



Studien zur Urbanisierung Nordmesopotamiens
Serie D: Supplementa

SUN
SERIE D
BAND 2

Alice Bianchi

Comparative Studies on the Pottery of Sector AK of the Royal Building in Tell Mozan/Urkeš (Syria)



Harrassowitz

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Herausgegeben von Peter Pfälzner

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The excavated area of the Royal Palace (Photo by Federico Buccellati) and a selection of pottery from Sector AK (Photos by Diadin Maghdalbek); Photo-Archive of the Urkesh/Mozan Archaeological Project.

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Preface by the editor of the series

The second volume of the sub-series D (Supplementa) of the series „Studien zur Urbanisierung Nordmesopotamiens (SUN)” is appearing soon after the first volume, entitled “Looking north”, which was published in April 2012. Alice Bianchi, both author and editor of this book, deserves all the credit for having enabled this quick publication. Her energetic and enthusiastic work on this book, in all stages of its preparation and production, was the key for this successful endeavour. It constitutes the dissertation of Alice Bianchi, which she submitted and defended at Tübingen University in June 2008 with the best possible grading of “*summa cum laude*”. It was my great pleasure to act as PhD supervisor of this excellent research, which we can now present to the scholarly public.

The decision to integrate this book into the sub-series D of “Studien zur Urbanisierung Nordmesopotamiens” was logical and most desirable in several ways. Firstly, because it perfectly represents our long-standing and very fruitful cooperation with the American team under the direction of Marilyn Kelly-Buccellati and Giorgio Buccellati, directors of the Urkesh excavation project. The Early Bronze Age pottery presented in this book comes from the American excavations in sector AK of the palace of Urkesh, which lies at the western fringe of the upper city. The primary material of comparison was the pottery from the excavations of the Deutsche Orient-Gesellschaft in the central part of the upper city of Tell Mozan, directed by the editor of this series and his wife Heike Dohmann-Pfälzner. Therefore, this study forms a strong contribution to the synthesis of the results of both teams. It is, consequently, a big pleasure for the editor to see this study appear in the same series in which the results of the German excavations at Tell Mozan/ Urkesh are published (sub-series A). The editor is very grateful to Marilyn Kelly-Buccellati and Giorgio Buccellati for supporting this publication idea. This also is a good occasion to again express my gratitude and that of the German Tell Mozan team to the American directors of the project for their long-lasting, generous and warm-hearted cooperation.

The SUN D Supplementa series is dedicated to comparative research on and general assessments of

the archaeology of the Syrian Jazirah, mainly in the 3rd millennium BC and especially with regard to the development of urban society. The general scope of the research carried out by Alice Bianchi is, therefore, the second good reason to integrate this book into the series. It is the first time that a complete and sequential corpus of pottery from the Early Jazirah IV and V periods (Mozan Sector AK Phases 2 to 4b) from one of the third millennium urban sites in the Khabur Region has been made accessible. These circumstances underline the special importance of this book for further discussions on pottery typology, pottery development and chronology of the Syrian Jazirah during the second half of the 3rd and the beginning of the 2nd millennia BC. Furthermore, Alice Bianchi presents a broad range of ceramic ware and form comparisons within the Syrian Jazirah and in the wider region, even up to the Upper Tigris Region in South-Eastern Turkey. This will make the book an indispensable source of reference for every scholar working on the urban culture of the Syrian Jazirah during the Early and the beginning of the Middle Bronze Age.

Apart from the author and our cooperative partners in the United States, the book also owes a lot to many other people – mentioned by Alice Bianchi in her own preface – in different stages of its production, to whom I want to express my gratitude, as well. In particular, I want to join in Alice Bianchi’s praise of our Syrian staff members from the villages around Tell Mozan processing the pottery in such a dedicated and careful manner. It was an exceptional experience and great pleasure to work together with them at the onset of the research which led to this book.

At the end of this long process, for the final realisation of this book, the Harrassowitz publishing house and its director Barbara Krauss deserve our special thanks. Furthermore, I wish to thank the University of Tübingen and the Unibund of the University of Tübingen for granting the necessary funds to enable the printing process. I am very happy that our university supports our research and publishing activities in such a generous manner.

Tübingen, April 2012
Peter Pfälzner

Preface by the Director of the Urkesh/Mozan Archaeological Project

The large ceramic corpus from the Royal Palace of Tupkish at Mozan, ancient Urkesh, presented from the beginning some very important and distinctive characteristics. It was associated with an architectural structure in a good state of preservation; the depositional history showed clearly that the building had been used for a relatively short period of time; and the presence of cuneiform legends in the relevant strata, with the names of Tupkish, Uqnitum and Tar'am-Agade, provided a firm chronological horizon. Just as importantly, it appeared that the assemblage had some typological peculiarities that made a comparative study all the more urgent. For this reason I suggested that Alice Bianchi, who had been working with us on the excavations, might undertake a study of the material from a comparative point of view, connecting the ceramics of the service wing of the Palace to the wider regional and sub-regional picture; she has skillfully constructed this picture of intersections and lack thereof. Her dissertation first and now its publication is the result of a fruitful on-site collaboration which involved her dedication to the analysis and her subsequent detailed study of the data. She deserves very much to be congratulated for her work.

With its focus on an assemblage so well defined, this is a fundamental contribution to the knowledge of the ceramics in the Upper Khabur region of Syria, especially since the data are so clearly stratified and closely linked with sealings of doors and containers excavated in the same area. Bianchi herself participated in the excavations, during which the data collection followed the standards of our project: the pottery lots from the excavations are collected in small batches (usually from approximately 1x1 meter with a maximum of 10cm depth and never more sherds than could be contained in a medium sized plastic bag) so that each relatively small group of sherds is connected to a very specific and circumscribed context. Although the data from AK are not complete, because as she rightly points out she does not include the data analyzed previous to her work, nor the data excavated and analyzed afterward, her total data base of 8,473 sherds is a very substantial corpus of shapes connected to ware types. In contrast, as she repeatedly points out in her comparative section, it is a serious drawback that so many contemporary excavations have published so little of their pottery.

The data from subsequent excavations in the same area as the present study, and their analysis, can be found in the Urkesh Global Record (www.arkesh.org > RECORD > A16) where the analysis of 5446 diagnostic sherds are presented with pertinent statistics.

A16 includes a portion of the Tupkish palace stone paved courtyard of the formal wing (Phase 2) and strata above from Phases 3 to 5. It is in this area that the seal impressions of Tar'am-Agade were excavated. More data from the excavations, relating to the same time periods, are found in the ceramics digital book within the Urkesh Global Record (www.arkesh.org > RECORD > CERAMICS).

In the comparative section she correlates definitions of wares across a number of sites which she gives concisely in Table 11 on p. 193. This is greatly enhanced by the inclusion of colored photographs of the AK wares, Plates I-VII. This correlation is very thoroughly done and extremely useful, especially in view of the difficulty of comparing types without the benefit of a coherent inter-site terminology, and the lack of verifiable standards. What happens is that different excavators stress different aspects of the ware characteristics, and secondly, even within what is considered a single ware there are chronological developments. As a result, wares need to be studied not only across sites, but also synchronically and through their diachronic development in single sites. Our ware study project, begun a number of years ago, is aimed at providing objective analysis standards by examining a data base of more than 500 sherds from Mozan taken from all time periods and all excavated areas. The sherds have been analyzed both with regard to clay and inclusions by using image analysis software on the scanned sections and correlating these data with X-ray element maps made in the laboratory using an electron microprobe. A preliminary report on this work has been published in *SAS Bulletin* 31/2 2008, pp. 8-12). The system is simple enough to be applicable to any field situation at any given site, and yet it produces highly sophisticated results that establish fully objective standards.

The second part of her comparative section deals with the shape types that Bianchi has identified both in the Urkesh AK sector and in the immediate area of the Khabur region and beyond. In each case, she points out the methodology of the analysis and publication of these types and reminds us that in most cases the final reports have not yet been published so that the data available are limited. It is striking how few comparisons there are: she found only 96 from Mohammed Diyab, 49 from Chagar Bazar, 41 from Beydar, 30 from Barri, 13 from Leilan, 12 from Chuera, etc. Most come from Tell Brak which does have a final report on the ceramics dating to the time periods under consideration. Her distributional maps of some ware types are very helpful.

This volume is a genuinely useful tool for an overview of the ceramics from Area AK by phase and the comparative material from the surrounding area. When the Urkesh Global Record is completed for this

area, the entire corpus with the specific contexts will be available for researchers. In the meantime Alice Bianchi is to be congratulated for putting together and analyzing this significant corpus of material.

Marilyn Kelly-Buccellati
Director Urkesh/Mozan Archaeological Project
Co-Director IIMAS, sponsor of the Urkesh/ Mozan
Excavations
Los Angeles April 2012

Ai miei genitori

Preface and Acknowledgments

The present study is the PhD thesis that the author submitted to the Faculty of Humanities at the Eberhard Karls University of Tübingen in April 2008 with the same title; it has undergone minor formal revision in preparation for the publisher. The writing of a dissertation can be a lonely and isolating experience, yet it is obviously not possible without the personal and practical help from numerous people, who I would like to warmly thank for their great support, without which the thesis and the volume would not have come to an end.

My sincere gratitude goes to Prof. Peter Pfälzner, my first advisor, who, many years ago, accepted me whole-heartedly as a PhD candidate. This dissertation would not have been possible without his support and his willingness. I am also very thankful to him for his generosity in giving me access to the unpublished material of his excavations at Tell Mozan and Tell Bderi. I deeply appreciated his suggestions, encouragement and extremely perceptive comments.

My promoter, Prof. Marilyn Kelly-Buccellati, has contributed enormously to the genesis of this doctorate both in terms of encouragement and practical advice. As Director of the IIMAS archaeological mission at Tell Mozan, she entrusted me generously with the ceramics of a sector of the excavation that became the basis of my research. Thanks to her lifelong experience with pottery and her insight in the material culture of the ancient city of Urkeš she gave me fundamental input and I am very glad that she agreed to be one of the supervisors of this work. I wish further to thank Giorgio Buccellati and Federico Buccellati for their practical and technical support regarding the information and database of the IIMAS-project as well as for their precious suggestions.

My enormous debt of gratitude to my parents can hardly be repaid: they encouraged and helped me during many years; they shared my interest and passion for archaeology and ceramics in particular, supported me in all decisions and choices and were always ready and at disposal for the right uplift in discouraging moments. I have received the same loving and fundamental support from my husband Yousef, who patiently was at my side in these challenging “PhD-years”; his support and pragmatism have been essential in bringing this work to a close.

I wish to express my deepest gratitude to my friends and colleagues Anne Wissing and Hala Attoura, who always gave me scientific and moral support, constructive comments in interesting and deep discussions and a great intellectual input. In the same way I received great and unconditional aid and an injection of optimism always at the right moment from Marta Abbado.

I warmly thank particularly Dr. Paola Sconzo, who was always ready to share information, exchange ideas

and to give me good advice. Great thanks go to my colleagues at the Institute for Ancient Near Eastern Studies at the University of Tübingen, for their scientific help and their solidarity. I am also very grateful to Riham Miqdadi and Conrad Schmidt for sharing of the data and information about the unpublished ceramics of the DOG-excavations at Tell Mozan, which they have studied in their dissertations. Similarly my thanks go to Deniz Yazın and Eva Geith for their information and their support regarding the unpublished pottery of the excavations of Tell Bderi.

The use of archaeometrical analysis and mainly the co-operation with Dr. Mustafa Kibaroglu, who investigated several ceramic types from eastern Anatolia and northeastern Syria in his PhD thesis, has been a very interesting interdisciplinary experience. Many enriching discussions with him allowed me to consider and analyse the pottery material from other viewpoints. I am very grateful for this collaboration, that gave me particular insights in manufacturing procedures, clay sources and ceramic trends.

My research for this dissertation was made more efficient and also much more extensive through the use of several electronic resources. I express my gratitude to Dr. Christoph Kümmel for his practical and specific advice and to his wife, Bettina Graf-Kümmel, for her moral uplift.

Great assistance for the research of my dissertation came also from Mrs Sibylle Baur, who enabled the access to all kinds of publications and always had encouraging words.

I wish to thank Prof. Konrad Volk for his constant encouragement and for interesting discussions.

A special expression of my gratitude goes to the memory of Prof. Paolo Emilio Pecorella, who not only had allowed the participation in my first archaeological excavation in the Near East way back in 1987, but mainly because, sitting in the *mudiriya*, he shared with me his knowledge and his love of ceramics, two elements that still form the basis of this dissertation thesis.

I wish to thank Dr. Stefano Valentini for constructive discussions about ceramics, their attributes and their development and for his kind suggestions.

My thanks go out to all mission directors and collaborators, who shared unpublished material and information that enriched this research enormously.

I owe the warmest gratitude to a number of people, who greatly contributed to insert the data and to prepare the graphical documentation accompanying this research: many young workmen of Tell Mozan and surroundings, Elena Zanolari, who also drew patiently many pottery sherds, and Dominik Alexander, who processed many diagrams.

I am especially grateful to James Walker, who gave me general support and specific explanations concerning the sector he excavated and documented at Tell Mozan.

My sincere gratitude goes to all my friends in Tübingen and to those in Ticino, for their assistance and patience over the last few years.

I would like to express my enormous gratitude to Dr. Brigitte Finkbeiner, who patiently and accurately controlled and corrected the English language of this research and also provided many stylistic suggestions and substantive challenges to help me improve my presentation and clarify my arguments. I am also thankful to Dr. Uwe Finkbeiner for his scientific support and encouragement.

The Swiss National Science Foundation is gratefully acknowledged for the financial support during the first two years of this work, that allowed among other things, a detailed documentation of the ceramic material.

I am very grateful to the University of Tübingen and to the Unibund of the University of Tübingen for generously financing this volume, and I am also very thankful to the Harrassowitz publishing house and its director Dr. Barbara Krauss for the technical support.

Of course, despite all the assistance provided by my supporters, I alone remain responsible for the content of the following, including any errors or omissions which may unwittingly remain.

Tübingen, 4th April 2012
Alice Bianchi

Summary

Tell Mozan, ancient Urkeš, is situated in northeastern Syria, 8 km south of the Syrian-Turkish border and 120 km west of the Syrian-Iraqi one. The site lies at about the same distance from the mountains of the Tur 'Abdin in the north, Jabal Abd al-Aziz in the southwest and Jabal Sinjar in the southeast. Between the last two the Khabur, a tributary of the Euphrates river, flows north-south. This piedmont territory, also known as the Khabur Triangle, is a rich, rainfed agricultural area, furrowed by several small wadis.

The site, with its upper and lower city, covers a surface of some 135 hectares, thus it appears to be one of the biggest sites of the third millennium in the north-eastern Syrian Jazirah. The central high mound rises to a height of 25 m and is surrounded by steep slopes. Since 1984 Tell Mozan has been the object of intense archaeological investigations by the International Institute of Mesopotamian Area Studies (IIMAS), Los Angeles, under the direction of Marilyn Kelly-Buccellati and Giorgio Buccellati. Besides small trenches in the Lower City the main efforts of the IIMAS research concentrated in the Upper City where part of the imposing eastern boundary walls, a large temple in the centre of the high mound, private houses and the royal palace were brought to light. From 1998 to 2003 a cooperation project between the IIMAS and the Deutsche Orient-Gesellschaft (DOG) took place under the direction of Peter Pfälzner, University of Tübingen. The research of the DOG-team focused on the area immediately south of the temple where a central open area ('plaza') and a dwelling quarter were unearthed.

The present publication is the updated version of the PhD thesis that the author submitted at the University of Tübingen in 2008. The work is based on the study of part of the ceramic material unearthed in the southwestern area of the Tell Mozan mound, the area which hosted the royal palace of the ancient city of Urkeš, excavated since 1990 by the IIMAS-team. The material taken into consideration has been assigned by the excavators to three main occupational phases which cover the last quarter of the third millennium BC: the oldest phase is related to the storehouse AK as a service wing of the royal palace (phase 2), the following phase concerns the re-use of the same area as a kind of dependency (phase 3), and the latest phase represents a functional change, when the area took on a rather domestic character (phase 4). The main focus of this work is directed at the relation of this material to the pottery retrieved at several sites located within the Syrian Jazirah and in neighbouring regions such as the Balikh Valley, the Iraqi Jazirah and the Upper Tigris Valley.

The first three chapters of the volume illustrate in detail the aims of the research as well as the historical,

chronological and archaeological contextualization of Tell Mozan and of the analysed material. Chapters 4, 5 and 6 are dedicated to the method used to process the various attributes of the analysed ceramics, the definition of the ware types and the catalogue of the shape types. A total of 8473 diagnostic samples from complete pottery lots retrieved in the excavation units of the service wing AK, of the adjacent rooms of area AH and of the overlying settlement (hereafter subsumed under the term 'area AK') was analysed and processed according to a coding system based on descriptive criteria ranging from the state of preservation to firing and manufacturing techniques, to temper and to ware and shape type (see Tables 3 and 4, and Figure 4). The results of this analysis are shown in a systematic way in Chapter 7: within each phase the individual shape types are described – according to the structure of the shape catalogue, from the unrestricted forms of bowls and cups to the restricted forms of jars and pots – together with the wares used to manufacture the respective shape. Subsequently, the development of a shape type is followed through the phases, thus establishing a sequence of ceramics types (shown in Plates 1 to 80). These are considered representative of the span of time covered by the three phases, and just for the ceramics in use in and around the royal storehouse (in phase 2), the dependency (in phase 3) and the dwelling quarter (in phase 4). Moreover, the quantitative distribution of the shape types within the phases shows a major homogeneity of shape types between phases 2 and 3, on one side, and phases 4a and 4b, on the other side; in other words, from phase 3 to phase 4 we witness the major changes in the shape repertoire. Some shape types disappear, while new ones make their appearance; or the presence of other types considerably diminishes or increases in comparison to the previous phase; we also observe a switch in the manufacture where some shape types keep being produced, but in a different ware. The same is true for the decorative patterns, where comb-incised or applied motives are more common in phases 2 and 3, contrary to incised wide stripes or bitumen painted motives that are more frequent or appear exclusively in phase 4.

The analysis of a selection of samples from a specific context and a limited time span can give us only a partial overview over the pottery production of the city of Urkeš. There remain some open questions, for example, whether the same material is representative of the ceramics in use during the same temporal frame in the other unearthed areas of the settlement of Urkeš and whether it is generally representative of the time span of phases 2 to 4 also beyond the Mozan boundary. These questions are considered in the next chapters of

the volume by means of a comparative analysis. The method used to analyse the pottery and to classify the shape types of area AK is referred to as the benchmark for the second step of this work, namely the comparison of those preliminary results with the ceramics of functionally similar and/or different structures uncovered in other areas of the same city, in the close surroundings of Tell Mozan and at more distant sites in order to investigate the potential contacts and common elements over a longer distance. The comparative analysis is not only based on the comparison of formal aspects, their frequency and their development in time. It aims furthermore to examine some specific pottery types from a technological point of view focusing on their characteristic attributes and their provenance, thus to point out their geographical diffusion and chronological extension. The criteria of definition and the processing method applied to the comparative analysis are briefly illustrated in Chapter 8. Samples comparable to the items retrieved in area AK at Tell Mozan were entered in a database template. Beside the three main elements on which the comparison is based, namely shape, ware and specific context of recovery, general data about the parallel sample are entered as well. The database allows to query a number of connections among different sites, shape and/or ware types or decorations or to ask after the relation between specific types and retrieval contexts in a certain span of time, etc. With the support of the database all recorded information is interactive and at disposal for all kinds of queries and allows a cross-checking of all data of Tell Mozan versus other sites and among those sites.

First, the comparison with a selection of the pottery retrieved in the dwelling quarter unearthed by the DOG-team in area C2 at Tell Mozan aims to investigate similarities and possible differences between the ceramics of two areas, which played different roles within the city of Urkeš; the former mainly fulfilling an official and administrative function, the latter a more residential one (see Chapter 9). Furthermore, the comparative analysis supports the correlation between the occupational phases of the two areas, which are not contiguous, one lying in the southwestern part of the mound and the other in the central-southeastern area.

In area C2 were selected 75 pottery lots from primary contexts (i.e. room inventories lying on floors) or from the first accumulations above the floors marking a total of 2013 diagnostic samples (sherds and complete shape samples) to be compared with the material retrieved in area AK. The chosen lots of area C2 have been assigned to phases C 12 to C 7 (second half of the third millennium BC). The comparison between the ceramic material of the service wing AK, the overlying settlement and area C2 shows that about one third of the compared pottery from area C2 shares the same attributes regarding shape and ware peculiarities with the ceramics retrieved in area AK, in other words one

third of the material is fully comparable. The remaining two thirds of the compared pottery from area C2 consist partially of shape types which appear similar, at first sight, but bear slightly diverging elements and/or are manufactured in another ware, making the samples not completely parallel. A smaller part consists of pottery providing a shape type that was not found in area AK at all.

One of the most important results of the comparison between the pottery of area AK and the selected items of area C2 is the correlation of the phases: the ceramics from phases 2 and 3 in area AK are mainly comparable with the ceramics from phases C 11 to C 8 in area C2; a great amount of samples of phase 2 has a counterpart mainly in the pottery assigned to phases C 11 and C 10 and secondly in the pottery assigned to phases C 9 and C 8. Similarly, the ceramics from phase 3 are mainly comparable with the samples retrieved in the contexts of phases C 9 and C 8, and just in the second place with those of phases C 11 and C 10. Pottery from phase 4 (a and b) is mainly comparable with the material assigned to phase C 7 in area C2. The ceramics of phase 2 have very few samples comparable with those uncovered in phase C 12 of area C2. More in general, the assemblages of phase C 12 show an extremely different repertoire compared to the pottery unearthed in phase 2; therefore a correlation between phase 2 and phase C 12 can be excluded. A brief comparison of the material from area AK with the material from phase C 6 (beginning of the second millennium BC) of area C2 has shown that common elements are very rare and that the pottery from phase C 6 contains completely different shape types as well as some wares that differ totally from the wares of phase 4 (e.g. Khabur ware in very large amount). The material of phase C 6 in area C2 has much in common with the pottery of phase 5 in the settlement overlying the palace.

According to the excavators' analyses of the stratigraphy and of the finds, phases 2 and 3 as well as phases C 11 to C 8 are assigned to the Early Jazirah IV period. More precisely, phase 2 of the service wing AK has to be set at the beginning of the Early Jazirah IV period. Phase 3 as well as phases C 9 and C 8, stratigraphically younger than phase 2 respectively phases C 11 and C 10, with a higher amount of directly comparable material, cover the second part of the Early Jazirah IV period. The material of the two areas in phases 4 and C 7 is quite homogeneous and differs substantially from that of the older phases (2 – 3 and C 11 – C 8). It must also be remarked that the recovery contexts of phases 4 and C 7 are quite similar; both lie within dwelling areas. They correspond to the Early Jazirah V period covering the end of the third millennium BC and contain a rather distinctive material that differs substantially also from the ceramics retrieved in the following Old Jazirah I period at the beginning of the second millennium BC.

Chapter 10 is dedicated to the compared sites, the selection of which is based on the location of each site in relation to Tell Mozan and on the availability of the material to be compared; in other words, it depends on the state of the pottery publication. The regions chosen for the comparative analysis extend from Tell Mozan in the centre of the Khabur Triangle along the axes of the four cardinal points. Towards the west the Balikh Valley, as the western border of the Syrian Jazirah and somehow the first natural caesura to the west, represents the western limit of the considered region; however a few sporadic excursions lead into the Middle Euphrates Valley, as well. The northern limit is represented by the Upper Tigris region, north of the Tur 'Abdin mountains, which were easily accessible from Tell Mozan through the Mardin saddle. Mainly the sites nowadays under salvage excavations in the region of the future Ilisu dam reservoir were investigated and compared. To the east the considered region corresponds to the area beyond the Jabal Sinjar until the Tigris Valley. The southern extension follows the course of the Khabur to the Euphrates.

The selected sites are briefly illustrated in view of their stratigraphy. The occupational phases containing comparable material, the ceramics attributes, the ware, and shape types are then compared and related to those retrieved in area AK at Tell Mozan. The comparative analysis is not limited to the comparison of the ceramics themselves but focuses also on a comparison of the very diverging terminology of the attributes; in other words, it attempts to correlate the ware definitions in use at the different sites and create a comparative chart assembling the common terms (see Table 11).

The results of the comparative analysis between, on the one hand, a representative selection of the pottery found in area AK of Tell Mozan and, on the other hand, the ceramics retrieved in area C2 at Tell Mozan and at other sites within the Syrian and Iraqi Jazirah and in southeastern Anatolia is summarized and illustrated, in a schematic way, in the final chapter dedicated first to some specific aspects regarding the manufacture of the analysed material, like some peculiar ware types and decoration patterns, that are discussed in detail, highlighting their characteristics, their provenance and their chronological and geographical diffusion. Secondly the shape types are presented, underlining their chronological extension, in other words, their development in the Early Jazirah IV and V periods, as well as their geographical diffusion. A selection of samples from area AK together with all comparable samples, sorted by type, is illustrated in the comparative plates (Plates 81 to 180), which allow an immediate perception of the shape types, their variations and diffusion.

Altogether the material considered for the comparative analysis consists of a heterogeneous selection of pottery (8632 items) retrieved at different sites and

published in considerably different amounts applying diverging criteria, which was compared to selected material from area AK (8473 samples). Nonetheless, among the material at disposal from the other sites and from area C2 of Tell Mozan a total of 1394 samples was comparable with one or more items from area AK at Mozan, with the individual samples in turn having one or more counterparts among the pottery retrieved in area C2 and at the other sites. Within the Khabur Triangle the Early Jazirah IV period has been investigated (and published) at a larger number of sites than has the following Early Jazirah V period, therefore we dispose of more data regarding the former period. This fact allows in consequence a more precise definition of the Early Jazirah IV period. The data of the Early Jazirah V period are based mainly on the excavations of areas AK and C2 at Tell Mozan and of Tell Brak – the 'core sites' with well stratified and clearly dated ceramics; another quantitatively relevant site is Tell Mohammed Diyab, but the dating of its material is to a large extent based on comparisons with other sites. More sporadically, the sites of Tell Barri and Chagar Bazar yield material from the end of the third millennium BC. The sites located outside the Upper Khabur Triangle complete the picture and provide important data about extra-regional diffusion, provenance and chronological development of shape, ware and decoration types.

The comparative analysis shows that the majority of the shape types has its counterparts mainly within the Upper Khabur Triangle; in general, the sites of Tell Mozan, Tell Brak, Chagar Bazar, Tell Barri, Tell Mohammed Diyab and Tell Leilan share a great number of elements in the Early Jazirah IV period. Except for Tell Leilan, those same sites provide the same results for the Early Jazirah V period.

Some very distinct bowl types are assigned to the Early Jazirah IV or V period, respectively; few shape types having a longer lifetime covering both periods often show a different ware manufacture or different decorations, two elements that contribute to decide the type's assignment to either of the two periods. In the Early Jazirah IV period Mozan bowls provide a number of similarities with bowls retrieved at Mari, in the Balikh Valley, in the Upper Tigris region as well as in the Iraqi Jazirah; in the Early Jazirah V period the elements in common with these regions are slightly different and consist rather of decoration types (e.g. radial burnishing-pattern, bitumen decorations). The majority of the bowl types is manufactured in the central Upper Khabur Triangle and has step-by-step influenced the surrounding regions, where they occur with a slight temporal difference. Cups are better attested in the Early Jazirah IV than in the Early Jazirah V period. Only a detailed comparison of shape and ware types and attributes of the manufacture can contribute to assign a cup type to a particular period. Either period may also be characterized by jar types

not only because of their shape, but also by the ware and/or decoration attributes. Pots are, like bowl types, more differentiated from one period to the other.

