

Qaṣr al-Ḥallābāt: Continuity and Change from the Roman-Byzantine to the Umayyad Period

Introduction

The complex of al-Ḥallābāt is located 60km northeast of ‘Ammān, and 12km to the east of the *Via Nova Trajana*. It includes the Qaṣr itself, and other buildings and structures: a Mosque, the nearby baths at Ḥammām as-Sarāḥ, and a series of auxiliary dwelling buildings and hydraulic infrastructures. It has been the subject of different studies since the turn of the 20th century when was firstly described by Butler.

The aim of this paper is to review, on the basis of the most recent (and still ongoing) research linked to the excavation and restoration works at al-Ḥallābāt, the new hypothesis on the dating and nature of the physical transformation and the change of use of the site and its related structures*. The aim is thus two fold: Firstly, to study the transformation of a Roman-Byzantine military structure into a civil (representative) one, in relation to the border it was intended originally to defend (the *Limes Arabicus*) [and its disappearance], in an attempt to clarify when this transformation actually occurred; Secondly, to solve the problem of the precise architectural phases of the Qaṣr, on the basis of a stratigraphic analysis of the building itself, in an attempt to establish a reliable relative sequence of the building activities and the related “different buildings”. These related structures have succeeded and superseded each other, and are the result of successive demolitions, ruins, transformations and refurbishments, due both to natural and anthropic causes. This architectural sequence is essential for any attempt to interpret the change of use of the structure throughout its history.

The Excavation and Restoration Project of

Qaṣr al-Ḥallābāt complex started in 2002 under the technical and scientific direction of the author. This project is funded by the Spanish Agency for International Co-operation, and it is carried out in collaboration with the Jordanian Department of Antiquities, the Ministry of Tourism, and the Spanish Embassy. It has, as well, the financial and logistic support of the Spanish Institute for Historical Heritage (IPHE Ministry of Culture) within the Grant Program for Archaeological Research in Foreign Countries.

This paper will discuss the preliminary results of the research conducted during the excavation and restoration of the monument. We will present the instruments, the process of analysis and the proposed hypothesis, that might have important repercussions for the interpretation of the transition from the Byzantine to Umayyad periods. The transformation of military structures from the *Limes Arabicus* into agricultural states and protocol reception halls (in an earlier period than expected), and the relationship between people and nature, and the exploitation and control of territory, from Late Antiquity into the Early Medieval period, are the basis of the presentation.

Previous Research and Related Hypothesis

Many different interpretations and studies have been carried out on al-Ḥallābāt, since the very first study by Butler who produced the first plan of the Qaṣr. The most recent ones were the result of the survey by David Kennedy in 1978 and the partial excavation by the Department of Antiquities, carried out from 1979 throughout 1985, under the direction of Ghazi Bisheh, who identified the latest

* This paper is a revised, enlarged version of the one to be published in the proceedings of the Islamic Fortification Conference held in Aleppo in 2003. Although the main conclusions remain

unchanged, it has been updated according to the new data and the subsequent review of the hypothetical sequence of activities, from the ongoing research process.

period of use of the complex as Umayyad.

From the first surveys it was clear to all researchers that the building of the Qaṣr (as well as most of the complex) was the result of a series of interventions and transformations of an original structure (most probably Roman, although an earlier Nabatean origin for the settlement cannot be completely ruled out). This is evident to any observer of the wall sections of the Qaṣr that abut each other, and the various building techniques and materials employed in the different elements and sections of the main structure (FIGS. 1 and 2).

The Inscriptions and the Debate about the Dating

The unusually large amount of epigraphic material (including two inscriptions dating construction activities) found in the site has determined¹ and (mis)guided much the discussion regarding the dating of the different phases of the structure and the complex as a whole. This is due to attempts to link the dating of these inscriptions to the architectural phases, without a neutral assessment of the problems of provenance.

The problem regarding their origin is mainly related to the reuse of basalt blocks in a certain phase of refurbishment of the Qaṣr. Many of these blocks bear inscriptions from an imperial edict (see below) from a previously destroyed structure. The fact that this inscription (due to its importance) seems very unlikely to derive from such a small and politically irrelevant site, together with the unusual number and location of the other two dated inscriptions, casts a shadow of doubt on the actual origin of all them². They are not, consequently, reliable enough to be taken into account for absolute dating purposes without considerations and reservations³.

Among the more relevant inscriptions that have determined the discussion (and the related current ideas) are:

A- A Latin inscription on a lintel stone retrieved in the court near to the northern wall, just outside room 10, making reference to the construction of a *Castellum Novum* in 213AD (It had been lost but was recently rediscovered at the RJAF Base at Mārkā).

The term. *novum* refers to the construction of a fort where another one would have previously existed. Butler suggests that the inscription could refer to the enlargement of the innermost and older structure (that would be the “old” one). This interpretation is accepted by Kennedy and Bisheh. Alternatively, it could be understood as the complete reconstruction of the innermost structure itself (which would have replaced a previous one destroyed *a fundamentis*).

B- A Greek inscription from the reign of Justinian (dated 529AD) mentioning the restoration of the fort (*kastra*) under the rule of Flavius Anastasius, Consul and Dux (from a lintel stone reused on the north wall of the main courtyard - see Crawford’s 1928 photograph in Kennedy 2004).

In Butler’s opinion (followed in some respects by Kennedy), the reconstruction mentioned in the 2nd dated inscription would have involved the northern and southern “barracks” built inside the Qaṣr, mainly with basalt.

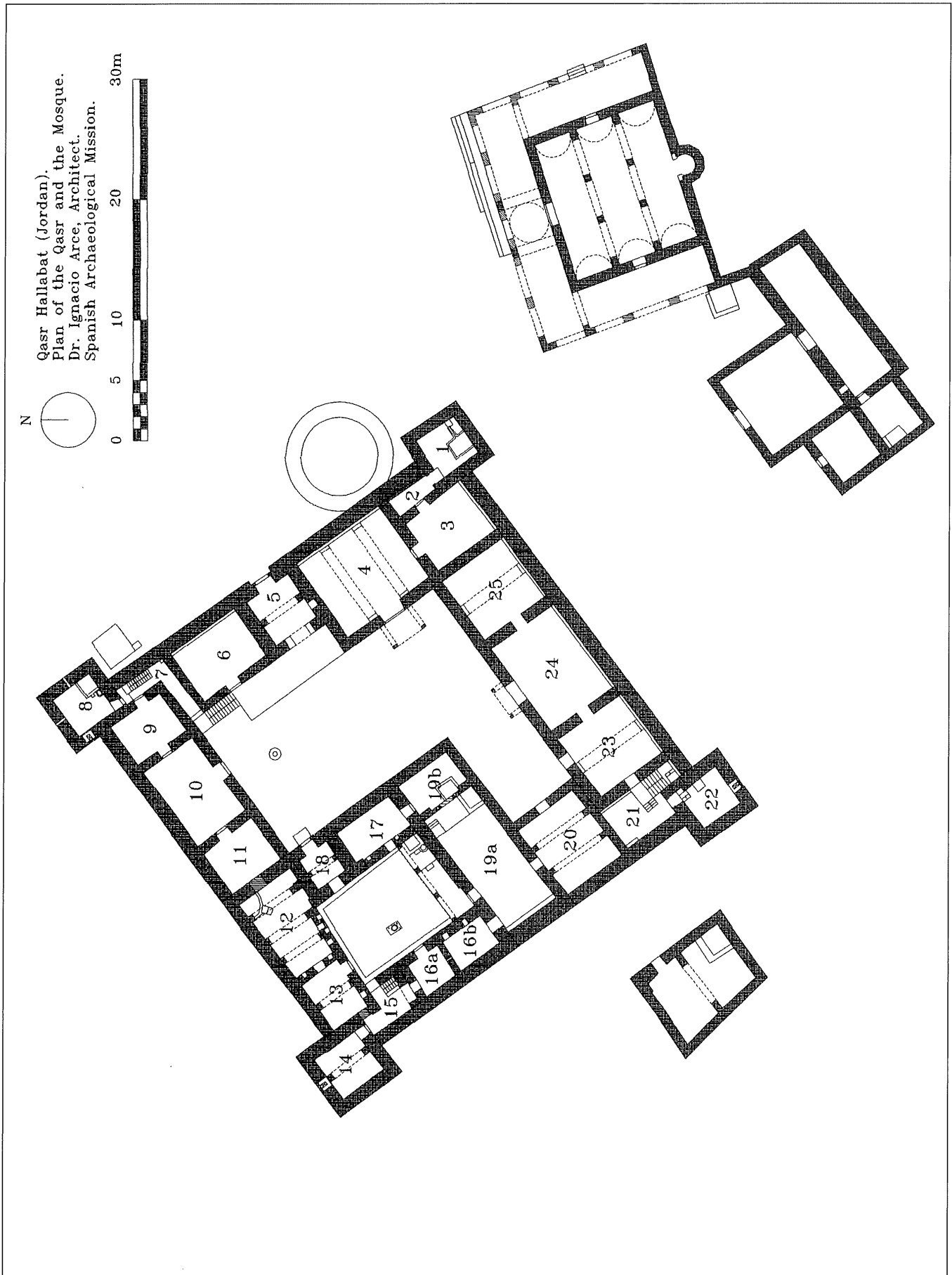
C- Over 100 fragments of an Imperial edict of Anastasius (491-518AD) employed in the refurbishment of the interior of the Qaṣr. Fragments of the same edict have been found at Buṣra, Ṣalkhad, Umm al-Jimāl and Imtān. The presence of copies of this edict in the first three [more important] locations is less surprising, than at al-Ḥallābāt (Kennedy). The remoteness and modest entity of the fort of al-Ḥallābāt has raised suspicion that these basalt stones may not have come from a previous structure built at al-Ḥallābāt itself

¹ This issue has determined so deeply the research that, according to the published reports, the 1979 excavations by the Department of Antiquities were carried out “with the express purpose of uncovering as many of the Greek inscriptions scattered throughout the castle as possible” (Bisheh 1980: 69).

