

# THE GERMAN-TUNISIAN PROJECT AT DOUGGA : FIRST RESULTS OF THE EXCAVATIONS SOUTH OF THE MAISON DU TRIFOLIUM

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**Mots-clefs :** *recherches stratigraphiques, Dougga, Tunisie.*

**Key words :** *stratigraphic research, Dougga, Tunisia.*

**Résumé :** *Les fouilles germano-tunisiennes dans un quartier d'habitation au sud de Dougga (2001–2003) ont permis de gagner des informations exemplaires sur l'histoire de la cité, de la préhistoire jusqu'à l'antiquité tardive.*

**Abstract :** *The German-Tunisian excavation in a residential quarter in the south of Dougga (2001–2003) has allowed to gain an exemplary insight into the city's history, from prehistoric times to late antiquity.*

**Resümee :** *Die deutsch-tunesischen Ausgrabungen in einem Wohnquartier im Süden Thuggas (2001–2003) haben es ermöglicht, einen exemplarischen Einblick in die Geschichte der Stadt zu gewinnen : von prähistorischer Zeit bis in die Spätantike.*

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Il est un thème d'un intérêt certain qui est demeuré pourtant peu étudié par les spécialistes de l'histoire du Maghreb antique. Ce thème se rapporte à la naissance et à l'évolution urbaine des agglomérations de fondation autochtone. Les raisons de ce manque d'intérêt sont multiples. Elles résident pour l'essentiel dans l'indigence des données livrées par les

auteurs anciens ainsi que dans la difficulté d'étudier les vestiges archéologiques de cette période qui peuvent subsister encore sous les niveaux des époques postérieures.

À cet égard, *Thugga* (aujourd'hui Dougga, en Tunisie)<sup>1</sup> n'a pas fait exception. En dépit du fait qu'elle a pu être la première capitale de la dynastie massyle, comme inclinent à le penser certains savants modernes<sup>2</sup>, les sources littéraires n'ont gardé d'écho ni de sa fondation, ni de ses premiers temps. Son entrée dans l'« Histoire », rapportée par Diodore de Sicile<sup>3</sup>, ne remonte pas au-delà de la fin du IV<sup>e</sup> siècle avant J.-C. À cette époque, elle était, au dire de cet auteur, une « ville d'une belle grandeur ». Sa qualifica-

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1. *Atlas arch. Tun.*, 1/50000, f° 35 (Téboursouk), n°183.

2. Comme par exemple CAMPS G., *Berbères. Aux marges de l'Histoire*, 1980, p. 95.

3. Diodore de Sicile, *Bibliothèque historique*, XX, 57, 4.

tion de « polis » par un auteur grec autorise de supposer que sa fondation ne doit pas être postérieure à la fin du VI<sup>e</sup> siècle avant J.-C. comme cela commence à être révélé par les recherches et les prospections menées au cours de ces dernières années pour la plupart des cités antiques de la moyenne vallée de la Majrada et du Haut-Tell. Pendant longtemps, ces cités ont été considérées comme des villes de création romaine ou, au mieux, n'ayant précédé que de peu la main mise de Rome sur ces contrées. Dans l'historiographie du XIX<sup>e</sup> et de la première moitié du XX<sup>e</sup> siècles, les Berbères ont été tenus pour des primitifs qui ont attendu l'arrivée des Phéniciens pour accéder à la civilisation. C'est au regretté Gabriel Camps que revient le mérite d'avoir fait justice de cette fausse idée. « On condamne les Berbères à un rôle entièrement passif lorsqu'on les imagine, dès le début de l'Histoire, recevant de l'Orient une civilisation toute formée qu'ils acceptèrent avec un plus ou moins grand enthousiasme. Une poignée de navigateurs orientaux, véritables démiurges, auraient apporté à une masse inorganique et sauvage dépourvue de la moindre culture tous les éléments d'une véritable civilisation longuement mûrie sur la côte phénicienne. À l'arrivée des premiers navigateurs phéniciens, les Libyens n'étaient pas de pauvres hères, des sortes d'aborigènes encore enfoncés dans la primitivité préhistorique. Depuis des siècles, les échanges avec les péninsules européennes et les îles, comme avec les régions orientales de l'Afrique, avait introduit les principes d'une civilisation méditerranéenne qui, pour l'essentiel de sa culture matérielle, s'est maintenue dans les massifs montagneux littoraux, du Rif jusqu'aux Mogods. Quoi qu'en aient dit Polybe et les historiens qui le copièrent, les Numides n'attendaient pas le règne de Massinissa pour mettre en culture leurs plaines fertiles », écrit ce spécialiste de la protohistoire de l'Afrique du Nord et du Sahara<sup>4</sup>.

Si notre connaissance de *TBGG/Toccai/Thugga* et de son urbanisme au temps de l'expédition d'Agathocle reste bien vague, grâce à l'épigraphie et à l'archéologie elle devient un peu plus consistante pour les époques qui ont suivi, en particulier le règne de Micipsa.

Quel aspect avait *Thugga* à sa fondation ? Était-elle déjà une ville ou avait-elle commencé comme un petit hameau, genre douar, habité par des paysans qui s'éreintaient à travailler la terre pour assurer leur subsistance ? À ces questions et à tant d'autres, l'archéologie n'avait pas apporté, du moins jusqu'il y a peu de temps, de réponses. Les seuls vestiges qui pouvaient être considérés comme les plus anciens témoins de l'installation de l'homme sur le site de *Thugga* étaient les tombes dolméniques dont un certain nombre est encore conservé dans la partie nord du site. Si la construction de ces tombes ne traduit pas une grande technique de la taille de la pierre, elle reflète au moins une maîtrise de la technique d'extraction des grands blocs ainsi que celle de leur transport et de leur élévation jusqu'à une certaine hauteur. Leurs constructeurs ont profité de la configuration du terrain pour simplifier leur tâche. Ils ont aménagé les tombes dans des cavités naturelles n'ajoutant que la dalle de couverture, ou bien ils ont utilisé des pans du rocher à flanc vertical et construit les côtés qui manquaient. La datation précise de ces sépultures à usage familial au sens large du terme reste encore à établir. Dans l'état actuel de nos connaissances, il semble qu'elles ont été utilisées pendant une bonne partie du premier millénaire avant J.-C. et il n'est pas téméraire de supposer que l'usage de certaines d'entre elles se prolongea jusqu'aux premiers temps de l'époque impériale romaine comme cela a été vérifié ailleurs, par exemple à *Mactaris* (Makthar)<sup>5</sup>.

Si notre connaissance du monde des morts des premiers temps de *Thugga* demeure encore fragmentaire, celle du monde des vivants, c'est-à-dire de l'habitat, est, pour le moment du moins, presque nulle.

Pendant longtemps, on avait pensé, à la suite d'une hypothèse formulée par Louis Poinssot<sup>6</sup>, que l'agglomération numide devait se trouver dans la partie haute du plateau, entre la nécropole dolménique et le quartier du forum de l'époque romaine qui serait, lui, une création des colons romains. Cette proposition a été admise sans discussion par l'ensemble de la communauté scientifique pendant

4. CAMPS G., *op. cit.*, 1980, p. 146.

5. Cf en dernier lieu GHAKI M., Nouveau monument mégalithique de Makthar, 1997, p. 63-72.

6. POINSSOT L., *NAM*, XXII, 1919, p. 175.

environ trois quarts de siècle. Elle faisait de l'agglomération de *Thugga* à l'époque impériale une sorte de ville double. À l'agglomération d'époque royale habitée par les autochtones devenus de statut pérégrin est venu se juxtaposer un nouveau quartier dans lequel se sont installés les colons romains. Comme l'on sait, en effet, sous le Haut-Empire et jusqu'à sa promotion en municipale en 205 par les empereurs Septime Sévère et Caracalla<sup>7</sup>, *Thugga* a connu la coexistence de deux communautés juridiquement distinctes : l'une de statut pérégrin formée par les autochtones et organisée dans le cadre d'une *ciuitas*, et l'autre composée de colons citoyens romains et organisée dans le cadre d'un *pagus*<sup>8</sup>, district de la colonie romaine de Carthage. D'après l'hypothèse de L. Poinssot, la communauté autochtone aurait continué à habiter l'agglomération héritée de ses ancêtres tandis que les colons nouveaux venus ont tenu à avoir leur propre quartier, voisin mais distinct de l'espace habité par les autochtones. « Si défavorable que soit la région située au sud-est du vieux *Thugga*, écrivait-il, c'est, à vrai dire, la seule qui convient aux membres du pagus, lesquels, ne voulant ni ne pouvant fonder une ville nouvelle désirent simplement avoir à proximité de l'ancienne cité punico-numide un « coin » où ils soient bien chez eux »<sup>9</sup>. Soumise à un examen critique, cette hypothèse n'a pas résisté et s'est révélée être beaucoup plus une transposition inconsciente d'un fait urbain moderne que l'on a commencé à rencontrer dans des villes du Maghreb au lendemain de la colonisation européenne du XIX<sup>e</sup> siècle, que le reflet de la réalité historique<sup>10</sup>. Tant l'épigraphie que les découvertes archéologiques correctement interprétées montrent, en effet, que durant le Haut-Empire, les deux communautés juridiquement distinctes n'ont pas vécu séparées l'une de l'autre et chacune confinée dans son quartier ; mais qu'elles ont cohabité dans le même espace urbain que toutes les deux ont contribué à transformer progressivement en le dotant d'un équipement monumental à la romaine. C'est ainsi que des vestiges situés au pied

du flanc ouest du capitole et identifiés au moment de leur mise au jour comme ceux d'une fontaine de la première époque romaine se sont révélés être ceux d'un monument d'époque numide qui a toutes les chances d'être le *maqdes* de Massinissa construit en l'an X du règne de Micipsa (= 139 avant J.-C.) comme nous l'apprend une inscription bilingue en libyque et en punique<sup>11</sup> découverte en 1904 dans le secteur et conservée depuis au Musée national du Bardo à Tunis. À cela s'ajoute la mise au jour de niveaux d'habitat datant du II<sup>e</sup> siècle avant J.-C. trouvés sous les gradins du petit théâtre cultuel situé en contrebas du temple dit de Liber Pater.

