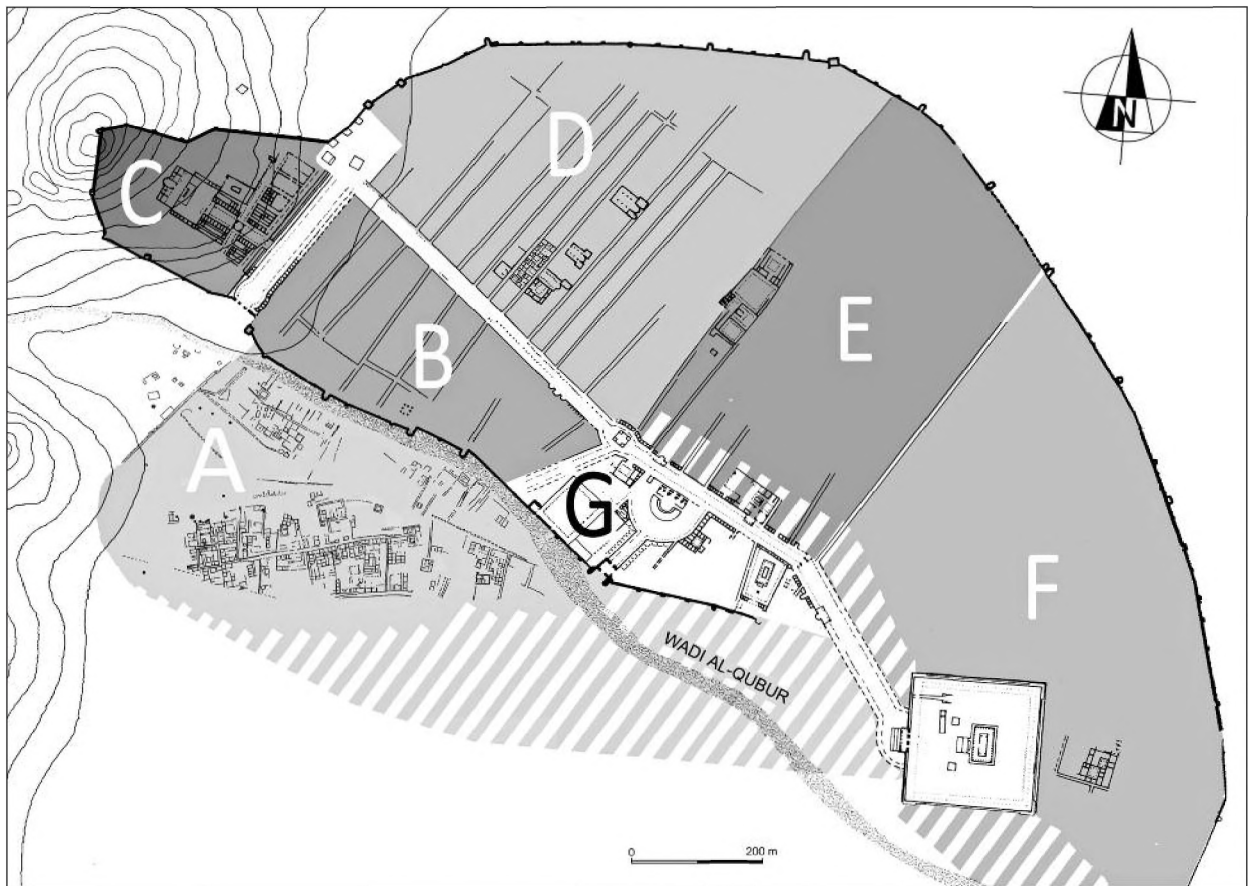


Fig. 2. The quarters of Palmyra: A – Hellenistic Quarter; B – South-Western Quarter; C – Western Quarter (later Camp of Diocletian); D – North-Western Quarter; E – North-Eastern Quarter; F – Eastern Quarter; G – Monumental Centre (M. Żuchowska; cf. ŻUCHOWSKA 2005: fig. 2).

Ryc. 2. Dzielnice Palmyry: A – Hellenistyczna; B – Południowo-Zachodnia; C – Zachodnia (później Obóz Dioklecjana); D – Północno-Zachodnia; E – Północno-Wschodnia; F – Wschodnia; G – monumentalne centrum.



Fig. 3. Plan of Palmyra by Gabriel (1926: pl. XII).