² All these inscriptions were carved in basalt blocks, and were built into the masonry work that makes massive use of this material. They were placed amidst plain blocks in an casual way: The two most important ones, that bear the (re)construction dates, seem to have been placed in the same wall, one close to each other, not in a conspicuous position like on top of a lintel door, as their alleged importance would suggest. It must be taken into account that due to the hardness of this stone, once carved it does not suffer much damage or weathering, even when retrieved from a collapse. This means that it can be reused and transported far away without the

risk of eventual damage to the surfaces and arises of the pieces. Finally it must be pointed out that there is no basalt stone quarry in the vicinity, meanwhile the site of al-Ḥallābāt is itself home for one of the quarries of best renowned limestone for its quality and easy carving.

³ Nonetheless, it can not be completely ruled out that the other dated inscriptions were actually intended for the new constructions (re)built at al-Ḥallābāt. However the fact remains that the odd location of these inscriptions argues against this: instead of being placed on top of a gateway or another prominent position, they were placed amidst other ones with (apparently) no regard to its alleged importance. A campaign of sampling and petrographic analysis has been foreseen as well, to compare the basalt stone from these inscriptions with those found at Umm al-Jimāl, Bosra, Ṣalkhad, etc., and their related quarries.



1. Qaşr al-Ĥallābāt. Plan of the Qaşr and the Mosque.



2. Aerial view before the intervention.

(dismantled and recycled) but from somewhere else (perhaps corresponding to the location of the other two inscriptions as they were built in all together in the same period). The questions of when and where these stones were brought from remains unanswered. The only certainty is the *post quem* dating for the structures built with these stones, fixed by the date of the edict itself (the turn of the fifth-sixth centuries AD).

These basalt blocks were reused in the massive refurbishment of the northern and southern internal partitions of the Qaṣr⁴. The fact that these ashlar were placed with complete disregard for their original orientation and plastered over afterwards, led Ghazi Bisheh to date this phase to the Umayyad period partly on the basis (accepted by Parker and many others) that “it is difficult to believe that this edict would have been treated in such cavalier fashion a mere decade after Anastasius death in 518AD. This is much more likely to have occurred in the Umayyad era, more than one hundred years later and under a new regime” (Parker 1986: 32).

In my opinion this interpretation is biased by the devotion and respect usually paid by scholars to inscriptions, which overlooks the practical and pragmatic view of a builder in need of cheap

supplies. The latter, in the presence of the elements of a collapsed structure, would see not a venerable relic or an official document, but just pre-cut, ready-to-use, and consequently cheap (or even free) building material⁵. If we imagine this happening in the aftermath of an earthquake, which unites the need to clear the rubble in large areas with the need for a cheap and ready supply of building material for rebuilding other structures, a more realistic and reliable picture emerges.

If we take into account that in 551AD the most violent earthquake that had occurred in the region in all Antiquity struck, we could date the structures using these basalt stones after the *post quem* provided by the Anastasius edict, and after the 551AD quake, but before the Umayyad period.

Previous Hypothesis of Building Activities Sequences

The phases of use (actually there are slight variations of a single phase) of the complex proposed to date, rely mainly on these inscriptions despite the degree of uncertainty involved. The reconstruction, according to the interpretations proposed by Bisheh, Kennedy, Gregory and Butler (all closely related to the dated inscriptions and with slight differences),

⁴ Bisheh found one of these basalt ashlar reused in one of the sluices of the agricultural hydraulic system, and used this fact to date it to the same period.

⁵ Even nowadays this seems to be still a common practice: Dr. Ghazi Bisheh kindly prevented me from the risk of a possible

misinterpretation, pointing out that most of the stones used in the restoration of Ḥammām as-Sarāḥ, carried out by the Department of Antiquities in the 80's, were brought from the site of Qaṣr al-Ḥallābāt.

would identify just three phases:

- 1- The small innermost enclosure 17.5 m square, located comprised in the W. corner of the present building.
According to the mentioned Authors this would be the “old fort” inferred from the mention to a “new” one by the 213AD inscription⁶. On this basis, they date this structure to the second century AD, and relate its construction to that of the *Via Nova Trajana* in 111-117AD. Accordingly, this structure would be a watch-fort from the *Limes Arabicus* to provide an in-depth protection of it.
- 2- The extension embracing the previous structure, creating an enclosure 38 m square. This would correspond, in their opinion, to the “*Castellum novum*” mentioned in the 213AD inscription⁷.
- 3- The reconstruction involving the reuse of basalt stones in the internal divisions (and the northern wall).

This phase (that Butler and Kennedy interpret implicitly as Byzantine and corresponding to the 529AD restoration), is on the contrary dated by Bisheh to the Umayyad period on the basis of the “evidence of the pottery sherds⁸ and the carved stucco found” (Bisheh 1980: 70), and on the above mentioned assumption that the reuse of stones bearing a Byzantine imperial edict in such an inconsiderate way, could not have occurred in Byzantine period.

According to Bisheh (an opinion accepted apparently also by Parker), this basalt masonry stonework would be thus coeval to the Umayyad mosque and to the bath at Ḥammām as-Sarāḥ (built both in limestone without a single basalt block), and to the fine decoration of carved stucco, glass

mosaics and mural paintings found in the Qaşr.

Kennedy links the extension of the original fort of the 2nd phase with the construction of the internal basalt-built partition walls, and assumes that the third phase involved the raising of the walls in height, the addition of a second storey to the existing room and the insertion of three-storied towers in the corners (Kennedy 2000: 92).

Evidences Versus Preconceived Interpretations Towards an Stratigraphic and Constructive Analysis of the Material Evidences⁹

As we have seen, in all the aforementioned hypothesis, the inscriptions have guided the interpretation of the material evidences, in an attempt to accommodate the latter in the light of the former, giving as a result unreliable and, in some cases, contradictory conclusions. The problem of these sequences is that they rely on a preconceived idea provided by the dates of the inscriptions that has biased the recording and analysis of the material evidences. This confusion in the process of data gathering, confuses the data recording with interpretation and creates a preconceived idea of the chronological sequence and tends (even unconsciously) to neglect certain pieces of information in favour of other ones on the basis of their fit within that preconceived idea.

More recently some of the authors of these proposed sequences have recognised the fact that these inscribed stones are most probably derived from somewhere other than al-Ḥallābāt. This prevents us from using them for directly dating the different phases of the building. Gregory has pointed out the difficulty of linking these inscriptions with identifiable phases; meanwhile Bisheh, in his latest

⁶ Kennedy mentions the presence of an inscribed basalt *tabula ansata* in this first phase that could be purely decorative or it may once have had a painted inscription (2004: 100)

⁷ Kennedy and Gregory suggest that the “new fort” was built without towers, and that they would have been added in the following phase, involving the massive use of basalt (dated according to them, by the 529AD inscription), or even later. This can be ruled out as the same building techniques are used in both the wall and the towers (they are even bonded in some points).

On the contrary, Bisheh accepts Butler’s opinion that the towers were built in the Severan expansion, together with the rest of the perimeter walls, meanwhile he dates the basalt-built internal reconstruction to the Umayyad period (he notices that these structures abut the South perimeter wall, but does not realise that they are bonded to the northern one). However, Bisheh fails to identify the restoration mentioned in the 529AD inscription with any specific structure in the palace. He just mentions that some

works were carried out, just before being abandoned and falling into disuse during the first half of the seventh century AD, perhaps as a result of the Persian invasion (Bisheh 1980: 70). Again, he fails to give any evidence that would support the hypothesis of the abandonment.

⁸ The “pottery evidence” mentioned by Bisheh, makes reference to the absence of any Roman-Byzantine pottery inside the Qaşr reported in his excavations. Meanwhile the fact that Umayyad stucco was applied to the basalt, does not necessarily indicate that they are coeval.

⁹ In the previous interpretations the stratigraphic sequence of the building activities has not been studied in depth, nor systematically, despite the clear evidence. Some of the previous hypotheses include some attempts of basic stratigraphic interpretation, although not systematic, nor following thoroughly the principles of this discipline, firmly developed in the last decades in Italy and Spain.

publication, recognises “that the dated inscriptions can no longer be used for dating the structural phases of the castle” (Bisheh 1993). In spite of this, no alternative hypothesis for the actual sequence of transformation and use has been put forward as yet, nor has there been a thorough review of all previous interpretations.

Accordingly, the approach adopted in our research has been based strictly on the neutral recording and evaluation of the material evidences (using stratigraphic and construction analysis), without taking into account the absolute dating provided by the inscriptions, and avoiding any preconceived ideas, relying only upon the relative temporal sequence elicited from the sequence of building activities identifiable on the building itself.

As a result, the first stratigraphic assessment of the uncovered walls provided a much more complex sequence than those proposed to date. This led to a detailed stratigraphic analysis of the whole complex (still ongoing), of which just a preliminary summary of the process, and some related conclusions, will be presented here.

The first and most relevant conclusions came from the detailed observation of the corner towers and some stretches of the perimeter wall. In these areas, the stratigraphic analysis indicates that they were built at least twice following the same plan (with many other later minor repairs), using each of them very different building techniques. As a result, we can conclude that there were two successive *quadriburgiums* (a Roman fortress with corner towers) following the same plan and both embracing the allegedly oldest structure, comprised in the NW corner of the new one. This was just the first of a series of remarkable evidences that will significantly change ideas about the site, and approaches to further research.

Relative Sequence of the Built Structures

This study of the stratigraphic relationships and the related building techniques and materials used has resulted in the following preliminary¹⁰ sequence of building activities and phases:

1- The oldest standing structure (the core building

17.5 m square in plan — FIGS. 1, 3a,b,c and 4) was built with an irregular masonry consisting of big blocks of roughly-hewn limestone. The pointing of the joints consists of a very characteristic vermiculated line of protruding lime mortar that prevents the earth placed in the core of the wall (intended as a filling) from being percolated by rainfall. Basalt ashlar masonry was used only in the jambs and the lintel of the main entrance (the more regular limestone ashlars found in this main, East, façade facing the courtyard may indicate a later refurbishment). Originally it seems to have been composed of only the external perimeter and the access corridor (FIG. 3a). Traces of the original walls can be seen in the West façade (FIGS. 9 and 15), meanwhile its original North? wall survives entirely in the northern side (FIGS. 8 and 14). Also visible is the original fabric from the Southern and Eastern façades inside the main enclosure (FIG. 4).