The comparative analysis of the common shape types retrieved at Tell Mozan, Tell Brak, Tell Barri, Tell Mohammed Diyab, Tell Leilan and Chagar Bazar confirms the previous suggestions by Lebeau *et al.* that the sites of the central Upper Khabur Triangle form a distinct ceramic province in the periods Early Jazirah IV and V.

In the Early Jazirah IV period the central Upper Khabur Triangle only sporadically shows elements similar to those found at the sites of Tell Beydar, Tell Chuera, Tell Bderi and Tell Melebiya, sites that follow other ceramic traditions and do not belong to the same pottery province. The common elements with the Balikh Valley, which also belongs to a ceramic province other than that of the central Upper Khabur Triangle, are often not contemporaneous but represent an influence that, sometime in the Early Jazirah IV period, began to move gradually from the Upper Khabur Triangle to the Balikh Valley and continued its course in the following periods, as is testified by some elements retrieved in the Upper Khabur Triangle in the Early Jazirah V period and in the Balikh Valley (and the Euphrates Valley) at the beginning of the Old Jazirah I period.

In this comparative analysis special space was given to some striking pottery types, which have been investigated in detail and are illustrated in the first half of the final chapter. Those ware types (e.g. the so-called 'Simple ware', the Grey ware, the Dark Rimmed Orange Bowl ware and the 'Early Transcaucasian ware') are first presented from an archaeological – macroscopical – point of view. The same ware types have also been object of archaeometrical analyses, which helped to describe some of their technological aspects in order to arrive at an in-depth definition of those pottery types. Besides a clearer definition of the individual ware type and its characteristics, the main goal of the archaeometrical analyses is the identification of the origin of the wares. Those analyses are based on several methods, like the petrographical, the geo-chemical and X-ray fluorescence spectroscopy and were done by a geologist of the University of Tübingen (Mustafa Kibaroğlu); besides the ceramic material retrieved in different areas of Tell Mozan, samples from other sites of the Syrian Jazirah and the Upper Tigris region have been looked at. The results of the archaeometrical analyses are then combined with the archaeological results, further evaluated and set in a wider frame with chronological and, in certain cases, trans-regional implications.

The results of three ware types were particularly interesting. The so-called Simple ware, which corresponds to the Calcareous Stone ware, is definitely produced with local clays (i.e. clays from north-eastern Syria) and by very skilled potters, who

mainly manufactured high-quality cups and bowls which are retrieved in greater amount compared to small jars and pots. This ware is distinctive of the Early Jazirah IV and V periods (with some qualitative and quantitative distinctions between the two periods) and it occurs mainly in the Syrian and in the Iraqi Jazirah; very few samples were also retrieved in the Upper Tigris Valley.

At Tell Mozan the few fragments assigned to the so-called Early Transcaucasian ware, providing a rough fabric with a chaff, mineral and also sand and/or calcite temper, burnished surfaces and a dark grey to dark brown to black colour, are mainly assigned to the Early Jazirah IV period. After a closer analysis, the samples turned out to be locally produced, in spite of some similarities with the burnished wares produced in the Transcaucasian and northeastern Anatolian regions; therefore this ware type has to be considered as a kind of derivative production of the original Early Transcaucasian ware, which was produced in the core region from the mid of the fourth to the mid of the third millennium BC.

On the other hand, the so-called Dark Rimmed Orange Bowls ware (DROB ware) is produced with clays from the Upper Tigris region, meaning that the samples retrieved in the Syrian Jazirah were brought from the north. This ware provides semicircular orange bowls with a plain or pointed rim and with a two to three centimetres high, dark brown to black stripe covering the upper part of the vessel. Bowls made of this ware were not retrieved in any particular contexts that would indicate a peculiar function of this rare bowl in the last third of the third millennium BC. In the Syrian Jazirah this time span knows the use of a great variety of bowl types manufactured in various wares and shaped the same as or similar to the Dark Rimmed Orange bowls. The presence in the Syrian Jazirah of such bowls from the Upper Tigris Valley, where DROB ware is widespread and found in great amount and where it might have served a particular (representative?) function, must be seen as an aspect of the relationship between those two regions, that may were possibly trading partners.

The whole comparative analysis combined with the archaeometrical investigations and the archaeological data highlights the fact that the ceramics retrieved within the central Upper Khabur region in the Early Jazirah IV and V periods represent in all respects not only an independent pottery province, but also embody a manufacture with individual types, features and trends only slightly influenced by the production of other regions, but even supplying input to the surrounding areas.

The imported pottery elements are, for example, identifiable in the DROB-ware vessels that were produced in the Upper Tigris region and brought to the Upper Khabur Triangle during mainly the Early Jazirah IV and secondly the Early Jazirah V period.

At the same time some sites within the Upper Tigris region show tangible traces of imported (noncalcareous) Metallic and Calcareous Stone wares. These types of ware testify material exchanges following a north-south axis through the Mardin pass and the Tur 'Abdin mountains as well as long contacts between the two regions. Furthermore, several rather decorative elements, like some comb-incised patterns, heringbone motifs or radial burnishing-pattern often combined with certain shape types, may stand for contacts/exchanges along an east-west axis, namely first between the eastern part of the Iraqi Jazirah (region beyond the Jabal Sinjar to the Tigris) and the central Upper Khabur Triangle, and in a second phase between the central Upper Khabur Triangle and the western part of the Syrian Jazirah, the Balikh and the Syrian Euphrates valleys (Figure 351). Other than the Euphrates, that served as an important communication axis, the Tigris river does not seem to have formed a major axis; at the sites along the river, north of Kuyunjik, and, more in general, in the eastern part of the Iraqi Jazirah no DROB-ware samples or other common elements have (yet) been found.

According to the excavation reports and the (not numerous) data about the levels assigned to the Early Jazirah V period at disposal by now, this comparative analysis shows that also in that period the central Upper Khabur Triangle was a flourishing region, including contacts to its neighbours. In the opinion of this author the eastern limit of the ceramic province of the Early Jazirah V period as published by Lebeau *et al.* has to be extended further to the east, in the same way as for the Early Jazirah IV period.

Several shape types alone or combined with certain decorative patterns are a peculiarity of the central Upper Khabur region; they characterize it as an autonomous region ruled by several important cities like, for example, Urkeš, Tell Brak (Nagar?) and Šehna, that were, for a certain time during the last third of the third millennium BC, independent urban entities in a rich agricultural region.

The results reached by this comparative analysis wish to offer a contribution to our understanding of the development of the material culture during the last centuries of the third millennium in the Upper Khabur region and at the same time to encourage further studies on all kinds of pottery types.

المنطقة كمنطقة حكم ذاتي حكمتها عدة مدن هامة مثل أوركيش وتل براك (ناغار؟) وشينا، والتي كانت مستوطنات مستقلة تقع في منطقة زراعية غنية ولفترة محددة خلال الثلث الأخير من الألف الثالث قبل الميلاد. ترمي النتائج التي تم التوصل إليها من خلال هذا التحليل المقارن إلى المساعدة في فهمنا لتطور الثقافة المادية خلال القرون الأخيرة من الألفية الثالثة في أعالي منطقة الخابور وفي الوقت نفسه لتشجيع مزيد من الدراسات على جميع أنواع أشكال الفخار.

ترجمة يوسف خاشو

DROB أو أية عناصر مشتركة في المواقع على طول النهر أوفي شمال كوينجيك أوفي الجزء الشرقي من الجزيرة العراقية. حسب تقارير الحفريات والبيانات (القليلة) عن السويات العائدة إلى فترة الجزيرة المبكرة ٥ والمتاحة الآن، يبين هذا التحليل المقارن أيضًا في تلك الفترة إن مركز أعالي حوض الخابور كان منطقة مزدهرة تملك اتصالات مع جوارها. في رأي المحررة فإن الحد الشرقي لانتشار فخار فترة الجزيرة المبكرة ٥ كما تم نشره من قبل *لويو وآل*. يجب أن يكون قد امتد كثيرًا باتجاه الشرق بنفس الطريقة خلال فترة الجزيرة المبكرة ٤. عدد من أنواع الشكل لوحدها أو متوحد مع أنماط فخار أخرى مزخرفة هي خاصة بمنطقة مركز أعالي حوض الخابور، والتي ميزت

من منتصف الألف الرابع إلى منتصف الألف الثالث قبل الميلاد. من جهة أخرى صنع ما يسمى فخار الزبادي البرتقالية الداكنة ذات الحافة (DROB ware) من طين من مناطق أعالي الدجلة، مما يعني أن العينات المأخوذة من الجزيرة السورية كانت قد جلبت من الشمال. يعطي هذا الفخار زبادي برتقالية شبه دائرية مع حافة مستقيمة أو مدببة، وشريط بني داكن إلى أسود اللون بارتفاع اثنين أو ثلاث سنتيمترات مغطياً القسم العلوي للإناء. لم تكن الزبادي المصنوعة من هذا الطراز عائدة إلى أية سياقات محددة والتي يمكن أن تشير إلى وظيفة خاصة لهذه الزبدية النادرة في الثلث الأخير من الألف الثالث قبل الميلاد.

تعرف هذه الفترة الزمنية في الجزيرة السورية باستخدام تشكيلة كبيرة من أنواع الزبادي مصنوعة بطرز مختلفة ومشكلة مثل أو بشكل مشابه إلى الزبادي البرتقالية الداكنة ذات الحافة. وجود هذه الزبادي في الجزيرة السورية من أعالي وادي الدجلة، حيث كان الطراز DROB منتشرًا وموجودًا بكميات كبيرة وحيث من الممكن أن تكون قد خدمت وظيفة محددة (مميزة؟)، يجب أن تُشاهد كمظهر للعلاقة بين كلتا المنطقتين واللتين كانتا من المحتمل شريكتين في التجارة.

بتوحيد كل من التحليل المقارن مع الأبحاث القياسية- الأثرية و البيانات الأثرية ظهرت حقيقة أن الفخار المدروس من منطقة مركز أعالي الخابور في فترتي الجزيرة المبكرة ٤ و ٥ يمثل كل المعايير وليس فقط مجموعة فخار مستقلة، وأيضًا يشمل صناعة أنواع فردية، وملامح و نماذج تأثرت فقط وبشكل طفيف بإنتاج المناطق الأخرى و حتى بتزويد المعلومات إلى المناطق المحيطة بها.

كانت عناصر الفخار المستورد-على سبيل المثال- قابلة للتحديد في الألوان الفخارية ذات الطراز DROB والتي كانت قد أنتجت في منطقة أعالي الدجلة و جلبت إلى أعالي حوض الخابور بشكل رئيسي خلال فترة الجزيرة المبكرة ٤ و ثانيًا خلال فترة الجزيرة المبكرة ٥. وفي الوقت نفسه كانت بعض المواقع ضمن منطقة أعالي الدجلة تظهر آثارًا ملموسة من الفخار الحجري الكلسي والمعدني (غير الكلسي). تشهد هذه النماذج من الفخار تغييرات المادة متباعدة محور شمال جنوب من خلال فتحة ماردين و جبال طور عابدين بالإضافة إلى الالتقاء بين المنطقتين. وعلاوة على ذلك، كان العديد في الواقع عبارة عن عناصر زخرفية مثل بعض الأنماط المزخرفة بمقاطع المشط، وزخارف عظم الرنكة أو النمط المصقول شعاعيًا الذي غالبًا ما تم توحيد مع أنواع شكلية محددة ربما تشير للعلاقات أو التبادل على طول المحور الغربي الشرقي، أي أولًا بين الجزء الشرقي للجزيرة العراقية (المنطقة الواقعة خلف جبل سنجر وحتى الدجلة) ومركز أعالي حوض الخابور وفي الطور الثاني بين مركز أعالي حوض الخابور والجزء الغربي من الجزيرة السورية، أي البليخ وأودية الفرات السورية (الشكل ٣٥١). وبخلاف الفرات الذي يخدم كمحور اتصالات هام لا يبدو نهر دجلة وكأنه يمثل محورًا رئيسيًا، لم تكتشف بعد - عمومًا بشكل كبير- أية عينات فخار من الـ

وتل بديري وتل ميلبية وهي مواقع تتبع تقاليد فخار أخرى لا تعود إلى نفس مقاطعة الفخار. إن العناصر المشتركة مع وادي البليخ، والتي تعود أيضًا إلى مجموعة الفخار أكثر من الفخار في مركز أعالي حوض الخابور، ليست غالبًا معاصرة لها بل تمثل تأثيرًا، أحيانًا في فترة الجزيرة المبكرة ٤، والذي بدأ يتحرك بشكل تدريجي من أعالي حوض الخابور إلى وادي البليخ ويستمر تأثيرها في الفترات اللاحقة كما إنها مثبتة من خلال بعض العناصر المأخوذة من أعالي حوض الخابور في فترة الجزيرة المبكرة ٥ ومن وادي البليخ (وادي الفرات) في بداية فترة الجزيرة القديمة ١.

أعطى في هذا التحليل المقارن حيزًا خاص لبعض الأنواع الفخارية والتي تم فحصها بالتفصيل والمشروحة في النصف الأول للفصل الأخير. تعتبر تلك الأنواع من الأشكال (مثل ما يسمى الشكل البسيط، الشكل الرمادي، شكل الزبادي البرتقالية الداكنة ذات الإطار و الشكل ما بعد القوقازي المبكر) الأولى التي تم عرضها من الناحية المجهرية- الأثرية. أنواع الشكل نفسها كانت أيضًا موضوعًا لتحليل قياسي-أثري، الأمر الذي ساعد بتحديد بعض الصفات التقنية وذلك للوصول إلى تعريف عميق لهذه الأنواع من الفخار. بالإضافة إلى تعريف أوضح لنوع الشكل الفردي وخصائصه، كان الهدف الأساسي للتحليل القياسي- الأثري هو تحديد أصل الفخار وكانت هذه التحليلات مبنية على عدة طرق، مثل البتروغرافية والجيوكيميائية والتحليل الطيفي عن طريق الأشعة السينية وقد تمت من قبل أحد جيولوجيي جامعة توبنغن (مصطفى كيارأوغلو)، بالإضافة إلى مادة الفخار المأخوذة من قطاعات مختلفة من تل موزان، فقد تم الإطلاع على عينات من مواقع أخرى من الجزيرة السورية ومنطقة أعالي الدجلة. تم دمج نتائج التحليل القياسي- الأثري مع النتائج الأثرية، وتم المزيد من التقييم و الضبط في إطار أوسع من التأثيرات الزمنية و الإقليمية -وفي حالات محددة.

كانت النتائج عن ثلاث أنواع فخارية بشكل خاص مثيرة للاهتمام. فما يسمى بالفخار البسيط، والذي يقابل فخار الحجر الكلسي، قد أنتج بالتأكيد بطين محلي (يقصد به: طين من الشمال الشرقي من سوريا) وبواسطة خرافين مهرة صنعوا بشكل أساسي كؤوسًا وزبادي بجودة عالية، والتي درست بكمية أكبر مقارنة بالجرار والأواني الصغيرة. هذا الفخار مميز لفترتي الجزيرة المبكرة ٤ و ٥ (مع بعض الفروق النوعية والكمية بين الفترتين) وظهر بشكل أساسي في الجزيرة السورية والعراقية، وأخذت فقط عينات قليلة من أعالي وادي الدجلة.

يعطي القليل من الكسر الفخارية في تل موزان والمنسوبة لما يسمى فخار ما وراء القوقاز المبكر نسبيًا خشنًا مع تبن، مع مزيج معدني رملي وأو كالسيتي مصقول السطوح وذات لون أسود إلى بني داكن إلى رمادي داكن، عائدة إلى فترة الجزيرة المبكرة ٤. بعد تحليل أقرب أصبحت العينات تنتج محليًا بالرغم من بعض أوجه التشابه مع الفخار المصقول المصنوع في ما وراء القوقاز و شمال شرق منطقة الأناضول

فترة الجزيرة المبكرة ٤ ضمن حوض الخابور في عدد كبير من المواقع مقارنة مع فترة الجزيرة المبكرة ٥ اللاحقة، لذلك نظمنا بيانات أكثر بالنسبة للفترة السابقة. تسمح هذه الحقيقة بالنتيجة بتعريف أكثر دقة لفترة الجزيرة المبكرة ٤. بنيت بيانات فترة الجزيرة المبكرة ٥ بشكل رئيسي على تنقيبات القطاعات AK و C2 في تل موزان وتل براك. المواقع الأساسية ذات الفخار المؤرخ ذو التسلسل الطبقي الواضح، وهناك موقع آخر ذو صلة من الناحية الكمية هو تل محمد دياب، ولكن تأريخ المادة تم على نطاق واسع مبني على مقارنات مع مواقع أخرى. أعطى موقعاً تل بري وشاغر بازار وبشكل أكثر ومتفاوت مادة تعود لنهاية الألف الثالث قبل الميلاد أيضاً. تكمل المواقع الواقعة خارج حوض الخابور الأعلى الصورة وتعطي بيانات مهمة حول الانتشار خارج المنطقة والمنشأ وتطور التسلسل الزمني للشكل والطرز وأنواع الزخرفة.

يظهر التحليل المقارن بأن لمعظم أنواع الشكل نظراً بشكل أساسي في أعلى حوض الخابور، وإن مواقع تل موزان وتل براك وشاغر بازار وتل بري وتل محمد دياب وتل ليلان تشترك بشكل عام بعدد كبير من العناصر في فترة الجزيرة المبكرة ٥. ماعدا تل ليلان، تعطي تلك المواقع النتائج ذاتها بالنسبة لفترة الجزيرة المبكرة ٥.

لبعض النماذج البارزة من الزبديات والعائدة لفترتي الجزيرة المبكرة ٤ و ٥، على التوالي، بضعة أشكال لها عمر أطول يمتد على طول الفترتين وغالباً ما تظهر تصنيع نوع مختلف أو زخارف مختلفة، وساهم عنصران في تحديد عائدة الطراز إلى أي من الفترتين الزمنية. أعطت زبديات تل موزان في فترة الجزيرة المبكرة ٤ عدداً من أوجه التشابه مع الزبديات المدروسة من ماري وفي وادي البليخ وفي منطقة أعالي الدجلة وأيضاً في الجزيرة العراقية، أما في فترة الجزيرة المبكرة ٥ فقد كانت العناصر المشتركة مختلفة في هذه المناطق وبشكل طفيف وتحتوي أيضاً على أنواع مزخرفة (مثل الانماط المصقولة شعاعياً وزخارف مرسومة بالقار). صنعت الغالبية من أنواع الزبديات في مركز أعالي حوض الخابور وشيئاً فشيئاً أثرت على المناطق المحيطة، حيث صنعت باختلاف زمني بسيط. كانت الكؤوس أفضل توثيقاً في فترة الجزيرة المبكرة ٤ من فترة الجزيرة المبكرة ٥. يمكن أن تساهم فقط مقارنة مفصلة لأنواع الشكل والطرز وسمات التصنيع في ربط نوع الكأس بفترة محددة. يمكن أن تتميز الفترة أيضاً بأنواع الجرار ليس فقط بأشكالها ولكن أيضاً بالنوع وألوان الصفات الزخرفية. كانت الألوان كأنواع الزبديات أكثر اختلافاً من فترة لأخرى.

يؤكد التحليل المقارن لأنواع الأشكال المشتركة المدروسة من تل موزان وتل براك وتل بري وتل محمد دياب وتل ليلان وشاغر بازار المقترحات السابقة من قبل لويو و آل، بأن مواقع مركز أعالي حوض الخابور شكلت إقليماً لفخار متميز في فترتي الجزيرة المبكرة ٤ و ٥. يُظهر حوض الخابور العلوي فقط في فترة الجزيرة المبكرة ٤ وبشكل منقطع عناصر مماثلة لتلك التي وجدت في موقع تل بيدر وتل خوبرة

اختيارها للتحليل المقارن من تل موزان في مركز مثلث الخابور على طول محاور أربع نقاط أساسية. باتجاه غرب وادي البليخ، على الحد الغربي من الجزيرة السورية حتى الانقطاع الطبيعي الأول إلى الغرب مشكلة الحد الغربي للمنطقة المعتبرة، بيد أن بعض الاستقاضات البحثية المتفرقة قد امتدت أيضاً إلى وادي الفرات الأوسط. ويمثل الحد الشمالي من منطقة أعالي دجلة، شمال جبال طور عابدين، والتي كان من السهل الوصول إليها من تل موزان عبر مرتفع ماردين. تخضع هذه المواقع في الوقت الحالي بشكل أساسي لحفريات إنقاذ في منطقة السد المستقبلي الاحتياطي إيليسو حيث تمت عملية البحث والمقارنة. إلى الشرق من المنطقة المعتبرة مقابل المنطقة الواقعة خلف جبل سنجار وحتى وادي دجلة. الامتداد الجنوبي يتبع مسار نهر الخابور إلى الفرات.

شُرحت المواقع المنتقاة بشكل مختصر من خلال تسلسلها الزمني. تحتوي مراحل الاستيطان على مادة قابلة للمقارنة كسمات الفخار وفتة الفخار وأنواع الأشكال تم مقارنتها وارتبطت بتلك التي اكتشفت في القطاع AK في تل موزان. ليس التحليل المقارن محدوداً بمقارنة الفخار نفسه ولكنه يركز أيضاً على مقارنة السمات الفنية المختلفة جداً، وبمعنى آخر حاول أن يربط بين تعريفات نوع الفخار المستخدم في المواقع المختلفة وخلق جدول يجمع المصطلحات المشتركة (راجع الجدول ١١).

إن نتائج التحليل المقارن بين المجموعة الممثلة للفخار المكتشف في القطاع AK في تل موزان من جهة، والفخار المكتشف في القطاع C2 في تل موزان وفي مواقع أخرى ضمن الجزيرة السورية والعراقية وفي الجنوب الشرقي من الأناضول من جهة أخرى هي مختصرة ومصورة بطريقة تخطيطية، خصص الفصل الأخير: أولاً لبعض السمات المحددة بالنسبة لتصنيع المادة المدروسة مثل نماذج الفخار الغربية وأنماط الزخرفة التي تم مناقشتها بالتفصيل وبالتركيز على خصائصها وأصلها وانتشارها الجغرافي والتسلسل الطبقي، وثانياً لنماذج الأشكال المعروضة، مع تحديد امتداد تسلسلها الزمني، وبمعنى آخر تطورها في فترتي الجزيرة المبكرة ٤ و ٥، بالإضافة إلى انتشارها الجغرافي. أدرجت مجموعة من العينات من القطاع AK مع كل الامثلة المقارنة حسب النوع وهي واردة في لوحات المقارنة (اللوحات ٨١ إلى ١٨٠)، والتي تسمح بفهم مباشر لنماذج الأشكال وتنوعها وانتشارها.

إجمالاً تحتوي المادة المأخوذة للتحليل المقارن على مجموعة غير متجانسة من الفخار، تم دراسة ٨٦٣٢ قطعة من عدة مواقع ونشرت إلى حد كبير بكميات مختلفة تطبق معايير متباينة والتي قورنت مع مادة منتقاة من القطاع AK (٨٤٧٣ عينة). مع ذلك يوجد بين المادة المتاحة من المواقع الأخرى ومن القطاع C2 في تل موزان ما مجموعه ١٣٩٤ عينة قابلة للمقارنة مع واحدة أو أكثر من النظائر من بين الفخار المدروس في القطاع C2 وفي المواقع الأخرى. تم البحث (والنشر) في

تحتل عناصر متباينة بشكل طفيف وأو صنعت في طراز مختلف، مما جعل العينات غير متماثلة بشكل كامل. يعطي جزء صغير يتألف من الفخار نوع شكل لم يكن قد وجد في القطاع AK على الإطلاق. إحدى أهم نتائج المقارنة مابين الفخار بالقطاع AK والقطع المنتقاة من القطاع C2 هي العلاقة المتبادلة بين المرحلتين: إن الفخار من المرحلتين ٢ و ٣ في القطاع AK بشكل أساسي قابل للمقارنة مع الفخار من المراحل C 11 إلى C 8 في القطاع C2، حيث أن كمية كبيرة من العينات من القطاع 2 لها نظير بشكل أساسي في الفخار العائد إلى المرحلتين C 11 و C 10 وثانيًا في تلك العائدة إلى المرحلتين C 9 و C 8. بشكل مشابه، فإن الفخار من المرحلة ٣ بشكل أساسي قابل للمقارنة مع العينات المكتشفة في سياقات المراحل C 9 و C 8 في المكان الثاني فقط مع تلك التي ضمن المراحل C 11 و C 10. الفخار من المرحلة ٤ (a و b) قابل للمقارنة بشكل أساسي مع المادة العائدة للمرحلة C 7 ضمن القطاع C2. بشكل عام أكثر، تبين التجمعات في المرحلة C 12 تكرارًا مختلفًا بشكل كبير مقارنة مع الفخار المكتشف في المرحلة ٢، لذلك يمكن استبعاد أي علاقة متبادلة مابين المرحلة ٢ والمرحلة C 12. إن مقارنة مختصرة للمادة من القطاع AK مع المادة من المرحلة C 6 (بداية النصف الثاني ما قبل الميلاد) من القطاع C2 بينت أن العناصر المشتركة نادرة جدًا وبأن الفخار من المرحلة C 6 يحتوي نماذج أشكال مختلفة كليًا وأيضًا فإن بعض الفخار يختلف بشكل كامل عن الفخار في المرحلة ٤ (يقصد به فخار الخابور وبكمية كبيرة). تشترك المادة في المرحلة C 6 في القطاع C2 بالكثير مع فخار المرحلة ٥ في المستوطنة التي تغطي القصر.

نسبة إلى تحليل المنقبين لتسلسل الطبقات الأثرية والاكتشافات فإن المرحلتين ٢ و ٣ وأيضًا المراحل C 11 إلى C 8 تعود إلى فترة الجزيرة المبكرة ٤. وبشكل أدق، يجب أن تعود المرحلة ٢ لجناح الخدمة AK إلى بداية فترة الجزيرة المبكرة ٤. إن المرحلة ٣ وأيضًا المراحل C 9 و C 8، وحسب التسلسل الزمني هي أحدث من المرحلة ٢ على التوالي المراحل C 11 و C 10، وفيها كمية كبيرة من مادة قابلة للمقارنة مباشرة تغطي الجزء الثاني من فترة الجزيرة المبكرة ٤. إن المادة من القطاعين في المرحلتين ٤ و C 7 متجانسة وتختلف جوهريًا عن تلك التي تعود لمراحل أقدم (٢-٣ و C 8-١١). ويجب أن يذكر بأن السياقات المستقاة من المراحل ٤ و C 7 هي متشابهة بشكل كبير، وكلتاهما تقعان ضمن القطاعات السكنية، وتتطابق مع فترة الجزيرة المبكرة ٥ ممتدة إلى نهاية الألف الثالث قبل الميلاد وتحتوي أيضًا مادة مميزة تختلف أيضًا بشكل جوهري عن الفخار في فترة الجزيرة القديمة ١ في بداية الألف الثاني قبل الميلاد.