Ryc. 3. Plan Palmyry wg Gabriela.

structures which can be interpreted as smaller or bigger houses organised around a courtyard. Especially the structure marked with gray in Fig. 4 can be easily recognised as a set of four houses of more or less rectangular plans with courtyards and irregular inner space organisation. Being not very regular in shape, buildings do not follow any specified urban grid and secondary streets seem rather to occupy the space left free for communication than being designed according to any plan. Consequently, some houses are oriented along the main streets while others are not (AS'AD, SCHMIDT-COLINET, 2000: fig. 3). Of course there were also public buildings in this quarter – like the Temple of Arsou or the caravanserai excavated recently by the Syro-German mission (PLATTNER, SCHMIDT-COLINET, 2010: 419–420), but most of the area was covered by habitat. A fragment of the building excavated by the Syro-German mission in the middle of the Hellenistic Quarter confirmed its residential character (PLATTNER, SCHMIDT-COLINET 2010: 418–419).

The South-Western Quarter (Fig. 2:B) closed from the west by the Transversal Colonnade, from the south by the Wadi al-Qubur, from the north by the western part of the Great Colonnade and from the east by the so-called “Arsou street,” was till recent years the least known. Works of the Syro-Italian mission started in 2007 brought to light new facts about urbanism and architecture of this

part of the city where many structures of domestic and probably also public function have been recorded (GRASSI 2009: 339–349; 2010: 1–25; GRASSI, AS'AD forthcoming). The old plans of this zone show that the urban structure of this area is organised by the streets going approximately north-south, but not being perpendicular to the axis of the western section of the Great Colonnade. New measurements done during recent Syro-Italian research confirmed this observation (GRASSI 2010: 6–10, fig. 3). It seems on the contrary that the plan of this quarter is organised according to the wadi's bed and roads are perpendicular to its line. Since the bed of the wadi is slightly curved in this place, the streets do not meet the Colonnade at a right angle. Such idea of the space organisation, strange at the first glance, is understandable, since the wadi's bed was probably the main axis of communication in the city before the construction of the Great Colonnade. This observation implies that whole quarter was designed earlier than the project of construction of the Great Colonnade was created, maybe already in the 1st and at the beginning of the 2nd c. AD and we can expect the vestiges of relatively early examples of architecture in this part of the city. Such hypothesis, although plausible, has not been confirmed yet by archaeological research. The only building excavated in this area is a house with a peristyle (no. 61 on Gabriel's plan – Fig. 3). Excavations are still in progress and the plan of

the whole structure still remains unknown. The last phase of occupation is dated to a relatively late period but the moment of construction of the building is not determined yet (GRASSI 2009: 18–24). It has to be pointed however that some traces of early constructions have been excavated in the sounding trench under the street of the western part of the Great Colonnade, proving at least temporary occupation of the area at the turn of the 1st c. AD (ŻUCHOWSKA 2002: 291–294).

The Western Quarter (Fig. 2:C) is the part of the city beyond the Transversal Colonnade, which is now covered by the vestiges of the Diocletian Camp. Although it is very difficult to say anything about its early plan or buildings types, there is no doubt that this quarter was inhabited long before the military occupation and the buildings had a rather civil character.

The earliest traces of architecture in this zone probably date back to the Hellenistic period and have been unearthed under the foundations of a 1st–2nd c. AD building, destroyed by the construction of the Forum (MICHAŁOWSKI 1964: 20). Taking into consideration the fact that we also have the evidence of existence of cult places in this quarter – two inscriptions found nearby mention a *hammana* of Shamash in 31/30 BC (GAWLIKOWSKI 1983b: 65–66) and the cult of the goddess Allat in 6 BC respectively (GAWLIKOWSKI 1983a: 181) – we can assume that in the 1st c. BC this part of Palmyra was occupied. Unfortunately, we know nothing about the character of

this part of settlement. According to the research on the Palmyrene fortifications done by M. Gawlikowski, this area remained outside of the city wall at that time and must have been incorporated into the urban structure before 89 AD (GAWLIKOWSKI 1974: 237; DU MESNIL DU BUISSON 1966: 165–169).

In the late 1st c. AD, new buildings appeared in this part of the city. A fragment of one of them has been excavated and it seems that it was a typical house with a central courtyard and surrounding rooms with the floor paved with pale rose limestone slabs (KROGULSKA 1984: fig. 22) (Fig. 5:g). During Hadrian's reign the function of the building changed, as is testified by installation of three kilns in the courtyard and changes of the surface of the rooms (MICHAŁOWSKI 1964: 12–14).

Generally, we have to assume that the spatial organisation of this quarter is very difficult to reconstruct. The orientation of the described building differs from the later Diocletian Camp axis for about 3 degrees – the same as the Temple of Allat situated in the same quarter and also preceding the military buildings (GAWLIKOWSKI 1983a: 63). It suggests that at least in the 1st–2nd c. AD this area was organised according to a symmetrical grid, but the details of this layout remain unknown. It is also worth mentioning that, even if there was any urban grid in this zone, it did not coincide with the direction of the nearby Transversal Colonnade, following probably the line of the ancient city wall.



Fig. 4. Plan of the Hellenistic Quarter (AS'AD, SCHMIDT-COLINET 2000: fig. 3).

