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Mozan 1

The Soundings of the First Two Seasons

**Giorgio Buccellati and
Marilyn Kelly-Buccellati**

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ABSTRACT

Preliminary soundings were conducted at Tell Mozan in the north-central portion of the Khabur plains in 1984 and 1985. The site has proven to be a major urban settlement of the third millennium and early part of the second millennium, with the possibility that it may correspond to ancient Urkish, known to have been a major Hurrian center in the early periods.

This volume reports on the finds made as well as on various aspects and research goals of the project. After a presentation of the environmental, historical, archaeological and methodological considerations which provide the project its special scope, the following topics are covered: the two surface *surveys* of the High Mound and Outer City respectively; the *excavations* of the City Wall at the base, and of a stone building at the top of the High Mound; the *artifacts* found during the excavations, with special reference to an important group of seal impressions mostly on door sealings; paleobotanical and ^{14}C *samples*; the beginning of a *regional survey* in the immediate vicinity of Tell Mozan; an art historical discussion (by O. W. Muscarella) of the *Urkish lion peps* preserved in the Louvre and the Metropolitan Museum of Art; and the application of *computer aided design* techniques to a study of the stone building on top of the High Mound. More than 200 objects are given in line drawings, and more than 50 black-and-white photographs illustrate various aspects of the report.

Color documentation for the material presented in this volume is available from Undena Publications in the form of 20 slides published as set No. 1 within the series *Photographic Data Sets (PDS-1)*. Reference to the slides is given in the text.

The text portion of this volume is also available in electronic format as disk No. 1 in the series *Cybernetica Mesopotamica — Volumes (CMV 1A)*, also published by Undena Publications under the sponsorship of IIMAS — The International Institute for Mesopotamian Area Studies.

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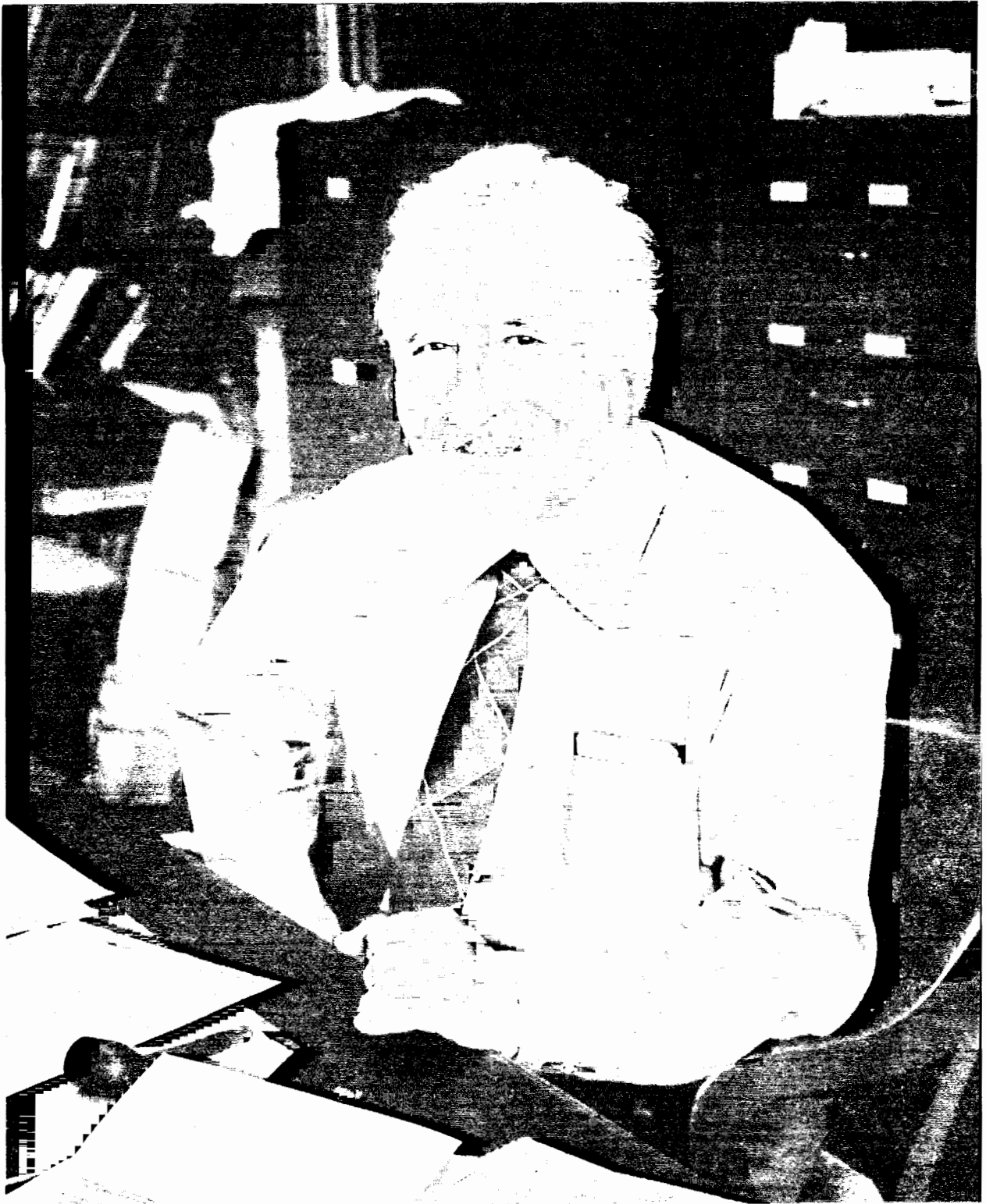
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**In Memory of I. J. Gelb
Who Showed Us the Way**

PREFACE

The wheatfields of the Khabur have seen many a harvest over the millennia, but none perhaps as significant as the archaeological harvest which a number of expeditions have begun to reap in recent years. We have to thank for this the enlightened policies of the Syrian authorities, which have consistently welcomed and encouraged an unprecedented expansion of scholarly activity in their country. As a result, whole new vistas have been emerging not only for the history of Syria, but more broadly for the history of the ancient Near East as a whole. The Khabur region is especially attractive because it is generally less well known, while at the same time it gives every evidence of having been a crucible of civilization on a par with Sumer in the South or Ebla in the West.

Our new excavations at Tell Mozan are in line with these general developments on the one hand, and with our own specific interests on the other. The work we have been conducting at Terqa and Qraya for the last ten years have given us a special appreciation of the larger regional dimension within which the history of those two sites has to be understood. The Khabur region provides the natural setting for such a broader scope of inquiry. Terqa and Qraya are at the heart of both the fertile mid-Euphrates trough (known today as the *zor*) and the high-ground steppe dotted with springs and wells (known in ancient times as the *nawu*). They are also at the mouth of the Khabur, which serves as a major artery linking the *zor* with the "upper country" (the *matum elitum*, as it was known in ancient times). The start of a new excavation project in this "upper country" will thus allow us to develop a true regional project, based on concurrent field work at different sites, conducted with parallel methodology and direct cross-information. We hope that such long term and broadly based research may yield proportionately greater insights in the archaeology and history of the area, and serve as a significant experiment in the methodology of regional studies.

In and of itself, Tell Mozan seems to hold in store archaeological promises of the greatest magnitude. Its size makes it one of the largest settlements in the region, in fact one of the largest in ancient Syria if the preliminary indications for a vast lower city are verified by future work. The homogeneity of the deposit, which belongs predominantly and throughout to the third millennium, is just as impressive. And the circumstantial evidence which seems to suggest a possible identification of the site with Urkish provides a tantalizing working hypothesis for an interpretation of the pertinent historical framework. Regardless of

what the answer might be to the questions of either identification or size, Mozan is certain to prove a major site for the understanding of the civilization in the piedmont area, which not only thrived on rain-fed agriculture, but also served as the link between the mountain regions with their rich reserves of metal ores to the north and the urban states in the southern alluvium. Only the discovery of third millennium epigraphic material, of the type known through the Urkish lions, may allow us to define such culture as Hurrian: and that the prospect of such discovery is realistic is suggested by the fact that the inscriptions on the Urkish lions presuppose an important and autonomous scribal tradition that must have been at home in the Khabur plains.

As we were articulating our overall research design for the excavations at Mozan, we had made plans to have Dr. I. Jay Gelb join us in the field in the Spring 1985. In spite of his lifelong work in this general region, he had never been able to travel there, and we were eager to offer him, our personal mentor and friend for so many years, this opportunity. The potential significance of Mozan for an understanding of Hurrian civilization was especially inviting from a scholarly point of view, and we had great hopes to be able to develop with him a long term plan for the full historical evaluation of our findings there. For family reasons he was not able to join us in 1985, and so we postponed his visit until 1986. Or so we thought. The sudden illness which struck him in the Fall of 1985, and his death on the 22nd of December 1985, were to sadly alter all our plans. We can only, at this date, dedicate this first volume of the Mozan Reports to his memory — a small token of the strong human bond which united us as friends, and, we hope, a meaningful indication of the reverberation that his fundamental work on the Hurrians has left for the field.

It is with special pleasure that we recall one of our preliminary visits to the site in 1983, when we were joined by Dr. Herman L. Hoeh of the Ambassador International Cultural Foundation and a trustee of IIMAS — The International Institute for Mesopotamian Area Studies. As we looked together from the commanding position of Tell Mozan at the mountains to the North and the rolling plains to the South, we shared a precious moment in which the potential historical significance of the site seemed to blend with the sheer beauty of the landscape and elicit in us the resolve for an expanded new commitment to the archaeology of the region. The association with the Ambassador International Cultural Foundation, whose sponsorship has made it possible for us to develop the ambitious project on which we report here, was celebrated in a special way with the visit to Damascus in the Spring of 1985 by Mr. Herbert W. Armstrong, President of the Foundation. This was to be his last trip overseas before his death, and while he could not come as far as Mozan, where we were excavating at the time, we were able to share with him two days in Damascus, where he was most graciously hosted by the Minister of Culture, Dr. Najah Attar, and the Director General of Antiquities and Museums, Dr. Afif Behnassi.

We consider ourselves privileged to be able to be a part of these significant new developments in Syrian archaeology, and fortunate to be the recipients of the traditional and unmatched Syrian hospitality, at both the official and personal level. Especially at a time like today, it is but a small witness to truth to say that we feel as welcome in the contemporary Syria we have come to know through living there as in the ancient periods of her history, to the reconstruction of which we are happy to contribute.

G. B. and M. K-B.
15 April 1986

Because of a series of vicissitudes beyond our control, publication of this volume has been unfortunately delayed for over a year. Publication in its present form is essentially the same as had been originally submitted in completed form by the Fall of 1986, without updates (except for references to *PDS-1*).

A special note of gratitude is owed Dr. Alexis Martin, who with the greatest skill and personal commitment has provided the indispensable ingredients for seeing this volume through to its final publication.