خُصص الفصل ١٠ للمواقع المقارنة وتم الاختيار على أساس مكان كل موقع بالاتribاط مع تل موزان وتوفر المادة التي تم مقارنتها وبعبارة أخرى تعتمد على حالة النشر الأثري للفخار. تمتد المناطق التي تم

محدد مقارنة تلك النتائج الأولية مع فخار الهياكل المكشوفة المختلفة وأو المشابهة وظيفيًا في قطاعات أخرى من المدينة نفسها في المحيط القريب لتل موزان وأيضًا في أكثر المواقع بعدًا وذلك لتقصي الارتباطات المحتملة والعناصر المشتركة على مدى أبعد مسافة. لم يؤسس التحليل المقارن فقط على مقارنة المظاهر الشكلية وتكرارها و تطورها في الفترة المحددة بل يهدف إضافة إلى ذلك إلى فحص بعض النماذج المحددة من الفخار من الناحية التكنولوجية بالتركيز على سماتها المميزة ومصدرها وبالنتيجة أن نشير إلى انتشارها الجغرافي وامتدادها الزمني. شرحت معايير التصنيف وطريقة المعالجة المستخدمة المطبقة على التحليل المقارن بشكل مختصر في الفصل ٨. أدخلت عينات مقارنة مع القطع المكتشفة في القطاع AK في تل موزان إلى نموذج قاعدة البيانات. بالإضافة للعناصر الرئيسية الثلاث والتي بنيت عليها المقارنة، أي الشكل، النوع، والسياق المحدد للاسترداد أدخلت أيضًا البيانات العامة عن العينات المماثلة. تسمح قاعدة البيانات بتقصي عدد من الارتباطات بين مواقع مختلفة، كالشكل وأو أنواع الفخار أو الزخرفة، أو أن تسأل عن العلاقة بين أنواع محددة و سياقات عائدة إلى فترة زمنية محددة، إلى آخره. بدعم من قاعدة البيانات فإن كل المعلومات المسجلة تفاعلية وتحت الطلب لكل أنواع الأسئلة وتسمح بتدقيق جميع بيانات تل موزان مع المواقع الأخرى وبين هذه المواقع.

أولاً تهدف المقارنة مع عينات من الفخار المكتشف في الحي السكني المنقب من قبل فريق DOG في القطاع C2 في تل موزان إلى فحص أوجه التشابه والاختلاف الممكنة مابين الفخار من القطاعين والذان لعبا دورين مختلفين ضمن مدينة أوركيش حيث حقق السابق بشكل أساسي وظيفة إدارية ورسمية أما اللاحق فقد كان عبارة عن دور سكنية (راجع الفصل ٩). علاوة على ذلك فقد دعم التحليل المقارن العلاقة المتبادلة بين المراحل الاستيطانية لكلا المرحلتين وللتين لم تكونا بالمتجاورتين فإحداها تقع في الجزء الجنوبي الغربي من التل أما الأخرى فتقع في مركز المنطقة الجنوبية الشرقية.

تم اختيار ٧٥ مجموعة فخارية من القطاع C2 من سياقات متعددة (على سبيل المثال كانت سجلات الغرفة ملقاة على الأرضية) أو من التراكبات الأولى فوق الأرضية يبدو إن ما مجموعه ٢٠١٣ عينة مميزة من القطاع C2 (كسر فخارية وعينات ذات شكل كامل) قد قورنت مع المادة المكتشفة في القطاع AK. ترتبط المجموعة المنتقاة من القطاع C2 بالقطاعات C 12 إلى C 7 (النصف الثاني من الألف الثالث قبل الميلاد). تبين المقارنة مابين مادة الفخار لجناح الخدمة AK والمستوطنة المغطاة والقطاع C2 بأن ثلث الفخار المقارن من القطاع C2 يشترك بنفس السمات بالنسبة لخصائص الشكل والنوع مع الفخار المكتشف في القطاع AK، بطريقة أخرى فإن ثلث المادة قابلة للمقارنة. بينما يتألف الثلثان المتبقيان من الفخار المقارن من القطاع C2 بشكل جزئي من أنواع الأشكال والتي تبدو متماثلة من المشاهدة الأولى ولكنها

خلاصة

الزمني والأثري لتل موزان وللمادة التي تم تحليلها. كُرس الفصل الرابع والخامس والسادس للطريقة المستخدمة في معالجة كافة السمات المتنوعة لمادة الفخار المدروس وتعريف نماذج الفخار وكتالوج أنواع الأشكال. حلل ما مجموعه ٨٤٧٣ نموذج مميز من ضمن الكثير من الفخار الكامل والمكتشف في الوحدات المنقبة من جناح الخدمة AK من الغرف المجاورة للقطاع AH ومن المستوطنة المغطاة (تندرج تحت مصطلح "القطاع AK") وعولجت حسب نظام رقمي بني على معايير وصفية تشمل الحالة الترميمية للنموذج إلى تقنيات التصنيع والشوي، لتهيئة وتكوين وتشكيل النموذج (راجع الجداول ٣ و ٤، والشكل ٤). عُرِضت نتائج هذا التحليل بشكل منهجي في الفصل ٧: توصف أنواع الأشكال الفردية ضمن كل مرحلة حسب هيكلية كتالوج التصنيف، من الأشكال غير المحددة للزبديات والكؤوس إلى الأشكال المحددة للجرار والقنور- سويًا مع الفخاريات المستخدمة لتصنيع الشكل الخاص. بالتالي تم تتبع تطور نوع الشكل عبر المراحل الزمنية، وبالنتيجة تم تأسيس تسلسل أنواع الفخار (كما هو وارد في اللوحات من ١ إلى ٨٠). تعتبر تلك الأنواع كتمثيل لفترة من الزمن شاملة للمراحل الثلاث فقط للفخار المستخدم في وحول المخزن الملكي (في المرحلة ٢)، المبنى الملحق (في المرحلة ٣) والحي السكني (في المرحلة ٤). وعلاوة على ذلك فإن التوزيع الكمي لأنواع الأشكال في المراحل يظهر تجانس رئيسي لأنواع الأشكال بين المرحلتين ٢ و ٣، من جانب، والمرحلتين ٤ و ٥ من جانب آخر وبمفهوم آخر نشاهد في المرحلتين ٣ و ٤ التغييرات الرئيسية في دليل الشكل. تختفي بعض نماذج الأشكال، بينما تظهر أخرى جديدة، أو تزول نماذج أخرى أو تزداد بشكل كبير بالمقارنة مع المرحلة السابقة، نراقب أيضاً التغيير في الصناعة حيث استمر إنتاج بعض نماذج الأشكال، ولكن في شكل مختلف. يصح الشيء نفسه بالنسبة للنماذج الملونة، حيث كان النحت بالمشط أو وضع النقوش معروفاً أكثر في المراحل ٢ و ٣، عكس الخطوط الواسعة المحفورة أو النقوش المرسومة بالقار والتي كانت أكثر تكراراً أو ظهوراً بشكل خاص في المرحلة ٤.

إن تحليل أمثلة منتقاة من سياق محدد وضمن فترة زمنية محددة يمكن أن يعطينا فقط رؤية جزئية عن إنتاج الفخار لمدينة أوركيش. تبقى هناك بعض الأسئلة المفتوحة، على سبيل المثال فيما إذا كانت نفس المادة ممثلة للفخار المستخدم ضمن نفس الإطار الزمني في القطاعات المكتشفة لمستوطنة أوركيش وفيما إذا كانت ممثلة بشكل عام لفترة زمنية للمرحلتين ٢ و ٤؛ وأيضاً خلف حدود تل موزان. تم أخذ هذه الأسئلة بعين الاعتبار في الفصول التالية لهذا الكتاب عن طريق تحليل مقارن. إن الطريقة المستخدمة لتحليل الفخار ولتصنيف نماذج الأشكال في القطاع AK تعتبر كمعيار للخطوة التالية في هذا العمل، وبشكل

يقع تل موزان-أوركيش القديمة- في شمال شرق سوريا، ٨ كم جنوب الحدود السورية- التركية و ١٢٠ كم غرب الحدود السورية- العراقية. يقع الموقع ما يقارب المسافة نفسها من جبال طور عابدين في الشمال، وجبل عبد العزيز في الجنوب الغربي وجبل سنجار في الجنوب الشرقي. يجري نهر الخابور- وهو رافد من روافد نهر الفرات- وبين الجبلين الأخيرين من الشمال إلى الجنوب. كان هذا الإقليم الخصب- والمعروف أيضاً بحوض الخابور منطقة زراعية غنية و مطرة تتضمن عدة أودية صغيرة.

الموقع بمدينتيه السفلية والعلوية يغطي مساحة تقارب ١٣٥ هكتاراً وبالنتيجة يبدو الموقع كأحد أكبر مواقع الشمال الشرقي من الجزيرة السورية خلال الألف الثالث. يرتفع التل المركزي العالي إلى علو ٢٥ مترًا وجوانبه شديدة الانحدار. أصبح تل موزان منذ عام ١٩٨٤ موضوع أبحاث أثرية مكثفة من قبل المعهد العالمي لدراسات بلاد ما بين النهرين (IIMAS)، لوس أنجلوس، وتحت إدارة مارلين كيللي- بوتشيلاتي وجورجيو بوتشيلاتي. بالرغم من عدد الحفريات الصغيرة في المدينة السفلى فقد كانت الجهود الرئيسية لأبحاث IIMAS مركزة في المدينة العلوية حيث تم إظهار جزء من جدران السور الشرقي العالي، ومعبّد ضخم في مركز التل الأعلى وبيوت خاصة والقصر الملكي. تم بناء مشروع تعاون من عام ١٩٩٨ إلى ٢٠٠٣ بين IIMAS وجمعية أبحاث المشرق (DOG) تحت إدارة بيتر بفلتنسر، جامعة توبنغن. ركزت أبحاث فريق الـ DOG على المنطقة الواقعة بشكل مباشر إلى جنوب المعبد حيث توجد المساحة المفتوحة المركزية (الساحة العامة) وحيث اكتشف الحي السكني.

هذا الكتاب هو النسخة المحدثّة من أطروحة الدكتوراه التي قدّمتها المحررة إلى جامعة توبنغن في عام ٢٠٠٨م. العمل مبني على دراسة قسم من مادة الفخار التي اكتشفت في القطاع الجنوبي الغربي من تل موزان، وهو القطاع الذي ضم القصر الملكي لمدينة أوركيش القديمة، والمنقب عنها منذ عام ١٩٩٠م من قبل فريق الـ IIMAS. المادة التي تم أخذها بعين الاعتبار وتم تحديدها من قبل المنقبين تعود لثلاث مراحل رئيسية تغطي الربع الأخير من الألف الثالث قبل الميلاد: الطبقة الأقدم مرتبطة بالمخزن AK كجناح للخدمة في القصر الملكي (المرحلة ٢)، المرحلة التالية ترتبط بإعادة استخدام المنطقة نفسها كنوع من الاعتماد (المرحلة ٣)، تمثل المرحلة الأخيرة تغيير وظيفي عندما أخذ المكان طابعاً محلياً (المرحلة ٤). كان التركيز الرئيسي لهذا العمل على علاقة هذه المادة بالفخار العائد لعدة مواقع موجودة في الجزيرة السورية وفي المناطق المجاورة كوادي البليخ والجزيرة العراقية وأعلى وادي النجلة. توضح الفصول الثلاث الأولى من هذا الإصدار وبتفصيل زمني الأهداف من هذا البحث بالإضافة إلى السياق التاريخي والتسلسل



تعرض الصور عدة خطوات لتوثيق الفخار والتي تمت ضمن ساحة الفخار (تحليل عينات الدراسة، الرسم، إدخال البيانات). كانت تلك المهام موكلة إلى مجموعة من المساعدين من قرية تل موزان ومحيطها. في الصور: حمادى حمادى، حسين الهاشمي، عبدالكريم حسن، بنكين حسن، كاسترو عيسى، أحمد أومو، محمد أومو، أحمد مجدل بيك، لورانس مجدل بيك، جمعة مامو، رشيد مامو، أم توماس، أنا فيسنيك، أليس بيانكي.

The images show several steps of the pottery processing in the 'sherd courtyard' (analysis of diagnostic samples, drawing, data entry). The tasks were undertaken with a group of collaborators from Mozan and surroundings. On the images are: Hamade Hammade, Hussein al-Hashemi, Abdel Karim Hassan, Benghin Hassan, Castro Isa, Ahmed Omo, Mohammed Omo, Ahmed Maghdalbek, Laurence Maghdalbek, Juma Mamo, Rashid Mamo, Umm Tomas, Anne Wissing, Alice Bianchi.

شكر وتقدير خاص

وحسب نظام ترميز معقد. كانت المراحل النهائية عبارة عن إدخال المعلومات التي تم جمعها إلى قاعدة البيانات ورسم العديد من العينات المميزة والتدقيق النهائي. كنت ممتنة أن اكتشف أن مساعدينا من تل موزان ومحيطه قد أبدوا اهتمامًا كبيرًا بعملهم وبالفخر بحد ذاته وأيضًا مهارة في الرسم وفي تعلم نظام التوثيق 'الترتيب' والتعامل مع الحواسيب. وقد أثرتني العديد من ملاحظاتهم الحريصة والأسئلة والمناقشات حول سمات الفخار وأنواع الشكل والوظائف. وكان التعاون مفيدًا وفعالًا ومثمرًا، ما جعل العمل الذي أحرز في فناء الفخار ممتعًا جدًا وساعد على تحقيق المهام بشكل سريع.

إلى حمادي حمادي، بنكين حسن، أحمد أومو، محمد أومو، حسين الهاشمي، كاسترو عيسى، عبدالكريم حسن، جمعة مامو، أحمد مجدل بيك، لورانس مجدل بيك، رشيد مامو، ماجد خلو، أبعث بامتناني الكبير لعملهم ودعمهم الذي هو جزء لا يتجزأ من هذا البحث.

أود أن أخصص بعض سطور هذا المجلد لتسليط الضوء على مثال رائع عن مجتمع علم الآثار. تتألف الكمية الأكبر من المكتشفات الأثرية -كما يعرف كل باحث- إلى حد كبير من الفخار أو من الآلاف من الكسر الفخارية التي تحتاج إلى الدراسة والتوثيق. خلال المواسم الأولى لي في تل موزان، طبق المدراء مارلين-كلي بوتشيلاتي وجورجيو بوتشيلاتي-من مشروع IIMAS- فكرة إشراك وتدريب بعض العمال المحليين في عمليات الرسم وتوثيق الفخار. بعد عدد من الشكوك الأولية في بداية الأمر يجب أن أقر بأن الفكرة كانت رائعة، وأنا بالتأكيد تعلمت الكثير! ليست هذه التجربة والإنجاز المرتبط بها فقط جديرة بالذكر بل وتستحق الاحترام والشكر.

بدأ العمل بمعالجة الكسر الكاملة غير المميزة: حسب كتالوج الفخار كانت الكسر مخزنة ومعددة حسب كمية الفخار. في الخطوة الثانية ركز التدريب على تحليل الكسر المميزة حيث تم توثيق عدد من السمات بدقة

Special Acknowledgment

I would like to dedicate some lines of this volume to highlight a good example of community archaeology.

As every scholar knows, by far the biggest amount of finds at archaeological excavations consists of pottery, or rather thousands of pottery sherds that need to be analysed and documented. During my first seasons at Tell Mozan the directors of the IIMAS-project, Marilyn Kelly-Buccellati and Giorgio Buccellati, had the idea to introduce and train some local workmen in the procedures of drawing and processing of pottery. After some initial scepticism I had to admit that the idea was just great: I certainly learnt a lot! This experience and the related achievement are not only worth mentioning, but they deserve respect and thankfulness.

The work began with the processing of non-diagnostic body-sherds: according to the wares catalogue the sherds were sorted and counted per ceramics lot. In a second step the training focused on the analysis of diagnostic sherds where a set of attributes had to be carefully documented according to a complex coding

system. The final stages were the entry of the collected information into the database, the drawing of many diagnostic samples and a last cross-check.

I was very pleased to discover that the collaborators of Mozan and surroundings showed great interest in these tasks and in the pottery itself as well as much skill at drawing, learning the 'dull' processing system and dealing with computers. I have been enriched by their many keen observations, questions and discussions about ware attributes, shape types and functions. The cooperation was useful, effective and fruitful, it made work in the sherds courtyard very pleasant and helped to bring the tasks to a quick end. To Hamade Hammade, Benghin Hassan, Ahmed Omo, Mohamed Omo, Hussein al-Hashemi, Castro Isa, Abdel Karim Hassan, Juma Mamo, Rashid Mamo, Ahmed Maghdalbek, Laurence Maghdalbek, Magid Khellu goes my great gratitude for their work and support, which are an integral part of this research.

1 Introduction

1.1 Geographical and geomorphological situation of Tell Mozan and surroundings

Tell Mozan, ancient Urkeš, is situated in northeastern Syria, 8 km south of the Syrian-Turkish and 120 km west of the Syrian-Iraqi borders. It lies 490 m above sea level and at about the same distance from the mountains of the Tur 'Abdin (1326 m) in the north, Jabal Abd al-Aziz (920 m) in the southwest and Jabal Sinjar (1480 m) in the southeast. Between the latter two the Khabur, a tributary of the Euphrates river, flows from north to south (see Figure 1). This piedmont territory is also known as the Khabur Triangle, a rich, rainfed agricultural area, furrowed by several small wadis. The modern¹ average annual precipitation rate, taken over many years, ranges from 300 mm, in the southern part of the Triangle, to 600 mm in the north to northeastern part. The area of Tell Mozan reaches ca. 460 mm² per annum, which characterize the region's climate as continental humid.³ The climate knows torrid summers with a temperature of up to 45°C and an absence of rainfall, and cold winters (only a few degrees above zero) with high precipitations, “as a result of the passage of depressions moving from the west and whose tracks are steered by the subtropical jet stream”⁴.

Mozan, and the Syrian Jazirah in general, are geologically characterized by younger sedimentary rocks (mainly limestone, sandstone and marls) that were deposited during the Cretaceous and Tertiary eras.⁵ In the northeastern and in the western part of the Syrian Jazirah (west of al-Hassake) there are (outcrops of) quaternary basaltic rocks. Wirth describes the soils of Syria as follows: “Montmorillonite sind die vorherrschenden Tonmineralien”,⁶ and he adds further “Nur in Nordostsyrien kommen Klima- und Bodengunst zusammen: Die Ackerfluren nördlich von Hassatche mit ihren fruchtbaren, lößähnlichen Böden sind recht gut beregnet, während die ungünstigen Gipsböden südlich von Hassatche meist weniger als 250 mm Niederschlags empfangen. Damit ist die

Südgrenze des Anbaus in Nordostsyrien gleichermaßen eine Boden- wie eine Niederschlagsgrenze”⁷. Soil elements together with the favourable climate made and make the region suitable for agriculture. A series of recent investigations shows that besides the main rivers a large number of fresh-water springs was active in the Syrian Jazirah, that water tables were higher in the mid Holocene and that the environments were also more verdant and more wooded than at present.⁸

A recent study of the anthracological material from Tell Mozan undertaken by Deckers⁹ stresses that the vegetation of Tell Mozan belonged mainly to the deciduous oak-rosacea park woodland and thereby confirms that the diffusion of this type of park woodland extended much further to the south than was hitherto assumed. It implies also that firewood was constantly available. Besides oaks, rosaceae species and juniperus also other kinds of trees were attested, such as poplar, willow, plane and ash, which are more typical of a riverine vegetation. However, these data regard mainly the vegetation of the second half of the third millennium; in fact the open park woodland seems to decrease in the second millennium. Another important conclusion by Deckers is that the samples from Tell Mozan show continuity in the vegetation presence, although a slight climatic aridification has been noticed between 2250 and 2100 BC, which was followed by moister climatic conditions until 2000 BC. She did not find any evidence for a blast around 2350 BC, as suggested by Courty¹⁰ according to her analyses at Tell Brak, or later (around 2200 BC), as firstly assumed on the basis of the Tell Leilan material.¹¹

Another study concerning the archaeobotanical remains at Tell Mozan undertaken by Riehl¹² stresses that in the second half of the third millennium and particularly in the periods Early Jazirah III and IV, barley was the dominant crop, followed by emmer and free-threshing wheat. The situation changed significantly during the Early Jazirah V period, when the most attested crop became free-threshing wheat; barley was

1 These modern data may slightly differ from the data of ancient times, it is anyway assumed that the climatic patterns during the Holocene were very similar to those of modern times (see Riehl 2010).
2 Wirth 1971: map 3. The rainfall rate lies just above 300 mm during dry years (see map 4).
3 Wirth 1971: map 6.
4 Wilkinson 2003: 17.
5 Wilkinson 2003: 101. For more details about the geology of northeastern Syria see also Kibaroglu 2008, mainly chapter 2.2; about the origin of clay materials see *ibid.*, chapter 1.2.
6 The dominant clay minerals of the soils are montmorillonite. Wirth 1971: 114. See also map 2.

7 Just in northeastern Syria favourable climate and soil come together: the arable land north of Hassake with its fertile, loess-like soils is well rainfed, contrary to the unfavourable gypsiferous soils south of Hassake that usually receive less than 250 mm precipitation. Thus the southern border of cultivation in north-east Syria is equal to a border of soil and precipitation. Wirth 1971: 116.
8 E.g. Wilkinson 2003: 102-103.
9 Deckers 2010.
10 Courty 2001: 367-372.
11 Weiss 2000: 75-98, mainly 84-90. Weiss – Bradley 2001: 609-610.
12 Riehl 2010.

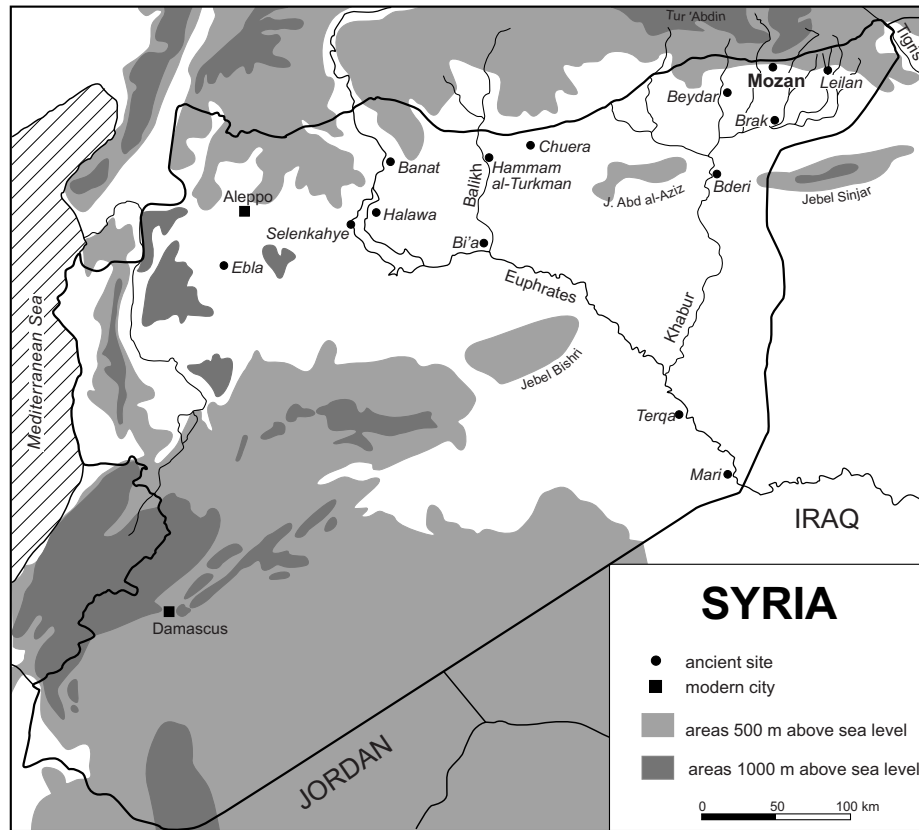


Figure 1: Map of Syria.

still present but to a significantly smaller amount and emmer decreased considerably (it was almost abandoned, but cultivated again in the Old Jazirah periods, when most likely a reorganization of agricultural activities took place). This change at the beginning of the EJ V period might be partially explained by more humid conditions (increased precipitation or soil moisture) starting around 2250 BC for a period long enough to lead to a new economic orientation under better growing conditions, maybe to satisfy a higher demand.¹³

The study of faunal remains of the dwelling quarter in area C2 at Tell Mozan carried out by Doll¹⁴ reports that domestic animals represented the majority of the species. They played different roles in daily life as labour power, as meat, for milk and wool. Sheep and goat are the most widely diffused small ruminants in the Early Jazirah periods, followed by pig and cattle. During the Old Jazirah periods the presence of the latter two increases slightly (above all that of pigs), very likely due to more humid conditions. All those small ruminants were bred in the neighbouring countryside and brought alive to the settlement, where they were slaughtered (mostly before they had reached the age of two) and eaten. Sheep were also bred for

wool production, which represented an important economical element. Besides the small ruminants donkeys, horses (since Early Jazirah IV–V) and dogs are attested. Some species of wild animals such as aurochs, onager, gazelle, leopard, wolf, fox and hare were hunted, but they represent only a small part of the faunal remains analysed, so that they were not the main meat source.

The general picture of the northern Jazirah must have been quite different from what we see nowadays; it was more similar to a verdant landscape with widespread cities and villages interspersed by cultivated fields, grassland and trees and also by some larger groves. In this type of countryside groups of small ruminants as well as scattered wild animals found their place. Thus, the agricultural and pastoral sector of the economy was assured.

Tell Mozan lies further in a very strategic geographical position, which puts the city in the centre of the long distance trade during the third millennium. In fact the vicinity to the Mardin pass (around 20 km to the north) connected Tell Mozan directly with Diyarbakir and the copper mines of Ergani Maden in the north.¹⁵ Above all during the third millennium, metals like copper were in very high request in the whole Syro-Mesopotamian region, so that it is not to

¹³ Riehl 2010: 65–69.

¹⁴ Doll 2010.

¹⁵ Kelly-Buccellati 1990: 117–131, mainly 119, 129 Plate 27.

be excluded that Tell Mozan played an important role in this kind of trade.

This brief summary about the geographical and geomorphological situation of Tell Mozan and the Upper Khabur Triangle points out, on the one hand, the prosperity of the region during the second half of the third millennium BC and shows, on the other hand, that Tell Mozan and its surroundings had enough environmental advantages to develop a local, flourishing culture in the second half of the third millennium BC. The present research aims to analyse the ceramic material retrieved at the ancient city of Urkeš and in the surrounding region and to illustrate the richness and variety of ware and shape types that mark the last centuries of the third millennium BC, particularly with regard to the historical, cultural and environmental evidence at disposal.

1.2 Objectives of this research

Pottery¹⁶ is not only a collection of vessel types but it embodies furthermore a handiwork that attests, among other things, the technological skill of a potter, his knowledge about clay properties and firing procedures, and it is a product that contributes to highlight an economical need (e.g. in case of mass production) or a trend as well as cultural diffusion and exchanges between sites and regions. Pottery is one of the most powerful means with which to delineate potential cultural common elements and is understood and used as such in this comparative analysis.

The present work is based on part of the ceramic material unearthed in the southwestern area of the Tell Mozan mound; the area which, at a certain point, hosted the royal palace of the ancient city of Urkeš, having thus an official and administrative function. Furthermore, the main focus will be represented by the relation of this material to pottery retrieved at several sites located within the so-called Syrian Jazirah.

The goals of this work are multifaceted. The material taken into consideration has been assigned to three main occupational phases: the oldest is related to the storehouse AK as a service wing of the royal palace (phase 2), the following phase concerns the re-use of the same area as a kind of dependency (phase 3), and the latest represents a functional change, when the area took on a rather domestic character (phase 4). These phases cover the last quarter of the third millennium BC (see below Tables 1 and 2).

First of all the study aims to illustrate the ceramics recovered in the specific functional contexts of area AK and to follow its development through the levels, thus establishing a sequence of ceramics types.