Ryc. 4. Plan Dzielnicy Hellenistycznej.

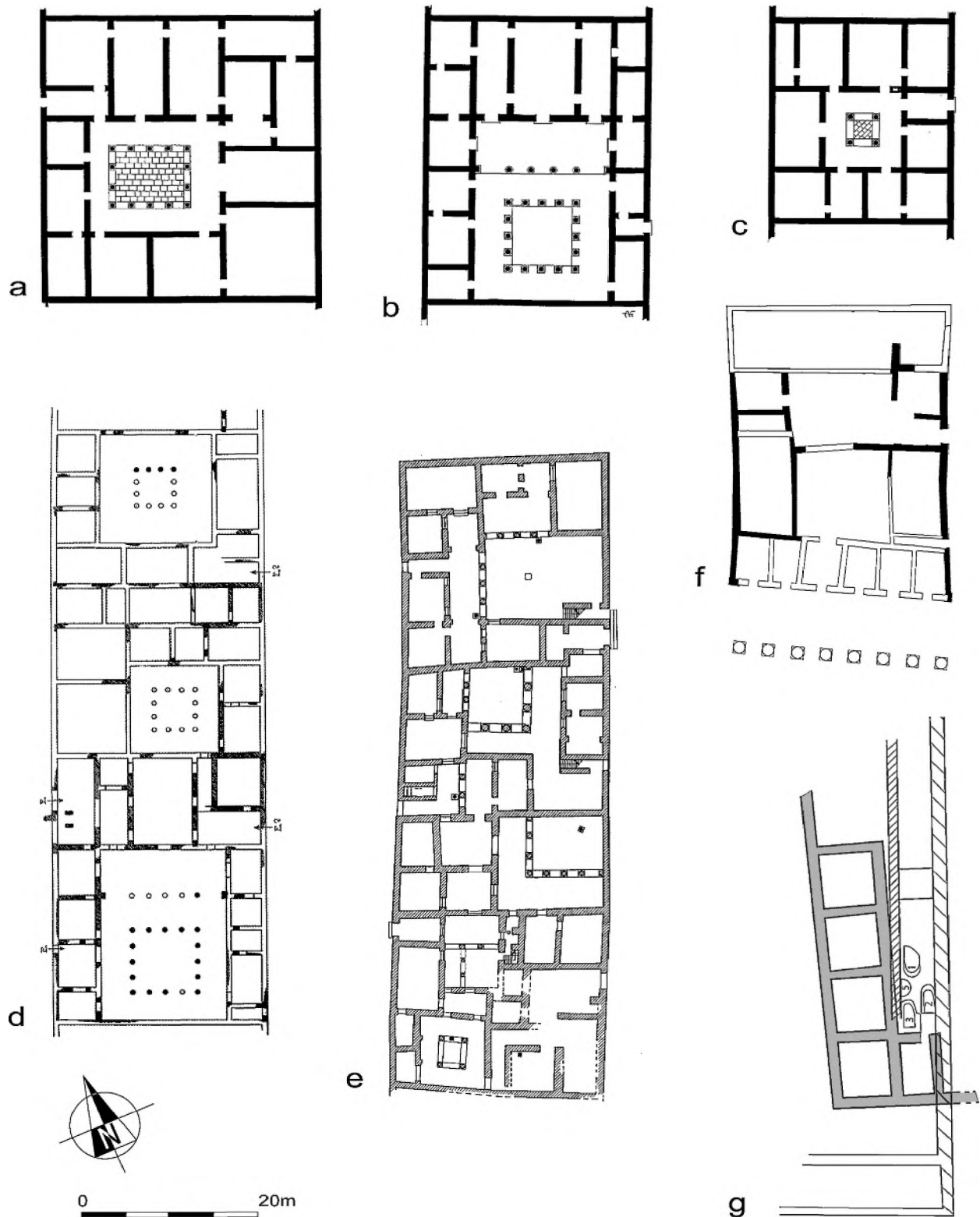


Fig. 5. Plans of Palmyrene houses: a – House 45 in the North-Western Quarter (GABRIEL 1926: fig. 5); b – House 39 in the North-Western Quarter (GABRIEL 1926: fig. 3); c – House 38 in the North-Western Quarter (GABRIEL 1926: pl. XV); d – House in the Insula A according to Krencker (Houses 39 and 40 on Gabriel's plan) (WIEGAND 1932: pl. 19, by D. Krencker); e – House F, original stage (GAWLIKOWSKI 2007: fig. 6); f – Residential building in Insula E; g – Early house in the Western Quarter, under the level of the Forum of the Camp of Diocletian (based on KROGULSKA 1984: fig. 22).