6 January 1988

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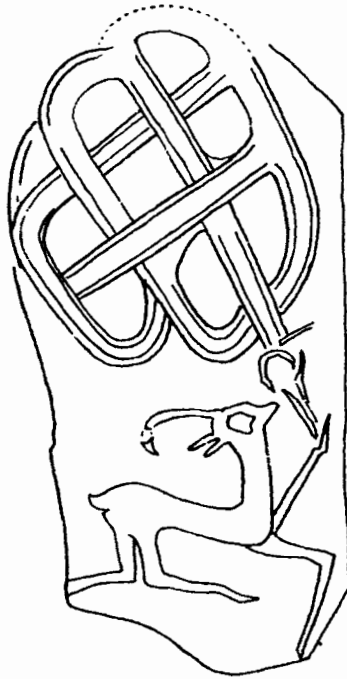
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MOZAN 1

THE SOUNDINGS OF THE FIRST TWO SEASONS



1. INTRODUCTION

Giorgio Buccellati and Marilyn Kelly-Buccellati

1.1 Earlier work

Tell Mozan is a major site in the piedmont area of Northern Syria, just below the mountain passes which lead to the Tur-Abdin range and the Turkish plateau. In spite of its size and its accessibility (practically on the main road between Amuda and Qamishli), it has escaped the attention it deserves.

Not that it was always totally ignored. In fact, what little mention is made of it in the scholarly literature is quite significant. Thus L. Dilleman wrote: "Tell Mozan, à 8 km au sud-est d'Amouda, imposant par sa longueur et son elevation relative, est sur un modeste talweg. Son deuxième nom, Mal Tepe, en turc, la colline au trésor, lui vient probablement d'une trouvaille clandestine" (Dilleman 1962, p. 36).

Similarly appreciative, but puzzling on other grounds, are the references to Mozan in Mallowan's work. In his *Memoirs*, he spoke of the "wonderful mound named Mozan" (Mallowan 1977, p. 105). That this was not an accidental hyperbole is shown by these other remarks in the same work: "We were greatly attracted by Mozan, a site endowed with magnificent masonry walls" (p. 108); and again: "I wondered if the massive and obviously rich mound of Mozan ... is not an echo" of Hurrian civilization (p. 124). In his scholarly work, Mallowan refers occasionally to Mozan, and then takes it for granted that it is a third millennium site. In his report on Chagar Bazar he published a small black burnished "vase" (Mallowan 1937, p. 140, Fig. 17) which he records as coming from Mozan and as having been purchased (he does not say where; presumably it came from the villagers at Mozan). In the *Cambridge Ancient History* he wrote that "the varieties of pottery [from Tell Khuera] corresponded very closely in type with the ceramics familiar in the Khabur valley — at Brak, Chagar Bazar, Mozan and Germayir" (Mallowan 1971, p. 313).

Nowhere does Mallowan, as far as we can tell, give a published account of any soundings at Tell Mozan, although they are referred to in the autobiographical account which

his wife, Agatha Christie, wrote of the years spent with Mallowan in the Khabur region:

Three Tells compete for the honor of our attention — Tell Hamdun,... Tell Chagar Bazar, and a third, Tell Mozan. This is much the largest of the three, and a lot depends on whether there will be much Roman deposit to dig through. Soundings must be made at all three mounds. We make a start with Tell Mozan. ...Three trial trenches are selected at different levels of the Tell. There is a murmur of “Inshallah!” and the picks go in.

Abruptly, the next paragraph continues:

Tell Mozan has been reluctantly erased from our list of possibles. There are several levels of Roman occupation, and though the periods we want to dig are there underneath, it would take several seasons — that is to say, more time and money than we can afford. Today we drive to our old friend Chagar Bazar... (Christie 1977, p. 72f.).

What is puzzling in Agatha Christie’s statements is the double reference to soundings on the one hand and to evidence of Roman occupation on the other, neither of which is mentioned by Mallowan himself. As for the first point, there are only a few traces of earlier excavations visible today: those along the edge of the tell are likely to be the result of surface activities by local farmers in search of good mudbrick material, while those on top of the tell appear to be very limited and generally superficial. Thus it would seem that if Christie’s information is correct, Mallowan’s “soundings” may either have been not very deep or they may have been located in areas (such as gullies at the edge of the tell) where normal erosion would have obliterated their traces. As a curiosity it may be reported here that upon asking the local villagers for information about earlier visitors to the tell, the eldest in the group remembered some foreigners who had conducted some work at the tell — among them, he related without prompting, a lady who would “sit on a walking stick”!

As for the second discrepancy between Agatha Christie’s and Max Mallowan’s accounts about Mozan, i.e. the alleged presence of Roman materials at the site (large enough, she says, to have discouraged Mallowan from excavating there), one wonders if Mallowan may in fact have mistakenly considered to be Roman what we now call “Metallic ware.” Such ware is in fact present in fair amounts on the surface of the tell, and in the thirties it was not yet fully recognized for what it was proven to be later. It has been suggested that a similar situation may have obtained during Seton Lloyd’s 1938 visit to Tell Taya, which he attributed to the Moslem period, “with the rider ‘probably Roman’.” As Julian Reade goes on to say, “it was an understandable reaction: even in 1967 another visiting scholar was to suggest that the site was mainly Sasanian” (Reade 1982, p. 72).

Whether the explicit reference in Agatha Christie's autobiography to the alleged Roman levels at Mozan deterred archaeologists from seriously considering this site for further excavations, or whether the proximity of Amuda, reputed to be the major ancient site of Urkish, made it appear unlikely that a second major site could have been located so near it — the fact remains that Mozan has been left largely to itself. Apart from the very limited evidence of localized excavations at the base of the tell possibly by farmers (plus of course the effects of plowing in the lower city, for which see Chapter 4), and apart from the presence of three small cemeteries on the top of the mound, Tell Mozan appears wholly undisturbed. There is no obvious evidence of clandestine excavations for antiquities, and the village at the base of the tell, while it sits on part of the lower mound, has not encroached on the higher mound.

In recent times and prior to our own work there, several more projects have come to focus their attention on this particular area of the upper Khabur, and Tell Mozan has again been considered by other archaeologists as the site for a potential excavation — among the more recent the Tell Barri/Kahat project under the direction of Paolo Emilio Pecorella (Pecorella and Salvini 1982, especially p. 8, where Mozan is referred to as Muazzar, following Van Liere, for which see presently). The only extensive and published survey work has been that of Davidson and McKerrel (1976). It is not, however, our purpose to review here the history of excavations and of surface explorations in the area of Mozan, except for a brief remark concerning the survey by Van Liere and Lauffray. In their often quoted article of 1954-55 in which they reviewed the typology of the various settlements of the Khabur region, utilizing especially aerial maps newly made available for agricultural projects, they do not take any special notice of Tell Mozan. The site is in fact shown on their map, but it bears the name "Muazzar," which is also the name of a large site to the South, on the slopes of the Jebel Abd el-Aziz. The references in their text to Tell "Muazzar" all seem to refer to the latter tell, so that to all intents and purposes Mozan was in effect overlooked in their study (and the symbol used for it on the map identifies it as a site of relatively lesser significance than others). No one in the area today (whether in Mozan itself, or Amuda or Qamishli), knows of the site as Muazzar.

1.2 The Mozan Archaeological Project

We were first attracted to Mozan on the occasion of a visit to Amuda, a modern town with the remains of an ancient tell which is generally assumed to correspond to ancient Urkish. The imposing profile of Mozan was clearly noticeable from Amuda, but at first we passed the site by without stopping there. On the occasion of a subsequent visit to the area, we asked first Ismail Hijara and Mark Chavalas to take a look at Mozan, and then the following day the entire party went back for a closer look. A preliminary walk over the tell left us stunned: there was no trace whatsoever of Roman material, and instead we could only see third millennium and Khabur ware wherever we walked. The local villagers came out to greet us, and showed us two small vessels, and one small stone axe head of the type that has been explained as a scribal eraser: very freely and generously they made us a gift of these objects, which we delivered to the Der ez-Zor Museum. Travelling by car around the edge of the mound, we estimated its perimeter to be about a mile, and the height was clearly imposing.

This was on June 3, 1983. Besides the writers, Mario Liverani and Ismail Hijara were also in our party, and we all shared an overwhelming impression of a site which, for all its massiveness, was very homogeneous in its deposit. And certainly not Roman. We all returned to the site on three different occasions, accompanied by different staff members, and each time our first impression was strengthened.

We had reached an easy consensus: that we should prepare an application to the Directorate General of Antiquities and Museums for a sounding permit at Tell Mozan. We had been planning for a while to develop a research project that would build on our experience at the southern end of the Khabur region, at Terqa and Qraya, and would fit in with our general historical and archaeological interests in the upper Khabur. We had also become more specifically interested in the question of the Hurrians and the intriguing issue of the localization of Urkish. Mozan was clearly the site that most seemed to fit our requirements. Thus we proposed to begin with a two year project that would entail soundings at Mozan itself and also a survey in the region, along the lines of the arguments outlined briefly below in Chapter 2.

Our request was most graciously granted by the Director General of Antiquities and Museums, Dr. Afif Behnassi, in the winter of 1984. A first brief season was immediately planned for the subsequent Fall. This took place from the 21st of October to the 20th of November, 1984. It was under the joint directorship of Marilyn Kelly-Buccellati and Giorgio Buccellati, with the participation of Dr. Guy Bunnens, Dr. Arlette Roobaert, Mr. William R. Shelby and Ms. Daniela Buia Quinn. In addition, Mr. Mark W. Chavalas joined us for a brief working period. Mr. Hamido Hammade served as the representative of the Directorate General of Antiquities and Museums, and also participated in the excavations. Mr. Stephen M. Hughey, with the assistance of Ms. Barbara W. Pritzkat, did the topographical survey of the upper mound, and prepared the site plan which is reproduced below as Fig. 5 and is introduced in Section 3.5.

A second season took place in the spring of 1985, from the 22nd of April until the 20th of June. It was again under the joint directorship of Marilyn Kelly-Buccellati and Giorgio Buccellati, with the participation of Dr. Guy Bunnens, Dr. Arlette Roobaert, Dr. Ismail Hijara, Ms. Louise A. Hitchcock and Ms. Andrea M. Parker. In addition, Dr. Lucio Milano, Dr. Judith Thompson-Miragliuolo, Mr. Timothy Seymour and Ms. Veronika Selb joined us for a brief working period. Mr. Hamido Hammade again served as the representative of the Directorate General of Antiquities and Museums, and also participated in the excavations.

At various times during the two seasons, Dr. Guy Bunnens and Dr. Arlette Roobaert undertook the survey project in the immediate vicinity of Mozan, and in particular studied the visible remains of the tell located in Amuda. This, it turns out, is not called Tell Amuda (which is instead the old name of another tell on the other side of the Turkish border just north of the town of Amuda, renamed Kemaliya in recent years), but rather Tell Shermola. They report separately on their work in Chapter 7 below.

During the first season of soundings it had already become apparent that there were traces of occupation over a large area all around the high mound, and we had also noticed that there was a general rise that extended for several hundred meters all around the main tell. Accordingly, we had planned on exploring the base of the tell in the following Spring, but this proved to be very difficult at that time on account of the extensive cultivation during that season. We were fortunate in securing at that point the collaboration of Dr. Judith

Thompson-Miragliuolo, who was residing for family reasons in the area, and who accepted the charge to develop a systematic survey of the lower city in the Fall of 1985. The results of her work appear in Chapter 4 below.