The method used to analyse the pottery and to classify the shape types of area AK will be referred to as benchmark for the second step of this work, namely the comparison of those preliminary results, on the one hand with the ceramics found in other areas of the same city, but functionally diverging, on the other hand with the pottery of functionally similar and/or different structures uncovered in the close surroundings of Tell Mozan and at more distant sites in order to investigate the potential contacts and common elements over a longer distance. The comparative analysis is not only based on the comparison of formal aspects, their frequency and their development in time. It aims furthermore to investigate some specific pottery types from a technological point of view focusing on their characteristic attributes and their provenance, thus to point out their geographical diffusion and chronological extension.

The comparison with a selection of the pottery retrieved at Tell Mozan, but outside area AK, namely with pottery from a dwelling quarter (area C2),¹⁷ aims to investigate similarities and possible differences between the ceramics of two areas which played a different role within the city of Urkeš. Furthermore the comparative analysis will support the correlation of the occupational phases between the two areas, which are not stratigraphically connected, one lying in the southwestern part of the mound and the other in the central-southeastern area.

The selection of the compared sites is based on the location of the site itself in relation to Tell Mozan and on the availability of the material to be compared; in other words, it depends on the state of the pottery publication. The sites with the fullest ceramic reports allow a more detailed comparison than those at a preliminary stage of publication. A couple of interesting sites will unfortunately have to be excluded, since pottery studies are still in progress and not yet published.

The regions chosen for the comparative analysis extend from Tell Mozan in the centre of the Khabur Triangle along the axes of the four cardinal points. Towards the west the Balikh Valley, as the western border of the Syrian Jazirah and somehow the first natural caesura to the west, represents the western limit of the considered region; however, a few sporadic excursions lead into the Middle Euphrates Valley as well. The northern limit is represented by the Upper Tigris region, north of the Tur 'Abdin mountains, which were easily accessible from Tell Mozan through the Mardin saddle. Mainly the sites nowadays under salvage excavations in the region of the future Ilisu dam reservoir will be investigated and compared. To the east the considered region corresponds to the area beyond

¹⁶ Hereafter the terms 'pottery', 'ceramics' and 'ceramic material' are used synonymously.

¹⁷ The complete ceramic material of area C2 has been studied by Riham Miqdadi and Conrad Schmidt of the University of Tübingen; for the comparative analysis a selection was made; in this regard see here Chapter 9.

the Jabal Sinjar until the Tigris valley. The southern extension follows the course of the Khabur river to the Euphrates.

The selected sites are briefly illustrated in view of their stratigraphy. The occupational phases containing comparable material, the ceramics attributes, the wares and the shape types are then compared and related to those retrieved in area AK at Tell Mozan. The comparative analysis will not be limited to the comparison of the ceramics themselves but focuses also on a comparison of the very diverging terminology of the attributes; in other words, it will attempt to correlate the ware definitions in use at the different sites with the goal to create a comparative chart assembling the common terms.

For a quick and comfortable management of the data regarding each compared item a database was created; it allowed to query a number of connections among different sites, shape and/or ware types or decorations or to ask after the relation between specific types and retrieval contexts in a certain span of time, etc. With the support of the database all recorded information was interactive and at disposal for all kinds of queries and allowed a cross-checking of all data of Tell Mozan versus other sites and among those sites.

Special space will be given to some striking pottery types, which deserve a detailed investigation and will therefore be treated separately. Those ware types, represented for example by the so-called 'Simple ware', the Grey ware, the Dark Rimmed Orange Bowl ware and the 'Early Transcaucasian ware', will be first presented from an archaeological, macroscopical, point of view. The same material has been object of archaeometrical

analyses,¹⁸ which will help to circumscribe some of its technological aspects in order to arrive at an in-depth definition of those pottery types. Besides a clearer definition of the individual types and their characteristics, the main goal of the archaeometrical analyses will be the identification of the origin of the wares. Those analyses are based on several methods, like the petrographical, the geochemical and X-ray fluorescence spectroscopy; besides the ceramic material retrieved in different areas of Tell Mozan, samples from other sites of the Syrian Jazirah and the Upper Tigris region have also been looked at.

The results of the archaeometrical analyses are then combined with the archaeological results, further evaluated and set in a wider frame with chronological and, in certain cases, trans-regional implications.

Particular attention is also given to those ceramic types which carry a decorative pattern, be it incised, applied or bitumen painted. The motifs and their association to a shape and/or ware type will be investigated as well as the range of their geographical diffusion and chronological extension.

The final task of the work consists in the assembling and the analysis of all data: frequency, diffusion and combination of ware, shape and decoration types in relation to their development in the limited span of time represented by the last quarter of the third millennium BC and to their geographical origin and extension. This final evaluation of the data will also attempt to set, as far as possible, the results in the regional political, economical and historical context of the Syrian Jazirah at the end of the third millennium BC.

18 The analyses have been done by the geologist Mustafa Kibaroglu, University of Tübingen. In the present study his results are associated to the archaeological evidences; see Chapter 11.

2 Archaeological research at Tell Mozan/Urkeš: a summary

Tell Mozan was first visited and surveyed by Sir Max Mallowan in 1934. He opened three trenches and thought that the site dated back to Roman times. Therefore he left the site and preferred to dig Chagar Bazar, since he was interested in older periods.

Later, Marilyn Kelly-Buccellati and Giorgio Buccellati, who were interested in the Hurrian culture and above all in finding the old city of Urkeš, the major early centre of the Hurrians, first visited Tell Šermola, located in the modern city of Amuda, from which two bronze lions with Hurrian inscriptions of king Tiš-atal were purchased.¹⁹ The few remains of Tell Šermola showed that the site dated to the latter part of the second millennium, and not back to the third millennium as always assumed. In 1983 the Buccellatis visited Tell Mozan, located close to Amuda, and discovered that the surface material dated mainly to the third millennium. One year later, in 1984, they started the research and the excavations, on behalf of the International Institute for Mesopotamian Area Studies (IIMAS), which continue to the present day.

The site, with its upper and lower city, covers a surface of some 135 hectares,²⁰ thus it appears to be one of the biggest sites of the third millennium in the north-eastern Syrian Jazirah (Figure 2.1). The central high mound is 25 m high and is surrounded by steep slopes. The finds from the surface and from the excavations in the upper as well as in the lower city indicate homogeneity of the settlement: in fact, a great amount of third millennium material was recovered just under the surface; a minor part is later: some layers dating to the second millennium BC and several modern burials.²¹

The various excavations and researches produced the following results (see Figures 2.1 to 2.6)²²: imposing boundary walls (KW, GO) around the upper city

related to an early phase of the third millennium; a large temple (BA) in the centre of the high mound of the mid-third millennium; a private house (F1) with cuneiform texts of the Akkadian period; the royal building (AP, see Figure 3) with the formal wing (AF) and the service wing (AK); a lower sacral area (AU); several private houses (AH) and an extensive lower city covering a surface of around 120 hectares²³ and containing finds of several periods, but mainly dating back to the third millennium. During the second millennium the lower city seems to be only sporadically settled (Figure 2.6).

Finally, the identification of Tell Mozan with the ancient Urkeš in 1995 threw new light on the site's history.

From 1998 to 2001 further excavations in the upper city were carried out by the Deutsche Orient-Gesellschaft (DOG), under the direction of Peter Pfälzner within a cooperation project with IIMAS. The results of those researches are illustrated mainly in Chapter 9.

The following two sections are dedicated to the chrono-stratigraphical sequences of the different areas investigated at Tell Mozan and the related discussion about the use of chronology, on one side, and a brief summary of the archaeological research and the main structures recovered in the upper as well as in the lower town at Tell Mozan during the occupational phases of the third and of the beginning second millennium BC, on the other side.

2.1 Chronology and stratigraphy

The chronology of the Syrian Jazirah is a controversial topic: every excavation has its own sequence of relative chronology, which is somehow individually related to the absolute chronology, that in its turn may be based on short, middle or long chronology, and so on. Moreover, for a long time the chronology of the Syrian Jazirah has depended directly on that of Southern Mesopotamia. The background of this relation was the assumption that the development of the western and northern neighbouring regions of Southern Mesopotamia was related directly to the latter region and that it happened at the same temporal intervals; in other words, that the 'culture', in the widest sense of the term,²⁴ originated in the South and spread from there over the rest of the Near East, as if Northern

19 One bronze figurine is exhibited at the Louvre Museum in Paris: a bronze lion (AO 19937-figurine and 19938-tablet) holds between its paws a stone tablet with a 20-line inscription. A twin bronze lion is in New York, at the Metropolitan Museum (MMA 48.180). The stone tablet is missing, but as at the Louvre lion, the bronze plaque carries a 14-line inscription. For details about the figurines and the inscriptions see Buccellati – Kelly-Buccellati 1988: 31-35; Muscarella 1988: 93-99 and Pl. 22-23; Wilhelm 1998: 117-143 and Fig. III, 2a-2b.

20 Buccellati – Kelly-Buccellati 1995a: 386-388.

21 For surveys in the lower city see first Thompson-Miragliuolo 1988: 49-56, and recently Pfälzner – Wissing 2004: 41-86.

22 The schematic illustration Figures 2.1 to 2.6 of the occupational development in the Upper and Lower City is based on the first reconstruction by Buccellati – Kelly-Buccellati 1999: 15, Fig. 5 and further on the results of Pfälzner – Wissing 2004: 41-86 summarized mainly in the illustration Fig. 24 (p. 83). Some information has been added

by the present author to highlight the different excavated areas mentioned in this section.

23 Pfälzner – Wissing 2004: 81.

24 Including urbanisation, policy, economy, administration, religion, material culture.

Mesopotamia was a subsidiary branch of the South. The intense excavations, surveys and researches of the last thirty years in the Syrian Jazirah primarily, but secondly also in the rest of the Near East, show that the cultural development of the 'peripheral' regions (like the Syrian Jazirah) happened with a "timing of their own" and independently of the South, although there were contacts between the South, the North and the West.²⁵ Moreover it is also evident that through these contacts an intensive cultural exchange took place.

In the light of this new evidence some first important steps have been taken in the past years to develop a common chronological sequence for the Syrian Jazirah, i.e. a regional chronological sequence, which is independent of the Mesopotamian sequence. It is based on some Jazirah key-sites and above all on their pottery inventories. The first approach to this matter was undertaken by Pfälzner in the framework of his research about "Die Urbanisierung Nordmesopotamiens im 3. Jtsd. v. Chr.", mainly on the basis of the ceramic sequences gained through the excavations at Tell Bderi and Tell Chuera.²⁶ A second important element considered by Pfälzner is represented by developments and changes in the settlement and house types.²⁷ He first suggested a periodization under the name of 'Early Jazirah' (EJ) divided into six phases:²⁸ EJ I (3000–2850/2750 BC), EJ II (2850/2750–2700/2600 BC), EJ IIIa (2700/2600–2500/2400 BC), EJ IIIb (2500/2400–2300 BC), EJ IVa (2300–2200/2100 BC), EJ IVb (2200/2100–2000 BC).

This periodization has been further adjusted integrating the evidence of other key-sites and their ceramic sequences, like e.g. Tell Beydar, Tell Brak, Tell Leilan, as suggested by Lebeau, Pruß, Roaf and Rova.²⁹ In this latter version the Early Jazirah sequence is correlated slightly differently with the absolute chronology: the periodization begins with the period EJ 0 (3050/2950–2900/2800 BC) and continues with EJ I (2900/2800–2700/2650 BC), EJ II (2700/2650–2600/2550 BC), the latter being shorter than in Pfälzner's version of 1997. There follow EJ IIIa (2600/2550–2475/2425 BC) and EJ IIIb (2475/2425–2325/2275 BC). In Pfälzner's version of that time EJ IVa corresponds to EJ IV (2325/2275–2200/2150 BC) and his EJ IVb to EJ V (2200/2150–2000 BC).

Although there are still a few disagreements between scholars regarding subdivisions or correlation with the absolute chronology, the general divisions of the third millennium according to the 'Early Jazirah Periodization' are accepted and used by most excavations in the territory of the Syrian Jazirah (save

the Euphrates Valley, which had its own cultural character and followed its own periodization). Based on pottery analyses and comparisons Lebeau³⁰ suggested dividing the Syrian Jazirah further into four cultural sub-regions, where the sequence of sub-phases may be slightly different from one region to the other and where the pottery horizons show different types and/or trends. We find this attempt very interesting and will come back to it in Chapter 11.

The chrono-stratigraphical sequence of Tell Mozan has been developed over many years of research and is mainly based on the findings within the royal palace AP. Table 1 illustrated below and published by Buccellati and Kelly-Buccellati,³¹ shows the periodization of the palace/settlement phases (area AA), of the areas in the central upper city excavated by the DOG-team and of all excavated structures. This table represents the first attempt to correlate the sequences that were developed on the basis of the excavations undertaken by the two teams.

The table is based on the Early Jazirah periodization (first column) and it also lists, in the second column, the Southern Mesopotamian periodization referring to the middle chronology. The correlation with Mesopotamia is based on epigraphical evidence partially found at Tell Mozan itself and partially inferred from 'external' findings related to Urkeš³². The epigraphical evidence is supported by the stylistic study of the sealings and by pottery types.

The table focuses further, in the third and fourth columns, on the architectural sequence AA, consisting of the service wing AK and the formal wing AF (for the periods EJ IV and EJ V), where pottery sequences, sealings and epigraphical finds were recovered together in the same contexts; the settlement (AH) above the palace AP completes the sequence for the Old Jazirah periods.³³

The sixth column represents the results of the occupational phases unearthed by the DOG-team in the central upper city (areas B6 and C2),³⁴ the sequence of which was created independently from the sequence used for the palace AP.

The fifth column enumerates the types of structures found in the upper as well as in the lower city and correlates them with the periodizations used by the two teams.

25 Pfälzner 1997: 239.

26 Pfälzner 1997: 239–265.

27 Pfälzner 1997: mainly 260–261.

28 The first sequence EJ I–II–IIIa–IIIb–IIIc–IV (Pfälzner 1997: 240) was slightly adjusted to EJ I–II–IIIa–IIIb–IVa–IVb (Pfälzner 1998: 71).

29 Lebeau *et al.* 2000: 167–192, mainly Table III.

30 Lebeau *et al.* 2000: 174–179.

31 Buccellati – Kelly-Buccellati 2002a: 109, Fig. 3.

32 There are very few C¹⁴ dates from Tell Mozan, which might have supported the correlation with the absolute chronology; when they are at disposal they are mentioned. They refer anyway only to the EJ III and EJ IV periods.

33 Buccellati – Kelly-Buccellati 2002: 107.

34 Dohmann-Pfälzner – Pfälzner 2002a: 155, for area C2. The chrono-stratigraphical sequence for area B6 has been finalized and will be published in: Bianchi *et al.* 2012. We have already added the main phases of the area B6 sequence in the last column of Table 1 (labelled Bxx).

Periodization		Stratigraphy			
Jazirah	Southern Mesopotamia	Area AA ³⁵		Structures	Central Upper City (DOG excavations)
		phases	sub-phases		
Mitanni		6 scattered	isolated finds	BH: houses B6: terrace	(BS3)
OJ III	Old-Babylonian 1900-1600	5 last settlements	5c maximal expansion and great collapse	BA: phase 4, scattered	C 4
OJ II			5b further expansion over scattered occupation	B6: terrace C2: settlement C2: plaza and staircase	BS 4 BW 2
			5a reclamation over scattered occupation	C2: settlement C2: plaza and staircase	C 5 BSW 3
OJ I	Isin-Larsa 2000-1900	4 first settlements	4b middle settlement north, scattered occupation south	C2: settlement C2: plaza and staircase B6: terrace BA: phase 3, foundation ³⁷	C 6 ³⁶ BO 2
EJ V	Ur III 2112-2004		4a lower settlement north, scattered occupation south	C2: houses and building IX C2: plaza and staircase	C 7
EJ IV	Post-imperial Akkadian 2192-2112	3 palace dependency	3b continued re-use of palace dependency	BA: phase 3, foundation ³⁷	BN 3 C 8 C 9 C 10 BN 4 C 11 C 12
	Naram-Sin / Šar-kali-šarri 2240-2193		3a destruction and first re- use under Taram-Agade	B6: terrace C2: staircase to temple C2: plaza C2: houses F1: house BA: phase 2	
	Rinuš/ Naram-Sin 2269-2240	2 palace	construction and occupation of Tupkiš palace	AU: underground structure	
EJ IIIb	Sargon/ Mani-ištu-šu 2334-2270	1	pre-palace	----- AU: lower portion of structure X: platform X C2: scattered occupation	
EJ IIIa	ED III			C2: scattered occupation C2: building XV BA phase 1: main temple OH2: accumulations KW: burnt deposit	C 13 C 14 C 15 C 16
EJ II	ED II			B6: temple ramp and terrace KW: city wall OB1, OA4: extra-mural burials (lower city)	BS 5 BO 3 BS 6

Table 1: Sequence of phases in the upper and lower city of Tell Mozan based mainly on the research of the IIMAS-team (sequence D, in use until 2007); the phase subdivision of the DOG-team and the corresponding structures (italics) are listed in the last two columns (after: Buccellati – Kelly-Buccellati 2002: 109, Fig. 3, partially modified by Bianchi).

35 Area AA is the general term for the area at the western foothill of the high mound where the palace lies. The area proper of the palace is labelled AP and the settlement with private houses on top of the palace remains is area AH.

36 Here the reader should be advised that the concordance of phase C 6 (dwelling quarter of DOG-excavations)

with phase 4b (settlement overlying the service wing AK) is based just on the absolute chronology. The comparative analysis suggests a different correlation for phase 4b, that will be discussed in Chapter 9.

37 According to Buccellati the dating of the foundation is unclear and set generally between the second half of the EJ IV and the OJ I period.

The majority of those structures/areas is not directly connected with the stratigraphy of the palace structures; nevertheless the findings themselves in each area allow a dating of the structures (see below Chapter 2.2) as well as their comparison with the finds from the palace and from the settlement.

For the author, the correlation of the chronological sequences illustrated in Table 1 represents the starting point of the ceramics subdivision of area AK, on the one hand, and of its counterparts among the material of area C2, on the other hand. This comparison will be discussed and illustrated in more detail in Chapter 9, where a selection of C2 ceramics³⁸ will be presented. The comparative analysis of the material of the various areas aims also to examine the suggested correlation and, in case of divergences, to propose an adjustment according to the results of the ceramics comparison.

2.2 Overview over the archaeological research in the upper and lower city of Tell Mozan

The researches conducted until now show a general continuity, although with some fluctuation, within the settlement of Tell Mozan (mainly in the upper city) during the several occupational periods indicated in Figures 2.1 to 2.6.³⁹

In the Early Jazirah II period (Figure 2.2) the Upper city, with an irregular octagonal shape, was characterized by a monumental temple complex (B6 terrace⁴⁰) in the uppermost and central part of the mound and by a fortification mud-brick wall that was partially unearthed in its eastern course.⁴¹ A survey undertaken by the IIMAS-team⁴² in the lower city brought to light, in the northern part, some burials (OB1 and OA4), one of which contained “over one hundred vessels and a number of metal objects. The ceramics included an early form of Metallic ware conical cups and a number of late Ninevite V vessels with the grooved and incised design”⁴³.

The following Early Jazirah III period (Figure 2.3) shows continuity in the central part of the mound with

the temple complex made up of the terrace (B6) and the temple (BA⁴⁴), as well as further structures in the southern (C2, part of a stone building⁴⁵) and in the western part of the mound (platform X⁴⁶ and the large underground structure AU⁴⁷). In the same period the lower city was enclosed by an octagonal city wall.⁴⁸ In the northern part of the lower city some seal impressions came to light in a trench (OH2⁴⁹); they have been dated to the mid-third millennium and might have been connected to an administrative building west of the trench, according to the excavators.

In this period the city seems to have flourished, been enlarged and densely settled. So far there is no evidence that Tell Mozan at that time bore the name of Urkeš, because neither the few epigraphical finds recovered from the site itself (mainly seal inscriptions) nor the contemporaneous texts and archives (e.g. from Ebla, Mari, Tell Beydar, Tell Brak) mention the city of Urkeš; nevertheless it is assumed that Urkeš was the name of the city also in the first half of the third millennium BC.

During this period the city, with its upper and lower part, reached its maximum extension, the upper city covering around 20 hectares and the lower city around 120 hectares.⁵⁰

The Early Jazirah IV period is distinguished by new constructions: the temple complex was connected to the central plaza by a monumental stone staircase,⁵¹ the northern and the southern part of the upper city hosted private houses (F1⁵² and C2⁵³), in one of which were retrieved two cuneiform tablets with lists of workmen ordered by names, professions and sometimes by provenance.⁵⁴ Most of the reported names are Akkadian, but some are Hurrian.

The western part of the upper city saw the construction of an official building, namely the royal palace (AP⁵⁵), which consists, at the time of this research,

38 The ceramics retrieved within the DOG-excavations in the central upper city has been studied by Riham Miqdadi and Conrad Schmidt of the University of Tübingen.

39 These figures are based on the scheme after Pfälzner – Wissing 2004: 83, Fig. 24 and have been complemented and expanded by the present author.

40 Dohmann-Pfälzner – Pfälzner 1999: 39; Dohmann-Pfälzner – Pfälzner 2002a: 168-181.

41 Bunnens – Robaert 1988: 61-64. A reconstruction of the inner city wall, according to one excavation and two geomagnetic surveys, has recently been suggested in Pfälzner – Wissing 2004: 79.

42 Kelly-Buccellati 1990: 129-130.

43 Ibid.: 130. Some ceramic vessels found in the burial OB1 are published in: Milano – Liverani 1991: Fig. 8.

44 Buccellati – Kelly-Buccellati 1995a: 389-391 with plan (Fig. 3).

45 Dohmann-Pfälzner – Pfälzner 2002a: 156-159, Fig. 4-5.

46 Buccellati – Kelly-Buccellati 2000: 146, Fig. III. 3-4.

47 Buccellati – Kelly-Buccellati 2004: 20-30.

48 Pfälzner – Wissing 2004: 78-81, Fig. 22.

49 Buccellati – Kelly-Buccellati 1999: 15.

50 Buccellati – Kelly-Buccellati 1999: 14-15; Pfälzner – Wissing 2004: 78-81. The estimated size of the upper and lower city's maximum extension varies slightly between the authors: the former estimate the upper city's size at around 30 ha and the whole town at 150 ha, the latter estimate few hectares less. In the first measurements of Buccellati – Kelly-Buccellati the upper city measured 18 ha, and the whole city reached an extension of around 135 ha. (Buccellati – Kelly-Buccellati 1995a: 386-388).

51 Dohmann-Pfälzner – Pfälzner 2002a: 170-175, Fig. 14-15.

52 Milano – Liverani 1991: 10-14.

53 Dohmann-Pfälzner – Pfälzner 2002a: 159-162.

54 Milano – Liverani 1991: 22-26.

55 Buccellati – Kelly-Buccellati 2001a: 60-66; Buccellati – Kelly-Buccellati 2002: 110-115.

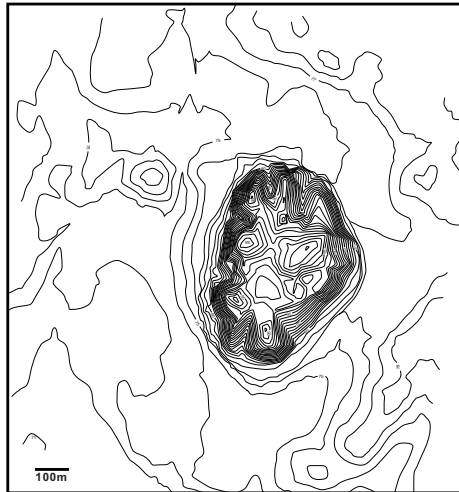


Figure 2.1: Geomorphological plan of the Upper and Lower City of Tell Mozan.

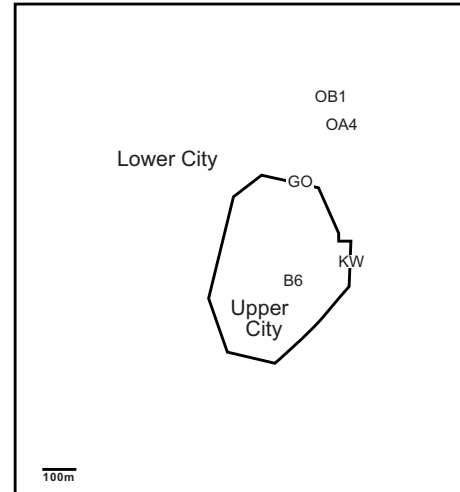


Figure 2.2: Early Jazirah II period: fortified Upper City, scattered burials in the Lower City.

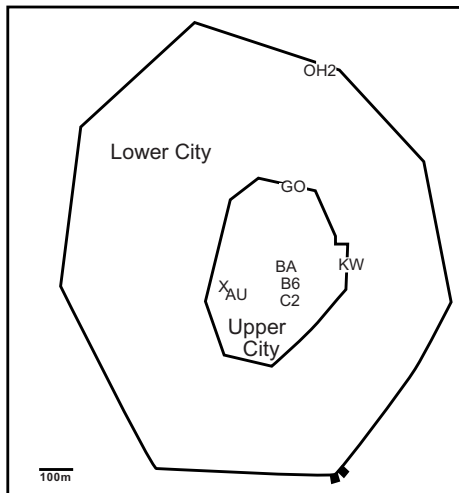


Figure 2.3: Early Jazirah III period: fortified and densely settled Upper and Lower City.

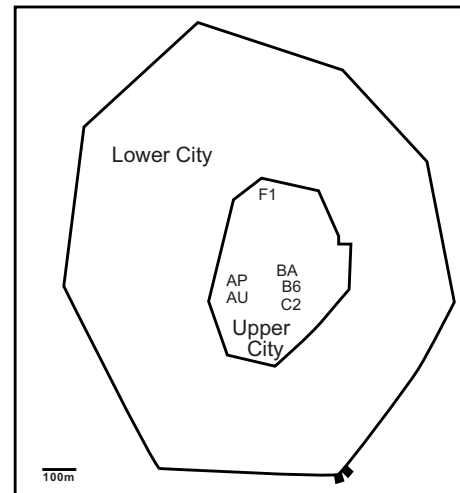


Figure 2.4: Early Jazirah IV period: fortified Upper City and Lower City; the latter less densely settled than the former.

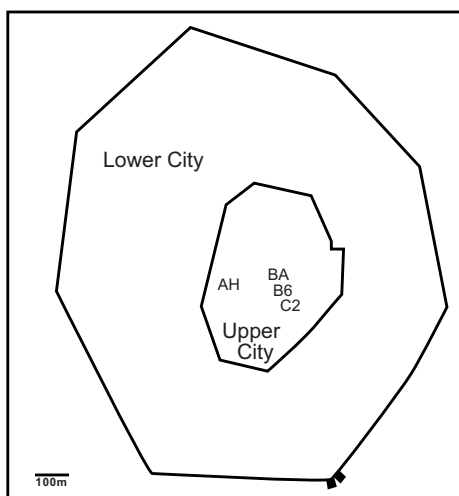


Figure 2.5: Early Jazirah V period: fortified Upper and Lower City; the latter less densely settled than the former.

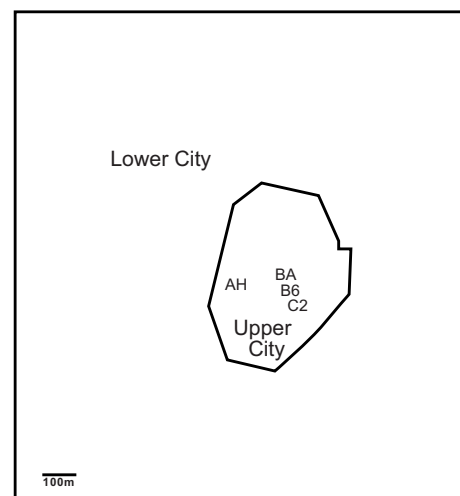


Figure 2.6: Old Jazirah I-II period: fortified Upper City and scattered occupation in the Lower City. (For source of figure 2 see footnote 22) .

of two wings: the service wing AK,⁵⁶ located in the southwestern corner of the building, and the formal wing AF⁵⁷ (see below Chapter 3, Figure 3), located east of the other wings (Figure 2.4). A third wing, the residential one (AR), is postulated further northeast.