- 2- Immediately afterwards the building was internally divided by means of partition walls that define several rooms articulated around a central court with a cistern, placed in three of its four sides (FIG. 3b). Originally it seems that there were two rooms in its SW side and three in its NE (the entrance corridor and two others flanking it). While in the NW side there was one room placed in between the two main bays that gave access to the N corner room (all the other rooms had direct access from the court). No room was placed in the SE side of the court. Apparently no diaphragm arches were used to cover the rooms in this first phase, probably because of their reduced span.
- 3- This structure was subsequently enlarged in its south-eastern side with the addition of a room (n.19) 5 m wide, that runs from the W to the E façades (FIGS. 3c and 4). It was connected to the court of the fort by means of a door opened in the S corner of the court.
- 4- The first *quadriburgium* (FIGS. 3d, 5, 12 and 14) was built embracing the oldest fort, and its construction included also the corner towers¹¹, (the W tower was embedded in the oldest fort).

¹⁰ This is not the detailed and complete sequence of activities (the scope of this paper does not allow detailed description) but just a summary of the most relevant and significant phases.

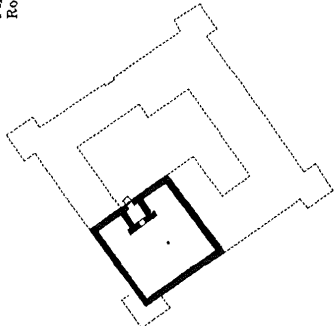
¹¹ It must be pointed out that usually in a defensive structure, towers and walls are not built linked, even in coeval construction, to

prevent the collapse of complete stretches of a defensive wall, in case a tower would be demolished. This would explain this apparently not coeval construction due to the joint in between both structures.

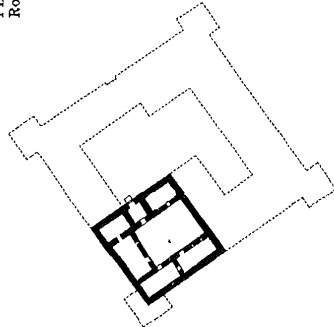


Qasr Hallabat (Jordan) Building Activities Phases and Related Use of the Structures.
 Plan by Dr. Ignacio Arce. Spanish Archaeological Mission to Jordan. 2002-2005

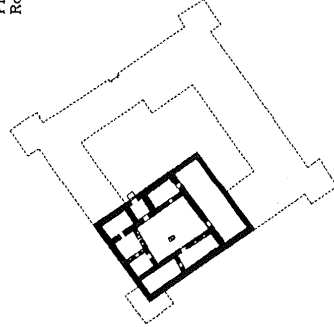
Phase Ia: Limes Arabicus
 Roman Fort 2nd C.AD



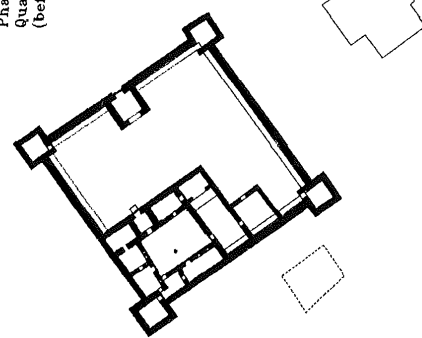
Phase Ib: Limes Arabicus
 Roman Fort 2nd C.AD



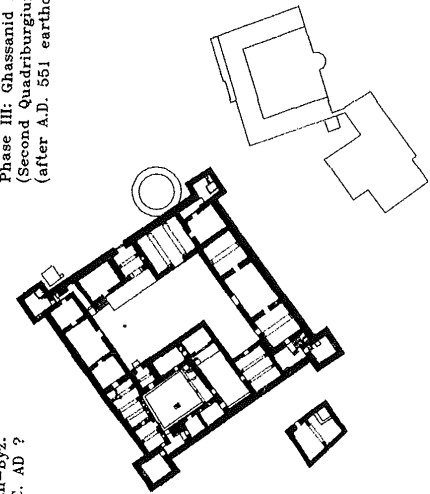
Phase Ic: Limes Arabicus
 Roman Fort 2nd-3rd C.AD ?



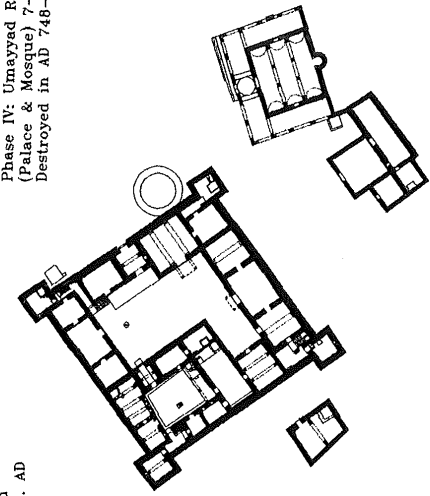
Phase II: Limes Arabicus Roman-Byz.
 Quadrburgium (First). 4-5th C. AD ?
 (before A.D. 551 earthquake)



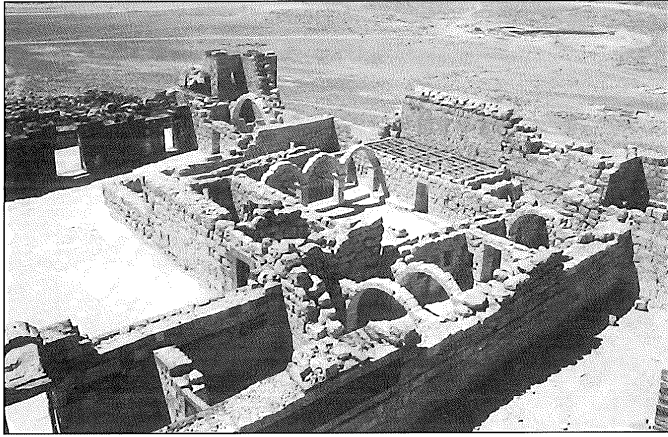
Phase III: Ghassanid Pretorium
 (Second Quadrburgium) 6th C. AD
 (after A.D. 551 earthquake)



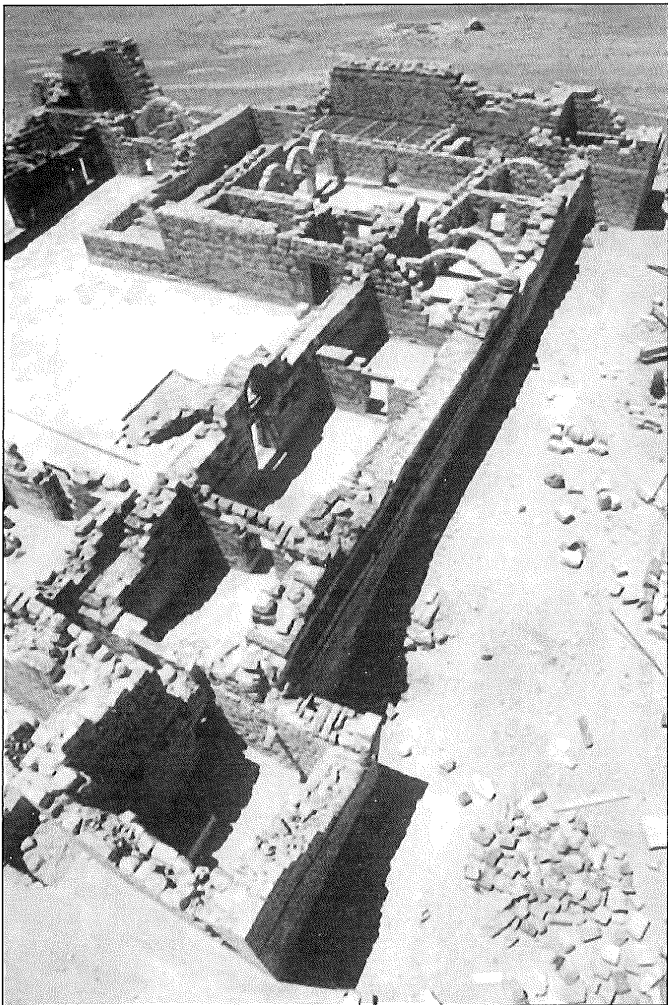
Phase IV: Umayyad Refurbishment
 (Palace & Mosque) 7-8th C. AD
 Destroyed in AD 748-9 earthquake



3. Building activities phases.



4. Aerial view of the innermost and older fort. Notice the way the old stretches of the original wall are lumped up and comprised in the new structures.

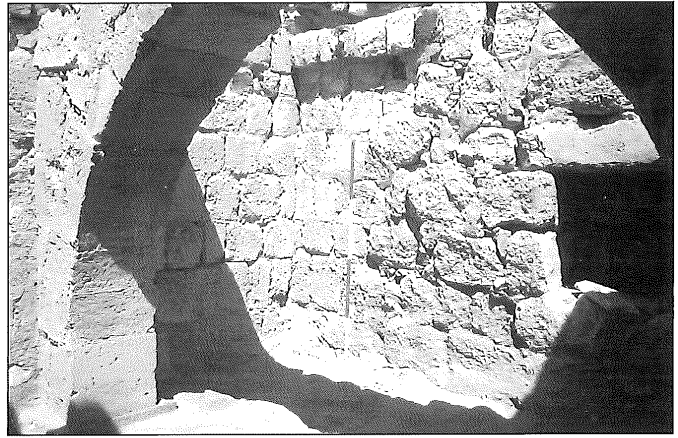


5. Aerial view from the North. Note the *quadriburgium* embracing the older fort.

Remains of these first towers can be seen in the present ones (FIGS. 6 and 7). The main remains of this first *quadriburgium* are the existing South wall (FIG. 9), and some stretches of the East one (FIG. 11). In the West wall, just a few traces can



6. Tower 22. Detail showing the rusticated corner ashlars from the first *quadriburgium* tower comprised in the second *quadriburgium* one.