Ryc. 5. Plany domów palmyreńskich: a – Dom 45 z Dzielnicy Północno-Zachodniej; b – Dom 39 w Dzielnicy Północno-Zachodniej; c – Dom 38 w Dzielnicy Północno-Zachodniej; d – Dom w Insuli A wg Krenckera (Domy 39 i 40 na planie Gabriela); e – Dom F, stan pierwotny; f – plan domu w Insuli E; g – dom w Dzielnicy Zachodniej, pod poziomem Forum Obozu Dioklecjana.

Most of information about domestic architecture and its place in the spatial organisation comes from the North-Western Quarter (**Fig. 2:D**), north of the western part of the Great Colonnade. Although there is only scarce evidence of occupation of this area before the construction of the western section of the Great Colonnade (ŻUCHOWSKA 2006: 442), the plan of this quarter was definitely designed in relation to this street. Even if the roads going approximately north-south are not precisely perpendicular to the colonnade, it seems to be rather an effect of inaccuracy in the realisation of the project than having any special purpose or other reason. It seems that the quarter was designed at the same time as the western section of the Great Colonnade, and the regular occupation of this zone started consequently not earlier than in the second half of the 2nd c. AD. If there were any earlier structures they were removed or incorporated into the later urban programme.

The grid of this area has the same particular feature that we could observe in the plan of the South-Western Quarter – an attempt of regular organisation of the quarter is manifested only by the streets going approximately N-S. There is slight evidence for secondary perpendicular streets and it seems possible that the blocks were filled later, not after a definite plan, but according to needs of inhabitants. The phenomenon was already observed by Gabriel, who treated these long stripes of land between N-S streets as *insulae* and named each of them with a letter of alphabet on his plan (**Fig. 3**).

There must have been some public buildings in this zone during the Roman times, and later at least four big churches functioned in the middle of the area. But most of the area was occupied by the residential buildings of which many are still visible and plans of three of them were documented by Gabriel – structures 38, 39 and 45 on his plan (GABRIEL 1926: figs. 3, 5, pl. XV) (**Fig. 5:c,b,a**). These are typical simple houses organised around a central courtyard, but in this case the courtyard is embellished by the peristyle. Gabriel also insisted that these simple houses were sharing their north and south walls with neighbouring, less preserved structures, supporting his thesis about the lack of a typical rectangular grid in this area. This coincides with the vision of Krencker, whose drawing represents Gabriel's House 39 as part of a bigger structure composed of a few segments, each one organised around a peristyle courtyard (WIEGAND 1932: pl. 19) (**Fig. 5:d**).

Two other houses were excavated recently by the Polish mission. So-called House F (named after the name of the *insula* on Gabriel's plan) is a huge structure composed of two parts having separate entrances (**Fig. 5e**). The communication between them was possible only on the level of the first floor, while on the ground floor they were divided by a wall. The northern part is organised around a courtyard closed from two sides by walls and having a portico on two others (GAWLIKOWSKI 1997: 164). The south-

ern one is composed of a few segments, each being organised around a separate courtyard decorated by porticoes. The general layout closely resembles the plan of the house drawn by Krencker. The house was in use from the 2nd c. AD to the 9th c. AD and transformed many times during this period (GAWLIKOWSKI 2007: 87–91).

Another house was unearthed in the *Insula E*, between Great Colonnade and Basilica I (**Fig. 5:f**). Unfortunately its remains are very poorly preserved, because the area was strongly transformed in later periods. There is however no doubt that in the 2nd c. AD a house organised around a central courtyard was situated just behind the shops opening to the portico of the Great Colonnade (ŻUCHOWSKA 2006: 442–444, fig. 3).

General regularity of the plan of the North-Western Quarter is less visible in the eastern part, close to the *temenos* of the Temple of Baalshamin. It is possible that all irregularities are related to the earlier or later origin of the buildings. The sanctuary of Baalshamin started to develop in the area already at the beginning of the 1st c. AD (DUNANT 1971: inscriptions nos. 10, 11, 37, 38). It is thus possible that it was then surrounded by the buildings earlier than the general layout of the northern part of the city. On the other hand, later structures may have been built without respecting the Roman space organisation. The lack of excavations in this area causes any hypothesis about it impossible to prove.

The North-Eastern Quarter (**Fig. 2:E**) was closed from the south by the central segment of the Great Colonnade, from the West by the *temenos* of Baalshamin, and from the east by the Northern Colonnade – the street going north from the Monumental Arch. Besides the public buildings situated by the Great Colonnade, and the Temple of Baalshamin complex, this area was probably also covered by habitations. Unfortunately this part of the ancient city was largely destroyed by construction of a modern asphalt road, and most of surviving buildings have not been excavated. The plan of visible constructions shows that in the southern part of this area, closer to the Great Colonnade, buildings were rather regularly situated in the grid similar to this observed in the North-Western Quarter. Some structures visible in the northern part definitely do not follow this plan, but without excavations we cannot say which period of the occupation of the city they represent (SCHNÄDELBACH 2010: 55, structures M 203–206, documented on the basis of the aerial photography done in 1930, now impossible to identify in the field).