During this period the occupation of the lower city seems to have been reduced in comparison to the previous period.⁵⁸

Epigraphical sources⁵⁹ found *in situ* in the two wings inform about the ancient name of the city, namely Urkeš, about a dynasty with Hurrian names, who was in power, and give some details of the general political and social frame, in which Urkeš found itself.

The Early Jazirah V period was unearthed in the central mound (Figure 2.5), showing the continued use of the central plaza and the staircase leading to the temple complex.⁶⁰

In the southern part, the dwelling quarter seems to be reduced on one side and rather characterized by scattered remains and smaller houses, but on the east end (area C2) it is flanked by a large storehouse

testifying to organized planning as well as to commercial activities.⁶¹ In the western part of the upper city, above the former area of the royal palace, traces of a dwelling quarter were uncovered.⁶² In this period, like in the previous one, the lower city knows a limited occupation according to the surface material.⁶³ The first signs of a reduction of the occupied surface of the lower city are tangible step-by-step, as are changes in the upper city, nevertheless there is also clear evidence of Urkeš being an active urban, commercial settlement in this period.

The beginning of the second millennium BC, with the periods Old Jazirah I and II, shows a continuity of occupation in the upper city, rather in the western (AH⁶⁴) and southern (C2⁶⁵) parts with residential quarters, as well as the use of the central plaza and the stone staircase,⁶⁶ leading to structures the function of which is unknown since they are not present anymore. The lower city seems to be occupied in a more scattered way than in the previous periods (Figure 2.6).⁶⁷

56 See for a detailed description Chapter 3, phases 2 and 3.

57 The general term 'formal' was chosen to juxtapose it to 'service' wing; the exact definition of sector AF will be given after further excavation of the complete building.

58 Pfälzner – Wissing 2004, 81-82, Fig. 24

59 E.g. Buccellati – Kelly-Buccellati 1997: 80-89; Buccellati – Kelly-Buccellati 2000: 140, Figs. 3-5.

60 Dohmann-Pfälzner – Pfälzner 2002a: 170-179.

61 Ibid.: 163-168.

62 See for a detailed description Chapter 3, phase 4.

63 Buccellati – Kelly-Buccellati 1999: 16; Pfälzner – Wissing 2004: 81-82.

64 Buccellati – Kelly-Buccellati 2002: 115-123.

65 Dohmann-Pfälzner – Pfälzner 2000: 200-219.

66 Dohmann-Pfälzner – Pfälzner 2002a: 174.

67 Buccellati – Kelly-Buccellati 1999: 16; Pfälzner – Wissing 2004: 82, Fig. 24.

3 Architectural and functional description of Sector AK of the Royal Building and of the overlying settlement

The ceramics analysed in the present work consist of a large part of the complete vessels as well as the sherds brought to light in the sector AK of the royal palace (AP) and in the overlying settlement during the campaigns from 1990 to 1999.

The service wing AK is located at the western foot of hill A of Tell Mozan and turned out to be the southwestern corner of the royal palace (see below Figure 3). Mound A is one of the highest points of the tell and its western slope is steep. Since it was presumed that a gate in the city wall was located on that side, a stepped trench was brought down there in the first seasons, with the aim to obtain a stratigraphical and a chronological sequence. At the bottom of the trench came to light the service wing AK, whose westernmost part had suffered from erosion.⁶⁸

The building AK was then excavated extensively starting in 1990 and work continues in unit A10 till the present day. The first excavated units were A1 and A5, where Area B and Area A were brought to light, the southwestern side of the service wing AK. Some of the structures were eroded, and the stone portions of the walls appearing on the surface of the tell had been robbed to re-use the stones; this happened presumably more in present times than in antiquity. The foundation trenches of the walls were therefore filled with eroded material and backfill, so that only the negative walls could be identified. The other – inner – rooms were better preserved and gave a complete picture of the layout of the main phase of service wing AK (phase 2), of its later phase with partial re-use of some of the earlier structures (phase 3) and of the re-use of the same area for domestic purposes (phase 4).

The chronological chart shown below (Table 2) focuses on the detailed sequence of the two wings, AK and AF, of the royal palace. Since this study deals mainly with the service wing phases 2 and 3 and with the overlying settlement (AH) phase 4, the pre-palace phase as well as the periods Old Jazirah II and III are omitted in the chart.⁶⁹ In the following sections the architectural remains within the considered occupational phases will be illustrated in their development; individual strata are only described if they are relevant for the pottery inventories.

3.1 Phase 2

This phase is characterized by the construction and occupation of the royal palace and therefore of the service wing AK. The latter has a rectangular shape and is divided in four sectors each of which comprises several rooms with different functions (see below plan Figure 3).

The actual floor plan of the service wing AK⁷⁰ shows a rather symmetrical planning of the space, where a thick north-south wall divides AK into two main sectors: a western and an eastern sector. Each half is again split into two parts: a large southern one and a smaller northern one. Generally the lower part of the walls consists of stones, up to about 1 m in height, followed by mud bricks on top. The walls are neither plastered nor finished in any other way.

Area A (excavation units A1, A5, A6) is the southwestern corner of service wing AK, it has a rectangular shape and measures 16 x 14 m. The inner space is divided into eight rooms (A1–A8). The rooms A1, A2, A4 and A8 were heavily eroded so that nearly every trace of the ancient structures had disappeared. Two thick north-south walls divide area A into three parts: the western one consists of the small square room A1 in the south, the rectangular room A4 in the middle and the small square room A8 in the north. The central part is split in two rooms: the smaller room A2 flanks in the south a rectangular room A5, maybe functioning as a small courtyard without roof. The eastern part consists of three square rooms A3, A6 and A7, which communicate with the central part, only. The latter gives also access to areas B and C. The current interpretation of area A sees it as a store, to stock palace goods.

Area B (excavation units A1, A5) extends north of Area A, it has an elongated shape and is divided into three rooms: B1 is a long rectangular hall flanked at the east end by two very small rooms, B2 and B3. The former is an anteroom of the latter, a small closet (1.8 x 1.3 m) with thick, niched walls. The presence of doorills suggests that the closet was locked,⁷¹ so that it was possible to store in safety important items or perishable goods in the cold (the walls of both closets are particularly thick). The accumulations within this area consist of alternating banded layers of ash and loam on several floors. The lowermost, ashy, floor accumulation (stratum 19a-features A1f113, A5f70, A5f90) within area B, mainly in rooms B1 and B2, contains a

68 Buccellati – Kelly-Buccellati 1995/1996: 4.

69 The complete chart is published by Buccellati – Kelly-Buccellati 2002: 107.

70 Buccellati – Kelly-Buccellati 1995/1996: 3-6; Buccellati – Kelly-Buccellati 2000: 136-146.

71 Buccellati – Kelly-Buccellati 1995/1996: 4.

periodization		phase area AA		stratum		description
OJ I	Isin-Larsa 2000-1900	4 first settlements	4b middle settlement north, scattered occupation south	10		houses
					a	higher accumulations within houses, scattered occup. outside
					b	structural build-up of houses; first floors/accumulations
EJ V	Ur III 2112-2004		4a lower settlement north, scattered occupation south	11		burials
				12		houses
					a	higher accumulations within houses, scattered occup. outside
			b		structural build-up of houses; first floors/accumulations	
			13		burials	
EJ IV	Post-imperial Akkadian 2192-2112	3 palace dependency	3b continued re-use of palace dependency	14		erosion
				15		abandonment; stones removed from earlier buildings
				16		higher occupation of palace dependency
					a	accumulation within AK walls and above destroyed areas of AF
					b	wall fall and patching of AK building
				17		middle occupation
	Naram-Sin / Šar-kali- šarri 2240-2193	3a destruction and first re-use under Taram-Agade		a	accumulation within AK walls and above destroyed areas of AF	
					b	re-use of walls
				18		First re-use of AK and AF
	Mani-ištu-šu / Naram-Sin 2269-2240	2 palace	Construction and occupation of Tupkiš palace	a	AK: first accumulation that disregards lower installations AF: first accumulation above pavements (largely missing)	
					b	AK: abandonment of earlier installations AF: destruction of areas adjoining AK
				19		construction and first occupation of AK and AF
					a	accumulation within AK and in courtyard, nothing left in AF
					b	extensive packing below first floors of AK and AF
					c	building of walls in AK and AF

Table 2: Stratigraphical sequence D (in use until 2007) within sectors AK and AF of the royal palace and the overlying first settlement (after: Buccellati – Kelly-Buccellati 2002: 107).

large quantity of finds like pottery, seal impressions, complete and fragmentary tablets, clay objects,⁷² etc. Particularly important was the discovery within the ashy accumulation on the floor of more than 600 fragmentary seal impressions, around 170 of which were inscribed, which allowed to identify Tell Mozan as the ancient city of Urkeš. This accumulation and the related floor represent the first and oldest feature in the occupational history of the service wing; the connected finds are the characteristic dating elements for phase 2 in the Early Jazirah IV period (see Table 2).

The corpus of seal impressions is significant for the associated ceramic retrievals as well; indeed it is relevant chronological evidence. The seal impressions come from approximately 60 original seals showing a very high manufacturing quality. A detailed analysis

of the reverse of the impressions revealed that different types of containers were sealed: among them were at least 80 different kinds of jars⁷³, 73 boxes or baskets and 3 doors. The front side of the impressions bore incisions of different scenes, some of them accompanied by inscriptions. An accurate analysis of the whole corpus allowed to differentiate between seals of the king, the queen and of the queen's household.⁷⁴ But for the brief mentioning of some elements, a detailed description of the scenes on the impressions⁷⁵ is here omitted. The common element of the king's sealings is

⁷² Two complete clay tablets – one was a school tablet with parallels in Abu Salabikh and Ebla – and about 40 fragments. Over one hundred figurines were recovered; most of them represent quadrupeds; one figurine is a human head. See Buccellati – Kelly-Buccellati 1995/1996: 5-6.

⁷³ A study of the reverse shapes and the jar types retrieved in the corresponding feature has been started but is not yet published.

⁷⁴ It has been reconstructed that there is a sort of disproportion between the number of seals and the number of sealings: 5 king seals and 11 sealings, 8 queen seals and 72 sealings and 4 household seals and 81 sealings. See Buccellati – Kelly-Buccellati 1998: 195-196.

⁷⁵ For a detailed description of the sealings and their contents see Buccellati – Kelly-Buccellati 1995/1996: 1-32; Buccellati – Kelly-Buccellati 1996a: 75-100.

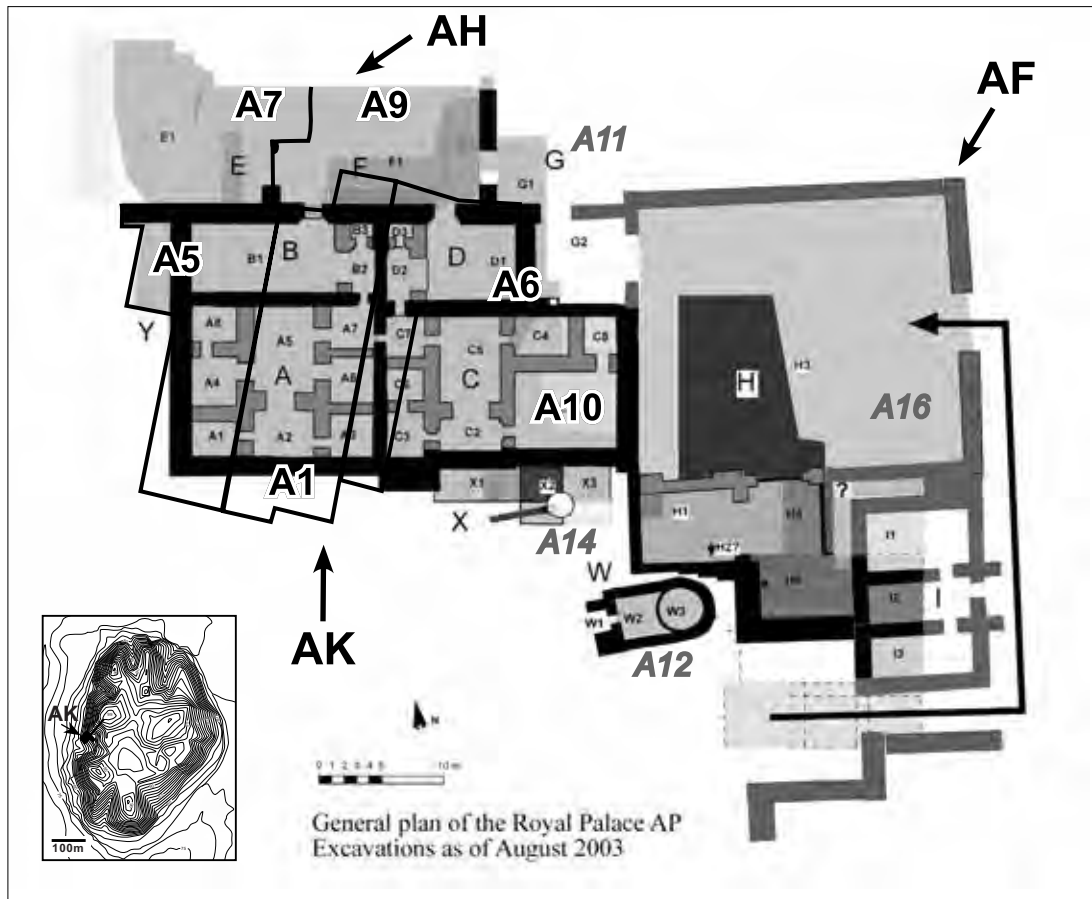


Figure 3: General plan of the royal palace AP until 2001, with the location of the excavation units yielding the ceramics analysed in the present work, and plan of the high mound with the position of sector AK (after: Buccellati – Kelly-Buccellati 2002: 105).

the inscription, which runs “Tupkiš, endan Urkeš^{ki}” – “Tupkiš, King of the city of Urkeš”; these inscriptions allowed the identification of the ancient city name.⁷⁶

The sealings of the queen present a larger variety than those of her consort: the inscriptions always carry the queen’s name “Uqnitum” associated with different attributes, for example: “the queen”, “the wife of Tupkiš” or “the wife”. In addition, it has been observed that a much larger amount of containers were sealed with the seals of the queen or of her household than with the seal of the king. The excavators postulate that the containers were sealed with the royal seals not in the storehouse itself, but outside of the city. In fact it

is possible that goods for the palace were produced in the immediate vicinity of the city; they were sealed there on behalf of the seal owner and then sent to the service wing of the palace, where they were stored. In this case the sealings should be understood as address labels rather than as indications of the owner.⁷⁷

Area C (excavation units A6 and A10) is the largest sector within service wing AK and shows to some extent a planning concept analogous to that of area A.⁷⁸ In fact, the western half of area C rather mirrors area A. At the western side, a row of three small square rooms – C7, C6, C3 – flanks the rectangular courtyard C5 and the small room C2. The eastern half of this area is shaped differently from area A; the smaller, northern part is split in two rooms: C4 communicates directly with the courtyard C5, and the very small room C8 opens upon the southern larger part, the rectangular room C1.

⁷⁶ The name of this city was already known from the inscriptions of the king Tiš-atal (see Wilhelm 1998), from an Old-Babylonian text from Chagar Bazar, from the inscription of the king Atal-šen and from other texts of the Ur III period. The city of Urkeš was a political and religious centre: it was the seat of Kumarbi, the primordial god of the Hurrian pantheon, and also Nergal, the god of the netherworld, was worshipped there; moreover it was the seat of a series of dynasts. See also: Buccellati – Kelly-Buccellati 1995b: 67-70.

⁷⁷ Buccellati – Kelly-Buccellati 1995/1996: 29; Buccellati – Kelly-Buccellati 1996a: 80-81.

⁷⁸ For a detailed description of area C see: Buccellati – Kelly-Buccellati 2000: 142-146.

Area C is much better preserved than area A so that it is possible to understand the function of the different rooms. Area C is considered by the excavators to be a scribal sector where tablets were written and maybe also archived.⁷⁹ Room C7, presumably like room A7, serves as communicating room with the other areas of AK since there are three doorways. Such a little room might also host a supervisor of the sector. Room C6 is used as toilet and C3 is its anteroom. Although these rooms are not well preserved, remains of a square-shaped shaft made of baked bricks and a drain flowing from C6 through C3 to the outside of AK help to clarify their function. Room C5, with a floor sloping heavily to the centre, was, like room A5, probably a courtyard without roofing, important for air and light circulation. At the southern wall of room C2 lies a rectangular basin, covered with extremely fine clay,⁸⁰ that could have been used to prepare clay for tablets or/and for sealing. Burnt beams were found in rooms C1, C4 and C8, although there are no traces of a fire. As excavations in these rooms continued until 2003, the pottery from the eastern side of area C (i.e. rooms C4, C8 and C1) is not integrated in this study.

Area C has an irregular rectangular shape and is larger than the other areas of service wing AK: it is 21 m long and 14 m wide; its southern wall presents a sort of large niche on its outer face. The southern wall of room C3 is the continuation and prolongation of the southern wall of area A. In the southeastern corner of this room the wall has a recess, so that room C2 is about 50 cm shorter than room C3. A similar recess may also be observed at the southeastern corner of room C2 where the wall is a little set back. The eastern wall of room C1 is, on the contrary, prolonged to the south thus forming the eastern corner of the 'niche'. The excavation along the exterior of the southern wall of service wing AK in the 1999 campaign showed that these two setbacks were specially built to respect and integrate pre-existent structures located outside the palace, like the stone platform X. This rectangular structure, made originally of bricks, pebble and vegetal fibres, might have had a special function in some religious ritual and a particular importance so that the plan of the royal palace was adjusted regarding these elements.⁸¹

Area D (excavation unit A6) is the smallest sector within service wing AK and is the mirror plan of area B, but shorter by 5 m. Close to area B are the closet D3 and its antechamber D2, very similar in shape and size to B3 and B2. On the larger eastern side, there lies the nearly square room D1 with a large tannur and a hearth in the centre. Because of these two installations and the related finds (e.g. a good amount of

'kitchen vessels') this area was interpreted as a potential kitchen or at least a room where some kind of food could be prepared.

When this research was first started the excavation units A7 and A9 were considered part of sector AK, so that the pottery from those units was processed as part of the material for the present work. In the light of the continuing excavations the plan of the whole royal building and of its different sectors became clearer, showing that units A7 and A9 are located just outside of the actual service wing AK. In compliance with the excavation directors the pottery material from those areas has been enclosed, since they are contiguous and directly related to AK. Here follows the description of the two courtyards concerning those areas.

The excavation of Area F and Area E (excavation units A9 and A7) is not yet finished (the description comprises the structures exposed until 2000; the processed pottery belongs to the seasons until 1999). Both areas border the service wing AK in the north but their northern extent is yet not clearly defined. F1 and E1 seem to be large rooms presumably without roofing, a sort of courtyards. Room F1 is more thoroughly investigated than E1 and has several working structures. It is 18 m long and directly accessible from D1 and B1.

Two small soundings⁸² document the existence of what at first was thought to be a baked brick pavement (A9f84). According to a new interpretation it is rather understood as a sloping water collection system.⁸³ To the same phase belongs a rectangular stone-platform (A9f155) in the middle of the room, maybe used for some industrial activities.⁸⁴

A thick stone and mud-brick wall delimits room F1 in the north, it is interrupted by a doorway allowing access to room G and to an inner wing of the royal palace.

Regarding those two rooms (E1 and F1), it is assumed that they were built in phase 2. The floors were kept clean during this phase because the space was used as an outdoor working area; therefore, those two rooms did not yield any ceramic material dating back to phase 2.

3.2 Phase 3

During phase 3 the service wing AK was partially destroyed, but its structures and features were immediately re-used for a different purpose.

The chart with the sequence of the occupational phases (Table 2) shows a subdivision of phase 3 into two sub-phases 3a and 3b, which mainly concern the formal wing AF and are therefore based on the

79 Ibid.: 142.

80 Buccellati – Kelly-Buccellati 2000: 143-146, Figs. III.1, III.2.

81 Buccellati – Kelly-Buccellati 2000: 146, Fig. III.3.

82 Buccellati – Kelly-Buccellati 2000: 141.

83 Newly explained to me by Mr James Walker, to whom I am very grateful.

84 Personal communication by Walker.

stratigraphical development of AF. The sub-phase 3a in the formal wing is assigned exclusively to the cache with the sealings of Ta'ram-Agade and other individuals, which lay as isolated, accidental accumulation on the damaged floor of the destruction level of AF.⁸⁵ In the service wing AK sub-phase 3a corresponds particularly to the first accumulation, which disregards the previous installations, an accumulation that *de facto* belongs to the first re-use of the wing as a dependency. This accumulation represents an event of short duration in the whole re-use of the wing. On top of the accumulations of phase 2, containing the sealings of Tupkiš and Uqnitum, there is no direct evidence of Ta'ram-Agade's 'presence',⁸⁶ and since there is no direct connection between the two wings, it was considered preferable to take all features and accumulations related to the re-use of the service wing AK to belong to phase 3, as the original phase and strata subdivision until 1999, without distinction between the two sub-phases.

The service wing AK remained roofed in phase 3 and the main walls continue to exercise the same function as in the previous phase 2, but without the previous installations in the rooms; neither new doorways nor new room additions have been built⁸⁷ (for a plan see Figure 3: the plan is the same as in phase 2).

The general plan of sectors A to D seems not to have changed much from phase 2 to phase 3.

Room F1 is the place where the differences between the two phases are greatest. A small retaining wall of mudbricks was built northeast of the doorway between B1 and F1. The wall was maybe meant to further divide F1, so that the main room would be rather better protected from the rest. In fact, a pebble floor spreads east of this retaining wall till the eastern wall of room F1 and until the northern edge of the excavated area. Neither south of the retaining wall nor in area E were found any traces of the pebble floor. The pebble floor lay on 30 cm of accumulation above the baked bricks of phase 2. Further, in phase 3 the doorway between F1 and G is marked by the presence of a baked brick platform, which narrows the doorway to G1.⁸⁸ Its function is not clear for the moment, also because these two rooms have not yet been completely excavated.

The original function of the service wing AK within the palace administration does not seem to have existed anymore in phase 3. According to the

excavators the formal wing AF has been locally damaged, above all the area close to the service wing, and therefore they postulate a further use of the two wings as dependency of a possible new palace, presumably located in the south.⁸⁹ The two wings continued to be under the control of the palace, nevertheless with a function different from the original one. One argument in favour of this interpretation is that in case the rooms of the service wing had been used privately (e.g. by squatters), a structural change in the plan of the wing would have to be expected.

3.3 Phase 4

That area of the city where both wings AK and AF were formerly situated, knows, in this phase, a complete change of use; namely from palace to residential quarter.⁹⁰ On top of the older accumulations and structures of the re-used wing AK there formed a depression and on the other side (on top of wing AF) an L-shaped ledge. The former, i.e. the deeper-lying areas, created a slope and turned mainly into an open area with small domestic structures (tanair and hearth-places), the latter a terrace with houses. The whole area is labelled AH.

Two sub-phases of this phase 4 were uncovered: The subdivision is mainly based on the development of the dwelling quarter behind the open area. The sub-phase 4b corresponds to the first accumulations of that area, to the first construction of the related installations and to the first layer of tombs.⁹¹ The dwelling quarter, the houses of which were supported by retaining walls, first developed north of the open area and then to the east. During the sub-phase 4a new but similar installations were erected over the previous structures, and new houses were built over the previous ones. A few burials are also related to this sub-phase.⁹² Most structures built over the location of the former service wing AK are preserved in a very fragmentary state because of the strong erosion and the gully wash. Although the settlement was better preserved further north and east (see e.g. unit A11, on Figure 3), the ceramic material of that area lies outside the range of this research, the ceramics of phases 4a and 4b are related more to structures and accumulations belonging to the scattered occupation located in the south, i.e. mainly to the open area, and do not consist of complete room inventories. Nevertheless those ceramics reflect the material culture of the individuals living in the neighbouring houses.

85 Buccellati – Kelly-Buccellati 2001a: 87-88; Buccellati – Kelly-Buccellati 2001b: 63-69.

86 On the other hand in the formal wing AF there is no evidence of phase 2. According to the excavators the stone floor of the courtyard and the cement-like floors of the other rooms of the wing were kept clean, so that no kind of previous accumulations (i.e. older evidence) could be recovered (see Buccellati – Kelly-Buccellati 2001a: 88.).

87 One single tomb (no. a5) has been found among the accumulations of phase 3b.

88 Buccellati – Kelly-Buccellati 2000: 141.

89 Buccellati – Kelly-Buccellati 2001a: 84-87.

90 Unfortunately no plan of this phase has been published yet.

91 Only tomb no. a11 contained pottery that is presented among the material of phase 4b.

92 Tombs nos. a2, a12, a13, the ceramics of which is presented among the material of phase 4a.

4 The analysis of the ceramic material: procedures, distribution and methods

4.1 Background of the studies on pottery at Tell Mozan/Urkeš before the present work

The excavations of the area including the service wing AK of the royal building at Urkeš started during the campaign of 1990 and the archaeological research in the easternmost part of that sector is still going on. From the first campaign on the pottery was collected, processed and drawn. The method of processing was firstly based on the diagnostic importance of the sherds: body-sherds without any decoration or unusual elements were sorted by ware, then counted and discarded, if they did not match with any diagnostic element. All other sherds (rims, bases, body-sherds with appendages or spouts, decorated body-sherds and sherds with unusual or specific elements) were processed in the same way as were the complete items, i.e. they were defined by ware and shape. The ware typology has been elaborated by Marilyn Kelly-Buccellati since the beginning of the excavations at Tell Mozan and been updated during the successive campaigns (see Chapter 5).⁹³ The shape typology was created step by step in the form of a catalogue divided on the basis of phases. Within a phase the shapes were classified beginning with the unrestricted and going to the restricted shapes. Once processed, all particular diagnostic sherds have been kept. Regarding the most common and best known samples, only some representative samples have been stored; the rest has been discarded.

4.1.1 Procedures

In 1998 the author was offered the ceramic material of the service wing AK as the base material for her PhD thesis and therefore decided, by mutual consent with the directors of the Tell Mozan/Urkeš Mission, Marilyn Kelly-Buccellati and Giorgio Buccellati, to enlarge the processing method in order to get more detailed information about ware characteristics and peculiarities. More detailed and accurate data about ware structure allow to define some problematic wares more closely (see above all Chapters 5 and 11.1), to identify possible subdivisions within a single ware and to compare wares from different sites more easily.

During the seasons 1996 and 1997, while processing the sherds by wares and shapes, several questions presented themselves as, for example, an interest in the manufacturing places of the ceramics and their

range of chronological extension and geographical distribution.

Since among specialists homogeneity in the definition of pottery does not exist, a detailed description of ware attributes was extremely necessary for the comparisons of the samples with those from other sites. The same consideration is of avail also within a ware, in order to establish eventual variations which may represent subgroups of that ware.

The method developed for this research aimed at simplicity; it is based predominantly on macroscopic observations of the different elements which characterize a vessel and its paste.