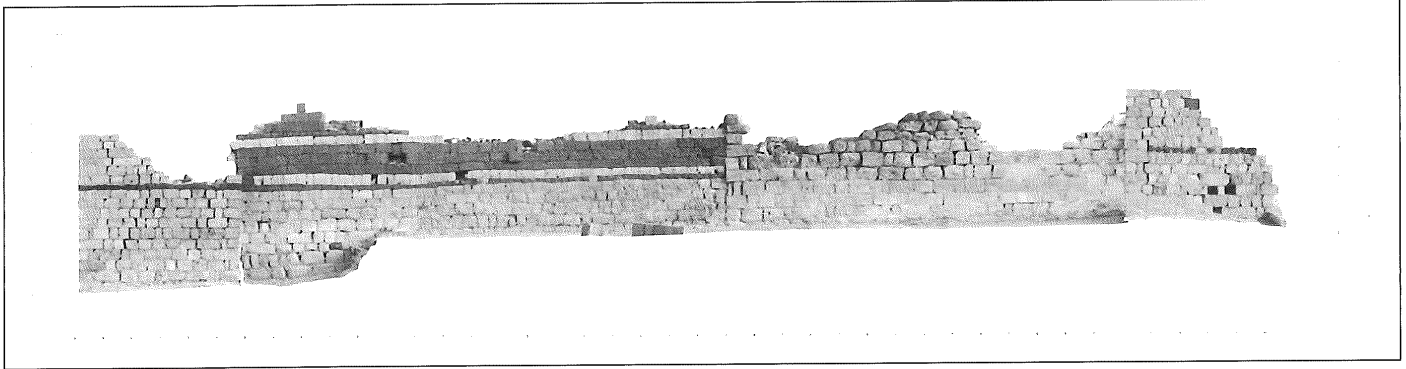


7. Tower 14. Detail showing the reconstruction of the tower of the first *quadriburgium*, notice the different masonry technique and materials used to recreate the same tower in plan.

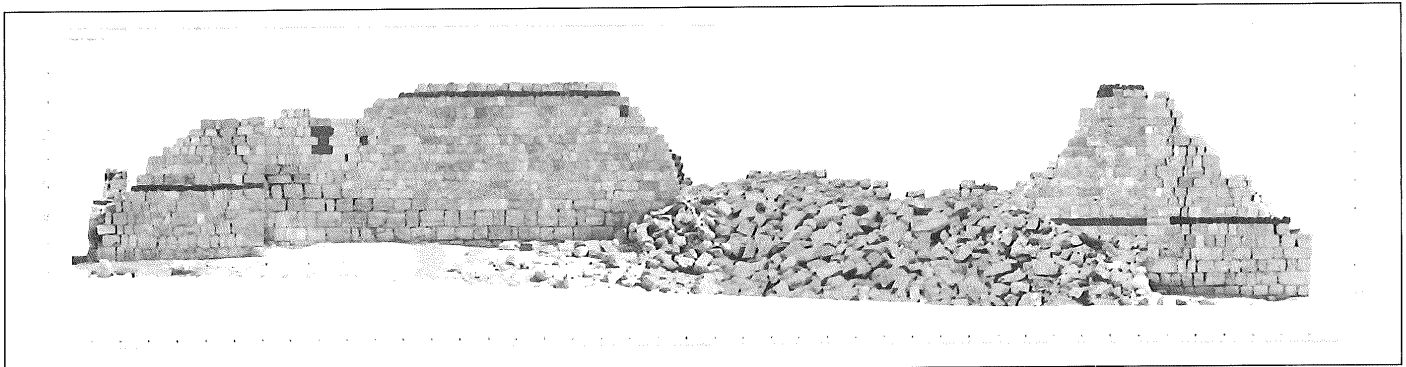
be identified in the southern end of its internal face, meanwhile in the North wall, just one or two courses of the pre-existing structure survive and serve as a foundation for the new one.

The building technique of this second phase is similar to the first one. It consists of roughly hewn-cut blocks of limestone (somehow rougher than the former ones), with better squared blocks in the corners, roughly dressed (with a *anathyrosis* — FIG. 6 — similar to the masonry work of Qaṣr Bshir). No basalt blocks were used in this phase. The pointing technique is also the same vermiculated one found in the oldest and innermost structure (this may be due to the continuity of the same technique, or to a re-pointing of all the joints of the building when this second phase was built).

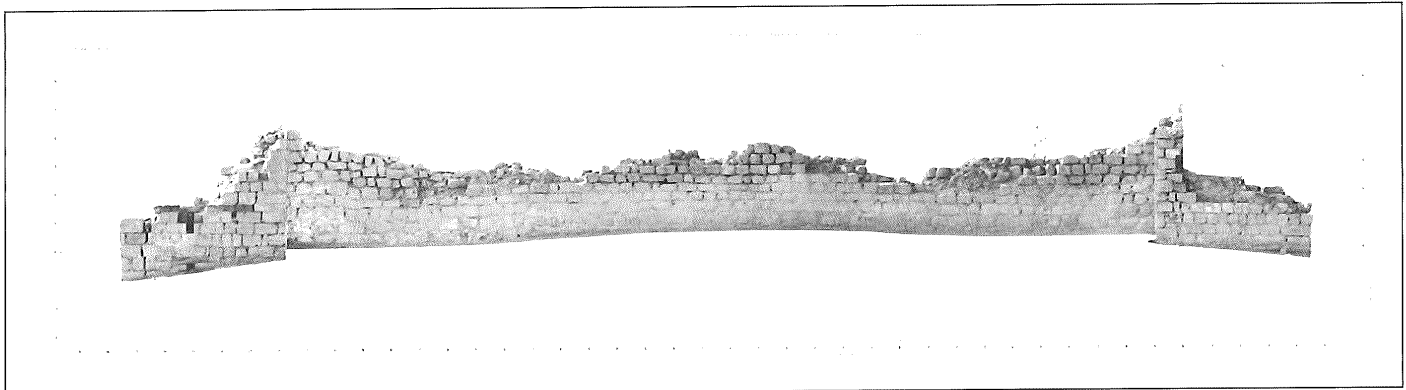
The internal section of the wall has a continuous recess, only a few cm deep, that runs the length of the internal perimeter of the wall, at a height of



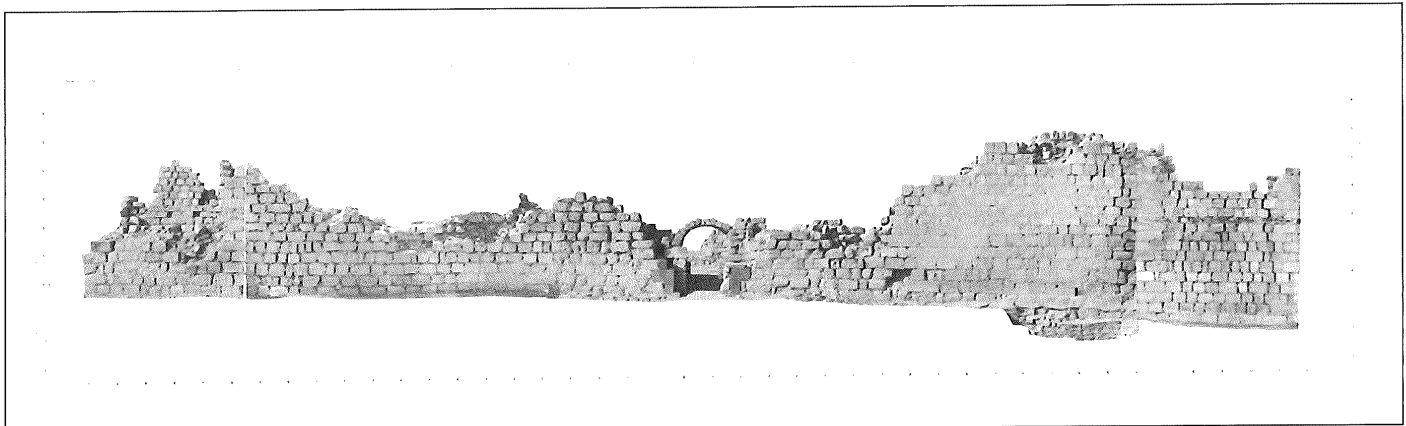
8. North wall elevation. Rectified ortophotographic photomosaic recording (Photographic and tachymetric recording: I.Arce, A. Mariotti and L. Tarducci; Rectification processing and image edition: A. Sbardellati).



9. West wall elevation. Rectified ortophotographic photomosaic recording.



10. South wall elevation. Rectified ortophotographic photomosaic recording.



11. East wall elevation. Rectified ortophotographic photomosaic recording.

circa 2 m from the floor. This would have served to place a timber scaffold that would have rested on the perimeter wall, providing an elevated sentry walkway. This recess can be found in all the surviving sections of this wall (FIG. 12). This suggests that this first *quadriburgium* had no stone partition walls (nor rooms) built against the perimeter wall, but just a timber walkway. The only structures built in this phase, internally to the perimetral wall, are the entrance gateway, and the structure corresponding to room 20 (built abutting the first enlargement of the oldest core fort — FIGS. 1 and 3d —). These use a building technique similar to the one of the first *quadriburgium*.

5- The second *quadriburgium* (FIG. 3e) was rebuilt following exactly the perimeter and plan of the previous one, after a mayor destruction (most probably an earthquake), but it included new internal partitions that will be described



12. Basalt built internal divisions (from the 2nd *quadriburgium* phase) abutting on the South section of the perimetral wall (entirely remaining from the 1st *quadriburgium*). Notice the continuous recess in this South section of the wall from the 1st *quadriburgium* for the timber sentry walkway.

later (6). It was built with a finer masonry work of medium size limestone ashlar laid in regular courses (FIGS. 8 and 9). These blocks have just the exposed face dressed, with the rest of the block left with very irregular finishing. At certain heights (the top of the perimeter walls and at mid-height in the towers), is placed a course of basalt headers that bond both faces of the wall. In the towers these are actually placed in correspondence with the upper floor level and the external corner of this course is finished with a flat slab of the same height as the course. The mortar used consists of lime mixed with a huge amount of crushed volcanic stone and pottery. This addition provides the mortar with hydraulic characteristics and thus a longer-lasting and better resistance to weathering. The mortar was used (as in the previous cases) just in the external faces of the wall, meanwhile the core was filled with earth and rubble, and basalt chipping used to wedge the limestone blocks.

In this phase the perimeter West wall was almost completely rebuilt (including the stretch corresponding to the oldest roman fort), embedding in its thickness the remains of the previous walls (FIG. 9). The traces of these pre-existing structures can be found externally in the contact area of the W tower and the W wall, and internally at both ends of the wall (FIGS. 15, 9 and 4). The eastern stretch of the North wall was almost completely rebuilt, again leaning against the N. wall of the oldest fort. The upper part of this northern wall was almost exclusively built with basalt. The South wall (FIG. 10) was not rebuilt in this phase (because still standing), meanwhile in the East wall (FIG. 11) only minor modifications took place, the most significant one being the breach in the middle of the wall (in correspondence with the gateway) to insert a new, slightly recessed door, built with basalt jambs and probably also with a lintel and a relieving arch of the same material (the reconstruction of the N section of this E wall belong to a later phase).