Given the extremely positive results of the work which we had conducted under the terms of the sounding permit, a new request was submitted for a regular permit of excavations at Tell Mozan. This was granted in the winter of 1986.

1.3 Results and perspectives

The substantive results of the first two seasons, about which we report in this book, may be summarized briefly as follows.

(1) The *High Mound*, some 18 hectares in size and 20 meters in height, is a single major mound, without a separate prominent hill of the type generally called a citadel. The *Outer City* seems to represent a continuous occupational zone extending to as much as 400 meters from the edge of the high mound: it is possible that the circular rise at the perimeter of this outer zone may represent an exterior city wall, but in any case the nature of the surface evidence is such that it seems reasonable to assume a vast contiguous settlement around the High Mound, with a North-South axis of about one mile and an East-West axis of a kilometer.

(2) *Second millennium* material has been found especially on the surface, and to a more limited extent in excavations (in P1 and minimally in B1). It is possible that the original extent of second millennium occupation was greater, and if so its disappearance may be explained as the result of erosion over the centuries: it seems in fact likely that the site was abandoned by the middle of the second millennium, so that structures from this period would have been the ones more readily exposed to weathering.

(3) Late *third millennium* material was found immediately below the surface at the very top of the High Mound in B1, and mid third millennium material was found at the base of the mound in K1 as well as in B1; materials of the same periods are represented everywhere else on the surface of both the High Mound and the Outer City. The later third millennium material rests on floors, and thus one period of the building's history seems fairly secure. The mid third millennium material at the base of the city wall in K1 is somewhat more problematical. Since the burnt deposit on top of the glacis is in the nature of a dump, it could have been taken from anywhere on the site and placed where we have it now at any point in time; in practice, however, it is possible to assume that the dumping took place not long after the period from which the dump itself originated, since the excavated deposit is considerable in size and there is no admixture of later material. If so, the glacis and the wall behind it would have been in use in the Early Dynastic III period.

(4) The vastness of the site and the general homogeneity of the deposit, plus the monumental scale of the architecture, the quality of the artifactual material, and the nature of the preservation, make of Mozan a choice site for the study of early Syro-Mesopotamian *urbanism*. Whether or not the site corresponds to ancient Urkish, the fact that it matches as well or better than any other site the cultural profile of this ancient city makes of Mozan a very significant new source of information. The circumstantial evidence which favors a possible identification with Urkish serves more than anything else to highlight the broad

historical perspective within which the excavations assume their special value. Thus the arguments developed in favor of the identification help first of all to focus on the issues and goals of archaeological research in the area, among others the validity of expecting the existence of an autonomous scribal Hurrian tradition in the late third millennium, the centrality of the upper Khabur region for an understanding of the rise and growth of early civilization, and the significance played by the piedmont regions in the development of long distance trade with the highlands.

(5) The *rural base* of Mozan and its region is just as interesting an object of research. A unique dynamism resulted from the direct interaction of three quite diverse types of rural populations — the farmers of the dry-farming zone immediately around Mozan, the agropastoralists (Amorites) who had learned to tap the ground-water of the Syrian steppe (the *nawu*), and the montagnards of the small settlements in the Tigris valley north of the Tur-Abdin (possibly as far as the Euphrates/Murat-Su valley in the Keban). The piedmont belt that was the stage for the coming together of these populations seems to have been identified in ancient times as a specific cultural landscape and geo-political entity, and to have been known by such terms as “Subartu” or “Urkish and Nawar.”

(6) A very significant long distance *trade* was carried out in the area of Mozan during the third millennium in both directions: east-west and north-south. Just north-west of Mozan the Mardin pass leads directly to a road which goes to Diyarbakir and beyond, passing the famous Ergani mines. This route has been postulated as the path of the Persian Royal Road in the first millennium and in Roman times it was recorded on Peutinger’s map as the main route through these mountains. Evidence from Byzantine times confirms its continued importance. In this part of the plain then there has been a continuous history of a major city on the plain connected with the exit from the mountains at Mardin whether it be Dara or Amuda in the later period, or very possibly Mozan in the earlier period. This major city was not located at Mardin itself, although that city was important at times, because of its extremes of temperature and paucity of water immediately available. During the third millennium there was a great demand for copper and tin not only in the Khabur area itself but in the wider Syro-Mesopotamian region. Mozan and its neighbor Hamdun are ideally situated on the southern end of the pass which leads directly out of the mountains near the Ergani mines.

(7) Whether or not these mines were in use at this time, we do have evidence of contact between Mozan and the Early Transcaucasian area of the Anatolian mountains which had access to metal sources and trade routes throughout the third millennium. Previously, *Early Transcaucasian pottery* had been found in the Khuera excavations, and now is also found at Mozan. We do not however find this pottery further south. Another type of ware whose geographical distribution suggests significant implications with regard to long term contacts is the *Metallic ware*, for which the center of production was in northern Syria. This pottery was exported as far south as Terqa and Mari; imitations of it are found both at Terqa and Mari. Northward, Metallic ware is found in the excavations in the Elazig area. The distribution of these two wares indicates a wider pattern of interconnections wherein a proposed major trade route in metals could fit. In this tentative reconstruction of trade patterns in this area the metals were brought southward from the Ergani area or beyond along the Mardin route and exchanged at Mozan from where they were shipped farther south. Goods from the Mozan area were shipped northward also via the Mardin route to the Anatolian

highlands as evidenced by the Metallic ware in the Elazig area and beyond. The large amount of metal objects for the relatively small amount of excavations we have done on Mozan could be another indication of its unique importance with regard to metal trade.

1.4 Acknowledgments

We are most grateful to Dr. Afif Behnassi, Director General of Antiquities and Museums of the Syrian Arab Republic, for his steadfast support of our endeavors in Eastern Syria. His stewardship is leaving a deep trace in the development of modern Syrian and Near Eastern archaeology: the open and constructive policies which so clearly mark his administration offer us both a benefit and a challenge — the benefit of an ideal working atmosphere in which to test and develop significant new research projects, and the challenge to integrate our individual finds and hypotheses into the massive explosion of information that is coming out of Syria. We are also most grateful to Dr. Adnan Bounni, who, as Director of Excavations, not only supervises directly the technical aspects of our archaeological work but also, as a colleague, shares so willingly of his own unrivalled experience in field work.

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The work of our staff is only in part represented in this publication. While the names of all the participants have already been given above, and while some of them have contributed in a more direct way to the writing of this report (and are accordingly given credit as authors of individual sections), the work of others is not as directly represented below and should be given special mention here. William R. Shelby served as Assistant Director and ceramicist

during the first season, and lent us his continued and very real assistance at home during the analysis of the data and preparation of the report; as Administrative Analyst of IIMAS, the International Institute of Mesopotamian Area Studies, he further assisted very concretely in all the organizational aspects of the Expedition as we were preparing for it here at home. Dr. Ismail Hijara, besides contributing to the formulation of the original plans for our new project, gave us the support of his invaluable expertise in field work, and of his unmatched knowledge of the ceramics of the early periods. Daniela Buia Quinn was an indefatigable and very exacting excavator, and was responsible for the bulk of the data entry during the first season. Andrea M. Parker provided the same service during the second season, with the addition of her considerable programming experience. Hamido Hammade put whatever spare time he could muster in the service of archaeological field work, and thus assisted us in our research as well as in the overall organization of our work. The photographers were Dr. Guy Bunnens and Louise A. Hitchcock for the first and second season respectively. The drafting was entrusted to Daniela Buia Quinn during the first season and to Judith Thompson-Miragliuolo, Andrea M. Parker and Timothy Seymour during the second season. Stephen M. Hughey did masterly work in providing us with the initial topographic survey (on which he reports briefly in Section 3.5); Timothy Seymour also provided surveying assistance during the second season.

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2. SCOPE OF THE RESEARCH

Giorgio Buccellati

2.1 Environmental considerations

The modern geographical setting of Tell Mozan is, by all estimates, the same which conditioned the historical development of the site and its region in ancient times. Recent literature has paid special attention to the incidence of rainfall on agriculture, especially in contrast with the situation south of the Khabur triangle, where rainfall is insufficient for cultivation and farming is thus dependent on irrigation systems. Since both the lower Khabur and the Euphrates in its middle course have cut a deep trough in the steppe, the area which is actually accessible for irrigation agriculture in this region is quite limited; as a result, the contrast with the broad and fertile plains of the Khabur is even more striking. Van Liere pioneered this approach (see especially Van Liere and Lauffray 1954-55), and the book by Wirth (1971) has come to serve as a standard work of reference on modern conditions. H. Weiss has developed this theme with special reference to the third millennium and to Leilan in particular (1983, 1985a), and has devoted to it a symposium which he organized in Chicago for the Annual Meeting of the American Schools of Oriental Research (I have not had occasion to see the published report of the symposium).

An interesting perspective from which we may look at the question of the environment is that of the perception that the ancients themselves had of it. This has developed in various approaches to a study of the "landscape," as it is often called following French models, and the type of populations or social classes associated with it. For ancient Syria this approach has found an insightful proponent in M. Liverani, who has written particularly with reference to the second millennium (1975), while his student C. Zaccagnini (1979) has developed a similar approach for Northern Mesopotamia. While it is impossible to develop a full argument along these lines without the support of written sources, which are still few and indirect with regard to the region of Mozan, I would like to propose a few considerations which may help to place the work at Mozan in a wider perspective. The remarks that follow were first presented in a paper delivered at the University of Toronto in 1983, on which occasion I also presented for the first time our case for the special significance of Tell Mozan. I

have also discussed the nature of the landscape in the lower Khabur region in a paper delivered at the 196th meeting of the American Oriental Society in New Haven (1986). I will develop fully this perspective in a separate publication, while in this context I can only give a short summary, which is also reflected in the maps presented below as Figures 1 and 2.

Briefly put, the rural base of the developing urban civilization in the Khabur plains seems to have been particularly complex because of the interaction of three major rural populations.

(1) Given the nature of the local landscape, we may assume that there was a class of local farmers engaged in intensive farming. I am assuming that they were settled in small local communities where they lived on a year-round basis, and that they came readily under the control of the larger urban communities.

(2) At the same time, however, and for different reasons, there seem to have been other rural populations which came in direct contact with the cities of the Khabur plains. To the South of the Sinjar and Abd el-Aziz ranges there are wide expanses of pasture land which could begin to be exploited as such (i.e. as pasture lands) once it was discovered that wells could tap the water table and provide sufficient water for the animals if not for cultivation (except for larger springs, wells today are not even sufficient to support small orchards). These pasture lands represent a distinctive feature of the ancient landscape, since there was a word reserved for them (*nawû*). I assume that the wells had not been exploited systematically in prehistoric, but only in relatively recent times, presumably beginning in the third millennium, and possibly by the rural populations which were originally at home in the trough of the Euphrates (what is today called the *zôr* in the local dialect, as in the name of the provincial capital Der ez-Zôr). Rather than nomads converging on the cities, I would prefer to interpret these populations as rural groups progressively acquiring greater autonomy from the control of the cities in the *zôr*, but retaining at the same time fundamental rural characteristics, since no cities were ever established during the third and early second millennium in the *nawû*. Their autonomy was reflected in a number of traits by which these populations came to be known also outside their original homeland, summed up first of all in their own collective name: the Amorites. I am assuming that during the third millennium they already had lively and direct contacts with the urban centers in the Khabur plains, just beyond the Abd el-Aziz and Sinjar which form the northern boundary of the *nawû*.