The Eastern Quarter (**Fig. 2:F**) is a large area around the *temenos* of the Temple of Bel and east of the street going north from the Monumental Arch. The area was probably never built up according to one organised plan and could be divided into smaller quarters, but most of this zone remains unexcavated, being covered in large part by gardens and waste-dumps, so any analysis of its layout has to wait for further research. There are however

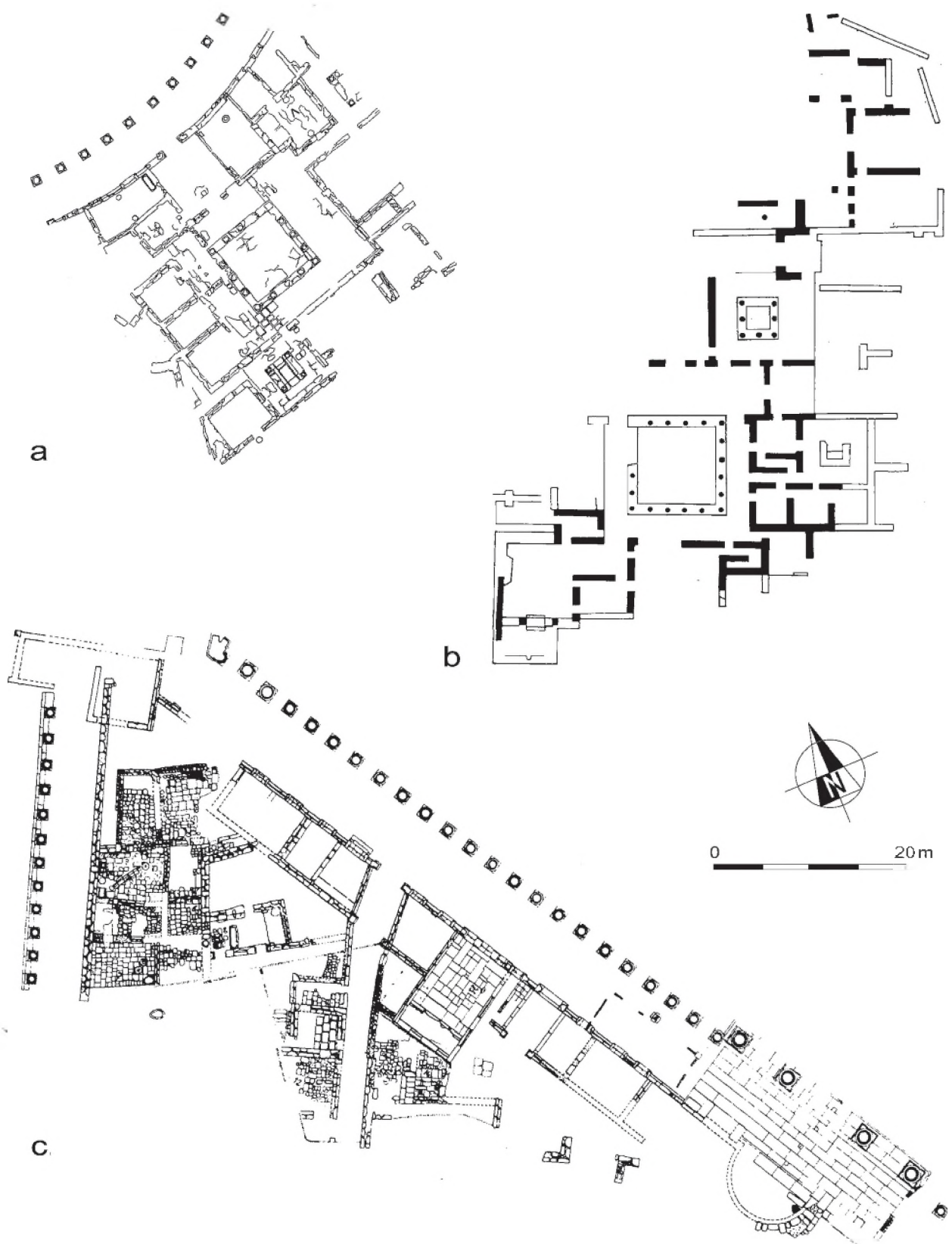


Fig. 6. Plans of Palmyrene houses: a – House S-E of the Theatre (FRÉZOULS 1976: fig. 4); b – Houses of Kassiopea and Achilles (FRÉZOULS 1976: fig. 3); c – Houses east of the Temple of Nabu. (SALIBY 1996: fig. 7).