The material was processed during the campaigns of 1998 and 1999, which lasted four months each. For the processing work three local assistants⁹⁴ were trained who helped to manage that great amount of ceramic material. During those two seasons around 11300 complete vessels and diagnostic sherds were processed.⁹⁵ After this first selection, a further 25% of the material has been excluded either because belonging to phases 5 or 6 (Old Jazirah I and II periods), which are not matter of this research, or because coming from uncertain archaeological contexts. Finally there remained 8473 diagnostic samples (sherds and complete vessels), used as base for the typology and the comparisons.

Since at Tell Mozan a shape catalogue existed already for the Early Jazirah ceramics⁹⁶, only 30% of

94 My great thanks go to Hamade Hammade, Ahmed Omo, and Hussein al-Hashemi, who helped me to process all the remaining diagnostic ceramic material of the service wing AK. From their observations and questions I learnt a lot and their collaboration has been extremely enriching and useful.

95 This figure does not represent the complete amount of diagnostic sherds of the service wing AK, it corresponds to 49.7% of the whole material (see Kelly-Buccellati, in: Buccellati – Kelly-Buccellati 2000: 168). The remaining 50.3% have been processed before 1998 with another method and could therefore not be joined with the database developed for this research or they were assigned to strata not relevant for this study. It is also necessary to add that a part of the ceramic material, once processed, has been discarded, so that it was no more available or the lots turned out to be uncompleted. At any rate, the remaining 49.7% are considered to be representative and sufficient for the aims of the present work. In addition, the ceramic material of the service wing processed before 1998 or that assigned to second millennium strata, and thus excluded from this thesis, will be presented in a broad research by M. Kelly-Buccellati, who analyses the whole ceramic material from Tell Mozan in its general development.

96 During the campaigns from 1990 until 1997 part of the excavated material was drawn and used for the shape catalogue. That material, if still available as complete lots

93 Kelly-Buccellati 1988: 47.

Phase	A1	A5	A6	A7	A9	A10	total of diagnostic samples
2	151	76	78	53	-	871	1229
3	38	54	818	45	2735	1225	4915
4a	-	-	206	43	196	868	1313
4b	-	-	137	795	-	84	1016
							8473

Table 3: Distribution and absolute amount of the analysed diagnostic samples within the excavation units by occupation phases of areas AK (A1, A5, A6, A10) and AH (A7, A9).

the material of this research have been drawn.⁹⁷ The drawn material includes all complete vessels, the well known samples and the unusual ones. Once the material was processed, all data were entered in an Access database. Most of the work was done at Tell Mozan with the great advantage that, in case of doubt, it was always possible to re-check the material.⁹⁸

4.1.2 Distribution of the analysed ceramics

The lots amounting to 8473 diagnostic samples analysed for this study were found in the service wing AK and the connected rooms E and F (see Figure 3); they were retrieved within the excavation units A1, A5, A6, A7, A9, A10. In every case, the analysis included the complete lot.

A limited amount of pottery, mainly from phases 2 and 3, was retrieved on the floors of the service wing AK or of the dependency or among the first accumulation above the floors; the majority of the analysed material is represented by ceramics found within the accumulations, i.e. not in primary contexts.⁹⁹ Few items were recovered in very few tombs of phases 3 and mainly 4.¹⁰⁰

As the excavation units were established at different levels of the step-trench, the state of preservation differed due to erosion, and the excavations in the units reached different strata, in other words, not all phases of interest were reached or were preserved in all units. In addition, it has to be kept in mind that size and position of the excavation units were irregular and not homogeneous and that they were further subdivided in smaller units (loci) during the excavation. The distribution of the ceramic material analysed in this research among the different phases reflects the different states of investigation of the units and is summarized in the chart above (Table 3) and the figure below (Figure 4). The phase assignment of the pottery lots corresponds to that of the related feature and was established according to the stratigraphical sequence within the recovery unit. The amounts of samples listed in the chart above consist exclusively of items and sherds from complete pottery-lots.

Units A1 and A5 provided a limited number of samples included in this study; both units were mainly investigated between 1990 and 1997. A great part of the retrieved material had already been processed during the first excavation seasons and only a selection of sherds from those lots was kept. Although those selected samples are indicative of shapes and wares of their contexts, they were not considered representative for the aims of this study, since they made up only part of the respective complete lot and were therefore not included in the database.

The few analysed samples from units A1 and A5 are exclusively assigned to phases 2 and 3. This datum is not surprising and reflects the state of preservation of the area at the bottom of the slope; the upper strata (phase 4) suffered from erosion, and were not preserved anymore; phase 3 strata were just partially damaged.¹⁰¹ The pottery uncovered in the units A1 and A5 is mainly assigned to features of phase 2, which are the better preserved ones; moreover, the material is associated with rich contexts (palace first floors with seal impres-

in 1998 and 1999, has been processed for the PhD thesis and the drawings have been integrated in the present catalogue. To the several people, who drew the samples until 1997, goes also a great thank you.

97 A small part of the material was drawn by the author and the rest was drawn during both seasons by Castro Isa, Abdel Karim Hassan, Juma Mamo, Rashid Mamo, and in the 1999 season also by Elena Zanolari. To all of them I am very thankful for the wonderful and accurate work. From their observations and questions I have learnt pretty much.

98 For the data entry four local assistants were trained. I am very thankful to Mohammed Omo, Ahmed Omo, Benghin Hassan and Hussein al-Hashemi for their careful, accurate and patient job.

99 The features with the analysed ceramics are described in Appendix 2.

100 For the individual samples and their description see the following plates and the related charts. Tomb a5: Plate 23; tomb a2: Plates 31, 32, 35, 36; tomb a11: Plates 42, 46, 48, 51; tomb a12: Plate 31; tomb a13: Plates: 31, 35, 60.

101 See Buccellati – Kelly-Buccellati 1999: Fig. 4.

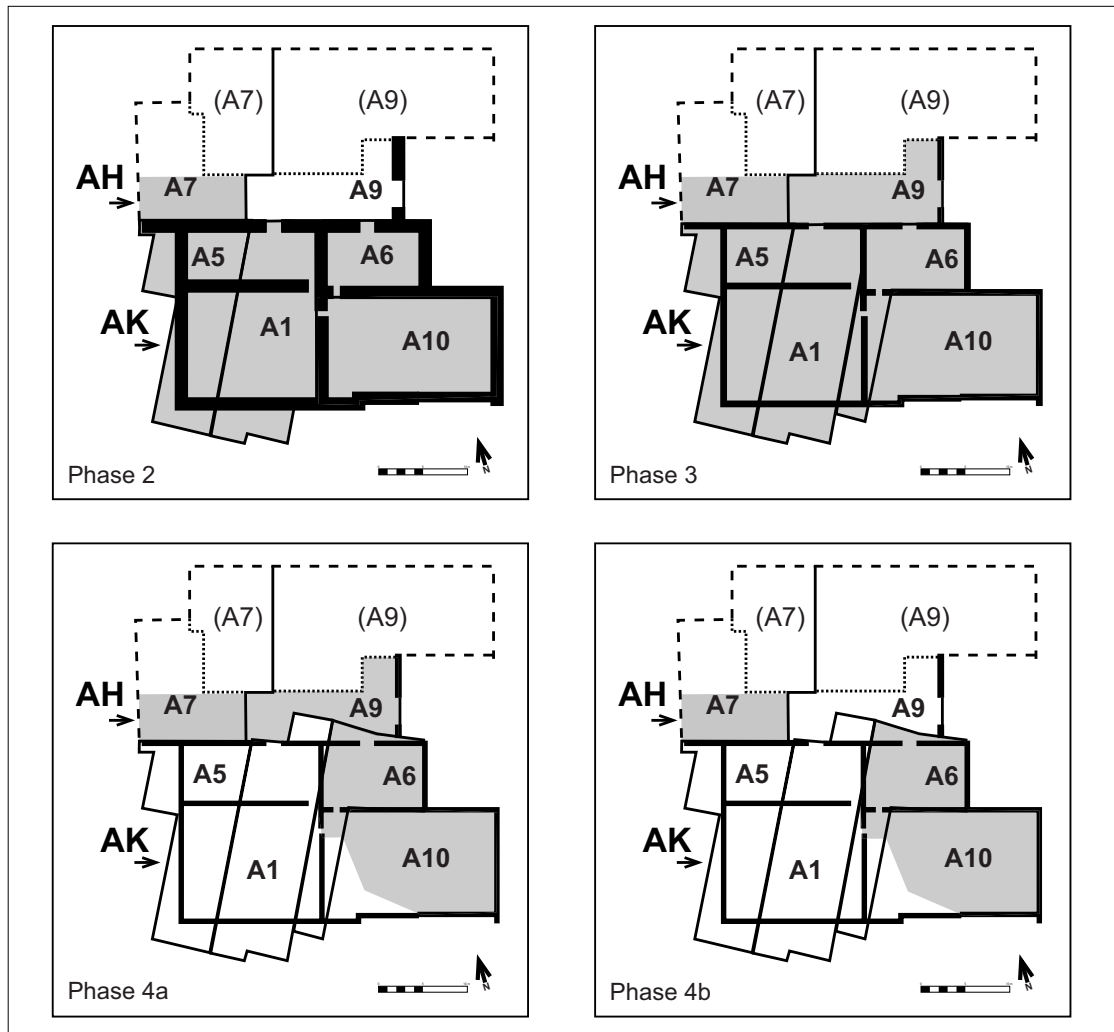


Figure 4: Spatial distribution of items and pottery lots analysed for this research according to the four main occupational phases of areas AK and, partially, AH. In light grey are marked the extension of an excavated unit and the presence of analysed material in relation to a phase (plans of areas AK and AH after: Buccellati – Kelly-Buccellati 2002: 105; spatial distribution reconstructed by the author).

sions, see above Chapter 3.1) that represent an important chrono-stratigraphical benchmark for phase 2.

Unit A6 provided ceramics assigned to phases 2 to 4b. The analysed samples from features of phases 4a and 4b are less numerous than those assigned to phase 3 because they likewise underwent damage by erosion, mainly in the southernmost part. The best preserved strata are the lowermost, i.e. those of phases 2 and 3; the phase 2 material (mainly from rooms D1 and D2, see Figure 3) has partially been processed before work for the PhD thesis was started and is not included here; the amount of phase 2 pottery still at disposal was therefore very limited.

Ceramics from features assigned to all phases occurs in unit A7, but phases 2 to 4a are represented in little quantity, contrary to phase 4b pottery, which is quite dominant. The explanation for this quantitative heterogeneity is once more to be found in the slope morphology. Indeed unit A7 is located on an upper terrace of the

slope, and the excavations encountered first the strata assigned to the Old Jazirah II and I periods with parts of residential houses; below them were mainly located the strata assigned to phase 4b that were investigated on a large scale. The lower strata were reached more selectively, which explains the limited amount of material.

Unit A9, located at a lower level than unit A7, provided strata assigned to phases 3 and 4a. Phase 4b strata were not preserved (mainly because of a modern gully-wash) and phase 2 strata were not reached in some parts or were not preserved, either (see above Chapter 3.1).

Unit A10, the easternmost part of which is still under excavation, provided features assigned to all strata and mainly to phases 2 to 4a. The analysed material was mainly retrieved in the western half of the unit (see above Chapter 3.1).

Pottery-lots from units A9 and A10 were mainly processed between 1998 and 1999 thus providing the largest amount of samples included in this study.

4.2 Pottery codification system developed for this research

A practical schedule was prepared to process all attributes of the 8473 analysed samples (see below Table 4). The attributes were divided into categories and were processed using a code (usually based on a number, for the ware on letters).

The following sections present the categories and the analysed attributes with the corresponding code numbers.

4.2.1 Stratigraphical context

First of all the pottery samples are divided into excavation areas, then sorted by features (accumulations). To every feature are assigned pottery lots, i.e. one or generally more bags with pottery sherds, called q-lots¹⁰². A pottery lot (collection) is marked as follows: Axxqxxx-pxx, where 'Axx' is the excavation unit number, 'qxxx' is the lot number and 'pxx' is the sherd number within that specific lot (ID-Sherd). Every diagnostic sherd carries this type of number. All complete vessels, broken vessels with complete profile and special sherds have a so-called 'item number', for example: Axxixxxx.

Every 'q-lot' is related to its feature ('f'), so that it is always possible to reconstruct the stratigraphical context of the samples.

These data give the provenance of the ceramic material and are always listed first on the sample data form.

4.2.2 State of preservation of the material

The first approach when processing a sample is the description of its state of preservation. The following list presents the different possible conditions of a sample: 0- body-sherd, 1- rim-sherd, 2- base-sherd, 3- whole vessel, 4- complete profile (but broken item), 5- handle on body-sherd, 6- spout on body-sherd, 7- complete rim-sherd, 8- rim and handle, 9- rim and spout, 10- lid, 11- stand.

Obviously this first datum does not explain the exact shape of the preserved sample. The shape analysis follows later on the processing form, it is based on the catalogue of shape typology (see below Chapters 4.2.10 and 6).

4.2.3 Firing

After drying, the next step in the manufacture of a vessel is the firing in the kiln, a very important procedure, which was adjusted depending on the type of clay. Under 'firing' the result of the process is described:

1- uniform, 2- irregular, 3- sample secondarily burnt, 4- firing error (unintentional, overfiring usually results in a shape's deformation, melted clay, etc.), 5- presence of a carbon core (a usual characteristic of low-firing of a clay abounding in organic matter).

4.2.4 Manufacturing technique

After selecting and preparing the clay, the potter shapes the vessel. There are various manufacturing techniques at his disposal. The most widespread fashioning techniques practised by potters were coiling (1) and wheel-shaping (2). The first technique results in fully hand-made vessels, and the latter implies the use of rotative kinetic energy (RKE) during one or more manufacturing steps.¹⁰³ The use of the RKE leaves rills, grooves or striations mainly on the interior surface of the vessel. The wheel-shaping technique combines stages of coiling to form the main shape of a vessel with the use of the wheel energy for fashioning/finishing steps (e.g. thinning and/or joining of coils, shaping of the walls, etc.). Another technique occasionally in use was the shaping from a mould (negative shape, 3). In several cases it was not possible to identify which kind of technique had been used (0), because the surface treatment (e.g. burnishing or polishing) had obliterated the surface features indicative of a specific manufacturing technique.

4.2.5 Temper

Besides the definition of the ware it is necessary to agree on the peculiarities of the ware's attributes. With the attribute *paste composition* is here meant the composition of the clay with its inclusions and its temper. The definition of the attributes rests on macroscopic inspection.

Some clays appear to be pure but most of them have inclusions and/or temper. Inclusions are elements naturally present in the original clay material,¹⁰⁴ and temper consists of coarse elements presumably added by the potter, which will "modify the clay properties when wet or dry as well as during and after firing"¹⁰⁵.

In the entry form the description of a temper's presence and type is firstly based on its amount, that means the main temper is listed first followed by the description of possible other tempers. The different types of temper are divided into the following groups: 1- organic/chaff, 2- mica (mineral), 3- sand, 4- calcite, 9- gravel (large particles, around 1 mm). Besides the type of tempers the list includes also the absence of temper (0). In case of more than two elements, the major element is listed under 'main temper' and

¹⁰² See also Kelly-Buccellati, in: Buccellati – Kelly-Buccellati 2000: 168.

¹⁰³ Roux – Courty 1998: 747-763 and mainly 748-752, Figs. 1 and 2.

¹⁰⁴ Rice 1987: 408.

¹⁰⁵ Ibid.: 406-407.

further elements are listed together under 'other temper'; or when there are two elements in little amounts they are reported together under 'other temper', as follows: 5- mica+calcite, 6- sand+mica, 7- sand+calcite, 8- chaff+mica.

4.2.6 Surface property and treatment

Before firing, the vessel's surface is, in most cases, finished through different techniques: surface irregularities are corrected by scraping or smoothing.

Afterwards the surface may remain without further treatment (1) or it may be coated by a self-slip (2), if the fluid material mixed with water is the same as the clay body.¹⁰⁶ The self-slip surface is generally difficult to recognise macroscopically because it is too similar to the vessel's material. If the fluid material used for coating is different from the clay used for the body, the coating is a slip (3) and is more easily recognisable in section. For some samples the surface property was unclear (0).

Besides those surface properties, the type of treatment and the finishing-technique applied on the vessel's surface¹⁰⁷ were taken into consideration, as well. The surface may be smoothed with a soft tool like a cloth, a piece of leather or with wet hands, to obtain a finer, more regular and smoother surface (4).

Another kind of treatment is represented by burnishing (5): rubbing the dried and very hard surface back and forth with a smooth, hard object, which makes parallel stripes on the surface. The rubbing is usually done horizontally or vertically. In some cases the burnishing is applied carefully and regularly, so that the stripes are hardly visible.

The most careful and high-quality treatment is polishing (6) resulting in a very uniform lustre on the dried surface.¹⁰⁸

In the entry form, the first finishing step and the surface treatment are described separately for the outer and for the inner surface.

4.2.7 Colour

The definition of the surface colour – both, of the outer and of the inner surface as well as of the section – is based on the Munsell Soil Color Charts.¹⁰⁹

4.2.8 Ware

The term ware summarizes all attributes which are described under the previous points. The catalogue of wares in Chapter 5 (see below) describes every ware in detail.

4.2.9 Decoration technique and typology

Besides a surface treatment, vessels may bear decorations, which are applied using different techniques: 1- a decoration may be painted (the colour or colours of the paint are described with the Munsell Soil Color Chart), 6- painted with bitumen (because of the peculiarity of the paint, this is a separate category), 2- incised (with a hard tool), 3- impressed (the pattern is stamped), 4- sealed (the motif is impressed by rolling it on the wet clay), 5- appliqué (the motif is attached on the surface and appears in relief); a decoration may also be the result of a combination of techniques, as, for example, 7- incised and appliqué or 8- incised and painted.

Every decorated sample has been drawn, thus allowing to create a typology of decoration patterns, that appears at the end of the catalogue of shape typology and consists of a separate catalogue, likewise based on a numerical code (see below Chapter 6).

4.2.10 Shape typology¹¹⁰

Although the present work focuses on the comparative analysis of the pottery and is therefore no detailed catalogue of the variations and development of shapes, the author considers it essential to illustrate her understanding of the different vessel shapes that have been adduced. Among specialists there is no agreement on the terminology of pottery shapes, and the different languages represent a further obstacle to a general and harmonious definition of ceramics.¹¹¹ The shape definition should be a matter of description and should represent a category separated from that of the vessel's function. There is no doubt that shape and function are strictly related, but for the morphological description, one should refrain from speculations about the possible use of the vessel but be as descriptive and objective as possible.

¹⁰⁶ Ibid.: 151.

¹⁰⁷ Ibid.: 138.

¹⁰⁸ At this point and for the sake of clarity I would like to introduce the German and French equivalents for the terms describing surface finishing and treatments: clay-base surface – tongrundige Oberfläche – surface sans engobe; self-slip – Selbstüberzug – auto engobe/self-slip; slip – Überzug – engobe; wet smoothed – verstrichene Oberfläche – lissage à l'eau; burnishing – Glättung – brunissage; polishing – Politur – polissage. See for German: Pfälzner 1995; for French: Balfet *et al.* 1983; Balfet *et al.* 1989.

¹⁰⁹ Revised Edition 1994.

¹¹⁰ The term 'typology' must always be understood as synonymous of 'classification' without any evolutionary premises or connotations.

¹¹¹ In this regard I refer to the work of Pfälzner 1995: 59-61. I would like here to take the opportunity to add the Italian definitions. For references regarding the different languages the following works were taken into account: English: Rice 1987; Kelly-Buccellati 1997 (see below Chapter 5.1, comment footnote 119). German: Pfälzner 1995. French: Balfet *et al.* 1988; Balfet *et al.* 1989; Lebeau 1993: 261-263. Italian: Anastasio 1998.

The criteria used for the definition are based on the anatomy of the vessel¹¹²: the relationship between the maximum diameter and the diameter of the orifice, the morphology of the different parts of the vessel (e.g. lip, rim, neck, shoulder, body, base) and the proportion between the diameter of the orifice and the height of a vessel.

The primary selection done in front of a pottery vessel or a sherd in Tell Mozan consisted in the differentiation between unrestricted and restricted shapes.¹¹³

The vessels were then divided into four main categories: bowls – cups – jars – pots. These are general, major categories, which are defined essentially by the proportion between orifice and maximum diameter and by the contour of the vessel. The relationship between orifice diameter and height was not used as a main criterion because of the large quantity of sherds where this datum cannot possibly be verified.

Within a single category there are several groups: beside the contour, the rim represents the second main criterion for the classification of the shape. Because of the limited quantity of complete vessels the base plays a marginal role.

To every group is assigned a number (see below shape catalogue in Chapter 6); the variations within a group carry the group number followed by a dot and a number. As a rule, a variation consists in a different feature of the contour, usually a change in the lip or in the rim or in the neck/shoulder part.

4.2.10.1 Bowls¹¹⁴ (shapes no. 101 to 155)

A bowl is usually an unrestricted vessel; the diameter of the orifice is also the maximum diameter (the diameter is never smaller than the height of the vessel). The only exception is represented by some bowls with slightly inward-curved rim and some carinated bowls where the diameter of the carination may be slightly larger than the orifice diameter (see sh.no. 121 to 139).

Bowls are then divided into numerous groups: with rounded/semi-circular body, with carinated body, deep and/or large, with plain or everted or rounded rim, etc.

Strainers are included under this category: in fact their shape is usually that of a bowl – a bowl with a specific function.

4.2.10.2 Cups¹¹⁵ (shapes no. 201 to 213)

The orifice diameter of a cup is the same as or slightly larger than its height. The category is small and does not show many variations. The main shape of the category is the so-called conical cup, which appears above all in the second half of the third millennium BC. Usually the orifice diameter does not exceed 15 cm (when it is wider, the vessel belongs to the bowls, sh.no. 142).

4.2.10.3 Jars¹¹⁶ (shapes no. 301 to 392)

A jar is a restricted vessel with a tight neck, the orifice diameter is always smaller than the maximum diameter which, in its turn, is much smaller than the height of the vessel. To this category belong also double-mouth jars and bottles which are distinguished by a very narrow, high neck and a strong long-limbed body; in their proportions, they are smaller than the jars (see sh.no. 391 to 392).

The jar's orifice diameter does usually not exceed 16 cm. In rare cases there are rim-sherds with a larger diameter and a high neck which the author has subsumed under this category.¹¹⁷ Another group is represented by small jar-like vessels (see sh.no. 371 to 372); their orifice diameter is smaller than 10 cm.

4.2.10.4 Pots¹¹⁸ (shapes no. 401 to 492)

Pots figure under restricted forms, usually they have no neck but a collar; the orifice diameter is smaller than or equal to the maximum diameter. If the preserved rim-sherd is small, it is very difficult to decide between a jar and a pot so that the selection criterion is the diameter: if larger than 16 cm, the vessel falls into the category 'pot'.

A series of smaller vessels with proportions comparable to those of pots have also been included in this category. They were treated as a separate group of pots because of their smaller dimensions (see sh.no. 481 to 492).

4.2.11 Dimensions

The dimensions of a vessel or of a sherd play an important role in the definition of the shape. The

¹¹² Rice 1987: 212-217.

¹¹³ Shepard 1985: 228.

¹¹⁴ Also plates are subsumed under this category. The current German terms for the corresponding shapes are: Schalen, Schüsseln, Näpfe, Teller; the French terms are: bols, écuelles, jattes, cratères, assiettes, plats; the Italian ones are: ciotole, ciotoline.

¹¹⁵ Synonym of beakers; German term: Becher; French terms: coupes, tasses, gobelets, bols (see Lebeau 1993: 261, Pl. 139); Italian terms: bicchieri, coppette.

¹¹⁶ German terms: Flaschen, Krüge, Amphoren; French terms: bouteilles, flacons, jarres; Italian terms: olle/ollette con collo, bottiglie. The French term 'jarres' as defined by Lebeau may also describe pots.

¹¹⁷ See here e.g. no. 380, Pl. 23 and no. 714, Pl. 46, both with a diameter of 20 cm.

¹¹⁸ German terms: Töpfe, Vasen, Grossgefässe; French terms: pots, vases, marmites, grandes jarres/pithoi; Italian terms: olle/ollette senza collo, pithoi.

diameter of the rim and the base is always measured in centimetres, the wall thickness is always given in millimetres.

4.2.12 Remarks and notes

In the entry form there is a space for all kinds of remarks and observations (notes): about indications of the use, manufacturing traces, conservation in antiquity,

material changes due to the deposition and other peculiarities. The notes were spelled out in words and the most frequent remarks were codified, as follows: 1- repaired with bitumen; 2- string-cut on the base; 3- encrusted; 4- re-used (e.g. as a lamp); 5- wheel-marks on surface; 6- strainer; 8- hole in the centre of the base; 9- bitumen inside for waterproofing; 11- sherd too small and fragmented, not possible to define the shape and not worth drawing.

[illegible]

Table 4: Schedule prepared to process the sample attributes. On top in bold, list of attributes; below some examples of the analysed attributes of complete vessels or sherds.

5 Wares

5.1 Definitions

Confronted with any ceramics publication the reader faces the problem of pottery types and definition of wares. The present study is no exception, therefore the author thought it appropriate to give a short explanation of the definitions of wares used in this research.

First of all it is necessary to clarify the meaning of ware: in the author's understanding the term *ware* designates a pottery group with equal, homogeneous characteristics: a set of attributes including clay and temper composition, firing technology, surface treatment, decoration and in some cases also colour and/or shape. The ware is defined by the attributes in their entirety.

The method used at Tell Mozan to process pottery was created by Marilyn Kelly-Buccellati and is based on her long experience with ceramic material. As explained in the preliminary version of the Mozan Ware Description, her system is founded on the type/variety classification system used in the American southwest and in Central America.¹¹⁹ From the first excavation season at Tell Mozan, the description system has been continuously updated and supplemented by Marilyn Kelly-Buccellati.

The Mozan ware classification was also applied to the pottery analysis of the present study. Here follows a short summary of the criteria for the definition of wares. This summary is primarily based on the system developed by M. Kelly-Buccellati.¹²⁰ During the 1999 season at Tell Mozan, Yoko Taniguchi, a pottery technologist, studied the wares and added technical details to the definitions.¹²¹ Additional data are extracted from the processing method used expressly and only for this research.

Every ware is named according to its main peculiarity, the initials of which are used as abbreviation for the ware itself and have in the same way been entered in the database (see Plates I–III).

5.1.1 CH-Ware (Chaff Tempered)¹²² and FC-Ware (Fine Chaff Tempered)

The Chaff and Fine Chaff Tempered wares have organic material as main component of the temper. Chaff is clearly visible in the paste as well as on the surface. In 98%¹²³ of the CH-ware and FC-ware pottery a second component is added to the organic element: usually calcite and/or other minerals. In the Fine Chaff Tempered ware the paste is less rough and the components are smaller in size and quantity than in the Chaff Tempered examples. In the FC-ware, calcite is more frequent than other minerals as second element of the temper. The surface treatment is usually rough to wet smoothed and the firing is medium. 90% of Fine Chaff Tempered ware samples are thinner (wall thickness less than 10 mm) than the Chaff Tempered ones (see Plates I, IVa,c,d, VIa, VIIb).

5.1.2 INC-Ware (Incised and/or Rope Decorated)¹²⁴

The Incised and/or Rope Decorated ware is defined by its peculiarity: namely its type of decoration. From the point of view of paste, temper and surface treatment it has actually to be considered as a subgroup of the Chaff Tempered ware. The main temper consists of organic material; quartz or calcite are added as secondary components. The surface treatment is rough to wet smoothed and the firing is medium to high. The distinguishing element of this ware is the type of decoration, which varies from simple, horizontal bands of fine incised lines to a combination of bands of horizontal and wavy incised lines (Plates I and VI d). In most cases the lines are comb-incised. Other incised patterns are formed by small aligned crescents, rhombi, triangles or wedges (11% of the INC-ware samples). Lines can be fine and comb-incised (46%) or wider (up to 4 mm, 20%), probably obtained with the help of a wooden tool. Other vessels or sherds have an applied rope-like stripe of clay. This motif appears alone (30%) or in combination with combed lines or other incised decorative elements (10%).