(3) It would also appear that the Khabur cities were further in direct contact with rural populations to the north of the plains, in the mountains of the Tur-Abdin and beyond. It was from here that significant natural resources were flowing to the South, and we do not seem to have evidence for full fledged urban centers in these northern regions during the third millennium. Whether the cities of the plains extended their control to the mountains or whether they simply interacted with their populations we do not know.

On the basis of various considerations, some of which are summarized in the following section, we assume that the urban populations of the Khabur plains had a distinctive physiognomy epitomized by the term "Hurrian." Since this is in the first instance a linguistic term, its full significance can only be understood if and when sizable Hurrian archives can be found. The identification of a distinctive "Hurrian" civilization can not result from considerations pertaining to material culture alone (see especially Mellink 1972-75; Barrelet 1977, 1978; Hrouda 1985). But apart from what the appropriate (ethno-linguistic) label may be, the above considerations point to a rather unique constellation of factors in the network

of relationships among the urban settlements of the Khabur plain and the populations which formed their rural base. As a major one among such centers, Mozan must have played a significant role in this process.

We are thus approaching from a different angle the same question that had roused so much enthusiasm in scholars like Speiser (1930) and Moortgat (1932), and that received its most comprehensive and balanced synthesis in the work by Gelb (1944, 1956). The interest in the Hurrians is also reflected in recent publications and projects, such as the research project directed by M. T. Barrelet (1977), the 24th meeting of the *Rencontre Assyriologique Internationale* (RAI 1978), or the beginning of a new series devoted to the publication of the Hurrian corpus (CHS 1984-). While a review of Hurrian studies is beyond our present scope, a few remarks may be in place in that they help define some of the reasons underlying the choice of Mozan.

2.2 Historical considerations

The Hurrians represented a major cultural force in the ancient Near East and yet they remain so little known that much of our knowledge about them is derived from non-Hurrian sources. The question about their early history is clearly linked to another: Why is it that no single Hurrian city has been excavated as yet? The question is similar to what might have been asked about Western Syria before the discovery of Ebla: why was it that no Semitic city had ever been discovered? An answer to the Hurrian question can ultimately only come in the same way as it did for the question about a Semitic city. A Semitic city can be identified as such only if Semitic texts are found in it. Ebla turned out to be the source for such Semitic texts. Clearly, no Hurrian equivalent of Ebla has been found. And yet, we have perhaps more reasons to expect it than there were reasons to expect a city like Ebla: for we have evidence of a Hurrian scribal tradition in the third millennium, presumably at home in the Khabur plains, whereas we had no previous evidence of a scribal tradition, indigenous or otherwise, at Ebla or elsewhere in Western Syria.

Admittedly, such evidence is quantitatively extremely limited: the total epigraphic inventory attributable to a Hurrian scribal tradition in the third millennium amounts to no more than one document, extant in three parallel (and partial) versions:

- (1) the tablet of Tishatal from the Louvre (Parrot and Nougayrol 1948);
- (2) the plaque on the lion of Tishatal from the Louvre (*ibid.*);
- (3) the plaque on the lion of Tishatal from the Metropolitan (see Chapter 9).

In addition, there are other texts that may have originated in the Hurrian area, such as:

- (4) the tablet of Atalshen (Thureau-Dangin 1912); or
- (5) the seal of Daguna (Nougayrol 1960),

but these do not have the same status as the text of Tishatal because they are written in either Akkadian (No. 4) or Sumerian (No. 5): if pertinent, these texts would indicate that Hurrian was not the only language written in the Hurrian cities. None of these texts comes from controlled excavations, and thus we have to rely almost exclusively on internal evidence;

arguments about provenience based on information from the dealers (which is the only clue in the case of the seal of Daguna, reported to have come from the same site as the lions of Urkish; see Nougayrol 1960, p. 213) have to be considered with extreme caution although they should not perhaps be discarded altogether (see the comments in the next section).

Yet, for all its limited size, this small Hurrian "corpus" of the third millennium has a significance which has not always been properly appreciated — so much so that when the archives of Ebla were first discovered, they were hailed as the *only* known third millennium texts from Syria. Now the text of Tishatal in particular raises momentous implications precisely when compared with the texts of Ebla. It is in fact written exclusively in syllabic Hurrian, whereas the vast majority of the Ebla texts have a low percentage of words written in syllabic Semitic. This implies the existence of a wholly indigenous scribal tradition in the service of Tishatal, sufficiently vigorous to develop and retain full graphemic autonomy from its southern Mesopotamian counterpart. It seems inescapable that texts like those of Tishatal should not be seen as an isolated experiment, but rather as the top of a veritable iceberg, still lurking beneath the waters of a cultural assemblage as yet very imperfectly known. Concretely, this makes it reasonable to expect not only more texts of the same type, but a concentration of the type that is found in an archive, a library, a scribal office or a school.

From what we know so far, it appears that the ancient city which is the most likely candidate to have served as the center for the development of such a scribal tradition was Urkish (see especially Pecorella and Salvini 1982, pp. 14-17). In spite of certain difficulties of both a philological and an archaeological nature (some of which are well described in the Appendix by Muscarella given below as Chapter 9), one may argue that Urkish was a city in the Khabur plains from which the foundation inscriptions of Tishatal come, and that Mozan is a possible candidate as the site corresponding to ancient Urkish. Let us review briefly the evidence — first from a philological point of view (in this section), and then from an archaeological point of view (in the next section).

The tablet of Tishatal is part of the foundation deposit of the temple of Pirig-gal, built by the "king" of Urkish (I am using both the standard translation "king" for *endan* and the standard readings Tishatal and Atalshen for the sake of convenience; on *endan* see Salvini in Pecorella and Salvini 1982, p. 15). It does not say that the temple was built in Urkish, nor is the geographical name of Urkish preceded by the logogram or determinative for city in the royal title of Tishatal.

The tablet of Atalshen is part of the foundation deposit of the temple of Nergal, "king of Hawilum," built by the king of Urkish and Nawar, presumably in Hawilum. Here again the geographical name Urkish is not preceded by the logogram or determinative for city.

The first issue then is whether Urkish refers in fact to a city, since it does not occur with a determinative for city in the third millennium attestations. I assume it to be so because on the one hand the second millennium evidence (see briefly below) clearly indicates Urkish to have been a city, and on the other the third millennium evidence admits of such a possibility. It should be noted in this regard that omission of the logogram for city is frequent in the third millennium, both in the royal titulary (e.g. LUGAL *Ma-ri₂-KI*, *RGTC* 1,117) and in other references to cities such as Mari or Ebla (*RGTC* 1,37 f.; 2,39; 2,128f.).

The second issue is whether Urkish, which is only mentioned in the *titulary* of king Tishatal, and not as a reference for the localization of the temple of Pirig-gal, may be further

assumed to be the city where the temple was located. Here too a positive answer seems plausible, since the royal inscriptions of Mesopotamia do not necessarily give the name of the locality where a given temple is built when this locality is the capital (see for instance for the Ur III period, *IRSA*, p. 138), whereas they do when the locality is a province (*IRSA* p. 142 for the Ur III period and p. 216f.).

A related issue is the identification of Nawar, which appears in the titulary of Atalshen, "king of Urkish and Nawar." Nawar is often assumed to be another Hurrian city, situated at the eastern extremity of a kingdom of which Urkish represented the western extremity (see for instance *IRSA*, p. 128; Weiss 1983, p. 49). If Nawar is not generally equated with Urkish in significance it is because it does not appear in later Hurrian mythology. In point of fact, we must in this case raise more serious doubts as to whether Nawar ought to be considered a city or a country. The evidence for the third millennium is similar to that available for Urkish, but is even more limited. In the inscription of Atalshen, Nawar appears, as already noted, in the titulary of the king, in second position after Urkish. In a text from the Ur III period (de Genouillac 1911, 83:3), Nawar is mentioned as the place of provenience of an individual whose proper name also contains the same toponym (Nawar-shen). As for the later periods, the evidence militates against the identification of Nawar with a city. The name Namar (which can properly be interpreted as a later phonological development of Nawar) is attested in a kudurru of the Kassite period, and it refers here clearly to a region (KUR *Namar*, *qaqqar* KUR *Namar*: *BBS* 6 i 47.48.51.55; ii 6.7.10.27.29.31.48).

In addition, it should be noted that there is little evidence from Mesopotamia in favor of a royal titulary comprising the names of two cities. On the contrary, it is a well attested pattern, especially in northern Mesopotamia and in western Syria, to include in the royal titulary the name of a city followed by the name of the territory, as in the well known example: LUGAL *Ma-ri*-KI ù *ma-at Ha-na* (see Buccellati 1967, pp. 140-46). Accordingly, the suggestion may be made that the title of Atalshen refers to a city and its territory rather than two cities: "Atalshen, king of the city of Urkish and of the land of Nawar." The correlation between this title and the title borne by the earlier king Tishatal may be compared to the correlation between two kings of Mari, as follows:

Tišatal, endan Urkiš
Atalšen, šar Urkiš u Nawar

Iplul-il, šar Mari
Yaḥdun-Lim, šar Mari u māṭ Hana

Whether in fact the land of Nawar extended all the way from the Khabur to the eastern regions of the Tigris (where the later Namar is traditionally located) remains to be seen. But if so, then the term Nawar would seem to correspond in its geographical import to the term Subartu (see Hallo 1978, esp. p. 71f.)

In addition to the inscriptions of Tishatal and Atalshen, two other possible rulers are mentioned in Sumerian texts from the Ur III period. One of them remains unnamed, while we have the name of his messenger:

É-ni-da-gū² lú-kin-gi₄-a Ur-kiš-KI-sè (Nakahara 15, Rv 3)

Another is mentioned twice, qualified simply as *lú Ur-kiš-KI*, which might serve simply

as a gentilic or might identify the individual as a ruler of Urkish (possibly a governor under the Ur III kings):

An-na-tal lú Ur-kiš-KI (Langdon 1913-23, 240: 14 Rv.1)

An-na-tal lú Ur-kiš-KI u₄ Ur-kiš-KI-ta i-im-gen-na-a (TCL 2 556; 2f.).

If the title *lú* refers in both cases to a ruler, then we would have in the epigraphic record the reference to three (or more) rulers of Urkish in the later third millennium, as follows:

Tišatal endan Urkiš

Atalšen LUGAL Urkiš u Nawar

An-atal, lú Urkiš

(unnamed) *lú Urkiš* (whose messenger is Enidagu).

It would appear then from the limited evidence at our disposal that Urkish was one of the more important, if not the most important, Hurrian city of the late third millennium, since we can associate with it both the isolated but significant evidence of an autonomous Hurrian scribal tradition and the names of two and possibly more rulers.