Plus au sud et à peu de distance du fameux mausolée libyco-punique, a été repérée récemment une construction en très grande partie enterrée. Il s'agit d'un monument à base circulaire, construit en pierres sèches et couronné par une voûte en encorbellement qui présente une ouverture en son milieu. Son exploration partielle a révélé qu'il a une profondeur de plus de 5 m. Sans parallèle connu dans l'architecture numide ou punique, il a toutes les chances d'être d'un usage plutôt funéraire. Si les recherches futures confirment cette identification, il viendra enrichir la typologie de l'architecture funéraire numide et, surtout, attester que le mausolée faisait bien partie d'une nécropole urbaine et n'était pas construit en pleine campagne comme on pouvait le penser<sup>12</sup>.

Ces nouvelles données constituent le cadre de la problématique dans laquelle s'inscrit le projet tuniso-allemand d'études et de recherches engagé dans le secteur de la maison du trifolium depuis quelques années<sup>13</sup>. Ce projet s'est fixé les objectifs principaux suivants :

– assurer le sauvetage de la maison du trifolium dont l'état de certaines de ses composantes, notamment la pièce qui a donné son nom au monument, devenait inquiétant et qui menaçait de s'écrouler ;

11. Voir pour le texte libyque CHABOT J.-B., *RIL*, 1940, n°2 ; et pour le texte punique *RES*, n°682.

12. Voir en dernier lieu KHANOUSI M., *Évolution urbaine de Thugga*, 2003, p. 131-155.

13. C'est en application d'un accord de coopération entre l'Institut National du Patrimoine de Tunisie et l'Archäologisches Institut de l'Université allemande Albert-Ludwig de Freiburg que ce projet a été réalisé.

7. *CIL*, VIII, 26539, 26551, 26552 ; *IL Afr*, 525 ; *ILT*, 145.

8. Sur cette question, voir en dernier lieu « Les institutions de Dougga » dans KHANOUSI M. et MAURIN L., *Dougga, fragments*, 2000, p. 137-154.

9. POINSSOT L., *op. cit.*, 1919, p. 175.

10. KHANOUSI M., *Thugga* (Dougga) sous le Haut Empire, 1992, p.597-602.

– étudier cette demeure qui est l'une des plus importantes du site, ainsi que son insertion dans le tissu urbain du quartier, et fournir ainsi une contribution non négligeable à la connaissance de l'architecture domestique de *Thugga* et à son évolution urbaine ;

– assurer sa restauration et sa mise en valeur de manière à en faire l'un des points forts du circuit de visite du site.

Les pages qui suivent constituent une partie de la réalisation de ce programme. Leur apport pour une meilleure connaissance de l'évolution urbaine de ce secteur de la ville en particulier et de l'histoire de l'occupation humaine de l'endroit devenu à travers les siècles *TBGG*, *Thugga* et puis Dougga, est loin d'être négligeable, puisqu'il fait remonter cette présence au milieu du II<sup>e</sup> millénaire avant J.-C.!!!

(MKh)

### A short history of Dougga and its exploration

The purpose of this paper is to present the first results of the excavations that have been conducted by the Archaeological Institute at Freiburg University in cooperation with the Tunisian Institut du Patrimoine at the site of Dougga (Roman *Thugga*) between 2001 and 2003<sup>14</sup>.

The project was conceived in 2000 in order to gain an insight into Dougga's early history by excavating an area in a residential quarter in the south of the Roman town (fig. 1). We have studied, for the first time at the site, a comprehensive stratigraphy which covers all periods of the city's past, from prehistoric times to late antiquity.

Dougga, about a hundred kilometres to the south-west of Tunis in the Central Tunisian mountains, is one of the most spectacular Roman sites in North Africa<sup>15</sup>. The dominating location on a high ridge, a few kilometres away from the fertile valley of the Oued Khalled, indicates that the place was

14. At present we are about to prepare the results of these campaigns for publication. We intend to continue the excavations as soon as possible.

15. For an overview of the most important buildings and monuments see POINSSOT CL., *Ruines*, 1958 ; KHANOUSSI M., *Dougga*, 1998.

once chosen because of its favourable strategic position. Dougga's prosperity in antiquity was mainly based on the agricultural abundance of the region, attracting the attention of all the political powers that formed, one after the other, the history of ancient North Africa.

In contrast to the coastal areas, the interior regions of Tunisia seem to have been occupied by the Phoenicians only in the 4th or 3rd c. B.C. when Carthage acquired a greater territory for intensive agricultural utilisation<sup>16</sup>. This relatively late dating of settlement in Dougga is confirmed by literary evidence<sup>17</sup> as well as by the fact that, at least until now, no datable material is from earlier than the 3rd c. B.C.

However, an urbanisation process on a greater scale does not seem to have started until the 2nd c. B.C. In the course of the decades following Carthage's defeat in the second Punic War, the Numidian king Massinissa, a close ally of the Romans, expanded his territory at Carthage's expense and occupied, moving west step by step, former Carthaginian territories until Dougga was brought under his control in about 150 B.C.<sup>18</sup> When the Roman province of Africa had been established after Carthage's destruction in 146 B.C., Dougga remained in Numidian possession and, now situated near to the border of the Roman province, became an important regional centre. Dougga's importance and wealth around that time is proven by the monumental and well-preserved grave monument of Ataban. Despite this outstanding monument, knowledge of Numidian Dougga is limited to the location of the pre-Roman necropolises, whereas the extension and the appearance of the town itself during the more than 100 years under Numidian control are almost unknown.

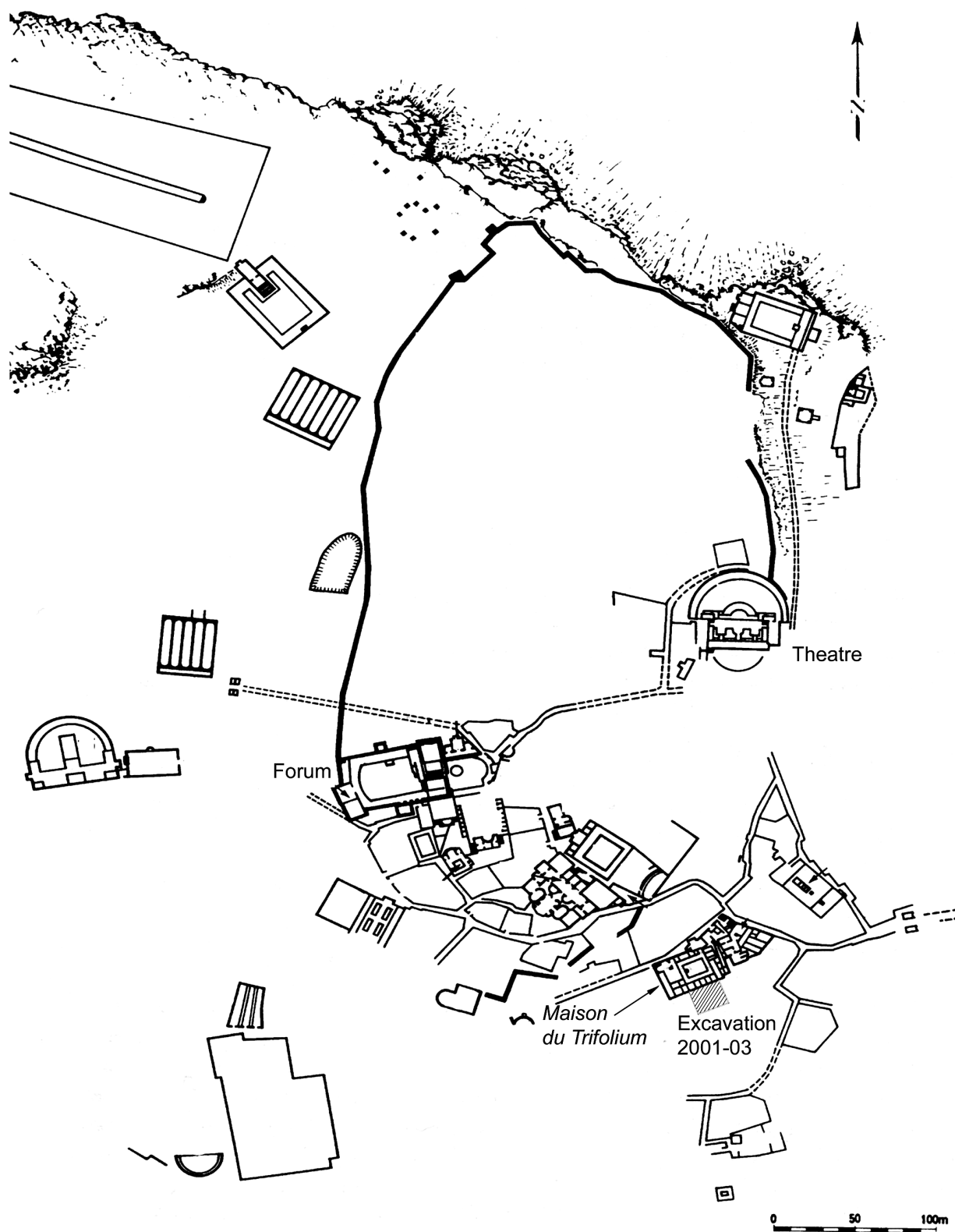
In 46 B.C. Dougga was integrated into the Roman province and incorporated into the territory of the new metropolis Carthage<sup>19</sup>. During the following

16. LUND J., *Prolegomena*, 1988, p. 44-57 with table 1.

17. The earliest literary evidence is Diod. 20,57,4 where 'Tokai', certainly identical with Thugga, is mentioned on the occasion of Agathocles' campaign to the interior regions of Punic North Africa in 307 B.C. For this source cf. DESANGES J., *Thugga*, 1997, p. 21-25 ; GRÜNER A., *Thugga*, 2002, p. 55-57.