119 See Urkesh Typological Record pre-publication series (unpublished, preliminary working documentation about ceramic records): Kelly-Buccellati 1992: Summary of the Most Important Ceramic Forms by Ware; Kelly-Buccellati 1996: Ceramics from The Royal Palace AK, Seasons 1990-1996; Kelly-Buccellati 1997: Ceramics from the Royal Palace AK. The Early Strata. See also Kelly-Buccellati, in: Buccellati – Kelly-Buccellati 2000: 168, footnote 15.

120 See also Kelly-Buccellati 1988: 45-47; Kelly-Buccellati in: Buccellati – Kelly-Buccellati 2000: 167-183.

121 The results of Yoko Taniguchi's research will be published in the technical part of the Tell Mozan excavation report. I am very grateful to Marilyn Kelly-Buccellati and to Yoko Taniguchi for their great and detailed research work and I am also very thankful for the possibility to use their results.

122 Thompson-Miragliuolo 1988: 53; Kelly-Buccellati, in: Buccellati – Kelly-Buccellati 2001: 81, footnote 13.

123 All percentages quoted in this chapter refer exclusively to the AK material selected for this research. Only 2% of the analysed CH- and FC-ware samples have only chaff/organic as component.

124 Kelly-Buccellati 1988: 46.

5.1.3 R-Ware (Rough)¹²⁵

The Rough ware has a chaff tempered, coarse paste; several samples show also small fireclay fragments or calcite inclusions. It has likewise to be considered a subgroup of the Chaff tempered ware. The surface is not treated but left rough. The firing is low to medium, so that 72% of the analysed samples show a carbon core in the section (Plate I). Some of the vessels are fully handmade. 75% of the vessels and sherds of this ware provide walls thicker than 15 mm. This ware was used to produce deep, large bowls (mainly shapes no. 141 and 151) and large pots (sh.no. 401 and 441).

5.1.4 BR-Ware (Brick-Red)¹²⁶

A further subgroup of the Chaff tempered ware is the so-called Brick-Red ware, which is very rare in the service wing AK. The colour of surface and paste is brick-red (Munsell 5Yr6/6), the temper consists mainly of organic material (chaff). In several samples there appear a few small mineral components. The firing is low to medium and the carbon core is rather thick and always present. Some of the vessels are fully handmade.¹²⁷

5.1.5 RC-Ware (Red-Orange Calcite Tempered)¹²⁸

This ware shows a red-orange (in some cases shading into beige) colour on the surface and in the section. Calcite temper appears in large amounts on the surface as well as in the section. In several cases the particles of calcite may be very large. In most analysed sherds chaff is present in smaller amount, as second temper element. The firing is medium to high. This ware is divided into two groups, RC1 and RC2: the first combines sherds that are thicker than 9 mm and coarsely tempered; to the second one belong sherds of a finer type (see also Chapter 11.1.5 and Plates I and VIIa).

5.1.6 P-Ware (Pebble Tempered)¹²⁹ and FP-Ware (Fine Pebble Tempered)

The temper of the Pebble Tempered ware consists of small to coarse particles of sand, other mineral elements and a small amount of organic material (Plate I).

The outer surface is always burnished, and in 74% of the samples the inner surface is burnished as well. In case of open shapes, the complete inner surface is burnished, otherwise the inner burnishing is limited to the upper part of the vessel. The firing is low to medium. 30% of the analysed sherds show a carbon core. The average thickness is 10.5 mm at the upper part of the profile, close to the rim, and 7 mm at the base.

The Fine Pebble Tempered Ware (FP) is characterized by the same temper elements as the P-ware, but it is made up of finer particles, has a lower density of components and occurs in thinner and smaller shapes.

These two subgroups together correspond to a ware type that is generally called 'cooking-ware'¹³⁰. Before use, i.e. before the vessels come into constant contact with fire, they are pale brown, by use they become dark brown to black. Because of its specific function, the paste, the temper and the surface treatment of this ware are quite specific: thanks to reduced thermal stress, those elements enable the vessels to resist continual changes of temperature. In Chapter 11.1.1 this ware will be discussed in more detail.

5.1.7 DROB- Ware (Dark Rimmed Orange Bowls)

The DROB-ware is composed of a very fine clay and the vessels show a precisely executed surface treatment. Most of the vessels have been accurately smoothed on the outside, when they were half dried. Often the same surface treatment is also applied on the inner surface. The outer surface is covered by a thin slip, the colour of which, outside and inside, ranges from pale brown to orange (Munsell 5Yr7/6 – 2.5Yr6/6), the latter being the most common colour (Plates III and VIa). On the rim all vessels carry a slip in form of a broad, dark stripe (mostly brown to black, Munsell 5Yr4/3 – 10R3/1). Due to a short reduced firing at the final stage, this slip layer acquires the dark colour.¹³¹ The dark stripe at the rim, mostly outside but sometimes overlapping with a narrower stripe into the interior part, is not accidental but intentional; it is in fact a decoration. The vessels made in this ware are relatively high fired (see Chapter 11.1.6 for further details).

Half of the analysed samples are not tempered. The fine 'mineral temper' that can be seen macroscopically in some sherds is to be understood as inclusion,

¹²⁵ Kelly-Buccellati 1988: 46.

¹²⁶ Kelly-Buccellati 1988: 45.

¹²⁷ This ware type was created by processing the Mozan pottery, as several sherds with the particular brick-red colour stand out from the whole amount. For the sake of completeness this ware was listed here, although it plays a very marginal role in the AK material selected for this research (see further below, Chapter 7).

¹²⁸ Kelly-Buccellati, in: Buccellati – Kelly-Buccellati 2001a: 81, footnote 13; Kelly-Buccellati, in: Buccellati – Kelly-Buccellati 2000: 171, footnote 24; see also Kelly-Buccellati forthcoming article in AAAS, footnote 7.

¹²⁹ Kelly-Buccellati 1988: 46; Kelly-Buccellati, in: Buccellati – Kelly-Buccellati 2001a: 81, footnote 13.

¹³⁰ See at Tell Brak: ware 9; Oates 2001: 399; at Tell Beydar: Broekmans *et al.* 2004: 92-97. For the French definition see e.g. at Tell Melebiya – "céramique de cuisson": Lebeau 1993: 257; at Tell Mohammed Diyab – "céramique de cuisine (*Cooking Ware*)": Nicolle 2006: 163; further Boileau 2005, "céramiques culinaires", 44-48 and its English translation "Cooking Pot Wares", 55-56.

¹³¹ These observations were made by Yoko Taniguchi, whose research will be published in the technical part of the Tell Mozan excavation report. For Oates the dark stripe decoration is, on the contrary, the result of a secondary firing. See Oates 2001: 161.

as primary component of the clay. These mineral elements are quartz and fine chips of muscovite.¹³² 26% of the DROB-ware samples show some calcite particles in the section and/or on the surface.

Those characteristic features of clay and temper composition, surface treatment and decoration are always combined with the same shape types: bowls with a semi-circular body and a plain or pointed rim, bent slightly inward (shapes no. 101 and 102.1).

5.1.8 M-Ware (Metallic)¹³³

The term Metallic ware defines a very fine and usually not tempered paste (63% of the samples). When temper (sand) is visible, its quantity and density are very low. The surface may be untreated, sometimes carefully smoothed or nearly uniformly polished (Plates II and IVb). The colour of the surface ranges from grey (Munsell 4/N) to dark brown (Munsell 7.5Yr4/1) and black (Munsell 5Yr2.5/1). The firing takes place at very high temperatures making the resulting fabric very hard, and usually under conditions of reduction. In case of irregular conditions the range of colours may include some buff to orange stripes. Some samples show wheel marks on the outer and inner surface.¹³⁴ In Chapter 11.1.2.1 this ware will be discussed further.

5.1.9 IM-Ware (Imitation Metallic)

At first sight, this ware is very similar to the Metallic ware, but a closer macroscopic analysis shows that the paste, buff in colour, is coarser and the temper contains little mineral or sand. The less carefully treated surface, the colour of which varies from dark grey to dark brown and to black, may provide a smoothed slip; few samples are burnished (Plate II). The firing is medium. Because of the apparent similarity to the Metallic ware it is called Imitation Metallic ware. It remains unclear whether the potters aimed at imitating the Metallic ware or whether the differences between the two wares are rather due to different potters' work-

shops, less knowledge and/or different raw materials (see also Chapter 11.1.2.2).

5.1.10 'S-Ware' ('Simple')¹³⁵

The 'Simple ware' is a very fine and uniform ware, generally without addition of temper. In 17% of S-ware samples very small particles of mineral temper (quartz) have been noticed. The outer and inner surfaces are very carefully polished. The firing temperature is very high, as in the case of the Metallic ware. The high temperature often creates a vitrifying effect on the surface. The colours range from pale green to pale yellow (Munsell 5Y8/2 – 10Yr8/2). Very few examples show some blue stripes (Plates II and VIb). The term 'Simple ware' is misleading and does not seem appropriate to define such a high-quality pottery. The manufacture of ceramics at such a high level requires specific knowledge and long experience on the side of the potters. The very fine and pure clay must have been expressly chosen, the surface very carefully treated and the firing had to take place under skilled control. The term 'Simple ware' usually described a type of standard pottery recovered in the Amuq plain, in northwest Syria and Eastern Anatolia and was first used at Tell Mozan due to the similarity to that ware type.¹³⁶ To avoid misunderstanding the term 'Simple ware' in the following chapters will be written in inverted commas: in Chapter 11.1.2.3, after the illustration of its attributes, the problem of its definition will be further discussed.

5.1.11 WS-Ware (Wet Smoothed)¹³⁷

The so-called Wet Smoothed ware is a medium-high-quality ware: it is finer than the Fine Chaff Tempered ware and coarser than the 'Simple ware'. Except for a little amount of samples, this ware always contains chaff or mineral or sand inclusions (Plate III). 27% of the samples are very sparsely tempered, but the rest show a larger quantity of temper, although never in high density. The surface (usually the outer surface) has been carefully wet smoothed, while the vessel was still humid. The 'smoothing' was generally done with a piece of leather or cloth or by the wet hands of the potter, thus creating a very smooth, matt surface, that characterizes this ware. The firing is medium to high and the colours range from pale yellow to very pale brown (Munsell 5Y8/3 and 10Yr8/2).

¹³² See Chapter 11 and Kibaroğlu 2008.

¹³³ Kelly-Buccellati 1988: 46; Thompson-Miragliuolo 1998: 53. This ware has been the subject matter of several pertinent studies and research works that will not be discussed in the present study. Here we shall only explain how the term Metallic Ware is understood and used at Tell Mozan. About its general denomination, use, extension, chemical composition and structure see e.g. Kühne – Schneider 1988: 85-86; Schneider 1989a: 30-50; Schneider – Daszkiewicz 2001: 201-216; Pruß 2000: 193-203; Falb 2009: 78-146.

¹³⁴ Kühne – Schneider 1988: 85, 91; Fielden 1977: 247. See also observations and considerations by Marie-Claude Boileau on the Metallic Ware samples retrieved at Tell Atij and Tell Gueda, Boileau 2005: 50 and on CD under the heading: Fine and Metallic Ware, Technological characterization, P0/19.

¹³⁵ Kelly-Buccellati 1988: 47; Kelly-Buccellati, in: Buccellati – Kelly-Buccellati 2001a: 81, footnote 13.

¹³⁶ In the Amuq plain the Simple ware pottery has been retrieved in Phases I – J, see: Braidwood – Braidwood 1960: 406-413; for Eastern Anatolia, see: Russell 1980: 30-31; Sagona 1984: 115.

¹³⁷ Kelly-Buccellati 1988: 47; Kelly-Buccellati, in: Buccellati – Kelly-Buccellati 2001a: 81, footnote 13.

5.1.12 G-Ware (Grey)

This ware is firstly distinguished by its grey-coloured clay, which is responsible for the label. Surface and section range from light to dark grey (Munsell 5y76/1 – 2.5y5/1 – 2.5y4/1). The exterior and mostly also the inner surface are carefully treated and burnished to polished, with the latter treatment being less frequent. The paste is fine to medium and the temper consists of little calcite, sand or mineral particles; only in the thicker and coarser samples is organic material present to a larger degree (Plates III and IVe-f). In Chapter 11.1.3 the attributes of this distinctive ware will be discussed in detail.

5.1.13 'ETC- Ware' ('Early Transcaucasian')¹³⁸

The so-called 'Early Transcaucasian' ware is very rare at Tell Mozan. The paste is tempered with mineral and, in a few cases, also with organic or calcite elements. The surfaces, inside and out, are nearly polished or, for the coarser samples, irregularly burnished (Plate III). The colour of surface and paste is black, rarely very dark brown. The firing is medium and many samples have a carbon core.¹³⁹ Some samples seem to be fully handmade. Further characteristics of this ware are illustrated in Chapter 11.1.4.

138 Kelly-Buccellati 1988: 46.

139 Kelly-Buccellati 2005: 35-36.

6 Catalogue of shape typology

6.1 Introduction

The following catalogue of shape typology is based on the ceramic shape catalogue used at Tell Mozan since the beginning of the excavations; that catalogue assembles the results of many years of work and research on pottery on the part of Marilyn Kelly-Buccellati¹⁴⁰ and has been successively updated. It is mainly based on the pottery from the different excavated areas including the royal service wing AK. The present catalogue of shape typology is an enlarged form of that catalogue: several subgroups have been added and a few other variants have been joined under the same group; it has been adjusted according to the needs of this study. Another difference exists in the shape codes, which are here based on a combination of numbers and not on the shapes' initials, as in the Mozan catalogue.

The shape typology of this catalogue is organised along simple and wide categories, which allow a quick classification of a large variety of pottery samples and, above all, of sherd samples, which represent the great majority of the studied material. It was decided to process the fragmentary material through one catalogue that focuses on the rim types; the use of a further catalogue just for the – very few – complete vessels was omitted, the latter are described according to their individual attributes. There results a simple catalogue, easy to manage also in case of comparisons, when the published material consists of drawings or pictures on a very small scale.

Every attribute of a type is at first briefly described and then accompanied by one or more sample drawings, thus to visualize the defining elements. The drawings are of sherds or complete vessels from the service wing AK; they are to be understood as idealised forms and as representative of the types,¹⁴¹ but must not be taken for the objects themselves.

As mentioned in Chapter 4.2.10 (see above), the present catalogue follows a sort of hierarchical subdivision that reflects the visual approach used while processing the pottery vessels and sherds. Firstly it distinguishes between unrestricted or restricted shapes. The former group is further divided into bowls and cups, the latter into jars and pots. Successively the attributes of the different parts constituting the vessel are grouped under a type, that is defined by a shape number.

The first number represents the main category where mainly the upper part of the vessel is taken into

consideration: 1 for bowls, 2 for cups, 3 for jars, 4 for pots. Three other code numbers provide the description of other parts or elements of the vessels: 5 for bases, 6 for handles, 7 for decorations. There follow two numbers designating the shape type. The variant of a type is expressed after those three numbers, for example 111.1, i.e. the first variant of type 111. The difference between type and variant of a type is usually related to a small variation in the lip or in the rim shaping, but the main type attributes must still be present.

An attempt has been made to treat the subdivisions of every category and every type from the same perspective: i.e. the shapes are organised according to their simplicity or to their complexity. It is important to underline that the catalogue is a list of shape types and that the sequence of the types is not related to any chronological or functional connotations. Furthermore it must be added that the term 'typology' is used without any evolutionary premises.

Since we deal mainly with sherds, the main criterion for the analysis is represented by the rim and the lip shape. The next aspects taken into consideration are shoulder and/or neck and then the general body shape.

At the beginning of every category of this catalogue there are listed shapes with plain rims, followed by shapes with more complex rims mainly to be described in geometrical terms, for example rims with round, triangular or square section, double rims, carinated rims, etc.

As second criterion in the analysis was observed the development under the rim, i.e. how is the structure of the shoulder or of the neck in association with the rim and with the rest of the vessel.

The category 'bowls' (sh.no. 101 – 155) begins with semi-circular or rounded bowls with plain or pointed rim, followed by bowls with thickened rim, with rounded rim, curving outwards or inwards (sh.no. 101 – 116). These are followed by bowls with a more complex body shape, namely those with carinated profile (sh.no. 121 – 139). Within this type of bowls, further criteria follow in the same sequence as for the previous bowl type: plain rim, rounded rim, etc. The last part of the catalogue of bowls is dedicated to the description of deep and/or large bowls (sh.no. 141 – 155): beginning with those with straight plain rim, followed by bowls with interior and exterior thickened rim, continuing with large, thick, round or square rims and ending with carinated rims.

The category 'cups' (sh.no. 201 – 213) comprises a small rather homogeneous group. The rim analysis follows the same pattern as for the bowls. The body shape, on the other hand, plays an important role for this category. First of all is described the typology of cups with

140 Kelly-Buccellati, in Buccellati – Kelly-Buccellati 2000a: 167-169, and above all see footnote 15.

141 'Typvertreter' see Eggert 2001: 139.

a conical body, which are very typical and peculiar for the ceramics context under investigation here.

Conical cups occur with a plain, pointed or round rim. Secondly, cups with other body shapes are listed.

The restricted shapes, divided into jars and pots, are presented analogously.

First are described jar shapes (sh.no. 301 – 392) with plain rims, then with rounded, everted rims. Following the appearances of the rim shape, the subcategories are divided into thick rims with triangular or square section or double rims. In the last part of the jar catalogue there are gathered the so-called small jars (sh.no. 371 – 372), i.e. jars with a diameter smaller than 10 cm, and the bottles (sh.no. 391 – 392) with just two types differentiated by their rim shapes.

The pots provide a big group (sh.no. 401 – 492); it starts with pots showing a plain, rounded rim or more complex rims (following the same sequence of criteria as for the jars, although for pots the variety of complex rims is larger). The second part of the catalogue of pots is devoted to the so-called ‘hole-mouth’ pots (sh.no. 451 – 456). Their description follows the same rules as explained above. In the third part (sh.no. 481 – 492), the small pots, namely those with a diameter smaller than 18 cm, are lumped together. They are subdivided according to the scheme of the bigger pots: first pots with plain or complex rim, secondly, ‘hole-mouth’ pots with plain or complex rim.

The shape typology based on rim description is followed by the typology of the bases, which may be flat, disc- or ring-shaped (sh.no. 500 – 525). They may have an exterior ledge, be pointed or rounded. The bases

of the conical cups are listed separately, because they represent a very peculiar and distinctive group, which may be analysed more accurately by a separate typology. They may be flat, slightly concave or slightly convex, or show the so-called ‘string cut’ marks.

The catalogue of handles (sh.no. 601 – 652) is based mainly on their geometric shape and their position on the vessels (exterior or interior). Handles may be elongated or semi-circular lugs, knobs with different sections, strap handles or handles with a pierced lug.

The catalogue of decorations (sh.no. 701 – 772) makes up the last part of this typology catalogue. The different decoration patterns are listed as well as are the most frequent combinations of some types.

Rare patterns or combinations of motifs are listed as one type plus (+) the second type.

In the case of complete vessels, their shape description results from the combination of rim plus base typology.

All drawings presented in this catalogue and in all other chapters of this study are given at a scale of 1:4. In the case of big vessels the drawings may have to be executed at a reduced scale. If so, the differing scale is indicated under the drawing.

The short horizontal mark on the middle, vertical line of every drawing marks the distance of 5 cm. For rim sherds and complete vessels, the 5 cm are calculated from the rim downwards, for bases from the bottom upwards.

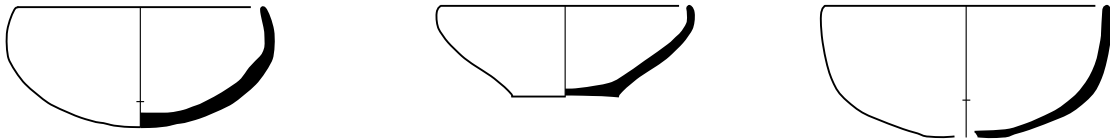
This mark is meant as a further help for a quick notion of the sample’s size.

6.2 Unrestricted shapes

6.2.1 Bowls

101 semi-circular/rounded body and plain rim

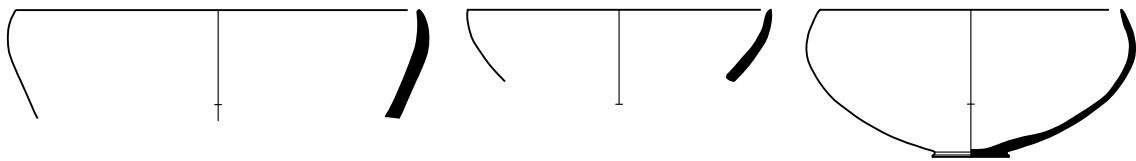
The body may be semi-circular or rounded. The upper part of the body is straight or slightly bent inwards. The upper profile shows a thickness, which is regular until the rim and slightly reduced towards the edge. The rim presents a rounded, plain edge.



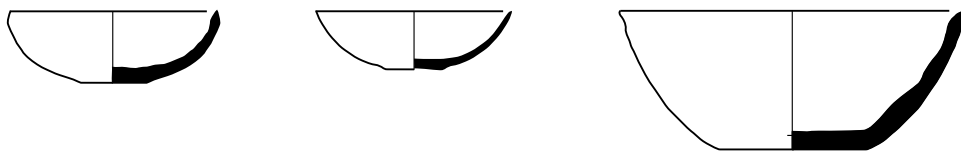
102 semi-circular/rounded body and pointed rim

The body may be semi-circular or rounded. The upper part of the body may be straight, bent inwards or slightly everted. The upper profile shows a thickness, which diminishes regularly towards the edge. The rim presents a pointed edge, which may be straight, slightly curved inwards or everted.

102.1 pointed rim, slightly bent inwards

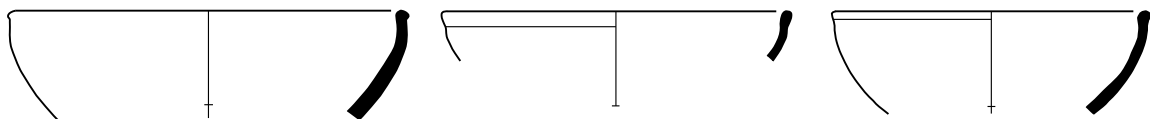


102.2 pointed rim, everted



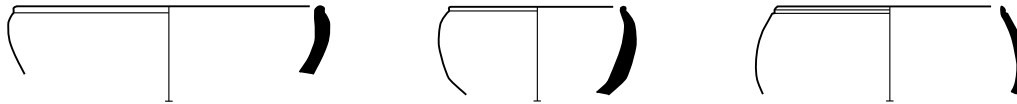
103 semi-circular/rounded body and rounded, outside thickened rim

The body may be semi-circular or rounded. The upper part of the body may be straight or slightly bent inwards. The upper profile shows a regular thickness. The rim is small, rounded and outward-turning.

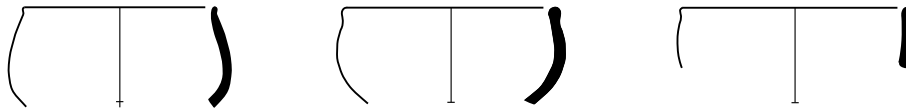


104 semi-circular/rounded body and stepped rim

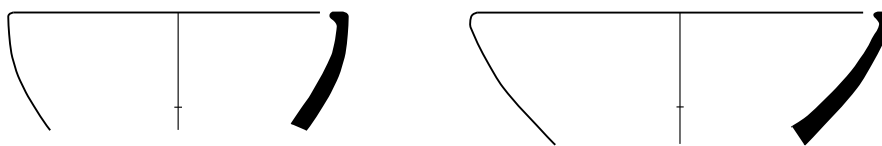
The body may be semi-circular or rounded. The upper part of the body is slightly bent inwards. The upper profile shows a thickness, which gets slightly thinner towards the edge. The rim is small and round. The bottom of the rim is marked by a step on the outer profile, which divides the rim from the walls.

**105 semi-circular/rounded body and small beaded rim**

The body may be semi-circular or rounded. The upper part of the body is slightly bent inwards. The upper profile shows a thickness, which gets slightly thinner towards the bottom of the rim. The rim is small and oval (so-called beaded rim). It may be straight or slightly everted.

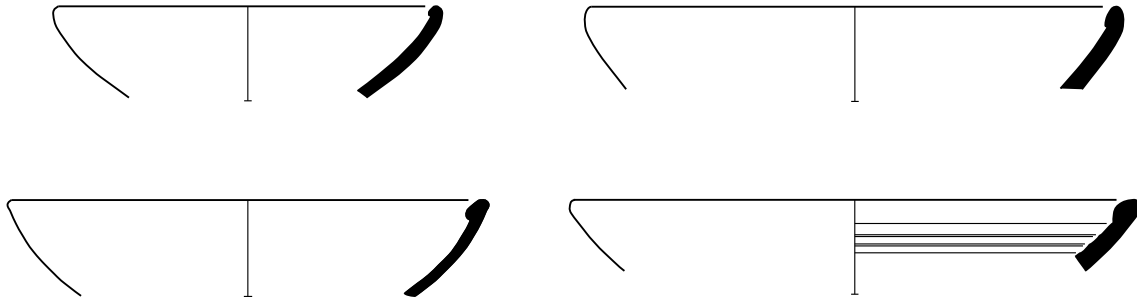
**111 semi-circular/rounded body and interior slightly thickened, rounded rim**

The body may be semi-circular or rounded. The upper profile shows a thickness, which gets thinner towards the bottom of the rim. The rim is thick and rolled inwards.

111.1 semi-circular/rounded body and interior slightly thickened, rounded rim**111.2 interior slightly thickened rim with a rounded upper part**

112 rounded, shallow body and interior thickened, elongated rim

The body may be rounded and shallow. The upper profile shows a regular thickness. The thick rim is rolled inwards and presents a rounded, elongated shape.

**113** rounded, shallow body and interior thickened, horizontally elongated rim

The body may be rounded and shallow. The upper profile shows a regular thickness. The thick rim is rolled inwards and presents a flat, wide upper edge (horizontally elongated).

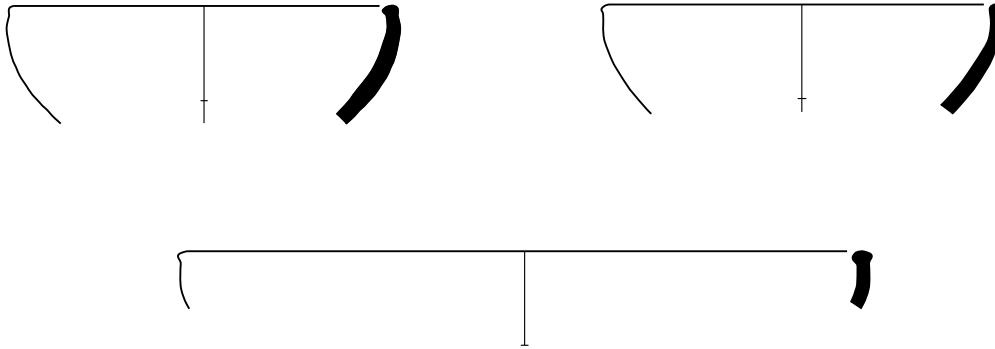
**114** semi-circular/rounded body and interior thickened rim with triangular section

The body may be rounded or shaped like a shallow semi-circle. The upper profile shows a regular thickness. The thick rim is rolled inwards and presents a triangular section with a slightly pointed edge.