Its significance had waned by the second millennium, to judge from the number and type of references in which the city is mentioned. It seems nevertheless to retain some degree of autonomy, since there is mention of a *king* of Urkish, and on one occasion Zimri-Lim makes a personal effort to pacify the city.

(1) A certain “Te-ir-ru, *roi* d’Ur-gi-iš^{KI}” is mentioned in a tablet of Mari of which only a brief excerpt has been published without any other pertinent information (Jean 1938, p. 132): this is the only indication of a “king” of Urkish in the second millennium, and, in the light of what else we know about Urkish in this period, may well refer to a minor vassal ruler. The same spelling (*Ur-gi-iš-KI*) is found in all the remaining references from the Old Babylonian period.

(2) Zimri-Lim writes to Shibtu that, having just installed a governor in the city of Shenah, he intends to go to Urkish where he will “thoroughly pacify” the city ([š]*ullumu*[*m ušallam*], *ARM*, 10 121: 9, 10,13); note that where the name of Urkish occurs as the object of the verb *ušallam* it is preceded by the determinative for city (URU). He further writes that he will go from Urkish to Shuna (Hamidi?, see Hallo 1964, p. 74), and repeats his assurance that he will thoroughly pacify “these cities.”

(3) A letter addressed by Ibal-El to Zimri-Lim relates a fragmentary message which had been addressed “to Urkish” by the men of Hurraya and Shinah, and reports that a special (public?) announcement (of the message?) has been made in Urkish (*ARM* 2 38: 6, 16,18).

(4) A letter from Ishme-Dagan informs Yasmah-Addu that Urkish and Shinah are posing some resistance (? *uḫḫuru*), but that he will take hold of them (*leqû*; *ARM* 4 40: 14).

(5) A tablet from Chagar Bazar (located some 25 km. south of Mozan) refers to Urkish twice, as the destination of some commodities (Gadd 1940, A994: Obv. 29, Rev. 8, Pl. 4 and p. 59); the other known sites mentioned in the text are Kahat (some 25 km. southeast of Chagar Bazar) and Shubat-Enlil (some 65 km. northeast of Chagar Bazar, accepting the identification of Leilan with Shubat-Enlil).

(6) Finally, Urkish is mentioned in the itinerary published by Goetze (1953, p. 53f; 22, with the spelling *Ur-ge-eš*; see Hallo 1964, pp. 72, 83). Here it appears as a detour station used only on the return trip: one may deduce from this that Urkish was of secondary importance (since it is omitted on the outgoing trip), but the converse could also be true, namely that even though it was not on the main course of a direct road from Assur to Emar it was nevertheless worth a detour at least on one of the legs of the trip. The arguments for the localization of Urkish in the area of Amuda have been strengthened by the arguments which have been convincingly adduced recently to support the identification of Leilan with Shubat-Enlil (Charpin 1986; Whiting 1986).

In the latter part of the second millennium, Urkish appears as a major point of reference in the realm of mythology, where it is mentioned as the seat of Kumarbi:

Kumarbi took his staff in his hand, put swift shoes on his feet.
He set forth from Urkis, his city, and betook himself to the...
[Translation by A. Goetze in *ANET*, p. 121; see Otten 1950, and Guterbock 1952.]

[...] the father of the city of Urkiš [...]

[...] he is in the city of Urkiš [...]

[...] he arrived in Urkiš, but [...] did not find him in his house
[...] [Otten 1950, pp. 27-29:9,10,20.]

In the last text, "Ishtar, queen of Nineveh" (see Wegner 1981, pp. 11-12) is apparently addressed as the "sister" of Kumarbi, a fact which is interesting in terms of the geographical spread of the kingdom of Urkish, postulated on the basis of the titulary of Atalshen, king of Urkish and Nawar, and on the basis of the possible identification of Tishatal king of Urkish with Tishatal "man" of Nineveh (Whiting 1976). It is also interesting to note that, since his travels take Kumarbi to the sea on the one hand and to the mountains on the other, a piedmont location for Urkish (such as that of the area of Mozan) is well suited for the place of origin of Kumarbi. Finally it should be noted, with regard to the remarks made above concerning the identification of Urkish as a city, that in these later texts Urkish is clearly understood as a city, and that the corresponding determinative is used regularly.

The proposed identification of first millennium Urakka with Urkish (see especially Kessler 1980, pp. 221-26) conflicts with an interpretation of Mozan as Urkish, since no first millennium remains are found in Mozan. It is conceivable that the *name* had survived (in a slightly altered form) but had been transferred to the nearest city — which may then well be Tell Shermola (in the modern town of Amuda, for which see below, 8.2). This would mean that, if Shermola's Middle Assyrian name had been Kulishhinas (see Aynard and Durand 1980; Machinist 1982), a change had occurred which had brought back to life the name of the most significant site of the area in earlier periods.

2.3 Archaeological considerations

Subsequent to the publication of the tablet of Tishatal (Parrot and Nougayrol 1948), Van Liere reported that from information obtained accidentally the provenience of the objects was "Tell Amuda." Here is the exact wording of Van Liere:

Le point de départ pour Moortgat est la provenance des deux lions en bronze et une tablette de fondation du temple de Kummari. Des informations fortuites, que j'ai obtenues récemment, indiquent que ces lions ont été excavés de Tell Amouda. Le Tell Amouda se trouve juste au sud de la ville! c'est un des rares tells abimés de la Jezireh. [Van Liere 1957, p. 12.]

More has been made in the literature of this statement than was warranted, and doubts if not criticisms have been voiced only rarely (Hrouda 1958; 1985; and see especially the Appendix by Muscarella below). Here I will review the issue in some detail, and indicate what in my opinion may be retained of Van Liere's statement.

In the first place it should be noted that the reference to the temple of Kummari is inaccurate, since the tablet that goes with the lion of the Louvre mentions a temple of Pirig-gal, which there is no reason to identify with Kummari.

But what is most significant about Van Liere's statement is the new information about the provenience of the lions, information which he labels as "fortuitous." With this wording, Van Liere omits the source of his information, not so much because he does not mention names, but because he does not even qualify the nature of his source. By inference we may assume that it was a local dealer. First, Van Liere had been active in the area and was likely to have come in contact with local individuals interested in antiquities. Second, it is difficult to imagine any other source that he would have wanted to protect with silence: if, for instance, he had been told by the local villagers he would have had no compunction in letting it be known.

What is most puzzling about his statement, however, is that the tell he describes in his article is *not* Tell Amuda — it is rather Tell Shermola. This is the name that local inhabitants give without hesitation when referring to the "tell abimé" which is "juste au sud de la ville." They also say without hesitation that Tell Amuda is on the other side of the border, in Turkey, where it has been renamed Tell Kemaliya. Several of the people I questioned in Amuda are old enough to have known the situation of 1957 (the year when Van Liere published his article) as well as they know it today, so that the possibility of a change of name seems ruled out. If Van Liere was wrong about the name of the tell (as he apparently was with regard to the name Mozan as well, see above), how reliable is the rest of his information?

What is more, even a hurried visit to Tell Shermola indicates that it can hardly qualify as the site from where the lions could have come. While the tell did have third millennium pottery on the surface, it was hardly in quantities that would indicate a major third millennium occupation; and traces of architecture in the visible section point to a date

in the latter second millennium (for more detail see the report by G. Bunnens and A. Roobaert, below in Chapter 8). Thus the middle Assyrian texts which are also reputed to have come from Tell "Amuda" (Aynard and Durand 1980; Machinist 1982) fit the remains of Tell Shermola very well.

On the strength of such remarks it appears that Muscarella's strong arguments against accepting dealers' information as to the identification of sites acquire even greater impact — and I certainly agree in any case with his premises and his conclusions (Muscarella 1977; 1979; and the Appendix in Chapter 9 below). If in spite of this I do not dismiss out of hand the information provided by Van Liere, but only aim at modifying its import, it is because of an observation which I was able to make as I searched into the background of Van Liere's report. While we could not locate anyone who might have been aware of Van Liere's source, we did meet local individuals who appeared knowledgeable about antiquities (a few of whom even turned over objects to be given to the Museum). Since we were known as legitimate archaeologists acting openly through the intermediary of the official representative of the Directorate, and since we made no pretenses whatever as to any alleged commercial interest in antiquities, we were very unlikely candidates for any confidence as to possible provenience of antiquities. Yet one interesting fact emerged from the casual conversation with these individuals. While there was obviously an unwillingness to associate any given artifact with a specific site, they were not at all reticent to share their knowledge about sites in general. They were clearly aware of the sites in the general vicinity of Amuda, and could give descriptions of artifactual evidence from them which matched to some extent our own observations derived from surface reconnaissance.

This fairly specific knowledge of the archaeological landscape, however, did not extend very far; certainly not, for instance, to any site south of Hasseke, nor to sites much east of the line Hasseke-Qamishli (Tell Farfara was the only noticeable exception). I see no reason why these individuals would have deliberately tried to make us believe that they were knowledgeable about the local archaeological horizon, and ignorant instead of sites farther afield. The conclusion I draw from this is that the local awareness of ancient sites as exhibited by these fairly knowledgeable individuals may be a gauge for the possible acquisition range of antiquities. If so, Van Liere's information might retain some value as an indication of provenience for the lions — not with respect to Amuda, but possibly with respect to its immediate region.

These considerations about Van Liere's information have been advanced here in some detail because so much has been made of it in the literature and because the Urkish lions are in fact of such unique significance that any possible clues as to their provenience should be assessed for what they may be worth. My main conclusions are as follows. It is likely that Van Liere had some specific information connecting the lions with Amuda. While the association with Tell "Amuda" (i.e. Tell Shermola) has to be excluded, it seems very likely that if the source of information was in Amuda, then their original acquisition also took place in this town, and that the lions themselves most likely came from a site nearby.

Since Mozan is the largest tell of the third millennium in close proximity to Amuda, it appears as a likely candidate. This is of course supported by all the other arguments which have been adduced to maintain that Tell "Amuda" (i.e. Tell Shermola) could well correspond to ancient Urkish. Its location fits in very well with the indication of the itineraries (Goetze 1953; Hallo 1964), and its position just below the wide pass of Mardin places it in an ideal

situation to serve as the hub in the communication network which linked the Khabur with the valley of Diyarbakir beyond the Tur-Abdin, where the great mines of Ergani and Maden are located (see the map, Fig. 2).

The recent possible discovery of tin in the Taurus (Yener 1986) adds even greater significance to the role that these trade routes would have played. The main road south from Diyarbakir comes through the pass of Mardin, which dominates the landscape of Mozan, and stands almost as a visual symbol of an opening to the northern highlands. An interesting speculation along these lines is suggested by a potential etymology for the name Urkish, which has been proposed by Alexis Martin (personal communication; the evidence will be presented by Martin in a larger work on Hurro-Caucasic linguistics). He suggests that the suffix *-is* (already isolated by Gelb 1944, pp. 41, 56-58, 114) may be linked with a Caucasian word for "mountain," and the base *urki* may be related to a Caucasian word for a *selliform cradle*: if so, the name might be a reflection of the saddle-pass of Mardin, one of the most noticeable aspects of the local landscape.