18. For the expansion and the economic development of the Numidian kingdom under Massinissa see R.-ALFÖLDI M., *Zur Geschichte*, 1979, p. 51-57, and the overview by SLIM H., *Tunisie*, 2001, p. 80-95.

19. An overview of Dougga's history and significance in Roman times as known from inscriptions has recently been given by HITCHNER R.B., *Roman Thugga*, 2002, p. 597-599.



**Fig. 1 :** Plan of Dougga with the area of the 2001 – 2003 excavation (after Khanoussi M. et Maurin L., *Dougga, fragments*, 2000, fig. 1).

decades, Romans settled in Dougga and, officially being citizens of the Colonia Iulia Karthago, organised themselves into their own community (*pagus*), remaining separate from the indigenous inhabitants (*civitas*). The city grew into an administrative centre of a series of imperial estates, whose importance was based on intensive agricultural production determined by the vital significance of the Carthaginian hinterland for Rome's grain supply.

The increasing wealth of Dougga's most influential local families gradually began to show in the city's shape in Imperial Roman times. After some minor temples and other public buildings had been founded during the 1st c. A.D., the city began to be given a largely new structural design from the middle of the 2nd c. onwards. Between the 2nd and 4th cent. almost all buildings that are visible today were built or obtained their final appearance: public buildings (the Capitolium and several other temples, the theatre, the baths, the honorary arches) as well as the numerous spacious private houses with splendid mosaic floors.

In 439 Dougga was occupied by the Vandals, then in 533 by the Byzantines, and finally in 698 by the Arabs. A modest village existed on the site of the ancient city centre until 1962 when the last inhabitants were resettled into the new village Dougga Nouvelle, situated a few kilometres to the south, in order to establish an archaeological park at the site of ancient Dougga.

The vast majority of the buildings to be seen today were excavated between 1891 and 1954 under French authority<sup>20</sup>. The intention during these decades was to reveal monumental and well-preserved Imperial Roman buildings on a large-scale, and so a magnificent ruin-landscape came into being which was consequently included in the UNESCO world heritage list in 1997. However, this impressive result had its costs on the scientific side. In the course of the rapid excavations almost all layers from late antiquity, as well as innumerable finds, were cleared away without having been documented. The same lack of interest was shown for the earlier structures, which remained untouched under the floors of impressive Imperial Roman buildings. Whereas the publication of the numerous inscriptions which had attracted scientific

interest right from the beginning has advanced in an admirable way<sup>21</sup>, archaeological research is still in its infancy. The visible archaeological remains provide only an idea of what Dougga's townscape looked like in later Imperial Roman times.

Intending to promote archaeological research in Dougga, the Archaeological Institute of Freiburg University and the Institut National du Patrimoine (Tunis) initiated a cooperative project in 1995, the aim of which was to document and to study some previously excavated but unpublished buildings and building complexes in different parts of the town<sup>22</sup>. One of the most important results of this project was the proof that, in contrast to the traditional assumption, there was no pre-Roman settlement on the north-western part of the hill: The so-called 'Numidian wall' turned out to have been constructed only in late antiquity, and the two towers included in that wall proved to have been Numidian grave monuments which once stood isolated within the northern necropole on the top of the hill.

On the other hand, remains of pre-Roman houses were discovered in the southern part of the Roman city. Outside the so-called Maison du Trifolium, a small triangular annex that had been attached to this spacious Imperial Roman house for economic purposes was detected in 1998 (fig. 2)<sup>23</sup>. A ditch in the western part of this annex brought to light the foundations of an earlier room which, according to the latest finds in the demolition layer, was filled up at the end of the 1st c. B.C. or the beginning of the 1st c. A.D.<sup>24</sup>

When, after termination of this first research program in 2000, the chance arose to continue the

21. KHANOUSSI M. et MAURIN L., *Dougga (Thugga). Études*, 1997 ; KHANOUSSI M. et MAURIN L., *Dougga, fragments*, 2000 ; KHANOUSSI M. et MAURIN L., *Mourir à Dougga*, 2002.

22. First results of this project have just been published in KHANOUSSI M. et STROCKA V.M., *Thugga I*, 2002. The investigations concerned the 'Numidian wall', the forum area including the capitol, the so-called 'Temple B' (the commonly held identification of which as a part of a greater cult complex dedicated to Concordia, Frugifer and Liber Pater we have shown to be false), and some private houses from Imperial Roman times.

23. A preliminary report on the excavation of the annex has been published by HIESEL G. et STROCKA V.M., *Vorbericht*, 2002, p. 76-81 with figs. 1-2 (plans) and pls. 8a. c. d.

24. HIESEL G. et STROCKA V.M., *Vorbericht*, 2002, p. 80-81.

20. See LESCHKE Chr., *Zur Forschungsgeschichte*, 2002, p. 31-53.

German-Tunisian cooperation in Dougga by initiating a new project, it seemed to be promising and useful, in view of the state of archaeological research, to concentrate on the nearly unknown early periods of the city's past. For such an investigation, the area immediately south of the Maison du Trifolium annex was obviously an appropriate place because this quarter had been spared by earlier excavations and was revealed to have been inhabited in pre-Roman times.

The excavations were carried out during two campaigns in autumn 2001 and autumn 2002, each for a period of six weeks. A third, shorter campaign took place in spring 2003 in order to complete the documentation of some layers and of those groups of small finds that, because of their complexity, had to be checked once again.

Moving southwards from the outer wall of the Maison du Trifolium annex, we first made two trenches, each 1.50 m wide, at the western and the eastern borders of the designated area in order to understand the stratigraphic situation. Then, following the individual layers, these trenches were extended towards the middle of the area where a passageway of 2 m width was left untouched for the transport of debris and for stratigraphic control (fig. 3). In 2002, we extended the two sections, especially towards the south, and worked our way through to the deepest layers at certain places in order to complete the chronological picture.

We present here the main results which have been achieved so far. The presentation of a comprehensive picture of the history of this area has to wait until the examination of all groups of small finds has been finished. At the present state of research, however, the synoptical analysis of the layers and their datable finds allow us to establish a reliable chronological framework and to define the main periods during which significant human interventions had taken place<sup>25</sup>. We present the

25. In our 'Harris matrix', the 375 stratigraphical units are defined in their relative-chronological interconnections, but not all of the layers have yet been fixed within the absolute-chronological framework. - As far as the dating of the layers is concerned, it must be mentioned that, in contrast to Carthage or Kerkouane, we did not find any evidence of sudden and vast destructions caused by war or other catastrophes. What we found instead were several large layers which had come into being either by the demolition of older buildings or by the erection of new ones. The main layers testifying to significant human interventions contained a sufficient number of datable finds, so that we are able to fix the periods during which these activities took place.

results in chronological order, according to the periods that we have been able to define up to now.

### **Prehistoric times : Burials from the 2nd millenium B.C.**

In accordance with our main concern of exploring the pre-Roman history of the area, we went down to the deepest layers at two places: in the centre of the western section where the way down was not blocked by any later structures, and in the north-western part of the eastern section, where the paving stones of a later Roman street had already been removed in antiquity (fig. 2).

Reaching the deepest stratum in the western section, more than 3 m under the modern surface, we stumbled - completely unexpectedly - on human bones joining into a skeleton (fig. 2 ; 4). The body was situated between pre-existing limestone blocks where it had been imbedded into the clay soil and covered by the same material. It was lying on its left side orientated west-east, the head pointing towards west. The left arm was contracted, leading the hand to the head, whereas the right arm lay next to the pelvis. The legs were strongly contracted. The body turned out to be that of a man. According to TCA analysis (Tooth Cementum Annulation for Age Estimation), the man had died at the age of 30 - 36 years<sup>26</sup>.

Some days later, a second skeleton came to light in the north-west of the eastern section (fig. 2). Here again, the body, which turned out to be that of a man, had been imbedded into the deepest layer of clay soil without any trace of a grave pit. The corpse was buried on its right side, and the body was much more contracted than in the other case: the head being tipped over to the breast, the legs extremely drawn up, and the arms contracted with both hands leading up to the head. According to TCA analysis, this man died at the age of 37 - 43 years.

26. The TCA analysis was conducted by Ursula Wittwer-Backofen, Institute of Human Genetics and Anthropology at Freiburg University.