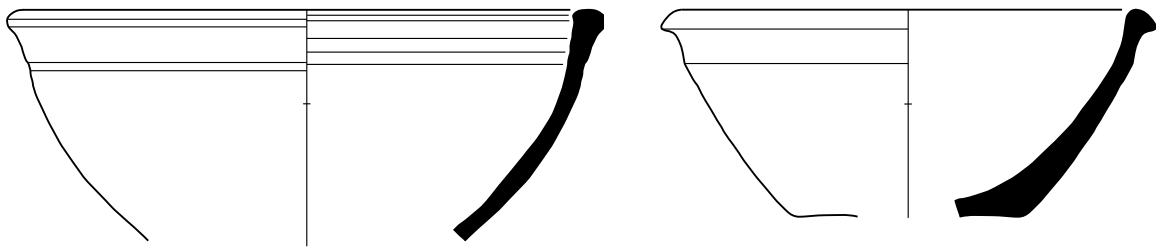
114.1 interior thickened rim with triangular section; interior and upper part of rim pointed**114.2** interior thickened rim with triangular section; interior part of rim pointed

115 semi-circular/rounded body, interior and exterior thickened rim: exterior rim slightly bent inwards

The body may be semi-circular or rounded. The upper profile shows a regular thickness and is nearly straight or slightly curved inwards. The small rim is slightly rolled inwards and rounded or slightly pointed. On the exterior the rim is slightly rounded.

**116** semi-circular/rounded body and thickened rim: interior rounded and exterior thicker, everted rim

The body may be semi-circular or rounded. The upper profile is everted. The rim is slightly rolled inward and rounded. The exterior part is thicker and round.

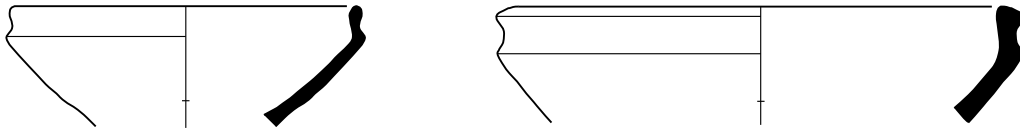
**121** S-shaped, rounded shoulder profile and plain rim

The body may be semi-circular or rounded. The upper part shows an S-shaped profile with a regular thickness. The rim is plain and outward-turning.



131 carinated body and straight rim

The body may be semi-circular or rounded and is carinated at the upper part. The carination is rounded or slightly pointed on the exterior. The upper part of the body is straight or slightly curved inwards. The plain rim is rounded on the outside.

131.1 carinated body and straight rim: inside slightly rounded and outside thicker, rounded rim**131.2** carinated body with thick walls and straight, plain rim**131.3** carinated body with thin walls and plain rim straight or slightly bent inwards**132** carinated body and plain, outward-turning rim

The body may be semi-circular and is carinated. The upper part of the profile is thinner and everted. The rim is plain and everted.

132.1 sharp, pointed carination, plain everted rim (and flat base)**132.2** less sharp, but more rounded carination, plain everted rim (and rounded base)

133 carinated body and pointed rim

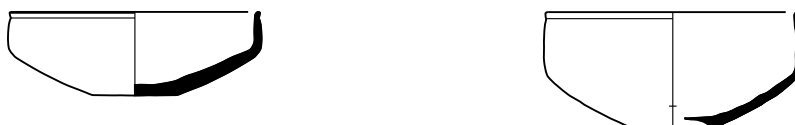
The body may be rounded and is carinated. The wall thickness is regular. The carination is rounded. The upper part of the body is bent inwards and the pointed rim is slightly everted.

**134** carinated body and rounded outward-turning rim

The body may be semi-circular or rounded and is carinated. The wall thickness is regular. The carination is rounded or slightly pointed. The upper part of the profile is straight, slightly everted or bent inwards. The outward rim is thick and round.

134.1 straight to slightly everted upper part of body and round, everted rim**134.2** upper part of body bent inwards and round, outward-turning rim**135** carinated body and stepped or beaded rim

The body may be semi-circular or rounded and is carinated. The walls are thin and regular. The upper part of the body is straight or slightly everted. The carination is rounded or slightly pointed. The rim is small and rounded and marked by a step outside or it is beaded.

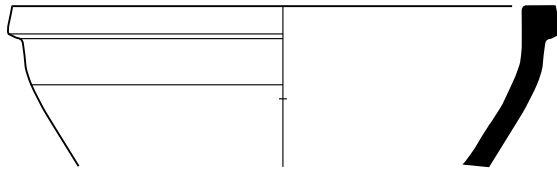
135.1 stepped rim**135.2** beaded rim

138 small bowls with carinated body: top of the rim is flat, interior and exterior thickened and rounded

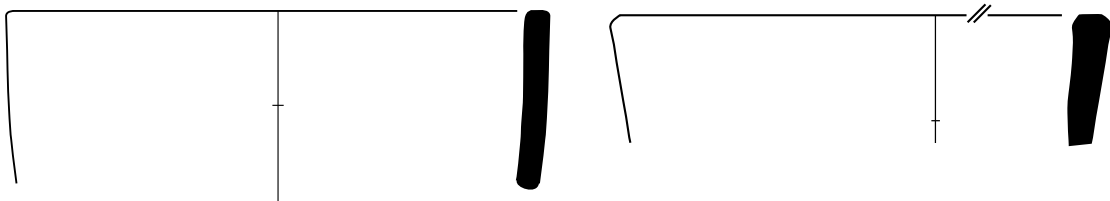
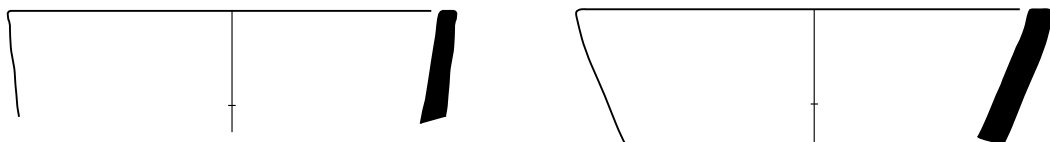
The body may be semi-circular or rounded and is carinated. The carination is sharply marked. The upper part of the body is straight or inturned. The top of the rim is flat and the interior and exterior are thickened or round.

**139** large or deep carinated body and exterior thick rim with flat upper part

The large or deep body may be semi-circular or rounded and is carinated. The walls are thick and regular. The top of the rim is flat and the exterior part is round or square.

**141** straight side profile and plain, straight rim

Deep bowls with thick, straight or slightly everted walls. The rim is plain and flattened.

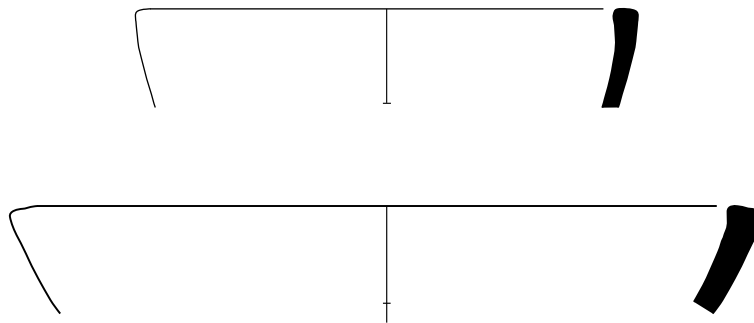
141.1 straight side profile and plain, straight rim**141.2** slightly everted walls and plain rim

142 conical profile and plain rim ('large conical cup', dm > 15 cm)

Large cups with slightly everted walls with conical shape. The rim is plain.

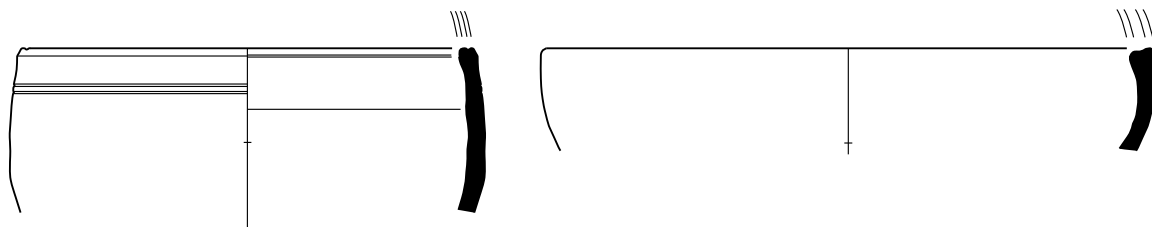
142.1 conical body and plain rim ('large conical cup')**142.2** conical body and outside thickened or rounded rim**143** slightly everted walls and interior and exterior slightly thickened rim

Deep bowls with thick, slightly everted or inwards curved walls. The top of the rim is flattened and the interior thickened.

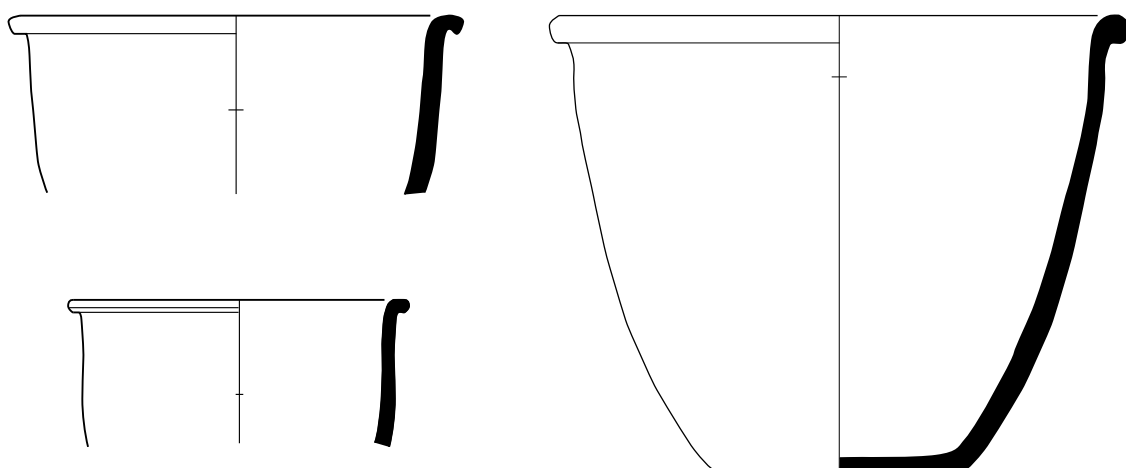
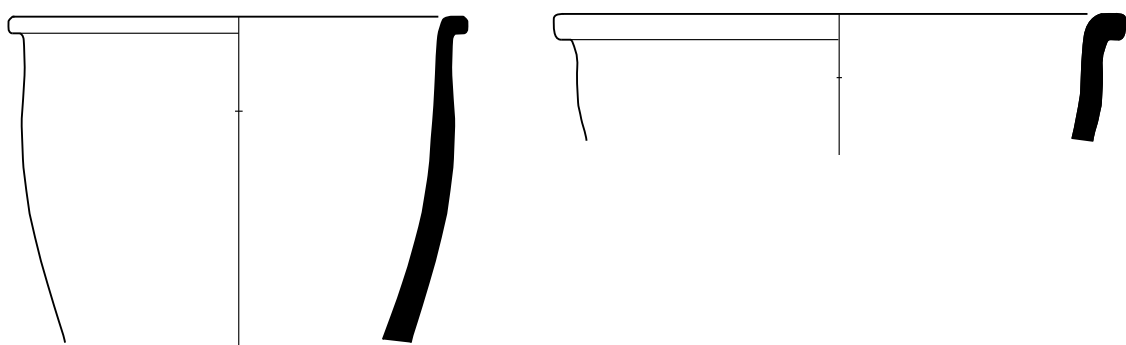
143.1 slightly everted, straight side profile and interior and exterior slightly thickened rim, top flattened**143.2** slightly rounded profile and exterior and interior slightly thickened rim

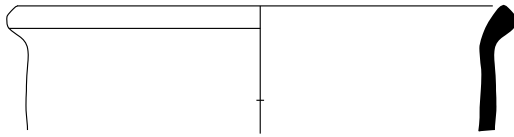
144 slightly inward curved side walls and interior slightly thickened rim with grooves on top

Deep or semi-circular bowls with thick, slightly inwards curved walls. The interior slightly thickened rim carries grooves on the top.

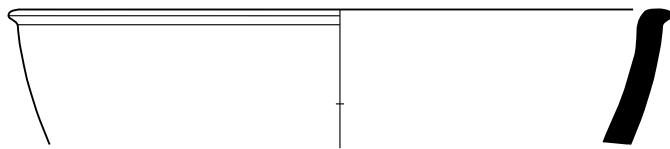
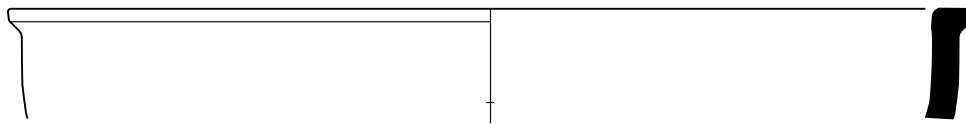
**151** deep or large bowls with straight upper profile and rounded, thick, outward-turning rim

Deep bowls with thick, everted walls. The upper part of the body is straight. The thick, rounded rim may be round, square or shaped like an elongated bead.

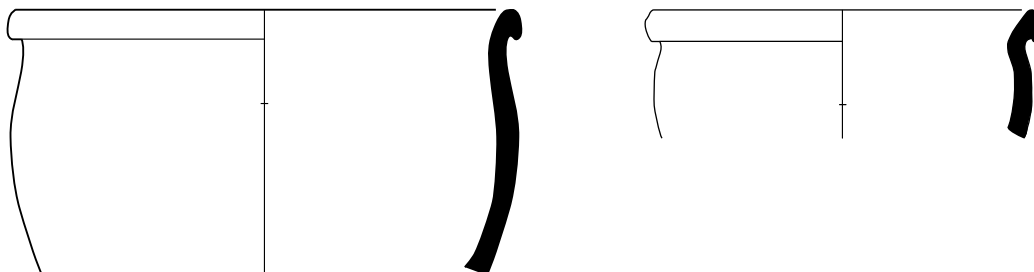
151.1 outward-turning, round rim**151.2** square rim

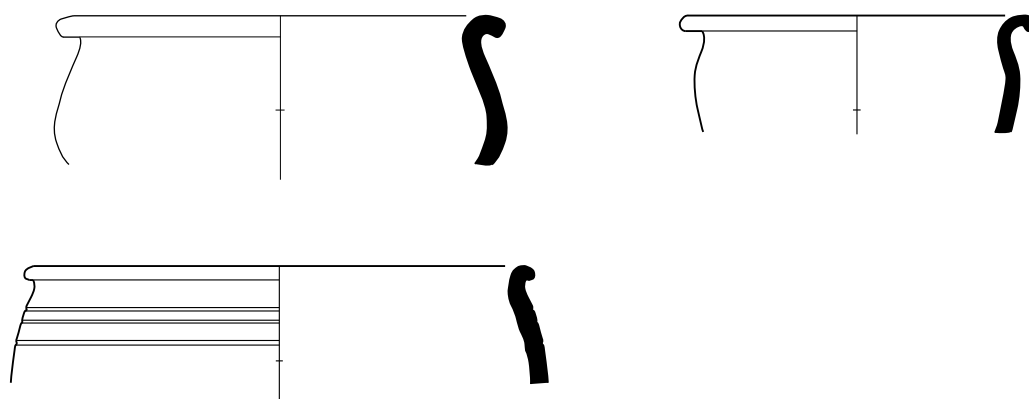
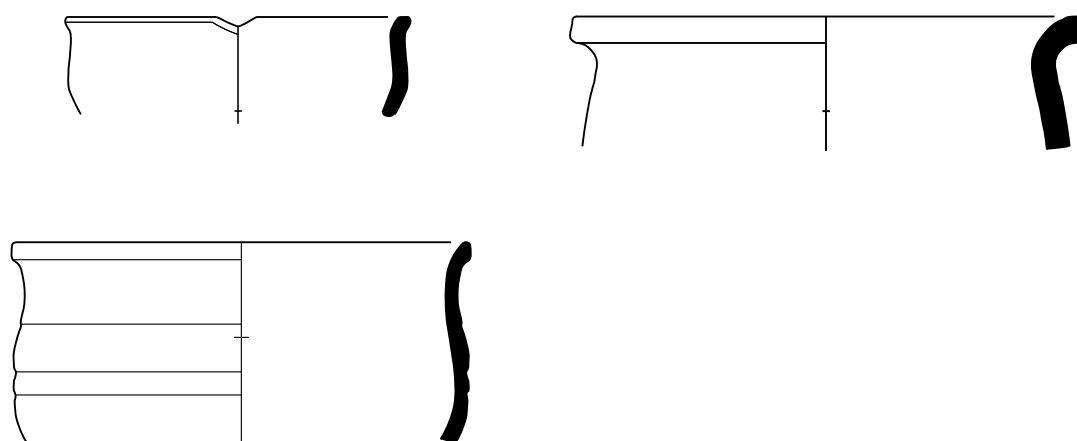
151.3 elongated rim**152** deep or large bowls with slightly curved upper profile and outward-turning rim

Large or deep bowls with thick, everted walls. The upper part of the body is curved. The thick, outward-turning rim may be round or nearly square in section.

152.1 rounded rim**152.2** square rim**153** deep or large bowls with upper part of profile slightly S-shaped and outward-turning rim

Deep bowls with thick walls. The upper part of the body is slightly S-shaped. The large, outward-turning rim may have an elongated/oval, round or plain shape.

153.1 outward-turning, elongated/oval rim

153.2 outward-turning, rounded rim**153.3** plain rim**154** deep or large bowls with interior thickened and exterior outward-turning, squared/round and carinated rim

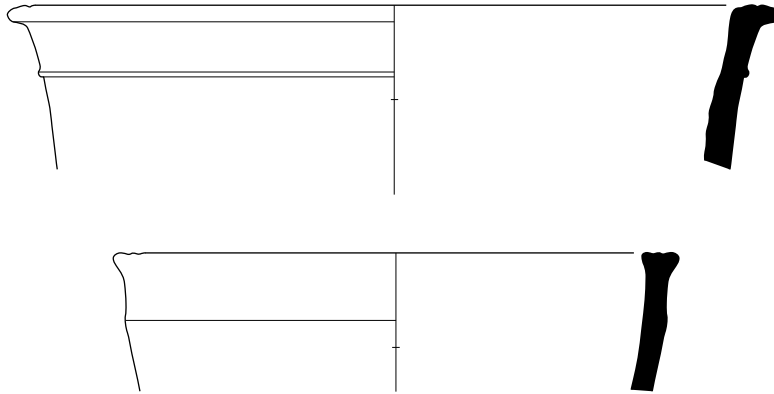
Deep or large bowls with thick walls. The upper part of the body is straight. The large rim is thickened on the interior part and rounded or square in section and is outward-turning. Under the rim lies a kind of carination: an exterior, rounded or slightly pointed ledge on the side.



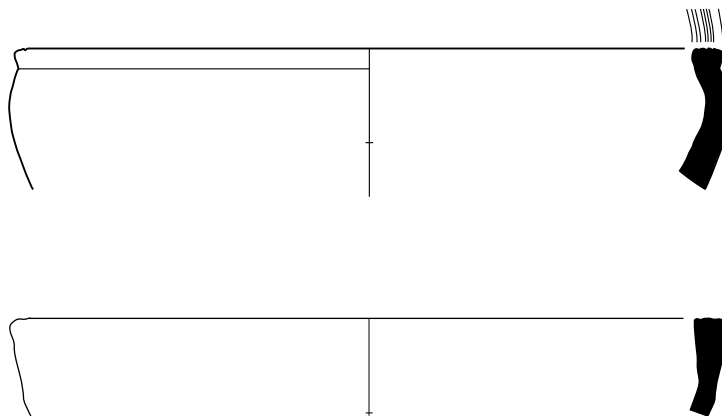
155 deep or large bowls with interior thickened and exterior outward-turning, squared and carinated rim with grooves on top

Deep or large bowls with thick walls. The upper part of the body is slightly everted. The large rim is slightly thickened on the interior part and round or square in section on the exterior part and it is outward-turning. Under the rim lies a kind of carination, an exterior, rounded or slightly pointed, ledge on the side. On the flattened top of the rim are grooves.

155.1 thickened rim towards exterior and sharp carination under the rim



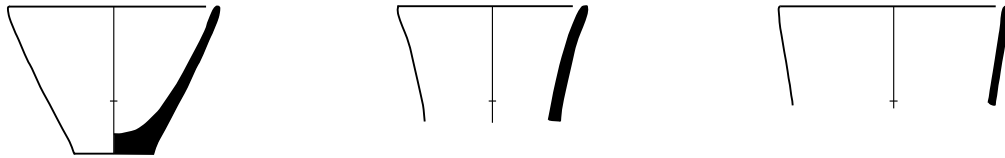
155.2 slightly thickened on interior and exterior, the carination is slightly marked (rounded)



6.2.2 Cups

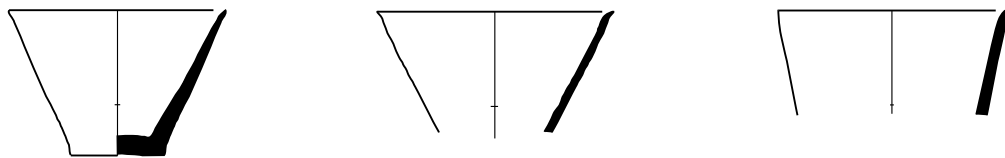
201 conical body and plain rim

Cups with conical body. The even walls may be everted or slightly curved towards the exterior. The rim is plain with rounded edge. The base may be flat or slightly concave.



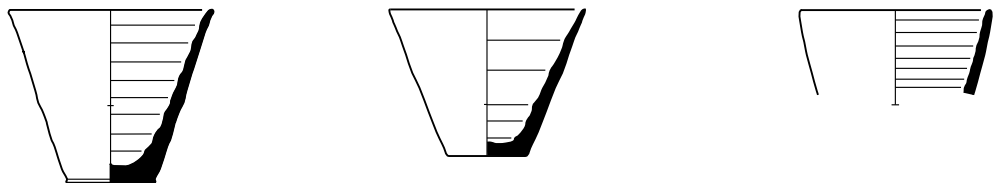
202 conical body and pointed rim

Cups with conical body. The even walls are everted and get thinner in the topmost part. The rim is pointed. The base may be flat or slightly concave.



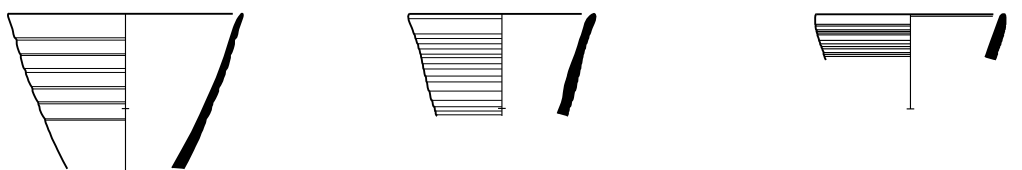
203 conical body, uneven interior walls and plain rim

Cups with conical body and uneven interior walls. The everted walls get thinner in the upper part. The rim is rounded to slightly pointed. The base may be flat or slightly concave.



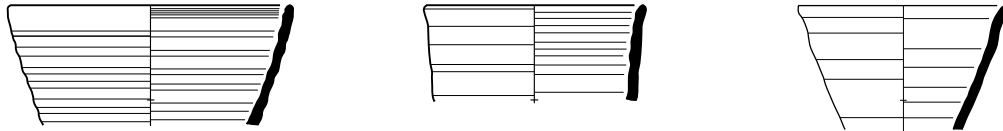
204 conical body, uneven exterior walls and plain rim

Cups with conical body and uneven exterior walls. The everted walls get thinner in the upper part. The rim is plain to slightly pointed. The base may be flat or slightly concave.

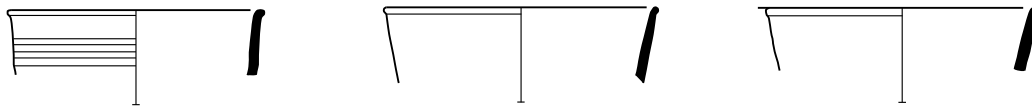


205 conical body, uneven exterior and interior walls and plain rim

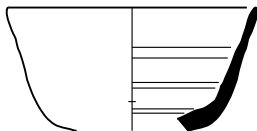
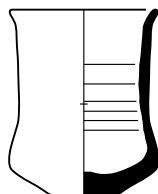
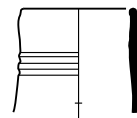
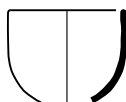
Cups with conical body and uneven exterior and interior walls. The everted walls have a regular thickness. The edge of the plain rim is rounded. The base may be flat or slightly concave.

**211** conical body and small round, outward-turning rim

Cups with conical body. The everted walls have a regular thickness. The small rim is round and outward-turning.

**212** cups with conical or cylindrical body, slightly carinated towards the base, and plain rim

Cups with conical or cylindrical body. The walls thicken in the lower part of the body, which is carinated. The plain rim has a rounded edge.

212.1 bell-shaped cups slightly carinated at the lower part, plain rim**212.2** cups with nearly cylindrical body and plain, outwards bent rim**212.3** elongated body and plain, inturned rim**213** small cups with straight profile and plain rim

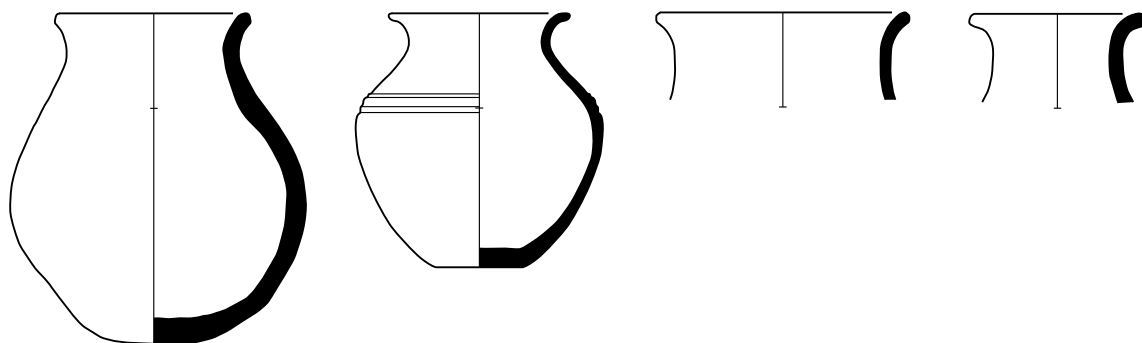
6.3 Restricted shapes

6.3.1 Jars (dm < 17 cm)

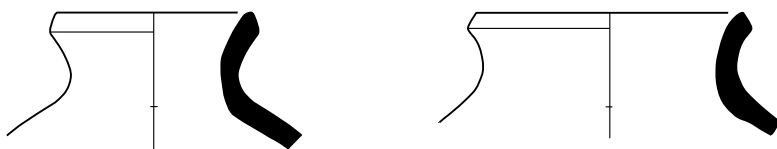
301 ovoid or globular jars with straight or slightly curved neck. Thickness of neck and rim is regular. Plain, outward-turning rim.

Jars with ovoid or globular body. The neck is straight or slightly curved outwards. The neck and the rim have the same regular thickness. The rim is plain, outwards bent and its edge is rounded, flat or oblique.

301.1 outwards bent, plain rim (regular thickness of neck and rim)



301.2 short neck bent outwards and plain rim with oblique edge



301.3 short or medium high neck and plain, flaring rim