In conclusion, the following points may be made. (1) In spite of the paucity of our evidence, the existence of an autonomous Hurrian scribal tradition in the late third millennium is potentially of great consequence, especially when one compares this situation with that presupposed by the discoveries of Ebla. (2) Urkish appears to be the most significant center of such Hurrian tradition: it is a city which played a key political role in the third millennium, dwindled to the status of a secondary road station in the early second millennium, and remained present in later mythology as the seat of the chief god of the Hurrian pantheon. (3) The circumstantial evidence concerning the provenience of the lions and the tablet of Urkish, plus the more positive evidence derived from the study of the Old Babylonian itineraries, suggests that the location of Urkish was in the area of Amuda.

On the basis of the information presented in the following chapters, it appears that Mozan is a likely candidate as the site of ancient Urkish. It is a large urban center in the third millennium, it shows more limited evidence of occupation for the early second millennium, and is abandoned thereafter. Given its close proximity to Amuda (some 5 km. to the east), all the arguments which have been adduced in the past in favor of the identification of Amuda (i.e. Tell Shermola) with Urkish apply equally as well to Mozan.

It goes without saying that such a suggested identification remains highly tentative, and that the significance of Mozan is not to be tied down to an ultimate verification of such identification. The reason for dwelling at some length on the evidence pertaining to Urkish has been primarily to correct the generally accepted opinion that Urkish is to be sought in Amuda (i.e. Tell Shermola), and that its recovery is accordingly impossible given the bad state of preservation of that tell. Since what limited evidence we have for Urkish indicates that its recovery would yield immeasurable information about the history of the Hurrians, of ancient Syria and of the ancient Near East as a whole, and since we may expect one of the sites in the region of Amuda to correspond to the ancient city, it is a worthwhile endeavor to develop a systematic search for it. A preliminary phase of this search, based on a survey of the area of Amuda and on preliminary soundings at Mozan, has yielded enough evidence to suggest to us that Mozan is the site that best meets the current requirements for Urkish. And obviously any site that fits such a profile is well worth excavating, regardless of what the ultimate outcome of its possible identification with Urkish might be.

2.4 Methodological considerations

Our methodological aims are best exemplified by the publications which are planned to be issued as a result of our excavations. Our standard reports will appear in the series which is inaugurated with this volume. Named simply after the site, *Mozan* will include both preliminary and final reports. "Final" reports are devoted essentially to either stratigraphic aggregates or typological assemblages which are self-contained in scope and complete in terms of recovery. "Preliminary" reports, on the other hand, include essentially information on work in progress, although at times such information may be presented with such detail that it will not in fact be duplicated in additional, final reports.

Next to the traditional reports of the series *Mozan*, we also intend to inaugurate a separate series, the *Mozan Record*, which will be new both in orientation and in form. A goal of this series is to make available the total record of the excavation in electronic format. Based on a thorough revision of the IIMAS encoding manual (Buccellati and Kelly-Buccellati 1978), and fully oriented toward electronic data-processing, the *Record* will make available the complete range of primary information that has been gathered during the excavation. We expect to publish both the new manual and the first volume of the *Record* at a later date, and while the full implications of the approach will be outlined there, it may be well to mention here briefly what the rationale is for such new departure. Conceptually, I consider such a publication to be an answer to the need for greater objectivity in the presentation of excavated materials: in this case objectivity derives from the effort to limit as much as possible the degrees of selectivity which affect the excavated material from the moment when a research design is drawn up to the moment when its results are published. Theoretically, the systematization of the recording process, especially in its stratigraphic aspect, should help develop patterns of regularity after the model of a grammar: such regularity should enhance the possibility of both a structural understanding of the stratigraphic record in itself and a fuller realization of its distributional complexities, within and across site boundaries. Organizationally, the use of electronic data-processing makes it possible, on the one hand, to compact vast amounts of data in a format that is easily distributed and updated at almost zero cost; but what is more significant, this medium allows us to optimize the relationship between a capillary documentation of the data on the one hand, and the most highly generalized synthetic overview on the other.

Finally, a well integrated use of data processing allows us to retain at all levels a more consistent degree of precision. Characteristically, even when precise measurements are taken in the field, they are often lost after they are transferred analogically in the form of a drawing, be it a floor plan or a section. Electronic data-processing makes it possible to retain such precision without causing the user to drown in a mass of unstructured information. In this way, a true centimetric grid can be retained at all moments and in all areas of the excavation. Our special concern for such a degree of precision has found the most congenial type of collaboration and support on the part of two professional surveyors who have worked closely with us — Stephen M. Hughey who produced the map of the high mound (see his remarks below in Section 3.5) and helped me develop the conceptual approach to surveying; and Gabriel V. Pesce, who has given our staff formal training in the use of the instruments. Through a fuller application of graphic plotting programs (after the prototype published in Buccellati and Rouault 1983), we have tried to increase the degree of precision even at the

level of the individual supervisor without an undue increase of cost in terms of the corresponding accuracy.

With a view toward a wider dissemination of research results, the text portion of *Mozan 1* is also made available in electronic format as a disk published within the series *Cybernetica Mesopotamica Volumes*. These disks are available at cost from the publisher and may be copied at will with only nominal limitations.

As a companion publication to *Mozan 1* we are also issuing a set of color slides, published as the first in a series of *Photographic Data Sets*. This series replaces the series *Audio-Visual Modules*, of which three units have been published as companions to the *Terqa Preliminary Reports*. The *Audio-Visual Modules* have been discontinued partly because the narrative aspect which they had been meant to provide is now better served by videotapes, and partly because the highly structured nature of the Modules made them ultimately too expensive for the documentary function which they were meant primarily to serve. The *Photographic Data Sets* have neither a narrative structure nor an audio component, so that they are more flexible in structure and more accessible in cost. As a result, we hope that they may be more effective in serving the documentary need they are addressing. References to the first set (*PDS-1*) are given in this volume wherever pertinent.

Mozan 1 presents the most important substantive data excavated during the first two seasons. We have provided ample documentary illustrations and the essential factual information about the most important items, with greater detail than is usual for preliminary reports. Coupled with the global record, which is planned to cover the first three or four seasons, this will provide very rapidly an exhaustive data base of the material recovered. We intend of course to come back to different aspects of the data for a fuller treatment of the stratigraphic setting, of the typological description and of the cultural implications of our own finds; but we wish to build such a long term crystallization of our interpretation on a substantive and objective record which, in its basic details and its fundamental outline, can be laid bare from the very beginning as the essential starting point for subsequent research.

Such a deliberate effort at providing a rapid dissemination of the facts is not to be viewed as resulting from a distrust in the value of broader syntheses or from a disinterest in establishing the full comparative framework within which, we fully believe, the data must ultimately be understood. Our concern should rather be understood as a commitment to provide a solid base on which such syntheses may be more securely built. While this approach involves the risk of exposing certain rough edges, it has, we believe, an important theoretical consequence which in some ways runs counter to accepted conceptual approaches to field archaeology. Such a basic and exhaustive presentation of the data is less influenced by an overall interpretive conceptual scheme, precisely because the data have not yet been fully studied in terms of their cultural implications. This may, on the surface, appear to detract from the integrity of a research design. If we believe this to be true on the surface only, it is because in fact, upstream of any specific and well articulated topical orientation, the fundamental research design of an excavation *qua* excavation ought to be the recovery of the data in as pristine a manner as possible. In the first instance, therefore, we must be led by the data more than by a topic, especially inasmuch as we excavate data which are irretrievable in their contextual associations. In other words, even though we are led in our research by very a specific problem orientation, such as I have articulated in part above, we have a responsibility for global documentation which must be fulfilled regardless of how the data recovered fit into the research

strategy: for, however cogent and significant a research design may be, once we wield the tools and begin to disassemble the deposition we owe greater allegiance to the data than to the theory.

Certain aspects of our work which form an essential part of our ultimate goals are not represented as fully in this publication as will be the case in subsequent ones. In particular, I refer to the analysis of faunal and botanical remains on the one hand and of metals on the other, both of which have been collected systematically but require long term study (for a preliminary note on botanical remains by K. F. Galvin see below, 7.1). In addition, we also are developing a program for the study of human remains, if the indications of the presence of burials and possibly cemeteries in the outer city are verified by future research.

While I am leaving a presentation of the details of the electronic system to the forthcoming publication of the new encoding manual (which I intend to publish under the title *A Grammar of the Archaeological Record*) and of the first volume of the *Mozan Record*, I will add here a few words about a much less sophisticated instrument which for all its simplicity has contributed its share to making data gathering more effective. It is the triangulation rod illustrated in Figure 17. Since its practical operation should be readily apparent from the sketch, I will not describe it here. Suffice it to say that the rod is used to measure ties from fixed control points (set with the transit or other surveying instrument), and that a single person can easily operate it. The rod can readily be moved to different spots within a range of 5 to 7 meters from the control points, and within such range it could consistently reproduce measurements with an error factor within acceptable limits. It is very inexpensive to build, so that there may be as many available on the excavation as there are supervisors who take measurements and write notes.

3. THE HIGH MOUND:

INTRODUCTION AND SURFACE COLLECTION

Marilyn Kelly-Buccellati

3.1 Introduction

At the beginning of the first season of soundings in Mozan we undertook a systematic surface collection from all areas of the high mound. Since we had no record of previous work at the site this was particularly useful in order to determine the range of chronological periods represented and their relative strengths. The surface collection on the high mound was the first stage of a wider research design which included the collection of surface material from the outer city of Mozan as well as from the other mounds in the vicinity of Amuda (see below Chapters 4 and 8).

It was decided in the interest of the first season of excavation that a short period of survey work would precede the excavation. Since the time was limited we opted for a sampling strategy which would cover the entire surface of the high mound without concentrating on any specific sector. The mound was divided into sixteen areas along topographic lines and sherds were collected according to these divisions (Figure 4). The topography of the mound is particularly helpful in this regard. The southern two thirds have a configuration consisting of five prominent rises or ridges encircling a lower and flatter central area which had almost no sherds on its surface. The northern third of the high mound contains only one higher elevation on the north-west and an almost separate mound on the northeast which is partially cut off by two deep gullies on the east and west. Around the entire high mound are traces of a city wall which makes the edges of the high mound fairly steep and a clearly recognizable boundary for the survey.

Feature sherds, decorated sherds, and in some cases body sherds were collected as part of the ceramic survey; the resulting sample that was analyzed totaled 1500 sherds. The surface of the mound is moderately covered with sherds but the collection was made difficult by the overall plant cover. In three areas the mound has modern cemeteries; sometimes, sherds are used in graves as a kind of covering, but they seem to be gathered from the viewpoint

of size rather than any other criterion. The amount to be collected by members of our team from the area assigned to them was left to the discretion of the collector with the instructions given to include a representative sample of feature and decorated sherds along with body sherds from wares which were not represented in the feature sherds. This presence-absence sampling procedure is therefore somewhat biased in favor of the decorated and more colorful sherds (such as Metallic ware) on the surface of the site and tends to downplay the relative importance of the plain buff varieties, especially in those areas with many body sherds. Since the buff wares outside of a more defined archaeological context are notoriously difficult to date even in areas where the ceramics are better known than they are in the Amuda area, it was thought that stressing their collection and analysis at the cost of many more days of work would not be worth the effort at this time, especially since typological identification was to remain uncertain before the results of the excavations could help us date these plain buff wares.