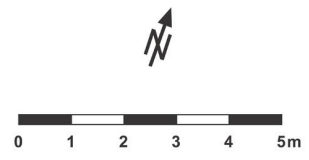


**Thugga 2001 - 2003**

**Grabung südlich der Maison du Trifolium**

Phasenplan  
Stand 5.6.03

- numiderzeitlich
- frühkaiserzeitlich
- Mitte 2. Jh. n.Chr.
- 3. Jh. n.Chr.
- spätantik
- spätantike Gräber, ergänzt
- Grabungskante
- Störungskante



**Fig. 2 :** Plan of the excavation area 2001 – 03 (Thugga project, D. Rothacher).





**Fig. 3 :** Excavation area, overview towards east (Thugga project, Ph. von Rummel).

What we found puzzling was the lack of any kind of structural protection in the burial places, as well as the lack of any finds in the accessory layers. The absence of any characteristics of the well-known dolmen graves made dating particularly interesting. The stratigraphic analysis of the layers immediately above the burial levels supplied us only with an approximate *terminus ante quem*, provided by the earliest datable pottery (3rd or 2nd c. B.C.).

We asked the Institute of Physics at Erlangen University to check the dating of the two skeletons by means of radiocarbon analysis. The result was quite astonishing: Both the first skeleton (Erl 5463: 3425

$\pm 62$  BP)<sup>27</sup> and the second (Erl 5953: 3350  $\pm$  48 BP)<sup>28</sup> date back to the first half of the 2<sup>nd</sup> millenium B.C.

In view of this early dating, the absence of any structural protection of the burial places became understandable because, according to the current state of research, the widely spread megalithic tombs only started to be built in North Africa in about 1500 - 1400 B.C. at the earliest<sup>29</sup>. The custom of laying the corpse down on its side and in a more or less contracted position is well attested in prehistoric North Africa, but the skeletons that have been dated with radiocarbon analysis up to now are much earlier, dating back to the early and middle neolithic period<sup>30</sup>. Our skeletons belong to the almost unknown period between the Capsien Neolithicum, ending in the 3rd millenium B.C., and the Phoenician colonisation in the Maghreb, starting in the early 1st millenium B.C.

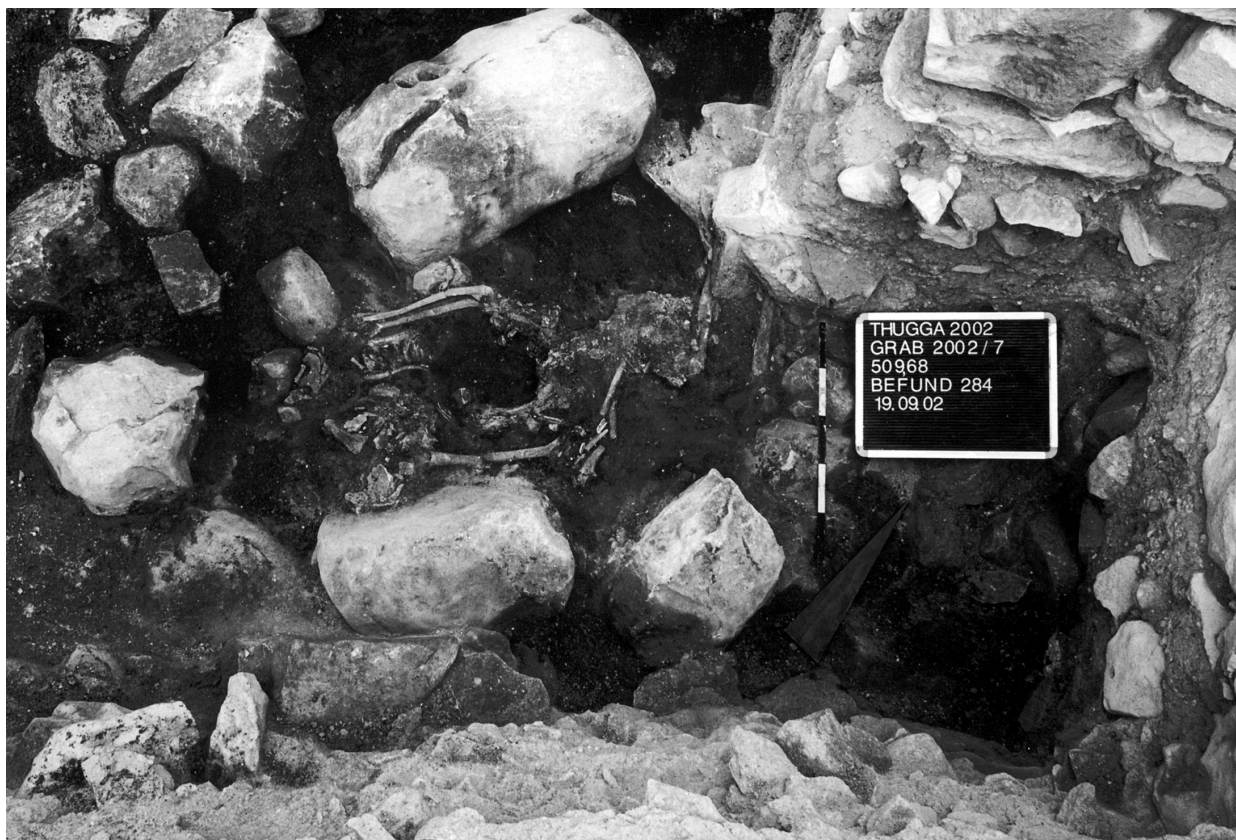
The two skeletons are by far the earliest testimonies of human activities at the site of later Dougga. Taking into account the early dating, i.e. several centuries before the Phoenicians started to settle on the North African coast, we can not assume that any durable settlement structures existed at Dougga at that time. However, our burials show for the first time that the flat terrain at the foot of the hill was frequented, probably by local nomads, as early as in prehistoric times, at least sporadically and for burial purposes. The fact that we found these skeletons exactly at the two places where we went down to the earliest layers points to the existence of further burials.

27. 1876 - 1636 cal BC (68.3 %), 1883 - 1529 cal BC (95.4 %). Calibration curve : STUIVER M. *et al.*, Radiocarbon, 1998, p. 1041-1083.

28. 1688 - 1529 cal BC (68.3 %), 1740 - 1522 cal BC (95.4 %).

29. See KUPER R. et GABRIEL B., Zur Urgeschichte, 1979, p. 41. However, this early dating is quite hypothetical because the finds from the numerous megalithic tombs of Dougga, Elles, Maktar and other places in the Tunisian hinterland date only to the 3rd and 2nd c. BC, as LUND J., Prolegomena, 1988, p. 46-47, has pointed out ; cf. CAMPS G., Nécropoles, 1995, p. 28-30.

30. See for example, the burials at the neolithic site of Doukanet el Khoutifa (Governorat de Siliana) dating back to the late 5th millenium B.C.: ZOUGHLAMI J., CHENORKIAN R. et HARBI-RIABI M., *Atlas préhistorique*, 1998, p. 10-20 with fig. - For other radiocarbon datings see CAMPS G., *Civilisations*, 1974, p. 158-162 ; NEHREN R., *Zur Prähistorie*, 1992, p. 182-207. - For the early history of the Mahgreb see CAMPS G., *Berbères*, 1995 (with further references).



**Fig. 4 :** Prehistoric burial I (Thugga project, M. Jung).

### **Numidian period : A modest court-house**

The first building activities in our area started more than a millenium after the two prehistoric burials had been made.

As mentioned above, a pre-Roman room had been partly uncovered in the western part of the Maison du Trifolium annex at the end of the previous German-Tunisian project (fig. 2, 1st phase). This room is enclosed by broad walls, 60 - 75 cm wide, and was accessible in the north-east corner by a stair leading downwards. The ground level is simple loamy soil. Since a great number of amphorae came to light in the layers immediately above the ground level, the room had obviously been used for storage purposes before it was abandoned and destroyed in the early Imperial Roman period.

The southern part of this pre-Roman building lies under the paving stones of a well-preserved Roman street, and we were, therefore, only able to continue our investigations several metres further south, i.e. on the other side of the street. Here we found a large Imperial Roman building complex (see below) whose simple floor coverings made it possible for us to go down to the deepest layers.

Under this Imperial Roman complex and its filling layers an earlier building complex was discovered, situated in the western section of our excavation area (fig. 2, 1st phase).

This building was bordered in the east by a massive, north-south orientated wall, as wide as 1.06 m and still as high as nearly 2 m ; only its northern part is not preserved because it was destroyed in the course of later building activities. The



**Fig. 5 :** Western section, towards west (Thugga project, M. Jung).

area on the eastern side of the wall obviously remained vacant at that time because all floorings and walls we found belong to a later period<sup>31</sup>.