The present configuration of the corner towers would correspond to this period as well, although they comprise (lumped together) remains of the previous ones (FIGS. 6, 7 and 15). In some corner stones of the S tower incised crosses to attract the divine protection can be traced (these are not reused lintels, but plain ashlar with irregular shaped crossed merely scratched). This helps to date them as pre-Islamic.

Apart from the E one, all the towers are provided with a latrine in the upper floor. The latrines are built in a recess within the thickness of the wall, with a vertical shaft and an outlet at the external floor level. The latrines are placed in the areas downwind of the fort, near the ridge and the sloping surroundings (ideal for dumping), and far away from the main access way. This is probably the reason why the E tower, closer to that access way, was not provided with a latrine. This tower is also the only one without a staircase leading to its upper floor. The lower floors were intended to store food, and the windows that pierce for instance the walls of the N tower are not arrow-slits, but were intended for ventilation.

This refurbishment of the towers implies a certain loss of their defensive value, correspondent and coherent with the aulic and representative character of the rooms created inside this second *quadriburgium* (see below).

6- Another major building activity, that we have conclude to be coeval with the second *quadriburgium* (see below), corresponds to the internal partition walls and rooms (FIG. 3e), built mainly with basalt blocks, in the area between the external perimeter of the oldest roman fort and the internal one of this second *quadriburgium*. This phase can be dated by means of *the post-quem* provided by the inscribed stones with the Anastasius edict used in its construction, after 518AD (most probably after the 551AD earthquake).

The predominant building technique consisted of basalt stone ashlar (clearly reused) of which only the main face is dressed, the arises of its perimeter being cut with great precision, leaving the rest of the block rough-hewn. They are arranged in series of horizontal courses of stretchers along both faces of the wall. Each certain number of stretchers' courses (from five to six), it is placed a course of headers that bond both faces of the wall. Clearly this is exactly the same building technique as the second *quadriburgium*, using basalt as the sole, or main, building material (not only for the headers but also for the stretchers). The joints are tightened by a fine lime mortar pointing, being the core of the wall filled with basalt chipping and argillaceous earth. This same technique can be found at Qaṣr

Burqu' (but only in the Byzantine tower, not in the supposedly Umayyad enclosure that surrounds it).

The sort of doors used in these walls (the ones that give access from the court to rooms 10 and 24) are fitted with a thin lintel and an extremely raised relieving arch (FIGS. 14 and 26). This feature is typical of the Byzantine basalt architecture of the Ḥawrān (similar samples can be found in Busra, Qanawāt, etc.) but are not used afterwards in the Umayyad period. Something similar could be said regarding the accurately cut basalt masonry employed in its construction. The Umayyads borrowed all kind of building techniques and architectural elements from both Roman-Byzantine and Parto-Sassanian traditions, with the purpose of achieving quick and efficient results (see Arce 2001, 2003, 2004, *in press*). Probably for this reason they abandoned almost totally the basalt masonry techniques, using it only where there was no other choice (even in these cases they used a much simpler building technique — as in the mentioned perimeter structures of Qaṣr Burqu' — or they used it for building a base for a mud brick superstructure as in the case of Jabal Says structures).

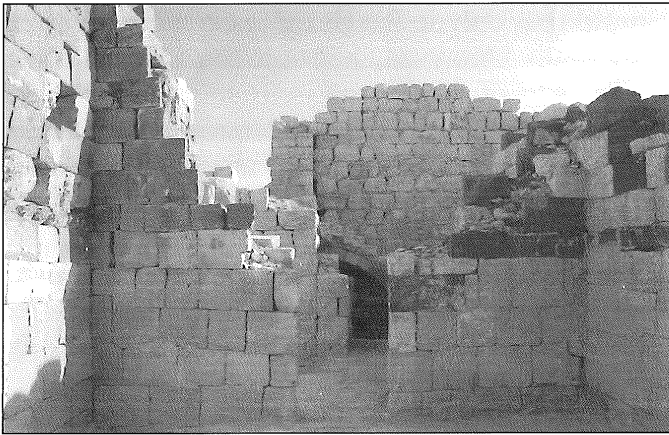
Still, two different areas with slightly different techniques can be distinguished in this phase:

6a- The structures built in the southern area (FIGS. 12 and 14) abut the pre-existing limestone South wall from the first *quadriburgium*, and are almost entirely built with basalt (according to the above described technique). Remarkably some stretches of the first courses of these walls are of well-dressed limestone ashlar. The basalt corbels embedded in the internal face of the southern wall (to support diaphragm arches) are, of course, coeval.

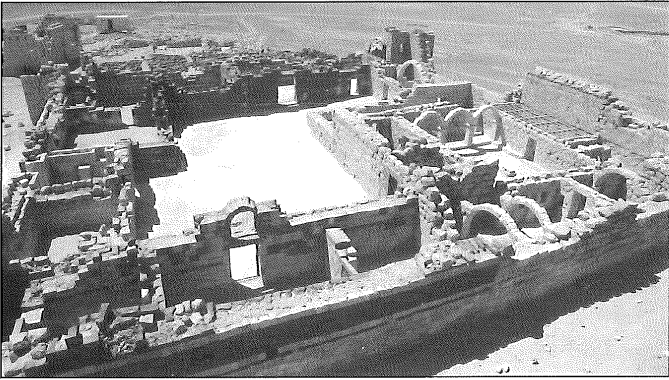
6b- The structures built in the northern area (FIGS. 13 and 14) are built with limestone ashlar mixed with basalt following the same building technique of the second *quadriburgium* (except in the wall that separates the rooms from the court). They abut the oldest and innermost core structure (the first fort), but are bonded with the North perimeter wall of the second *quadriburgium*. This means that these partition walls and the N. Wall (belonging to the second *quadriburgium*) are coeval¹².

¹² The uppermost section of this stretch of the northern wall is built entirely with basalt stones as in the other coeval southern sections of the second *quadriburgium* internal partition walls. This upper section abuts the E. tower, meanwhile in the lower section

the E. tower abuts the external wall. All these facts, indicate different stratigraphic units corresponding to different, but coeval, building activities (due probably to an irregular influx of basalt stones to the worksite).



13. Basalt built internal divisions (from the 2nd *quadriburgium* phase) built together, interlocked with the North perimetral wall and the wall that faces the main court demonstrating that all of them belong to the same building activity, i.e.: are coeval.



14. Aerial view from the Northeast. Notice the basalt masonry work from the northern (mixed with limestone) and southern (entirely in basalt) sections of the internal partitions, coeval to the 2nd *quadriburgium* walls (in the foreground). Notice as well the typical door with raised relieving arch typical from the sixth century AD basalt architecture from the Ḥawrān.

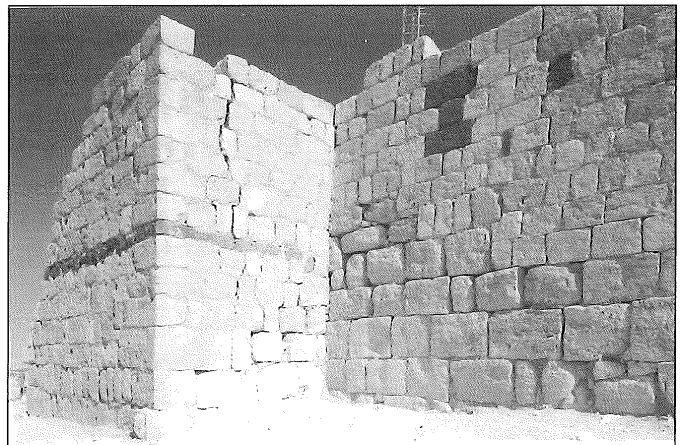
The wall that divides the main court from these rooms is remarkable: the internal face is built with courses of limestone stretchers, with one upper course of headers in basalt, meanwhile the side facing the court is built mainly with basalt (although includes, scattered, a few number of limestone blocks). This makes clear the (decorative) aim behind the decision to built with basalt at least the faces of the walls facing the court.

There are certain decorative finishings (apparently related to this phase) that cover the walls of the court corresponding to this phase. Among them can be mentioned:

Firstly, a series of plain decorative elements built with plaster (pilasters, friezes and door frames) that adorn the basalt walls facing the court. Some of these elements still survive in the southern wall

of the court, meanwhile traces of a frieze with a profile of a series of rounded elements can be traced in the corner to the south of the courtyard entrance. In the northern wall the rough surface finishing to facilitate the adhesion of the plaster-made pilasters can be seen. This decorative pattern (and the plaster composition) are very different from the ones applied latter in Umayyad period, indicating that in this phase these walls facing the court (not the internal ones) were intended to be left unplastered (apart from the mentioned moldures). The composition of the plaster is exactly the same as that of the mortar of the second *quadriburgium* (limestone with huge amounts of crushed volcanic tufo — and eventually some fragments of *cocciopesto* — that provides the mortar with a better quality and a better performance against weathering decay). As a result, no traces of the Umayyad carved stucco panels are still in place (Bisheh reports finding just one small fragment still attached, on the wall), several traces of this earlier decoration can be found still *in situ*. In some places, this earlier plaster decoration seems to have been removed to apply the Umayyad carved stucco panels and the frames that decorated the walls and doors of the court, the surface scratches being left to provide a grip to the applied mortar (this is noticeable on the stretches of wall flanking the door of room 10).