Ryc. 6. Plany domów palmyreńskich: a – dom na pld.-wsch. od Teatru; b – Domy Kasjopei i Achillesa; c – domy na wschód od Świątyni Nabu.



Fig. 7. Peristyle of the House 39 in the North-Western Quarter (Photo M. Żuchowska).

Ryc. 7. Perystyl Domu 39 w Dzielnicy Północno-Zachodniej.

a few documented structures bringing some light to the knowledge about domestic architecture in this area.

East of the Temple of Bel the remains of two Roman villas decorated with mosaic pavements were partly excavated – the House of Kassiopea and the House of Achilles (STERN 1977: 5) (Fig. 6:b). According to Frézouls, they formed part of a bigger group of residential buildings (FRÉZOULS 1976: 35). The structure of these buildings is closely related to those earlier described – they are organised around a few portico courtyards, and actually it is impossible to determine whether there are two smaller houses or one big. The chronology of the villas is based on iconographical analysis of the mosaics dated approximately to the middle of the 3rd c. AD. The buildings themselves are thus dated to the first half of the 3rd c. AD and this date seems to be proved by the building technique which shows the use of *opus palmyrenum* typical to the 3rd c. AD (BARAŃSKI 1995: 60–61). It seems, however, that the area was occupied much earlier. In line with the Northern Colonnade the honorific column was elevated in AD 139, probably not in the middle of nowhere. Designing of this colonnaded street, possibly connected with the project of the Great Colonnade itself, was probably an attempt to impose a new layout at least to the part of

the city lying north of the Temple of Bel. There is however no evidence whether and how the residential area including the Houses of Kassiopea and Achilles was related to this project. Recent works of the Syro-French mission will certainly bring new data about the architecture of the area.

Although the very centre of the ancient city (Fig. 2:G) was mostly covered by public buildings, there was still place for habitats between them. A small area between the Theatre and the Temple of Nabu was covered by such private buildings and one of them was unearthed during conservation works in the portico around the Theatre (Fig. 6:a). The house is interesting, because its plan was adjusted to the available space and in effect one wall of the building is curved, following the line of the colonnade encircling the cavea of the Theatre. This feature is also the only indication for its chronology – it has to be later than the construction of the Theatre, which was built not earlier than in the late 2nd or early 3rd c. AD (FRÉZOULS 1976: 50). The building itself is a house with several courtyards and covers a relatively large area.

A second small area of habitations is located between the Temple of Nabu and the southern portico of the eastern part of the Great Colonnade (Fig. 6:c). There

were some buildings following the orientation of the temenos of the Temple of Nabu, but they were drastically reorganised during the construction of the eastern segment of the Great Colonnade. A few rooms were evidently removed and the remained secondary streets between buildings visibly followed an older system of the spatial organisation (SALIBY 1996: 289–290). Unfortunately all this complex was only partially unearthed and it is impossible to study the architecture of the individual houses.

Domestic Architecture

The data on domestic architecture of Palmyra are very scarce and in most cases we have only plans. Three houses in the North-Western Quarter have never been excavated, and their plans were reconstructed from some fragments visible on the surface. Needless to say, they can be treated rather as sketches than detailed drawings. The building in the Western Quarter was excavated only partially, so we do not even have a complete plan. Fragments of two villas in the Eastern Quarter have never been published because all documentation was lost during World War II. All we have are plans and mosaics. The house near the Theatre was unearthed – we have its plan, but no information about archaeological material coming from the build-

ing. In the house in the South-Western Quarter excavations are in progress so we still do not have the complete plan or sufficient information about chronology. The plan of the Hellenistic Quarter was done on the basis of the geomagnetic prospection. We can identify some buildings, but it is impossible to say anything certain about their inner organization or communication between rooms. Only one residential building in this region was partially excavated. The remains of the house in the Insula E are very poorly preserved and actually only House F in the North-Western Quarter can be used for detailed archaeological analysis. Even though this short summary shows mainly the lack of data, it should be possible to make some general considerations concerning the character and types of the Palmyrene houses.

My aim here is not a detailed description of the houses, what was already done in earlier publications (FRÉZOULS 1976; GAWLIKOWSKI 1997; 2007), nor an attempt of the functional analysis of the individual rooms – the present knowledge of most known structures is too superficial to enable such a study and wherever possible this was already done by E. Frézouls (1976) and M. Gawlikowski (1997; 2007). It is however possible to make a short characteristic of the main features of the Palmyrene domestic architecture.



Fig. 8. House of Kassiopea, courtyard (Photo M. Zuchowska).

Ryc. 8. Dziedziniec Domu Kasjopei.