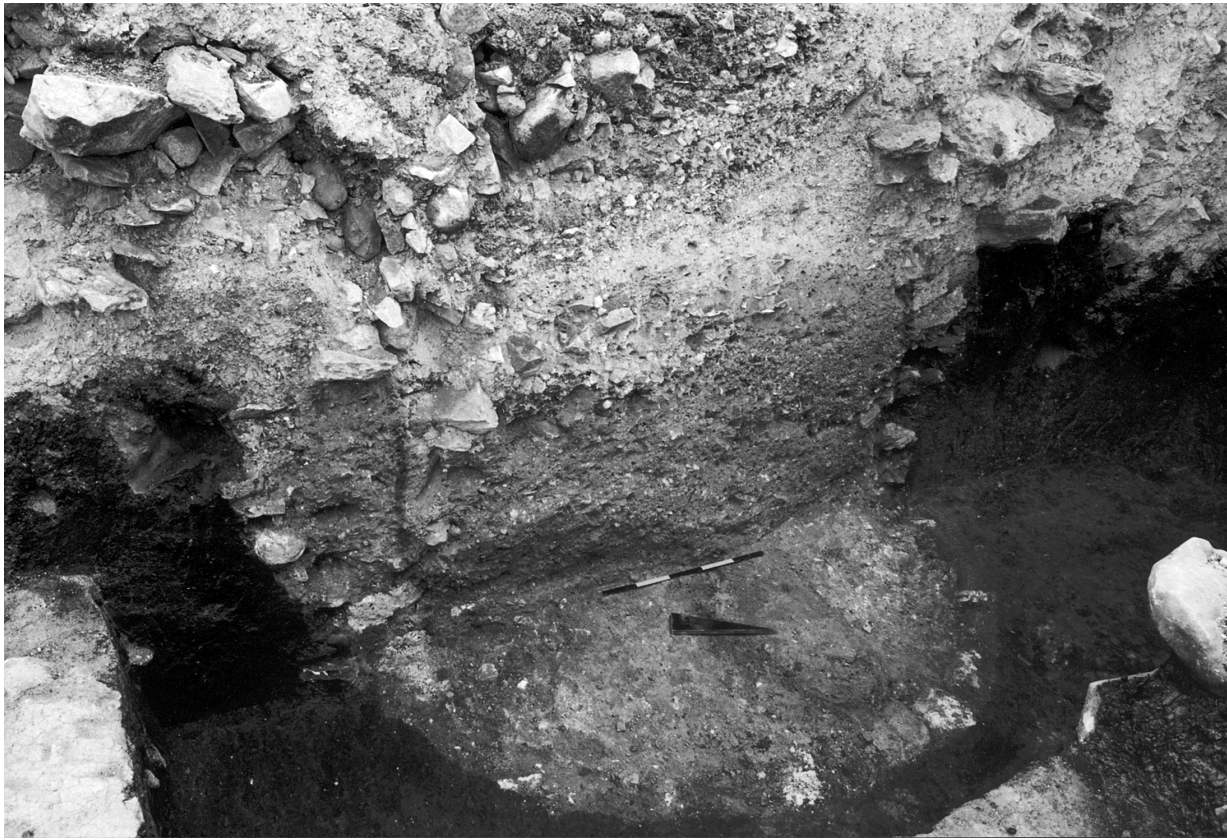
The building consisted of an open court in the north and some small rooms in the south (fig. 2 ; 5). Until now, only one of these rooms has been almost completely uncovered. This room is 4.80 m long and nearly 2 m wide and has loamy soil. A broad opening in the eastern part of its south wall gave access to an adjoining room with the same kind of soil on the same floor level ; towards the west, at least one other room was adjoined. The main entrance of the room, later to be blocked by a wall constructed with mud bricks, was originally situated in the north-eastern corner and lead into the open court.

31. The only earlier structures are the remains of two walls, situated at the eastern boundary of the eastern section, which form the north-west angle of another building orientated eastwards.

In the vast area of the court, a clay layer with an irregular surface containing a lot of unhewn limestone blocks was found on the same level as the smooth floors of the southern rooms. On the simple floor of the court, two fireplaces of different shape and function were uncovered.

A small fireplace serving as a hearth was detected near the eastern wall of the court. It consisted of a small, circular, bowl-like pit with a diameter of 20 cm, surrounded by limestone blocks and filled with compacted, burnt, red and orange clay. Open hearths of this sort are known, for example, from the Punic houses of Kerkouane<sup>32</sup>.

32. FANTAR M.H., *Kerkouane*, 1985, p. 155-156. 158. 285 pl. 116a (from no. 1, rue du Sphinx).



**Fig. 6 :** Numidian furnace (Thugga project, M. Jung).

A more monumental structure was found further west, in the centre of the court (fig. 2 ; 6). The upper part of this facility consisted of trapezoid, low compartments of very limy clay, up to 36 cm long, which were arranged in the form of a circle around a large pit. These panels were embedded in dark, red-brownish clay and built up in several layers, the upper panels being slightly inclined to the interior and forming the lower part of a cupola sitting directly on the soil of the court. The interior wall of the pit was made of dark-red clay, 3 - 4 cm thick, backed by closely packed, deep red limestone blocks. The slightly conical pit, having a maximum diameter of 1.40 m and being 1.40 m at the deepest point, was sunken into the clay layer covering the court and had obviously been used from the court level. The dark-red colouring of the interior wall indicates that it was affected by strong heat. Accordingly, the deepest layer

inside the pit consisted of black-grey ash interspersed with charcoal.

Which purpose could this facility, which had obviously been some kind of oven, have served ? It is unlikely to be a pottery kiln because of the lack of any of those elements that one would expect in such a case, i.e. a heating channel and traces of pillars or of a central pillar, needed as support for a circular grate separating the chambers for heating and for firing pottery<sup>33</sup>. A metal melting furnace is out of question because of the large measurements and the structure. The cylindrical shape, the construction with a massive clay wall backed by stones and with a vaulted edge point rather to a furnace for baking bread, like those

33. For pottery kilns in North Africa see STIRLING L.M. et BEN LAZREG N., Roman kiln complex, 2001, p. 220-235 esp. 231 (with further examples).



**Fig. 7 :** Roman street and remains of a Numidian wall (Thugga project, M. Jung).

used in the Arab world to this day, called *tabouna* in the Maghreb<sup>34</sup>. This type of furnace, where cakes of dough are placed against the walls through the top opening and baked, is already well attested for ancient Palestine, there named *tannur*, and was probably introduced by the Phoenicians into North Africa<sup>35</sup>. Underground furnaces of this type, partly

sunken into the earth, are usually 70 to 100 cm in diameter and up to 1 m high. Even though our oven is a little larger, the interpretation as a baking furnace is the most probable one.

The wall which once bordered the court in the north was found outside the later Imperial Roman building (fig. 2 ; 7). This massive wall, 80 cm wide, runs parallel to the north wall of the rooms in the southern part of the building. Only its foundations are preserved ; the upper parts had been demolished as far as was necessary for the construction of the later Roman street. The court enclosed by these walls was 6.80 m long, equivalent to 13 Punic cubits, and it had at least the same width, extending further to the west.

A *terminus ante quem* for the dating of this house was provided by the datable material from the filling layers directly on the floor level of the court. The

34. For this type of furnace see : DALMAN G., *Arbeit und Sitte*, 1935, p. 88-110 figs. 17-20 ; FORBES R.J., *Studies*, 1958, p. 61-65 with fig. 9. - Badly preserved furnaces of smaller dimensions, only 75 cm in diameter, have been found at Kerkouane : FANTAR M.H., *Kerkouane*, 1985, p. 156-160, 270 pl. 101 (no. 1, rue du Verrier) ; 285-286 pl. 116a. b (no. 1, rue du Sphinx). - At Carthage, this type of furnace is first illustrated in a small terracotta model, representing a baking woman, that was found in the necropolis of Borj Jedid and dates to the 5th c. B.C. : see FANTAR M.H., *Kerkouane*, 1985, p. 157. 288 pl. 118.

35. Furnaces dating back to the late 9th/ early 8th c. B.C. have been found in Sarepta / Lebanon : PRITCHARD J.B., *Recovering Sarepta*, 1978, p. 82-83. 88 with fig. 74.

latest finds from these layers, indicating a renovation of the court, date to the early 1st c. A.D., i.e. shortly after Dougga had come under Roman control (see below). The vast majority of the datable material that is relevant for the first period of this house belongs, however, to the 2nd and 1st c. B.C., i.e. to the Numidian period of Dougga.

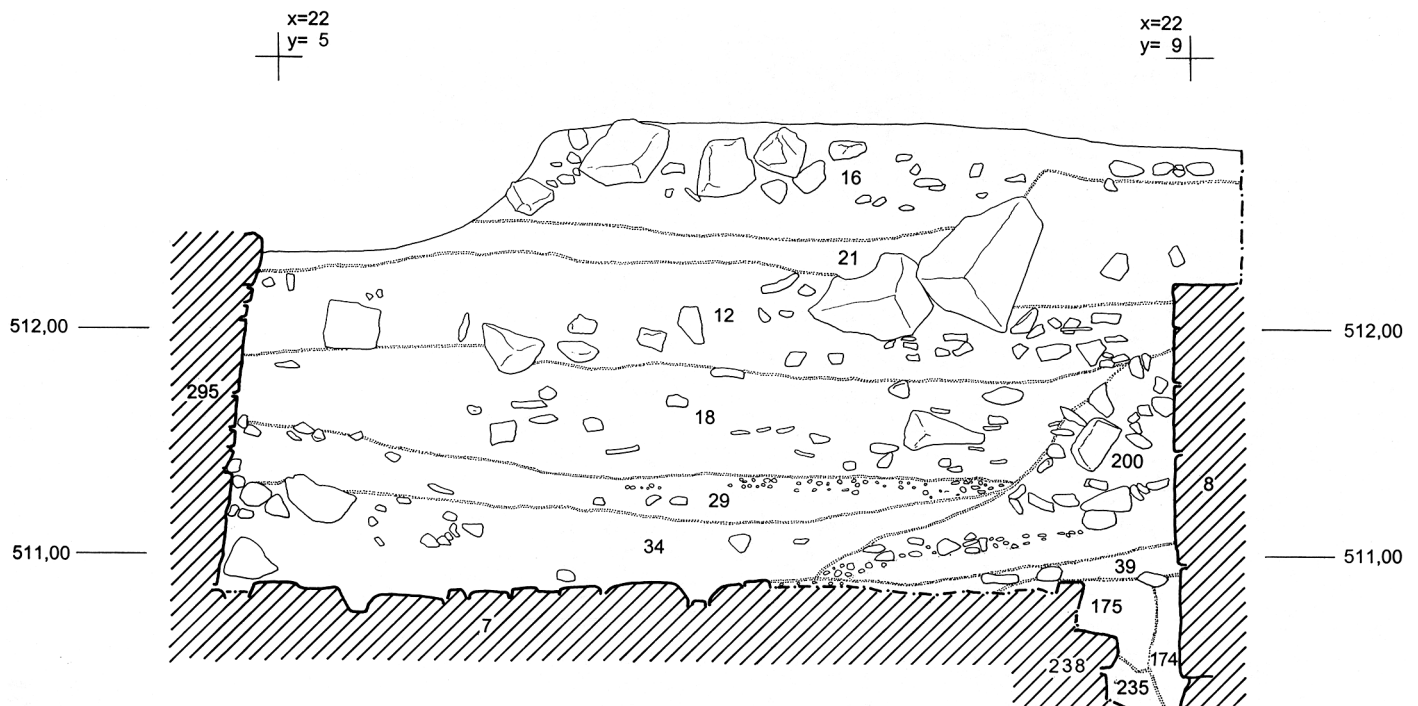
Among these finds were several fragments of amphorae of the Maña C2 and D types which were produced in North Africa from the 3rd c. B.C. onwards and were used for the transport of indigenous products. In Carthage they were found mainly in layers belonging to the decades before the destruction of the city in 146 B.C.<sup>36</sup> In the same layers we found several amphorae which were used for importing Italian wine, among them several fragments of Dressel 1A and 1C amphorae, the production of which started in the later 2nd c. B.C.