3.2 **Distributional patterns**

Aside from the few Islamic sherds found on the surface of the high mound (two sherds), the latest ceramics were four small Nuzi ware sherds (M1 43-44; the number given in the drawings next to the body sherds is the height of the sherd). The latest important concentration was of painted Habur ware both in its finer early variety and in its thicker and larger later shapes (M1 24-32). Sherds of Khabur ware were distributed all over the surface of the mound but were found in higher concentrations near the highest part of the mound on the western side (Figure 4; these maps show the relative strength of distribution by the size of the dots, with the larger dots indicating that the majority of the lots in this area had over 8 sherds of that particular time period).

Late third millennium pottery, characterized by a green-buff color and decorated with incised bands and applied rope designs on large or medium jars and bowls (M1 21-23), was also distributed all over the surface. Heavier concentrations of this type of pottery were present on part of the northeast and on the west (Fig. 4); this ware was also found stratified in Area B1. Pottery with this type of decoration is dated at Brak from the Sargonid and Ur III periods (Mallowan 1947 Plates LXV:7, LXVI: 15,16, LXVIII: 14). A sherd with a snake applied to its surface (M1 45) is similar to the snake on an Ur III vessel from Brak (Ibid. Plate LXX: 1; see also Tell Chuera, Kühne 1976 Plate 27 and Tell Taya, Reade 1968 Plate LXXXVI:24). Sherds from small Simple ware (M1 16, 18-20) and Metallic ware vessels (M1 9-15) dating to the mid third millennium appeared in all areas of the mound but larger concentrations of Metallic ware were found toward the center and the southeastern portions of the site (Figure 4). A Painted Simple ware goblet was given to us when we first visited the site (M1 17). Two Early Transcaucasian sherds (M1 40, 41) were collected in the surface survey and one also came from the excavations in the area of the city wall. Incised Ninevite V pottery (M1 4-5,7-8) was not found in such large amounts as the other third millennium wares and not scattered as widely; in fact these sherds were rare (10 sherds with the highest concentration on the northwestern portion of the mound, Fig. 4; this map only shows the distribution but does not indicate relative strength since there were so few sherds collected). This small number of Ninevite V sherds on the surface however may not be as indicative

as the sherds from later third millennium wares because Ninevite V sherds, on Mozan at least, were quite small in size and difficult therefore to spot on the surface. One indication that the Ninevite V period occupation on Mozan may be more important than our surface collection seems to indicate is the fact that this pottery was found mixed in with later material in all our soundings, perhaps because it was so prevalent on the ancient surface. Only one Ninevite V painted sherd was found (M1 6) and none was mixed in with the later excavated pottery.

Along with these third millennium wares there were scattered all over the site numerous sherds of Pebble Tempered ware. This ware is found at a number of sites in northern Syria including Chuera (Kühne 1976 pp. 99ff.), Brak (Fielden 1977 pp. 248-49) and Harran (Prag 1968 p. 83 and fn. 81 for references to both Harran and other sites). At Mozan it also occurs with triangular lugs at the rim. From periods earlier than the third millennium we have only a few Halaf painted sherds from the High Mound and Outer City (M1 1-3).

3.3 Conclusions

From this preliminary survey it appears that the largest extent of occupation on the High Mound occurred during the mid and late third millennium. This is all the more striking since this time period produced a preponderance of the plain buff wares which our preliminary collection would be biased against. In the case of the Simple ware, which is buff to gray-buff, there is also the added disadvantage that it is usually made into small shapes. In addition Simple ware, because of its high firing and thin body walls, has a tendency to break into small sherds. As a consequence of these factors it can be expected that the distributional importance of these wares is underestimated rather than exaggerated in our sample. The next important concentration of pottery occurs in the beginning of the second millennium with the presence of Khabur ware. These distributional patterns confirmed our first impression on visiting the site that the mound in its present topography was primarily inhabited in the mid and late third millennium with a subsequent, smaller Old Babylonian occupation on the top. The existence of only four Nuzi period sherds on the surface is significant since such a limited quantity seems to point to only a limited use of the mound in this period.

A possible fourth millennium presence on Mozan is indicated by only three items: one sherd excavated near the city wall of Uruk gray ware; another of this same ware found on the surface of the High Mound on the west (M1 42) and a clay cone fragment also from the surface of the High Mound. Halaf sherds presented no clear distributional patterns; several came from the mound surface (M1 2,3), one from the excavation (Area B) but quite near the surface and some from the Outer City to the south of the High Mound (M1 1).

3.4 Mozan ware descriptions

For the sake of convenience the list below combines a description of the wares from both the surface survey and the excavations on the mound.

BR — Brick Red slipped ware. Sometimes black in section (very low-fired). Chaff tempered, perhaps with some sand. The color may also vary to brown.

CH — *Chaff Tempered ware*. Found in large vessels, medium fired with a large amount of chaff on the interior and exterior. The color varies from orange buff to a quite bright red. Some examples exhibit signs of secondary burning.

ETC — *Early Transcaucasian ware*. Examples occur in red, black or gray-brown, but never two colors, with chaff and sand temper. They are medium fired and range in thickness from .5 to 1.5 cm.

H — *Khabur ware*. Red or brown painted on buff to red clay, with pebble and chaff temper. The larger and thicker shapes contain more chaff, with the small, fine shapes being earlier in date. Decorative patterns include lines and hatched triangles. Khabur ware occurs in a variety of forms, ranging from fine small shapes to large shapes with a great amount of chaff temper. Some shapes can have ridges and rope designs with paint (these are transitional between the late 3rd millennium and Khabur ware).

INC — *Incised ware*. Incised decoration occurs on buff to green sherds which are 1.0 cm. thick or thicker. The incised decoration is found in patterns of wavy parallel lines or straight parallel lines on the shoulder of the vessel, and may occur in combination with a rope design. This ware is found in late third millennium strata.

M — *Metallic ware*. Mostly dark gray with shades of lighter gray and orange. The sherds contain very little temper, if any, and are very highly fired. They range in thickness from .5 cm. to 1.5cm.

NI — *Ninevite V ware*. Buff and gray, mostly sand tempered with the possible addition of very fine chaff. This ware occurs in painted or incised examples.

NU — *Nuzi ware*. Buff ware, sand tempered, with perhaps some very fine chaff added. Decoration is in brown and white paint, applied first in wide bands of brown and then with a brush in thin white bands or dots.

P — *Pebble tempered ware*. Brick red to brown in color, with many small pebbles as temper, giving the sherds a very friable appearance. Pebbles are visible on both the surface and in section. The thicker shapes are black in section. Some sherds exhibit a secondary surface firing indicating that these vessels were used for cooking. Many examples of hole mouth jars and some with triangular lugs on the rim occur; similar examples are found at Chuera, Harran and Brak (see Fielden 1977, pp. 248-49 for references). Vessels in this ware were burnished on the exterior extending over the rim, and to a lesser extent on the interior.

R — *Rough ware*. The thicker variety of these vessels has plaster on the interior, sometimes applied in three or more coats. This interior plaster is either white or a plum red. There are cases where the plum red has run over onto the exterior and dripped down the side. The temper consists of a large amount of chaff with large inclusions which may be ground up sherds. All examples found were well fired but this may be due to refiring in the destruction level in which they were found (K1 Feature 16, see below). In some examples the interior plaster was burned a reddish orange by the fire. Vessels of this ware come mostly in very thick shapes, ca. 2.5 cm. thick. These vessels are slab made and are constructed in layers which can be seen in section. Cracks caused by the drying of the vessel are often seen on the exterior. The plastered vessels have two basic shapes: jars with outturned rims and deep bowls with squared rims. Some of the sherds are perfectly flat while the majority are rounded showing that they came from large jars. The flat ones may come from storage vats or may be the flat base sherds of the larger vessels. One such example of a flat base

showed the thickness of the lower body wall to be 2.8 cm, with the wall of the base portion being only 2 cm. thick. There also seems to be a thinner variety of this ware represented by sherds with thinner walls (ca. 1.3 cm.) and more curvature in the body walls.

RS — Reserved Slip ware. Buff, some examples with strong wheel marks. A small amount of plant temper is visible on the surface; some sand temper present. There are very few examples of this ware.

S — Simple ware. Greenish buff in color, highly fired and sand tempered. The temper contains no chaff. Some examples have a corrugated surface. The Simple ware shapes are small and thin walled, with flat, pointed or ring bases. The flat bases are rounded on the edges or spherical. One Painted Simple ware goblet came from the surface (M1 17).

WS — Wet Smoothed ware. Light red to buff in color. The finest examples of WS ware have only sand temper and are less than 1.0 cm. thick. Most of the WS ware is thicker and has more temper in it. Larger vessels have some plant temper and are 1.0 to 1.5 cm. in thickness. This ware is related to the smaller, finer Simple ware and is included in the Simple ware category in some publications. Vessels of this ware may be plant wiped inside and some have noticeable wheel marks on the exterior. In 1984 a body sherd of this ware was found with an EDII seal impression rolled on the shoulder (see below M1 167).

3.3 A note on mapping — Stephen M. Hughey

The specific mapping objective for Tell Mozan was to perform the necessary field survey to produce a standard topographic map suitable for publication on a 1:1000 scale with a one meter contour interval. Because of time constraints, only one day was available before the start of actual excavations. Implicit in even a topographical survey is the requirement that the survey be retraceable by another competent surveyor. In our particular case, neither the nature of the archaeological site nor the materials on hand would allow the emplacement of large monuments of concrete and iron of the kind that would be easily located by sight. Also, experience to date had shown that anything easily identified as metal or wood is collected as refuse and "recycled" by the local people. It was decided that retraceability would have to depend on the accuracy of the survey and on the recovery of large nails set at each topographic control point. It was supposed that these could be quickly set flush by a fourth member of the survey party as each "shot" was taken. Most of them would presumably be overlooked by the local people and be recovered as needed in future seasons with a ferrous metal detector. The horizontal and vertical control could then be perpetuated without the personnel or equipment required to establish it. The disturbance of the surface would be kept to a minimum and those points needed for mapping control in each area could be replaced by something more substantial as needed.

The details of the field work can be summarized as follows: An area of 18.4 hectares was surveyed. A total of 112 control points were "shot." The party consisted of 4 people: S. Hughey on the instrument (Lietz SDM3E); B. Pritzkat on prism support rod; G. Buccellati on notes; F.A. Buccellati on monument emplacement. The survey took a total of one half day. As no elevation was available for the washer found in a concrete monument below a metal tripod (taken to be a geodetic control point) an elevation for it was interpolated as

500 meters from a topographic map of Syria with a 500 meter contour interval.¹ As for horizontal control, a coordinate value was chosen for the found concrete monument that would conveniently keep the coordinate values on the left to three digits left of the decimal point.