E. Frézouls in his study on the domestic architecture of Palmyra divided houses into two groups. In the first he grouped those drawn by Gabriel; they are symmetrical, organised around one courtyard with geometrical precision. The second group includes the Houses of Kassiopea and Achilles and the one located near the Theatre, with complex plans and several courtyards (FRÉZOULS 1976). We can add now to the second group House F. This division, although logical, seems to be simply distinguishing between small and big houses.

Existing plans suggest that in all known examples of Palmyrene houses, like in other regions of the Middle East in earlier and later domestic architecture, a basic structural unit is a courtyard surrounded by rooms. Sometimes, some rooms have no direct communication with the courtyard, but they are connected to it by one or more passage rooms. Such plans belong to the first type of Frézouls. In the Middle-Eastern tradition we can see that bigger structures, such as palaces or rich houses, have been designed by the multiplication of this unit, giving different shape only to rooms having a special function such as storehouses, etc. Plans of the Houses of Achilles and Kassiopea, House F or the house near the Theatre are constructed exactly in this way.

In the design of such big houses the original symmetry of the units has to be disturbed – some segments of the house have to be bigger than others for functional reasons, and some of rooms surrounding the courtyard have to be removed to facilitate communication between the courtyards. Finally, functions of separate parts of the buildings require different treatment, to be more open (reception or state rooms) or more hidden (private rooms, parts reserved for women). This influences the composition of communication passages and in consequence – the layout of the building.

On the other hand, the word “symmetry” used by Frézouls in the context of Palmyrene architecture is at least an exaggeration. Plans of simple houses in the North-Eastern Quarter designed by Gabriel (1926: nos. 38, 39, and 45 on his plan of the city) are sketchy, and probably were not made according to any precise measurements. If we compare them with other, well measured plans of the buildings, they look definitely idealistic. Apart from the monumental buildings such as temples or the Agora, all other structures at Palmyra represent a big variety of curved walls and lack of right angles. We can also compare these plans with a similar “one court house” called *maison de la Mosquée Omayyade* at Gerasa dated to the 2nd–3rd c. AD, where irregularities of plan and walls connected at different angles are well visible (SEIGNE 1997: fig. 2). Finally, these small structures could be in fact parts of a bigger, complex structure, as suggested by the drawing of Krencker, similar to the northern part of House F.

The second important feature of Palmyrene houses is the existence of the first floor. It was well recog-

nised in the structure of House F, having three staircases (GAWLIKOWSKI 2007: 89), but it existed probably also in other big structures such as the house near the Theatre or the Houses of Kassiopea and Achilles. The latter could be actually one big structure and at least one staircase has been identified there. Separate parts of big buildings could communicate with others on the level of the ground floor, or the first floor.

All these buildings are relatively late in date, built probably in the 2nd and 3rd c. AD. Very scarce evidence for earlier domestic architecture suggests that the only difference in their structure was the lack of columns inside the courtyards. The structures observed on the plan of the Hellenistic Quarter, as well as the house under the Forum of the Camp of Diocletian in the Eastern Quarter, were typical Middle-Eastern houses organised around a courtyard. The present evidence does not allow to determine whether these houses were composed of one such unit or more, but it seems logical that the choice of the type possibly depended on the social status of the owner.

As it was recently observed by M. Gawlikowski, the introduction of the peristyle has nothing to do with the implantation of the Greco-Roman model of the house. The big Palmyrene house composed by agglutination of segments is a typical manifestation of Middle-Eastern building, housing a multigenerational family (GAWLIKOWSKI 2007: 92–93). The use of porticoes is just an answer to the new trends in architecture of that time.

Private houses and the urban layout of Palmyra

A prevalent feature of the domestic architecture of Palmyra is the adjustment of the house shape to the available space, with a visible tendency of the most effective use of the land. As a result, we have for instance a house having one wall rounded to adjust it to the shape of the colonnade, and another, 79 m long but only 26 m wide in the Insula F closed from the west and east by the streets. This feature is well connected with the Middle-Eastern model of urbanism and the local tradition of spatial organisation which does not follow any virtual lines or grids, but in a more organic way successively covers the inner free space between buildings by the new houses or their parts leaving free only passages necessary for communication (WIRTH 1975: 45–94; DENTZER 2000: 159–164). In the same way houses could be enlarged when the family grew up by adding new annexes or segments.

This model of urbanism was relatively easy in the Hellenistic Quarter where the only lines to follow were the bed of the wadi on the north and two main streets probably following directions of the communication and trade routes through the desert. Buildings here could be oriented according to these lines, but they not always were, and freely enlarged or even joined if necessary.

The new model of spatial organisation introduced together with the trends of monumental Roman architecture created a new challenge for the Palmyrene architects. Unlike in the well known Hellenistic cities, even if there was an urban grid in some quarters of Palmyra, there were no real insulae, but only long parallel streets at irregular distances. We are not able to determine now whether this was an effect of a purposeful operation or the originally symmetrical plan was not executed properly or not finalised. Nevertheless, the Palmyrenes used this possibility well and thanks to it they could build their large, multisegmental houses in the frame of the new urban grid, making them long enough to house their big extended families.