Other evidence of intensive trade with Italy is provided by fragments of fine wares of the Campana A and B types that were imported into Carthage and

other North African cities from the end of the Second Punic war. These Italian fine wares were also imitated in Carthaginian workshops, and in some cases where the origin of the vessels is uncertain, we might try to identify the region of production by means of chemical analysis of the clay.

We have also directed our attention to the different classes of household ceramics. In view of our limited knowledge of Dougga's early history, those vessel forms which, evidently going back to Punic traditions, are known especially from Carthage itself and which were produced there during the 3rd and 2nd c. B.C. are of special interest. The analysis of our stratified examples should increase our knowledge of the extent to which Punic forms continued being produced in the hinterland after Carthage had been destroyed in 146 B.C.

As far as the coins from these early layers are concerned, three outstanding bronze coins must be mentioned, which were discovered in the deepest layer above the soil belonging to the north wall of the pre-Roman court (fig. 8, stratigraphic unit 175). The coins, found close together directly in front of this



**Fig. 8 :** Western section, east profile: Roman street with late antique debris layers (Thugga project, W. Aulmann).

wall, are Roman asses which have the double head of Janus and the letter *I*, indicating the value of one as, on the obverse, and a *prora*, the *I* again and the legend ROMA on the reverse (fig. 9 a, b). The three coins belong to the same issue and were minted in Rome in 157/56 B.C.<sup>37</sup> Republican Roman asses are very rare in North African hoards and seem to have only had a minor circulation before Imperial Roman times<sup>38</sup>. Our coins very probably reached Dougga after the Romans had founded their African province in 146 B.C. On the other hand, their relatively good state of preservation indicates that they had been in circulation for hardly more than a century and were very probably deposited in the place of discovery before Dougga came under Roman control in 46 B.C. With regard to the intensive trade between the Numidian kingdom and Rome, these coins appear to have reached Dougga through commercial channels.

The earliest material from these layers dates to the 3rd and/or 2nd c. B.C. The significantly higher number of different finds dating from the middle of the 2nd c. B.C. onwards gives a clue to the dating of the building.

The findings from the pre-Roman layers deserve special interest because they cover a period that, as far as the archaeological evidence is concerned, is relatively poorly known in other cities in North Africa, especially since even the metropolis Carthage was uninhabited for more than a century after its destruction in 146 B.C. At the same time, Dougga went through a period of prosperity, the material remains of which we can now study in their variety and inter-connection, even if only in a very limited area.

In about the middle of the 2nd c. B.C., a medium-sized court-house was erected in our area, consisting of a court in the north, equipped with fireplaces, and a small elongated room with at least two adjoining rooms in the south which had off-centred entrances. Because of these characteristics, the building corresponds to the principles of Punic house construction typified by the houses in Kerkouane<sup>39</sup>. As yet, we do not know how



Fig. 9 : Republican Roman as (Thugga project, M. Jung).

far the court and the rooms extended towards the west and south, and where the outer entrance to the court was located. It is clear, however, that this was not a distinguished house of the type discovered on Byrsa hill at Carthage<sup>40</sup>, but a rather simple building, with clay soils and household installations, that may best be compared in its structural and technical features to some of the medium-sized houses at Kerkouane.

The time of the house's erection indicates that the numerous finds from the early layers have to be interpreted in the wider context of Dougga's flourishing time under Numidian rule. As is known from other

37. Cf. CRAWFORD M.H., *Roman Republican Coinage*, 1983, p. 244 nos. 197-198B/1b pl. 32,1. The weights of our specimens are 17.55, 18.86 and 21.28g.

38. ALEXANDROPOULOS J., *Circulation monétaire*, 1982, p. 96-98.

39. See FANTAR M.H., *Kerkouane*, 1985.

40. For the houses on Byrsa hill see LANCEL S., *Carthage*, 1995, p. 148-172 with figs. and bibliography.

sources, Numidia was trading intensively with foreign countries, especially Italy: The kingdom delivered grain in great quantities to Italy and received luxury goods, in particular wine and drinking vessels, in return<sup>41</sup>. At this time, Dougga, growing into a regional centre, experienced an economic boom. The finds from the early layers obviously came from this modest house and can therefore be regarded as evidence of the living conditions of its inhabitants. The spectrum of finds indicates that not only the local elites, but larger social sections, participated to a certain extent in the advanced, urban standard of lifestyle derived from the prosperity of Numidian Dougga.

### **1st c. A.D. : Minor modifications of the Numidian house, and the erection of a new building complex in the early Imperial Roman period**

In early Imperial Roman times, the pre-Roman house remained in use for some decades before it was destroyed in order to erect a completely new building at the end of the 1st c. A.D.

During the first decades of the 1st c. A.D., the pre-Roman house only underwent some limited changes concerning the court. Inside the court area, all earlier structures were destroyed, and a new clay soil, ca. 60 cm above the older one and up to 10 cm thick, was set up above the debris layers.

The only facility that was replaced was the furnace in the centre of the court (fig. 2). The old furnace was destroyed and filled up, and the new one, placed a little towards the south, was set above it. It corresponds to the earlier furnace in its essential features. It had a reddish clay wall, between 2 and 4 cm thick and backed by limestone, and was covered by a construction of trapezoid panels of lime, laid out in dark, red-brownish clay that were arranged around a large pit. These panels were set directly onto the new soil of the court, thus making the oven accessible from above. The new oven, up to 1.20 m deep and 1.20 m in diameter, was a little smaller than its predecessor.

Immediately south of the old furnace and set onto the soil of the Numidian court, a flat ash pit with a flat bowl of coarse ware in the centre was uncovered (fig. 2). The unusually good state of preservation and the location of the bowl indicate that it was deposited there intentionally. The practice of depositing vessels in order to mark the beginning of building activities is well attested to at Punic Carthage, but also at other sites in North Africa, until Imperial Roman times<sup>42</sup>. Our finding should very probably be interpreted as a foundation deposit which was set up in order to mark the beginning of the reorganisation of the court.

The latest material from the debris layers between the old and the new soil of the court indicate that these activities took place during the first decades of the 1st c. A.D. We found here, for the first time, several amphorae of the Dressel 2-4 type, the production of which started in the late 1st c. B.C. and which were used for transporting wine. These were not only produced in Italy but, as in the case of some of our fragments, also in Spain. The amphorae were accompanied by Italian terra sigillata vessels which were produced and widely exported from Augustan times. The latest examples from these layers date to the late Augustan or early Tiberian period.

Some flat, multi-coloured layers that were found widely spread directly on the new soil of the court are of special interest concerning the activities which happened during the following decades. These layers consisted of debris giving a clue to the use of this house or, more probably, of adjoining buildings before the house was almost completely destroyed at the end of the 1st c. A.D. Among them was one layer, found to the east of the furnace, that contained more than 10,000 closely packed fragments of pottery covered by a thick ash layer. These fragments are almost exclusively cooking wares consisting of a few forms: pots, pot lids, and plates. It is typical, local cooking pottery which, according to comparable finds from Carthage, was produced from Augustan to Flavian times<sup>43</sup>. The fact

41. See R.-ALFÖLDI M., *Zur Geschichte*, 1979, p. 55-56 (with further references) ; SLIM H., *Tunisie*, 2001, p. 82-83.

42. Archaic Carthage: NIEMEYER H.G., RINDLAUB A. et SCHMIDT K., *Karthago*, 1996, p. 12-13 with figs. 6-7. - Chemtou, Imperial Roman times : RAKOB F., *Der Tempelberg*, 1994, p. 30-31 fig. 37 pl. 11a-d (second half of the 2nd c. A.D.).