Secondly, the fragments of marble slabs lining the walls and some traces of mosaic pavements found in room 24. Both elements seem to be earlier than the latest (Umayyad) mosaics found in the same room. This earlier dating can be elicited firstly, from the different techniques used and secondly, from the stratigraphic relationship between both mosaics,



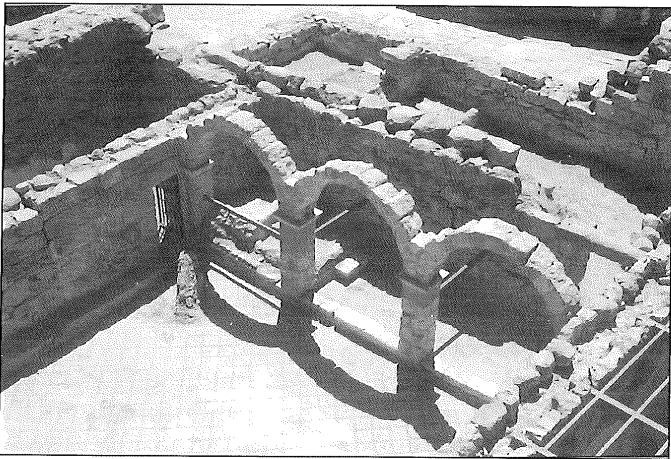
15. Encounter of the perimetral West wall with tower 14 (W). Notice the traces of the innermost and oldest Roman fort and the 1st *quadriburgium* tower comprised respectively in the 2nd *quadriburgium* West wall and tower.

and between the mosaic floors and the marble lining of the walls. The first mosaic pavement is made of stone *tesserae* and it was built against the mortar that supports the marble slabs (underneath them) meanwhile the second mosaic (the Umayyad one) is made of glass *tesserae* and abuts directly against the marble slabs (at a slightly higher level, than the previous one).

The plan of these rooms, together with this rich decoration, shows that the character of these rooms was clearly related to protocol activities as they look and were decorated as audience halls. This, together with the loss of military character of the newly rebuilt walls and towers, indicates a drastic change in the use of the building that can be also traced in the refurbishment carried out in other parts of the building.

7- A different and very singular series of building activities (most probably coeval to this “second *quadriburgium*”) are those related to the refurbishment of the court of the innermost (oldest) structure.

They consist mainly in the construction of a three arched portico in its southern side. The arches of this portico are built of finely cut limestone blocks. The dressing of the voussoirs and the springers is particularly accurate (the structure has been recently rebuilt using the original pieces found *in situ*, see FIG. 16). They bear crosses in their keystones and directly abut the fabric of the first fort (entire sections of the original pointing behind the remains



16. Portico from the innermost fort court. Notice the crosses carved on the arches key stones and the central protruding one carved away in Umayyad period. On the left can be seen the wine press basins from Ghassanid period.

of the extreme pillars of the portico are preserved intact). The stratigraphic evidence would lead, at first, to place this intervention chronologically after the first fort, (consequently coeval or later than the first *quadriburgium*), meanwhile the fine building technique employed recalls the one used in the walls of the second *quadriburgium*¹³. Beside this, it must be pointed out that the ceiling of the portico was built by means of basalt beams that were covered with plaster and mural paintings. Finally, the fact that the key stones of the three arches bear crosses, dates this intervention to the fifth century AD and before the Islamic period. It could be argued that the crosses may have been carved later, but the fact that the central one was protruding (it was carved away in Islamic period because of this, while the other ones were just concealed under a coat of plaster) indicates that, at least the central cross was carved at the same time the key stone was cut, and not later.

Closely related to the portico (built immediately afterwards) were the wine press basins in its SE corner, and the mosaic pavements that cover the court and the portico floors (this second one abuts against the wine press). The pattern of the mosaic from the court is a simple grid of squares placed at 45 degrees without any further decoration. The one placed under the portico has two different panels: The first consists of a series of interlaced circles with baskets, birds, and a kalix with a fish, meanwhile the second is conformed by a cross-like pattern achieved by the combination of interlaced circumferences (FIG. 17). The pattern's display indicates that the mosaic was laid at the same time or later than the wine press basins, as the first reflects the latter. Apparently it seems that the three elements (portico, basins and mosaics) were built simultaneously in a short period of time. It is important to mention traces of wall paintings (covered by a new plane layer of plaster) on the south wall of the portico (representing, among other features, a soldier) as well as traces of a cross on the ceiling basalt beams.

After a preliminary assessment, the technique of the mosaics and some of the decorative patterns seem to correspond to a Late Byzantine — Early Umayyad period¹⁴, although some patterns appear here for the very first time. A very relevant detail

¹³ In a previous moment, room 17 (originally wide open to the court) was closed up and provided with a door opened to it

¹⁴ Similar motifs and techniques can be traced in the apse of the

Church at al-Fudayn/ al-Mafraq, the lower Church at Quway-sima (rebuilt in 717AD), and in the northern aisle of St. Stephan Church at Umm ar-Raṣāṣ.



17. Mosaic from the inner court portico. Notice that the patterns are adapted to the space left by the wine press basins, demonstrating that the former are adapted to the latter (and thus coeval or later).

is that these mosaics present in different points an old restoration (FIG. 18), indicating that they would not belong to the last refurbishment of the building (in the Umayyad period), but to an earlier one, being restored afterwards in that last phase of use of the building. As we will point out later, these features are relevant, as they would suggest the transformation of the fort (and the site itself) into a civic and representative use (a palatine structure with an associated farmstead, or similar) already in pre-Islamic period.

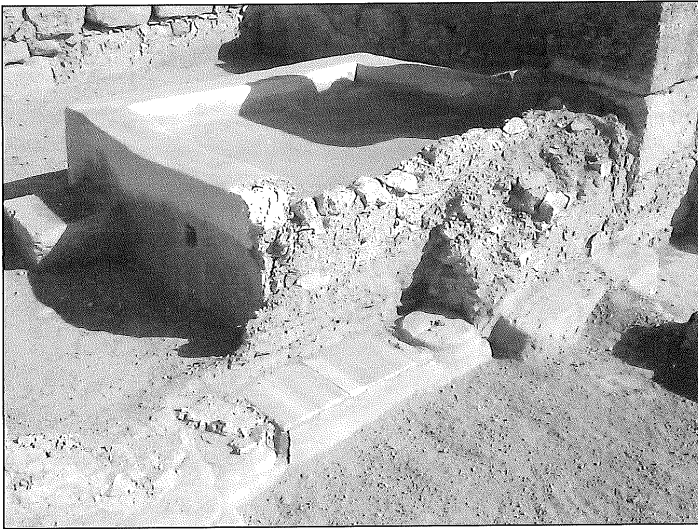
8- The transformations of room 19 deserve special attention. In its eastern end a small section of the room, just 3m deep, was divided from the rest of the room by means of a diaphragm arch and a slight change of the floor level (it defines a raised platform that starts 1m ahead of the arch). This arch was built with roughly cut ma-



18. Mosaic from the inner court portico. Detail showing an old restoration. This proves that this mosaic is pre-Umayyad (as the restoration was carried out in the latest phase — Umayyad — of occupation and use of the building).

sonry voussoirs, springing from low piers with projecting springers, and indicates a functional distinction of this area of the room. It is still not clear if this arch and the raised floor are coeval to the addition of the room to the innermost fort, or if they were added when the first *quadriburgium* was built embracing it.

Later, the spatial division and importance of this section of the room was further enhanced by means of two small marble columns placed within the span of the arch and the construction of a thin wall in the lateral spaces between the columns and the arch piers (FIG. 19). Traces of a painted red skirting stripe decorated the base of this wall (similar to the one found in the first layer of the main court). The access threshold to this chamber was further enriched with two small marble slabs



19. Room 19. Detail of the marble colonnettes and the marble threshold that separates the two sections of the room divided by the diaphragm arch that spanned over that threshold across the room. Notice the Umayyad wall blocking at once the opening and the wine press basins built against it on both sides of the wall.

placed between the columns. There were also traces of a mosaic that once covered all the floor of room 19. This floor was removed thoroughly (only a few traces from the edges near the walls have survived), so that during the Umayyad period both sections of this room were deprived of its luxury decoration and used as service and store-rooms (as with most of the rooms of this innermost and older structure). The traces of this mosaic resemble the traces of the oldest one found in room 24 (see above).

Some hypothesis can be put forward regarding the use and function of this room before the Umayyad period, depending also on the exact date of these structures. Firstly it could have been used as a *principia* for the first *quadriburgium* (assuming that the arch and the raised floor are coeval to that phase). It could have been used in later period as an audience hall, or even as a Chapel. The raised and arched area of the *presbiterium* (its orientation towards East) would sustain this hypothesis, although the spatial “screen” — very reduced in span — created by these columns and walls does not fully fit a typical Christian ritual space.

Later, in the last period of use (Umayyad),

the arch and this ritual access were blocked up completely dividing at once both spaces. Two wine presses were built abutting each side of the new partition wall (as part of the same building activity).

9- Finally we will deal with the architectural refurbishment that actually belongs to the Umayyad period in the rest of the building. Unfortunately, apart from the mosaic floors and the carved stucco decoration, only a series of fragments of architectural elements (finely carved in limestone and corresponding to the Umayyad period) have been retrieved from the rubble of the collapse in room n. 6 (belonging to the upper floor), confirming that the masonry using basalt ashlar is pre-dates to the Umayyad period. These fragments correspond to the decoration of a representative room and include elements from pilasters (with their own very singular and characteristic moldures in bases and capitals), cornices, and semicircular arches (FIG. 20). This upper floor is reached by the elegant flight of steps placed in the NE corner of the main court (together with the corner towers and rooms 16a and b, would be the only areas with a second floor)¹⁵.

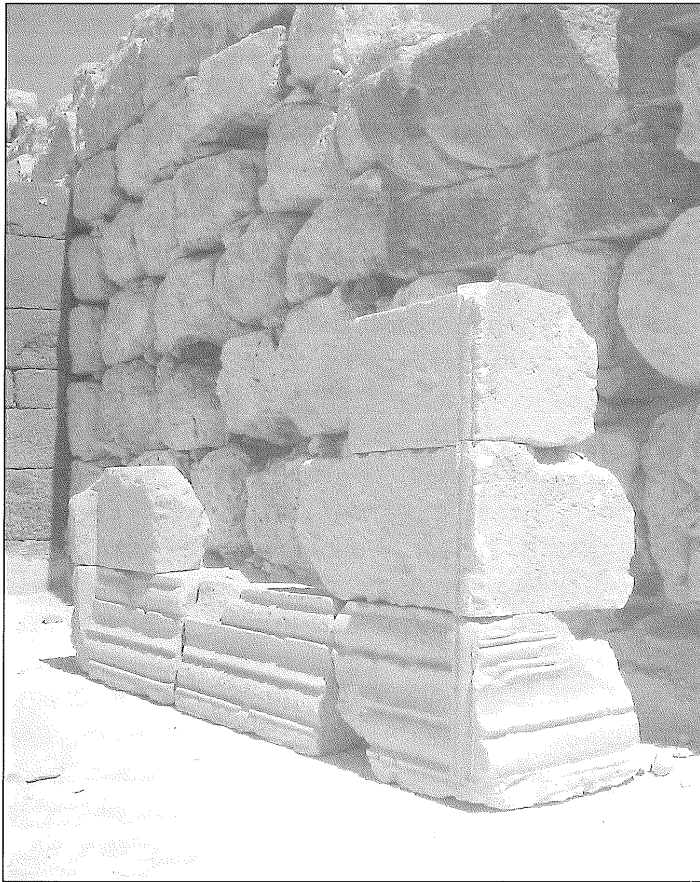
The moldures of these arches, friezes, and pilasters are typically Umayyad. They try to imitate classical moldures, but lack the knowledge of classical orders and proportions, presenting encounter and angle solutions not well solved, and in some cases quite *naïve*. The carving technique, the material used, as well as the decorative patterns, recall the ones used in the nearby Mosque and at Ḥammām as-Sarāḥ indicating that these (and not the ones built with basalt), would be the architectural interventions from the refurbishment carried out in Umayyad period. Particularly remarkable is the fact that all the faces of the blocks are dressed, something that does not occur in the previous phases¹⁶. The same moldure profiles are found at Khirbat al-Mafjar (flanking the bath porch entrance).