It would be too much to say that this is a special Palmyrene feature, because there is no real comparison. For most of the cities of the region, their orthogonal grid was

traced much earlier, shortly after their foundation – like Europos-Dura, Apamea or Seleucia Pieria. On the other hand, at Gerasa, where the implantation of the symmetrical frame manifested by the construction of the Great Colonnade seems to be similar to this observed at Palmyra, we know almost nothing about habitations, especially from the Roman Period. But we can say that the implantation of the Greco-Roman model in the urbanism of Palmyra was definitely very superficial. It was manifested mainly in the monumental architecture, but did not change the local tradition of architecture in the private domain.

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MARTA ŻUCHOWSKA

ORGANIZACJA PRZESTRZENNA I ARCHITEKTURA MIESZKALNA W HELLENISTYCZNEJ I RZYMSKIEJ PALMYRZE

Palmyra, znana ze swojej roli w handlu dalekosiężnym Imperium Rzymskiego, jest też ciekawym przykładem urbanistyki i architektury Bliskiego Wschodu w okresie hellenistycznym, rzymskim i wczesnoislamskim. Jakkolwiek nie ulega wątpliwości, że powierzchnia antycznego miasta była pokryta w większości zabudową o charakterze mieszkalnym, jest ona stosunkowo słabo poznana. Mimo dość nielicznych danych na ten temat, można jednak zauważyć pewne jej cechy charakterystyczne i związki między architekturą mieszkalną a rozplanowaniem przestrzennym miasta.

Poszczególne części miasta zostały zabudowane w różnych okresach, według mniej lub bardziej restrykcyjnych planów. Dzięki temu, w przeciwieństwie do typowych miast hellenistycznych zakładanych na Bliskim Wschodzie na siatce hippodamejskiej, Palmyra ukazuje kilka odmiennych koncepcji urbanistycznych, których ślady zachowały się w jej zabudowie. Budynki mieszkalne, jako najliczniejsze i z konieczności najbardziej podporządkowane ustalonym odgórnie regułom urbanistycznym, ukazują najlepiej, w jaki sposób nowe trendy i założenia teoretyczne w urbanistyce były realizowane w praktyce.

O ile dzielnica hellenistyczna położona na południe od Wadi al-Qubur wydaje się nie respektować jakichś szczególnych ograniczeń w rozplanowaniu budynków, a jej zabudowa rozwija się swobodnie wokół głównych osi komunikacyjnych, o tyle dzielnice położone dalej na północ, zaprojektowane już w okresie rzymskim, zdradzają pewną tendencję do organizacji przestrzeni za pomocą wytyczonych przez architektów ulic. Cechą charakterystyczną dla Palmyry jest fakt, iż nie zaplanowano tu siatki prostokątnej,

a jedynie ulice na osiach północ-południe, które dzielą przestrzeń na wąskie pasy.

Na tyle, na ile możemy to ocenić w świetle nielicznych dotychczas badań archeologicznych nad zabudową mieszkalną, domy palmyreńskie związane są raczej z lokalną, wschodnią tradycją urbanistyczną. Podstawowym modelem domu był budynek o stosunkowo prostym planie, z pomieszczeniami zorganizowanymi wokół dziedzińca, natomiast większe domy powstawały poprzez multiplikację takiego modułu. Domy zamożniejszych obywateli musiały być rozległe i wielosegmentowe, ponieważ mieszkali w nich rozszerzone, wielopokoleniowe rodziny. Przykładami mogą tu być Domy Achillesa i Kasjopei na wschód od Świątyni Bela czy Dom F w Dzielnicy Północno-Zachodniej. Zastosowanie kolumn na dziedzińcach domów mieszkalnych w okresie rzymskim wydaje się być zabiegiem czysto dekoracyjnym i nie wiąże się z adaptacją modelu domu wywodzącego się tradycji grecko-rzymskiej. Dopasowanie budynków mieszkalnych do otaczającej je przestrzeni i maksymalne jej wykorzystanie przez zabudowę związane są również z lokalnym wschodnim wzorcem urbanistycznym.

Wobec braku materiału porównawczego, stwierdzenie, że te charakterystyczne cechy urbanistyki i architektury są wyjątkowe dla Palmyry, byłoby pewnym nadużyciem, jednakże świadczą one niewątpliwie o tym, że wprowadzenie grecko-rzymskiego modelu w urbanistyce Palmyry było zabiegiem raczej dość powierzchownym, dotyczącym jedynie budowli monumentalnych i nie wpłynęło na zmianę lokalnych tradycji architektonicznych w budownictwie prywatnym.