43. Compare MARTIN-KILCHER St., *Karthago*, 1999, p. 408. 426 cat. 49-64 figs. 49-64.



that many fragments showed an imperfect firing indicates that this ceramic debris was not brought from a great distance to this place. Thus it is fair to assume that a potter's workshop existed quite near to the building. This stratified pottery layer is well-suited to systematic study, for the first time, of the cooking pottery from Dougga. The careful examination and typological classification of these wares will make a substantial contribution to our knowledge of the regional production of cooking wares in the Carthaginian hinterland in early Imperial Roman times.

It is important to notice that the structural interventions taking place in the early 1<sup>st</sup> c. A.D. were limited to the court, which, despite its complete remodelling and new soil, continued to be used for economic purposes. The replacement of the furnace, as well as the fact that the alterations did not affect the structural design of the house, testify to a structural and functional continuity dating back to Numidian times that was not interrupted during the decades following Dougga's integration into the Roman Empire in 46 B.C.

However, with respect to the economic character of this quarter and the absence of any traces of comfortable residential arrangements, it is remarkable that quite a lot of Italian fine wares have been found in the layers of this period. The finds indicate that a standard of living had been established here that corresponded to the high standards of urban life known, for example, from Carthage in the first half of the 1<sup>st</sup> c. A.D.<sup>44</sup>

More substantial structural alterations took place in our area only at the end of the 1<sup>st</sup> c. A.D. At that time, the pre-Roman house was almost completely destroyed, and a new, larger building extending towards the east was erected on a nearly rectangular ground plan (fig. 2, 2nd phase).

The exterior walls of this building have so far been uncovered only in the north and east. The north wall, with a minimum length of 14.40 m, is ca. 80 cm wide and constructed in *opus africanum*. The pillars do not

extend the whole breadth of the wall but are fully visible only on its outer side where the masonry is significantly more regular so that the north facade of the house is emphasised by means of the construction technique. The east wall of the new building, situated at the east edge of the eastern section of our excavation area and being up to 1.20 m wide, is remarkably strong and was erected in single sections towards the south (fig. 10). These exterior walls of the complex are orientated to the broad east wall of the pre-Roman house, which was maintained and reused in order to divide the new building into two separate units.

In the western unit, all pre-existing structures, including the furnace as well as the small rooms in the south of the court, were completely destroyed and filled up with the demolition debris. A new clay soil was then laid, ca. 40 cm above the soil of the previous court. The only installation found belonging to the new, much larger court is a semicircular bench constructed of limestone and covered with plaster (fig. 2). This bench, ca. 50 cm high, was set directly upon the new soil and against the eastern wall of the court.

In the eastern unit of the new building, where no building activities had taken place before, an area 6.20 m wide was marked off, bordered by the pre-existing wall in the west and by the exterior walls of the new building in the north and east.

In the northern part of this area, a room 2.40 m wide was built, bordered to the south by a small wall (fig. 10). The entrance with a threshold of two blocks of limestone was discovered at the western end of this wall. In the western part of the room, the floor is a modest clay soil which extends to a flat, ca. 20 cm high setting of small limestone blocks separating the flooring into two parts. In contrast, the eastern, rear part of the room has a more extravagant soil floor consisting of mud brick slabs of different colours ; the slabs are between 40 and 60 cm long, between 26 and 30 cm broad, and 5 cm thick. Similar floors with slabs of comparable dimensions have been found, for example, at Carthage in rooms built after the reconstruction of the city during the reign of Augustus<sup>45</sup>.

Through the doorway in the south-west, this room gave access to a court with a simple clay soil (fig. 10).

44. Our ceramics from these layers are highly comparable to the findings coming from the Early Imperial Roman layers in the Magon quarter at Carthage ; see, for example MARTIN-KILCHER St., *Karthago*, 1999, p. 403-434 with figs.

45. STANZL G., *Mittelabschnitt*, 1991, p. 50 with pl. 14d (room R 65) ; 82 with pl. 24e (room R 69) ; TESCHAUER O., *Die römischen Befunde*, 1991, p. 192 with pl. 48f (rooms R 34, 35 and 37).



**Fig. 10** : Eastern section, towards south  
(Thugga project, M. Jung).

On this soil, two carefully hewn limestone blocks were found. One of them has a rectangular and slightly heightened surface with parallel grooves, and was probably used for some sort of work. The other stone has a conical pit in its upper part, 20 cm in diameter and 20 cm in depth, probably serving as a mortar or, as has been supposed in the case of very similar stones from Tiddis, as a bearing for the axis of a potter's wheel<sup>46</sup>.

The structural principles according to which the eastern unit of the building was designed are the same

46. Pitted Stones serving as mortar have been found, for example, in Kerkouane, see FANTAR M.H., *Kerkouane*, 1985, p. 160-161 ; 250 pl. 86b ; 263 pl. 94b ; 290 pls. 120-121. - As to the stones from Tiddis see BERTHIER A., *Tiddis*, 2000, p. 119-124 with fig. 31.

as the pre-Roman building, now destroyed, in the western section. A small, oblong room opens onto a court through an entrance, positioned off-centre in one of its long walls. A specific feature of the new room is its interior division by means of different floors.

At about the same time, a paved street was constructed to the north of the new building (fig. 2 ; 7 ; 8). During the following periods, this street was intensively used for through traffic, as shown by the deep traces of wheels.

A clue to the dating of these extensive building activities is given, on the one hand, by the finds from the building pit fillings of the new walls, and, on the other hand, by the finds from the layers immediately below the new floors.

Among the latest finds are several pieces of Gaul terra sigillata from the La Graufesenque workshops, imported to North Africa during the Flavian period<sup>47</sup>. This dating is confirmed by the fact that African red-slip ware came to light in these layers for the first time, but that these fragments, being found in only a small number compared to all the later layers, belong exclusively to the early forms of the ARS A type (namely Hayes 2, 3A, and 5A), the production of which started in Flavian times<sup>48</sup>.

The new building complex was not a luxurious house as, for example, the Maison du Trifolium which was erected some decades later only a few metres further north, with numerous rooms arranged around a spacious central court. The building differs from this house by its modest dimensions, the irregular ground plan and the lack of any distinguished architectural features, such as porticoes or mosaic floors.

However, the destruction of the pre-Roman house with its economic facilities, as well as the construction of a paved street, seem to have been the first steps of the transformation of this area into a distinguished residential quarter. This process does not seem to have been started in the middle 2nd c. A.D., as has been supposed for the whole city up to now, but several decades earlier. In our area at least, radical

47. For Gaul terra sigillata from Carthage see HEDINGER B., *Terra Sigillata*, 1999, p. 364-365.

48. See TORTORELLA St., *Ceramica africana*, 1995, p. 79-101 esp. 98-99 (with further references).

structural changes took place as early as in the Flavian period. The structural design and the modest fittings of this building show that until the 2nd c. A.D., in addition to the peristyle houses dominating our idea of residential buildings at Dougga, houses existed which were constructed based on the principles of Punic house architecture.

(SR)

### **Second half of the 2nd c. A.D.: The dereliction of the Flavian building**

During the second half of the 2nd c. (fig. 2, 3rd phase), the 1st c. structures south of the street were covered with two massive layers of rubble. Beneath ceramic finds dating up to the later 2nd c.<sup>49</sup>, the strata contained substantial quantities of wall plaster, fragments of wall paintings and stucco works, small fragments of mosaics, marble wall and floor panelling, vaulting tubes and nails. It is thus evident that the debris came from demolished residential buildings. Mixed with large quantities of spoil from earthwork, the material seems to have been brought to the research area during construction works in the vicinity.

The origin of the rubble is unknown, but it may be from the area of the Maison du Trifolium on the northern side of the street<sup>50</sup>. Generally, the construction of this complex is dated to the first half of the 2nd c.<sup>51</sup>, but there is as yet no reliable evidence for this dating. Assuming that this large building was constructed in the later 2nd c. after the demolition of earlier buildings, the demolition layers in the excavated area may have come from there. They may have been dumped at this plot in the south because this was the only (known) uninhabited place in the vicinity of the Maison du Trifolium where greater quantities of debris could be deposited. In addition, the plot was already separated from the street by the huge wall, making it an ideal place for the rubble.

It is still unclear how this plot was used after debris was deposited, which formed a layer deeper

than 1 m in most parts. It seems unlikely, however, that this area, surrounded by imposing buildings, was left unused, particularly in the heyday of Dougga in the later 2nd and the 3rd centuries. This may lead us to consider a garden or an open court. On the other, northern side of the street, four separated rooms were built in the course of the construction of the Maison du Trifolium. These small units opened onto the street with its plastered pavement and post holes for wooden structures, and were thus very probably shops or small workshops.

### **3rd c. : Extension of the Trifolium house**

In contrast to the area in the south, the section between the street and the Maison du Trifolium was reorganised once more in the 3rd c. (fig. 2, 4th phase). A new wall along the street closed and transformed the formerly open rooms on the southern wall of the Trifolium house in a section annexed to the large building. This construction formed a two-storey complex with six separate rooms, accessible by two entrances, from the Maison du Trifolium and the street respectively. The last room in the west had a toilet with a fresh-water connection to the Maison du Trifolium ; the other rooms were probably used as a housekeeping or economic section for the distinguished house<sup>52</sup>. Similar cases of extension of older buildings could be observed in the street section in the west, which had already been uncovered by French archaeologists in the course of the Trifolium excavation in the early 20th c.