Other remarkable elements that belong to this same phase are:

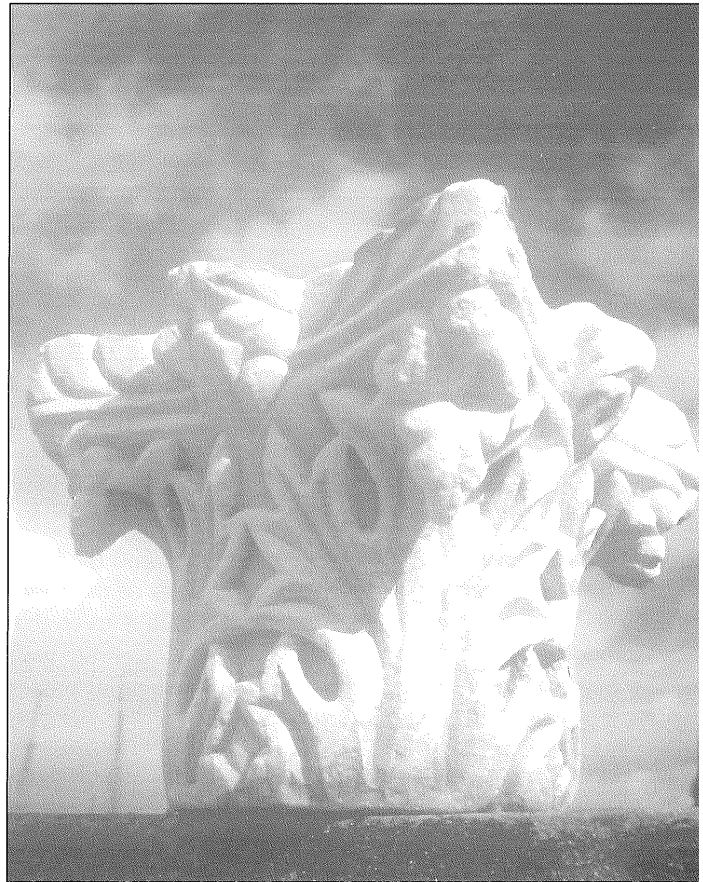
Firstly, the canopy built in the entrance to room

¹⁵ If we assume that this second floor of room 6 (even the lower floor), and the staircase that led to it (built all of them with finely carved limestone), are part of this latest Umayyad refurbishment, then the pavement of flagstones from the main court would also be from this period, because it is built against the staircase structure. The possibility remains that the stairs and the pavement are from an earlier period than the refurbishment in the upper floor (i.e. coeval — or immediately post-dating — the internal parti-

tion walls in basalt stone).
¹⁶ Linked to these interventions, is the mending and reconstruction of the upper section of the northern stretch of the East wall (to the right of the entrance). This hypothesis is based on stratigraphic evidence, as well as on the building technique, the sort of stone and, especially, the kind of mortar used (close to the one used in the mosque).

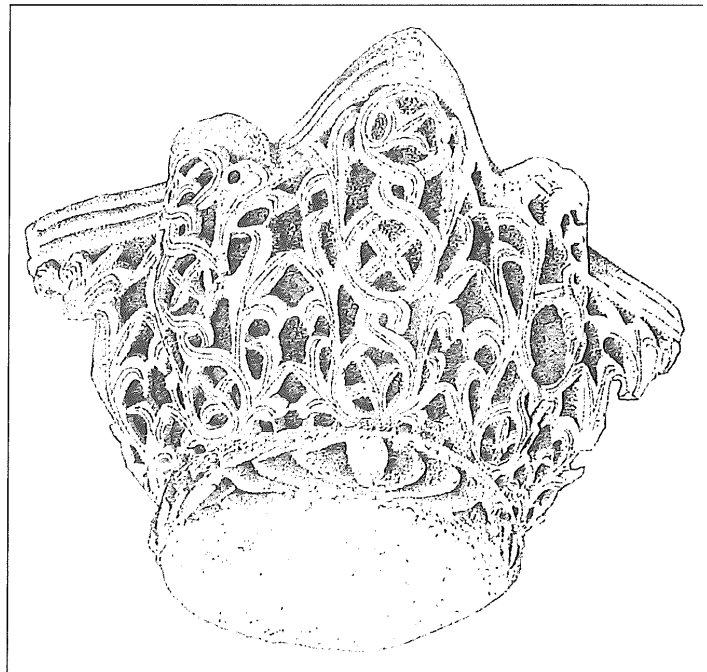


20. Umayyad architectural elements from the Qaṣr (pilasters, arches and cornices). Compare them with the ones from the bath porch at Khirbat al-Mafjar.



21. Umayyad (?) marble capital from the canopy placed at the entrance from the court to audience room n° 24 .

24. It must have been similar to the ones from the Dome of the Rock was built on top of two basalt beams embedded in the wall in two cavities achieved by means of removing two basalt ashlar. These beams rested on a pair of columns topped with fine marble capitals, one of which was found collapsed *in situ*, together with its corresponding beam and the related stucco decoration (typical Umayyad), still attached (FIG. 21). On top of the two beams a short stretch of a barrel vault was built leaning against the wall, cutting the existing basalt-built window/relieving arch (indicating that it belong to a later architectural phase), some traces of the mortar following the profile of the vault are still visible on the wall. Apparently, the *intrados* of the vault and/or the tympanum, were covered with glass mosaic, as a big amount of glass *tesserae* was found in this place. A second marble capital was found in the courtyard (FIG. 22). This is a Byzantine fretwork “basketry” type, reused, probably from the second canopy, that probably existed in front of the entrance to room 4, of which just some traces of mortar from the columns or pillars are left on the flagstones of the court pavement.



22. Reused Byzantine basketry capital from the main court of the Qaṣr.

Secondly, the richly decorated kerbstone intended for the mouth of the cistern of the courtyard (it was found broken into pieces inside it). It is carved in a single block of limestone, and

has a delicate architectural decoration consisting in a series of niches resting on attached colonnettes. The niches alternate the classical motif of a shell within the semicircular tympanum, with another kind of mixtilinear arch with a Sassanian decoration of chevrons and teardrops (FIG. 23). This has been recently restored, regaining its original shape and beauty.

Finally, the stepped crenellations and the ones with floral decoration (clear antecedents of those from the Cordoba mosque), and the related pierced trapezoidal pierced limestone blocks from the uppermost part of the building.

10- The decorative lining refurbishment from Umayyad period. This consisted mainly of mosaic pavements, mural paintings and stucco panels. Unfortunately, a detailed study of these elements goes beyond the limits of this article:

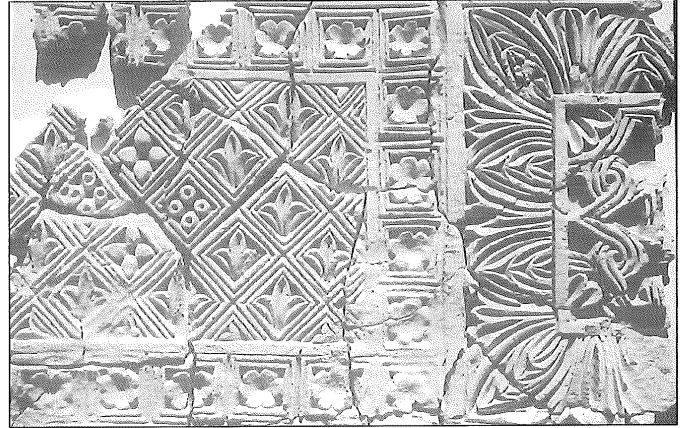
- *Stucco panels and window grills*. The carved stucco is very similar (although a little bit rougher in quality) to the one from Mafjar and Qaṣr al-Ḥayr al-Gharbi. It was applied to the frames of doors and windows facing the main court, and in a continuous frieze running just alongside the walls of that same court built in limestone (FIG. 24). The frieze is divided in panels that are articulated by means of colonnettes with Corinthian capitals. The panels were topped with a cornice of tongues and trefoils, meanwhile a lower cornice of oves and darts and another with beads and pearls run underneath them. It was placed on top of a continuous dado of mural painting imitating marble, 1m from the floor level



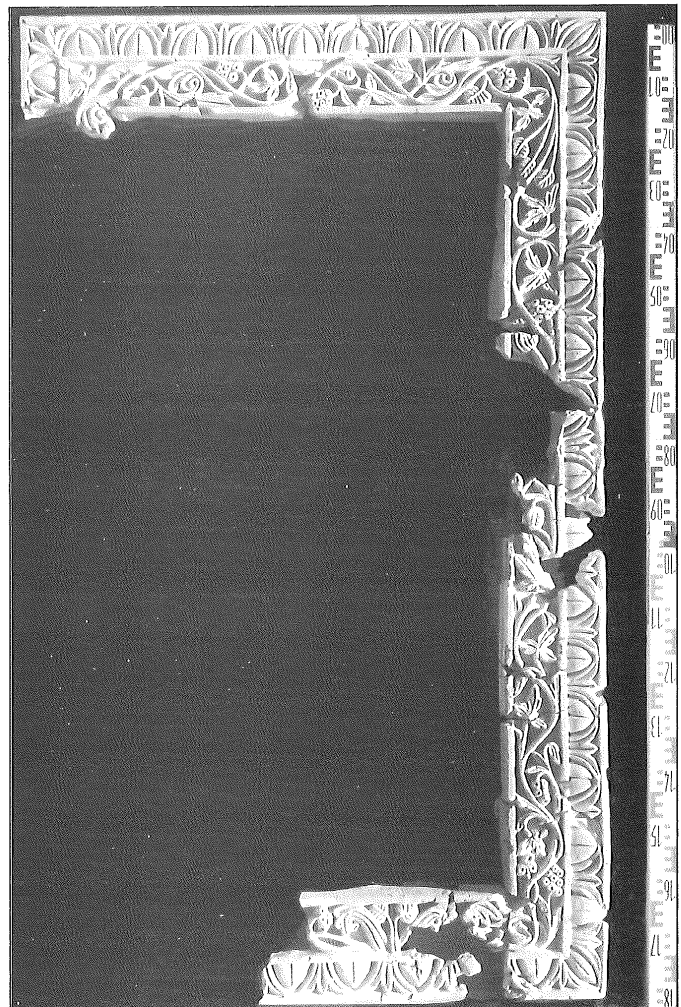
23. Umayyad kerb from the main court cistern (retrieved from the rubble of the cistern itself).

itself. The windows and doors were provided with spectacular carved stucco frames (FIG. 25).

- *Mural Paintings*. Two successive layers of mural paintings have been detected in the lower section of the court wall, just under



24. Umayyad carved stucco panel from the west wall of the main court.



25. Umayyad carved stucco door frame from the entrance to room n°20 from the main court.

the stucco panel frieze (the second layer leans clearly against the stucco panels, proving its Umayyad origin). The lower one is heavily weathered due to exposure while the Umayyad one still keeps its bright, crisp colours. The earlier layer could correspond to traces of an Umayyad paint layer as well, repainted on a regular basis. This hypothesis would make sense as this painted dado was clearly intended as a sacrificial layer at the base of the wall (to be replaced regularly when damaged), meanwhile the more precious stucco panels were placed at a higher and safer level. Alternatively this weathered layer would belong to an earlier period. Actually its red skirting band at the base of the wall resembles the one found on the "screen wall" placed between the colonnettes and the arch that separates the E end of room 19 from the rest of the room (this earlier wall was concealed and embedded by the blocking wall of Umayyad period, see above). Figurative elements have also been identified in the internal rooms (in room 10, see Bisheh 1993) geometrical patterns, or imitating marble slabs (as in room 6 or the main court itself).

- *Mosaic floors*. At least three different qualities have been identified. For a detailed study see Bisheh (1993).

The distribution pattern of the panels and the other applied decoration helps to interpret the use of the building in this latest phase. The decorative effort was concentrated in the representative rooms, corresponding to the rooms of the 2nd *quadriburgium* extension (confirming that during the Umayyad period the character of audience and reception halls were kept as they were first built), while the rooms from the innermost and oldest structure were devoted to stores and kitchens.

Interpretation: A Ghassanid *Palatium* Preceding the Umayyad One?

An Hypothesis Based on Material Evidences

From the analysis of the material evidences gathered, we can elicit that during the first phases

of the Qaṣr (Ia, b, c and II), it had a clear military purpose, as part of the defensive system of the *Limes Arabicus*. The third phase (the 2nd *quadriburgium*) involves a refurbishment that includes three distinctive features indicating a clear change of use: Firstly, the lack of defensive character of this new perimeter wall; Secondly, the construction *intramuros* of a series of reception rooms with a clear representative function; Thirdly, the refurbishment of the internal court in the oldest fort including the mentioned portico bearing crosses (as well as the wine press and the floor mosaics).

Finally, the verification of the existence of a later building phase with a clear and distinctive Umayyad character, very different from the previous one in material, building techniques and decorative features (limestone masonry finely carved with elaborated architectural mouldings), that dates them without doubt to the Umayyad period reinforcing the hypothesis that the 3rd phase (the 2nd *quadriburgium*, and the coeval basalt-built structures) dates to the pre-Umayyad period (but after the Anastasius reign and the 551AD earthquake).

It is striking that this second *quadriburgium* has almost no military value but a clear representative one. Something similar could be said about the refurbishment of the innermost court, with the construction of the portico, the wine press basin and the mosaics. If we assume that these interventions are pre-Umayyad, it means that in the "late Byzantine" period (i.e. the latest stage before the Muslim conquest) this place was already transformed into a representative-palatial structure with luxury decoration (marble lining and mosaic floors) displayed in rooms intended for reception and with associated agricultural activities. On the basis of these evidences, several hypothesis could be presented, of which the most convincing would be the refurbishment of the site by the Ghassanid Phylarchs in the sixth century AD. The hypothesis of a monastic settlement¹⁷ does not fit with this representative character and the luxury display of reception halls, its decoration, and the absence of a proper Church inside the premises (or *extramuros*).

¹⁷ Kennedy makes reference to an 'uncorroborated report many years ago, but by a general reliable witness that "sometime in the seventh century al-Ḥallābāt became a monastic establishment and an inscription recording this fact in now built into the main gate of the Arab Legion in az-Zarqā' (quoted in Kennedy

1982: 40, n°5) (Kennedy 2004). Room 19 could eventually be interpreted as a "Chapel", although this does not fit with the ritual purposes and needs of a monastic congregation (beside the luxury display and representative -aulic- character of the building in that period, already mentioned).

The change of use that can be elicited from this change in architectural character can be traced in other buildings in the region also around the sixth century AD, although with different final uses, like Umm al-Jimāl (de Vries 1998) and Umm ar-Raṣāṣ, where the construction of churches within the *castrum* enclosure in the sixth century AD would mark an adaptation of the pre-existing fortress for civilian purposes (Bujard 1995).

We must take into account two important facts regarding the military context of the period: Firstly, that from the fourth to the sixth centuries AD security was entrusted to Tribal *Foederati* (successively from the Tandukh, Salih and Ghassan tribes), with an increasing delegation of functions reaching an almost full control of the border by the Ghassanids, in a final arrangement fixed by Justinian in 529-30AD. These troops had a mobile character (specially the Ghassanid army), not relying on garrisons and forts. On the contrary, it is well known how keen the Ghassanid Phylarchs were on having reception and throne halls (being that of Al-Mundhir at Resafa the most famous one). Secondly, that after the peace with Persia, agreed in 532AD, many troops at the region were discharged and, seemingly, imperial maintenance of fortifications stopped (Parker 1987: 82 and De Vries 1998: Ch.14). Both facts would reinforce the hypothesis that a refurbishment of the fort in a "late Byzantine" /Ghassanid period (sixth century AD) would not have had a necessarily military character, something that fits with the material evidence found in the monument.

Finally, under the Umayyad rule this representative/civic character would be enhanced with the construction of the mosque and the baths, and the luxurious refurbishment of the reception areas of the Qaşr, meanwhile a more functional intervention can be noticed in the rest of the existing ones. These changes could actually be linked to the elite's production and the role of gift exchange as reinforcement of social institutions within the clientelar policy of the Umayyad period, especially in the Bādiya area.

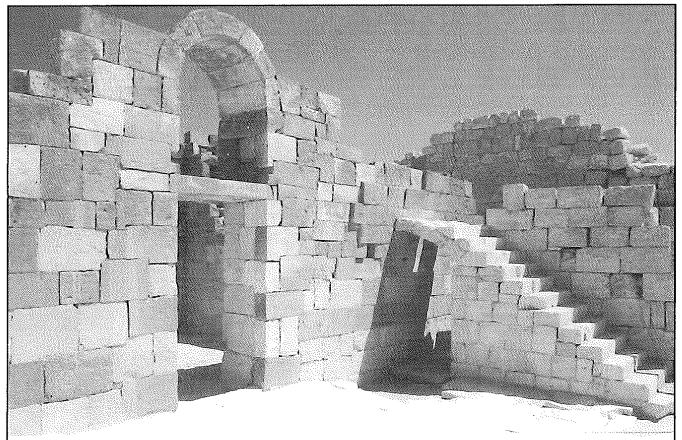
The question of the date of the construction/refurbishment of the hydraulic and agricultural settlement remains open. Accordingly, it would be necessary to review also the dating of these structures (including the dwellings), as they could have originated in Roman times, as the *vicus* of the fort (taking advantage of the available water),

which afterwards expanded to a small settlement in the Byzantine and Umayyad periods.

Conclusions and Further Research

The reliability of the sequence achieved (based not upon any confusion or *a priori* assumptions regarding textual data) offers a sound foundation to conduct further research and comparative analysis. This will provide relevant information, not only about this structure, but many others in the region. As a consequence of this, the final results will pose clear and irrefutable chronological sequence that, although lacking in absolute dates (supported by inscriptions), are sound in terms of their relative sequence through the Roman to Umayyad periods. This will allow us to make use of these results as a real stratigraphic sequence of building techniques, priceless in dating many other structures of the area.

This sequence of building techniques can allow us to attempt some inferred absolute dating by means of typological confrontation with buildings reliably dated. This is the case of Qaşr Bshir with a dating inscription placed still *in situ* as part of a uniform, and apparently singular building activity (309AD). Its building technique (limestone medium size masonry with rusticated corner ashlar) is, as we have seen, very similar to the remains of the first *quadriburgium* at al-Ḥallābāt. Accordingly, this would lead to infer an indirect absolute dating of the first *quadriburgium* at al-Ḥallābāt as coeval to Qaşr Bshir. In a similar way, we can now affirm (on the basis of this typologic confrontation of building techniques) that the tower at Qaşr Burqu' (dated at present to the third century AD) should be



26. Qaşr al-Ḥallābāt internal view of the main court showing the door to room 10 and the staircase leading to the disappeared room on top of room 6.

instead dated in the sixth century AD (Justinean or Ghassanid period).

The next step will be to develop this line of research based on actual material evidences, deepening and extending the stratigraphic analysis and the study of building techniques of historic structures to the surrounding area monuments, in an attempt to establish sound, interrelated sequences of building activities, techniques, and phases of use.

Besides, the research now begun on the Umayyad mosque at al-Ḥallābāt promises remarkable results which will be dealt with in another paper in the near future.

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