These constructions strongly affected the street that was probably a part of urban public space. It became considerably narrower and lost its open space in front of the former shops, but was, looking at the traces of wagon-abrasions on the new walls, still in use after the construction of the annex. According to Dougga's rich epigraphic material, the 3rd c. was, however, a time of prosperity for the town<sup>53</sup>. It seems, therefore, that the owner of the Maison du Trifolium benefited from this urban wealth, extending his

49. The later finds from these layers contained several pieces of the ARS forms Hayes 3B + C, 7B, 8A, 9A.

50. HIESEL G. et STROCKA V.M., *Vorbericht*, 2002, p. 76.

51. STUTZ R., *Entwicklung Thuggas*, 2002, p. 120 with n. 72.

52. HIESEL G. et STROCKA V.M., *Vorbericht*, 2002, p. 76-81. 79 fig. 2 and pl. 8a.

53. DUPUIS X., *À propos d'une inscription*, 1993, p. 63-73 ; LEPELLEY C., *Thugga*, 1997, p. 105-114.

already impressive building to the south. Instead of first signs of decline, this 3<sup>rd</sup> cent. reduction of the street rather indicates a certain shortage of space within the town.

### Late Antiquity : Reduction of the Roman street and a Vandal-Byzantine cemetery

The paved street continued to be used up to the first half of the 4<sup>th</sup> c. Before different layers of debris were deposited on the former street, the pavement was removed from the eastern section and probably re-used elsewhere. This partial removal of the pavement and, therefore, the very clear loss of importance of the street can be dated by the first, mid/ later-4<sup>th</sup> c. layers on the remaining pavement in the western section, which serve as a *terminus ante quem*<sup>54</sup>. In the following decades, the former paved street space between the two walls was gradually filled with layers of debris, mud, waste and, in the upper layers, stones from the decaying walls (fig. 7 ; 8). The former street was now reduced to a footpath. In response to this new situation, the annex's exit to the former street was steadily adapted to the growing level of the path, up to, in the latest phase, three steps (fig. 2, 5<sup>th</sup> phase). According to 5<sup>th</sup> c. finds from the lower layers in the annex<sup>55</sup>, this building was in use at least one hundred years longer than the pavement on the other side of the wall. Included in the finds from the filling layers on the former street were considerable quantities of olive stones and bones from domestic animals. With regard to the ceramics of the late antique layers, the coarse wares seem particularly interesting. As opposed to comparable finds from Carthage, found in complexes dating to the 6<sup>th</sup> and 7<sup>th</sup> c., similar types of coarse wares come from 4<sup>th</sup> c. features in Dougga and show the long life of some forms and decorations.

Our excavation gives the first archaeological evidence of decline in private residential areas in Dougga in the 5<sup>th</sup> c. How this observation relates to

the town as a whole will remain unclear until other stratigraphic excavations give comparative clues. From other sites we know that towns could vary markedly from one quarter to another. It is, therefore, too early for any far-reaching conclusions, but we have to state growing evidence of an early decline in Dougga<sup>56</sup>. This is inconsistent with more optimistic positions, describing a homogeneously flourishing 5<sup>th</sup> c. in the African Provinces. It is, however, comparable with other archaeological investigations in the region. In the nearby town of Uchi Maius, for example, M. Khanoussi concludes that there was complete ruralisation after the second half of the 4<sup>th</sup> c.<sup>57</sup> The number of rural sites around Dougga, according to the results of the Italian survey in the region, diminished during the Vandal period<sup>58</sup>. It seems therefore that the dense and thus very fragile network of towns in the Oued Khalled region had already undergone a process of concentration in the 4<sup>th</sup> c. As C. Poinssot already assumed<sup>59</sup>, the larger town of Thubursicum Bure (Teboursouk) could have played a major role as a surviving economic and administrative centre of the region. The possible reasons for this process, forming a remarkable contrast to some written sources showing a highly productive Africa at this time are various and have to be discussed in a broader context.

The last imported amphora (type 'Carthage Late Roman Amphora I (LRA I)' from late antique layers dates to the 5<sup>th</sup> c. This shows that at least some imports from the East reached Dougga still in the Vandal period. Contrary to coastal towns like Carthage or Nabeul, there is, however, just little proof of supra-regional contacts after the late 4<sup>th</sup> c. This is comparable with the results of the Italian survey project around Dougga<sup>60</sup> and shows that in the Vandal period, victuals from other regions of the Mediterranean, and even decorated ARS wares, including lamps, from North or Central Tunisian production were not transported to the region around Dougga in great quantities. In the light of the late

54. The latest finds from this layer were fragments of ARS types Hayes 45B, 50A, 58A+B.

55. The publication of this 1998 - 2000 excavation is being prepared by R. Stutz.

56. Other signs of relatively early decay in Dougga can be found in LEPELLEY Cl., *Cités*, 1981, p. 218-223.

57. KHANOUSSI M. et MASTINO A., *Nouvelles découvertes*, 2000, p. 1271.

58. DE VOS M., *Risultati*, 2000, p. 20 ; 72-75 (tab. 2).

59. POINSSOT Cl., *Ruines*, 1958, p. 15.

60. CIOTOLA A., *Materiale ceramico*, 2000, p. 66.

4th c. ostraka from the circular harbour at Carthage, showing that state olive oil from the interior was also transported to Carthage in oilskins<sup>61</sup>, the evidence of lacking amphorae can, however, not be as easily transformed into historical conclusions as has sometimes been done in the recent past. In any case, further micro-regional investigations and comparisons are required to widen our knowledge of the late antique North African economy and its general influence on urbanism.

The most recent features in the researched area are ten human burials (fig. 2 ; 11). All of them are cist graves with an east-west orientation. The bodies lie stretched out on the back with the heads in the west. With one exception, the bodies were buried without any offerings. The finds from the exception, grave 3, were unfortunately chronologically irrelevant. The burial pits lay in the 3rd c. debris layer, giving a *terminus post quem*. The covering humus layer contained finds from all periods up to the 7th c., which give a *terminus ante quem*. A radiocarbon date of the right femur of the man from grave 4 (Erl 5462: 1562 ± 56 BP)<sup>62</sup> showed that the man (fig. 2 ; 11) died between the 5th and the first half of the 7th c. Unfortunately, a very flat calibration curve between the late 4th c. A.D. and the mid 6th c. A.D. does not allow more precise dating. Using the 1-sigma probability, there is a 68.2% chance that the man died in the Vandal period. Anthropological analysis of the skeletons showed that two of the burials were adults, a man over 60 years old and a woman between 40 and 60 ; the other burials were of a youth between 15 and 20, a child between 6 and 8, and six children between 0 and 4<sup>63</sup>. Because the eight graves of the younger individuals were arranged in two rows of four graves, while the man's and the woman's burials lay separated, this small cemetery may be that of a family. It is possible, however, that the cemetery had a larger extension, so that clear evidence with respect to the relation of the individuals may only come from a DNA analysis.

A young girl (burial 3 ; fig. 2) was buried with a necklace of small, black and white glass beads and an



**Fig. 11** : Late antique burial 4 (Thugga project, M. Jung).

armlet of bronze, found on the left forearm. In North Africa, where graves from the Christian period regularly had no offerings, this child burial from Dougga is uncommon, but not unique. As in other regions of the late antique and early medieval Mediterranean, North African Christian deceased could also sometimes be buried with jewellery, but also with coins, jugs or lamps. This ritual is thus local, i.e. 'Roman', and not connected with some privileged burials with greater amounts of clothing, accessories and jewels representing members of the Vandal elite<sup>64</sup>.

Late antique and early medieval intra-urban burials are a common phenomenon in North Africa, as elsewhere and are visible in most researched towns. As S. Stevens and A. Leone suggest for Carthage, such burial groups may be a result of breaking up urban structures into different areas of settlement<sup>65</sup>. Unfortunately, we have to leave open the question of where these people lived before they buried their dead in the already abandoned area. In Vandal Carthage, the few known graves were randomly located in completely abandoned sectors of the city. Byzantine graves were mostly found around churches and outside the city wall, while small burial groups from the end of the 6th

61. PEÑA J.T., *Mobilization*, 1998, p. 117-238.

62. 420 - 560 calAD (68.2 %), 390 - 640 calAD (95.4 %).

63. A similar group of late antique burials was found at the forum of *Bararus* (Rougga), where only 3 of 11 individuals were adults : GUERY R., *Survivance*, 1985, p. 404.

64. As to these kinds of Vandal burials see VON RUMMEL Ph., *Habitus Vandalorum*, 2002, p. 131-141.

65. STEVENS S., *Sépultures*, 1995, p. 207-217 ; LEONE A., *Inumazione*, 2002, p. 233-248.

and the 7th c. are usually closely connected to residential and production areas<sup>66</sup>. Apart from a connection with a church, all other possibilities are conceivable for these not visibly privileged Dougga burials. Unfortunately, the Maison du Trifolium, of which at least one room has survived to the modern day, was excavated without any stratigraphic observation. The only information on the last period of dwelling in the vicinity is therefore the annex, abandoned in the 5th c. Further research into this area may improve our knowledge of the vicinity of this Vandal/ early Byzantine cemetery.

After its use as a cemetery, the area was no longer part of the medieval village of Dougga, situated around the centre of the ancient Roman town. Erosion of earth and debris from the hill produced a massive layer of humus. In modern times, the area was transformed into an olive garden and ploughed for the plantation of wheat until the beginning of excavations in 2001. The ploughed layer included material from all periods, starting with a silver denarius from Julius Caesar's time (46/ 45 B.C.) up to Turkish coins from the 18th c.

(PvR)

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66. LEONE A., *Inumazione*, 2002, p. 244-248.

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