The basis of bearings for the survey is from magnetic north as observed in the morning of the day of the survey from three stations along the first leg of the traverse. Magnetic north was preferred over true north so that maps could be quickly oriented with a compass. Unfortunately, time this season did not allow solar or polar observations for true north.

Angular closure for the 8 station traverse was 2 minutes. The total traverse distance was 1931.31 meters with a closure distance of 0.243 meters, or about one part in ten thousand. The compass rule was used to balance eastings and northings. The vertical closure based on trig levels was also well within allowable limits and adjusted out. Since there was no time for the standard practice of running a differential level circuit of the traverse stations, each station was "shot" twice: once on foresight and once on backsight. The plotting of the control points, the interpolation of the contours and most of the drafting of the final map was done in California by B. Pritzkat under the supervision of S. Hughey. Although track was kept of time required to produce it, this work would typically require a single survey draftsman 8-24 office hours depending on skill and tools at hand.

The outer perimeter of the area surveyed is delineated by the control points indicated on the map (Fig. 5). The total area enclosed by these points is 18.3514 hectares.

¹ In our record, as well as in this publication, elevations are regularly given in centimeters below the 500 m. mark, omitting both the decimal point and the initial digit 4, since *all* absolute elevations are within the 400 m. range. Thus, for instance, elevation 8107 stands for m. 481.07. [G. B. and M. K.-B.]

4. THE OUTER CITY:

INTRODUCTION AND SURFACE COLLECTION

Judith Thompson-Miragliuolo

4.1 Introduction — G. Buccellati and M. Kelly-Buccellati

During the two short seasons of work at Mozan reported here we concentrated on surveying and excavating the High Mound; at the same time, however, we also developed a concern about the Outer City. Research in the Outer City appeared promising for a number of reasons. In the fields south and east of the site we had found two wells with third millennium pottery scattered by the mouth of both. It was unclear whether or not the wells themselves were ancient, but the ceramics did not indicate a period later than the third millennium. One of the wells was stone lined, and the local villagers indicated that this well was not of recent date. They also pointed out a spot on the High Mound where they said another well was located which had the same kind of stone lining; however the opening was covered and we did not investigate further.

We had also noted a gradual but regular and considerable rise in the ground around portions of the site, and this too needed to be investigated. Another interesting problem was to determine the nature and extent of a wide depression visible on the south-eastern portion of the site. Some aerial photographs seemed to corroborate the impressions which we had formed on the basis of ground observations, although the photographs were taken while the fields were still under cultivation, and thus do not afford the best view of the slight differences in relief (Illustrations 2-4; see the comments in the next section about the best conditions for "archaeological visibility").

There were two immediate problems in undertaking such as survey of the Outer City: (1) we did not have the staff to survey adequately such a large area, and (2) by the Spring of 1985 the fields had already been planted and it would have been very difficult to survey the area at all. It was at this point that we enlisted the aid of Dr. Judith Thompson-Miragliuolo, then living in Qamishli, who had already done extensive archaeological survey work in eastern Iran, and was thus well prepared to undertake this project. During the Spring 1985 season

we were able to define together the main goals and objectives for a surface survey of such a large area, a survey which she then carried out independently in the late Summer and Fall after the harvest. While the survey is not complete, it is of great significance for what it tells us in terms of the potential expanse of the lower city and the homogeneity of its deposit. Her account is given in the rest of this chapter.

4.2 Surface collection

From the top of Tell Mozan, as well as from aerial photographs taken in 1985 (Illustr. 2-4; *PDS-1* 3), it is possible to discern traces of what appears to be a slight ridge in various points around the main mound. This ridge or rise appears roughly equidistant from the High Mound in the points where it is visible, suggesting the possibility of an Outer City wall which could have encircled the tell some 300 to 400 meters from the main mound. Alternatively, the rises noted from afar could prove to be satellite occupation mounds. In either case, a determination of the existence of man-made topography in this circumference zone would have significant implications for a reconstruction of the urban environment of Tell Mozan and would be an indispensable adjunct to any statement regarding population estimates of the site.

It was to test the existence of such a rise, to estimate its extent, and to determine the nature of any artifact cover in the entire Outer City, that the Mozan Outer City project was begun in late summer 1985 with a surface survey involving controlled collection and topographic mapping.

As in most of this part of the Khabur Triangle, Mozan is situated in the midst of an agricultural zone; all of the land adjacent to the tell for many kilometers around is currently or has recently been farmed so that the agricultural cycle has considerable importance for a surface survey. Fieldwork was begun in September 1985 immediately following the harvesting of the survey area, and was completed by December, when most of the fields in the area had been plowed. It was deemed important to examine both the supposed rise and the level ground which separates it from the main mound itself. The aim was to determine the volume and variability of surface cover over as wide an area as possible before the late autumn rains began to make surface collecting impossible.

Although homogeneity of the surface area could not be assumed, a random sample was attempted as the best means of covering the survey zone in the time period available. A 100-meter grid was extended on paper from a known point (A) on the highest point of the main mound to a distance of some 300 meters from it in every direction. All squares which encompassed the High Mound or the mound's talus, as well as several which were inaccessible due to modern habitations and a vineyard, were eliminated from the population to be sampled (the surface survey of the main mound is published elsewhere in this report, see Chapter 3). The remaining 72 squares were subdivided into sixteen 25-meter squares each, which were manageable dimensions for a surface collection. Of these 25-meter squares, over 70 were selected, using a table of random numbers, to arrive at a 7% sample. At the end of the season only the northwestern portion of the survey zone remained unsampled due to the impassable conditions of the fields under cultivation; this portion will be completed during the next season.

The ten-meter square in the southwest corner of each selected 25-meter square was

exhaustively collected to give a basis for the comparison of artifact volume among the sampled units. Ten by ten meter squares were seen to be the maximum area to which adequate controls could be applied for a complete collection of artifacts. The remainder of each 25-meter square was then systematically surveyed for a more selective collection of diagnostic material. [Each 100-meter square is designated by two numbers: the first refers to the North coordinate, and the second to the East coordinate, counting by hundreds in each case. Each 25-meter square is designated by two letters using the convention explained graphically in Figure 6. — G. B. and M. K.-B.]

Contours of the Outer City area were taken in the eastern and northeastern portions, but due to logistical problems, topographic mapping was not completed this season; this also will be finished during the 1986 season.

A total of 49 of the selected squares, as well as 13 additional sampling units, were collected before December 1985. From the sketch map based on observations in the field after removal of the plant cover by cultivators, and from the partial contour map (Fig. 6), it may be seen that a rise is clearly present at a distance of some 200-400 meters from the base of the tell in what appears to be a concentric ring. This ring encircles the tell from the southwest to the east and then from the northeast to the northwest; it is highest and most clearly apparent in the south-southeast, where the artifact cover is concomitantly densest. There are three gaps in this concentric ring to the east and northeast and one small gap on the southeast. Immediately west and west-northwest of the tell a rise is not discernible by eye, although traces of the rise which continues from the north gradually diminish and eventually disappear in the vicinity of currently inhabited Mozan village. The local inhabitants have plowed this area for at least a couple of centuries, possibly contributing to the erosion of the rise in this part of its circumference. Artifact cover is correspondingly lowest in density in this area. The rise may be slightly elliptical, extending farther from the High Mound (up to 500 meters) in its northwest portion where Os4 is located. The width of the rise appears to be generally between 50 and 100 meters; height variability cannot be determined until topographic mapping is completed. As is to be expected, detection of the rise is enhanced in late autumn after the first rains have fallen and have been followed by a dry spell. Moisture drains from higher ground to lower-lying areas; when viewed from the top of the High Mound, this differential drying causes the rise to appear lighter in color than the lower plain. Just beyond the concentric rise on the south a 100-meter wide depression is also clearly evident, appearing to follow the rise toward the east; its significance is not clear at this point, but it may be a part of an ancient watercourse or moat.

Disturbance of the surface within the area between the base of the High Mound and the outer periphery of the rise is considerable in some locations. Several unpaved roads cut across the peripheral ring, three of them actually slicing through the apparent rise. In several locations on the crest and slopes of the rise there are signs of deliberate unauthorized excavations. The entire area is currently, or has been in the last few years, cultivated for the production of wheat, with a large vineyard on the northwest adjacent to the High Mound, an irrigated cotton field in the southeast, extending up onto the rise, and an irrigated garden in the western portion near a recently dug well. Wheat fields are plowed twice in the late Autumn and Winter before sowing; harvest is during the summer months and in early autumn herds of sheep and goats are brought in to crop the stubble. Archaeological visibility is greatest (i.e., artifacts are most visible on the surface) after grazing and before the first plowing,

and then again after the second plowing when the light showers which precede the heavy winter rains have washed the artifacts from the loose earth.

For recording purposes, the survey area (the Outer City) as a whole was designated Oz1, or simply z1. [Upper case "O" stands for Outer city, lower case "z" for the entire Outer City, and lower case "s," on which see presently, for special areas. Use of upper case "O" is not required, but it can be useful when contrasting areas from the Outer City with the High Mound; areas on the High Mound are designated with single, upper case letters. — G. B. and M. K.-B.] Eight specific locations within the Outer City were assigned separate unit numbers from Os2 to Os9 based on the presence of significant ceramic concentrations, often accompanied by features such as wells, depressions, or pits. Os2 is a small test excavation carried out in the second season during the late spring of 1985, the results of which were somewhat inconclusive. Os3 is an area on flat ground some 100 meters east of the High Mound where two disused wells are located — one of these is relatively recent (within 50 years) and the other was exposed by Mozan villagers during plowing and is associated with third millennium ceramics and a heavy concentration of human bones. Os4 is an area 500 meters north of the High Mound where a tractor uncovered concentrations of ceramics, some of them whole vessels. Os5 is a similar area on the crest of the rise east of the High Mound where a ten-meter wide shallow pit was still open, indicating recent disturbance of the location. Os6 is again an area with a heavy concentration of ceramics, this time on a slope of the rise where it appears to have been eroded or worn away, exposing freshly broken Metallic ware sherds in great numbers. Os7 extends for some 100 meters along the crest of the rise and is characterized by signs of dozens of small refilled pits indicating deliberate disturbance of the surface; one pit was made within days of my examination and was still open and scattered with freshly fractured sherds of large, heavy vessels. Just 50 meters to the west is Os8, where a well was discovered by villagers digging an irrigation channel. Like the well at Os3, this one is associated with third millennium ceramics, but, unlike Os3, it is located on the crest of the rise. The final s location was a square sampled outside the grid to the south on the crest of the highest portion of the rise; this square yielded the greatest amount of material.

In all, eight probable locations of wells were found on the survey, including those with early ceramics at Os3 and Os8, both of which are lined with large unmortared stone. Six were said to have been dug within memory of the oldest villagers at Mozan. While sinking several of the more recent wells, villagers had found many items of archaeological interest, few of which remain in the villagers' possession.

Other features of the Outer City include a row of large (1 m. by 1/2 m.) stones removed from fields on the rise east of the High Mound and two larger (2 m. by 1 m.) stones on the top of the rise north of the High Mound. Within 200-300 meters west of these latter, three shallow areas were found where similar large calcareous stones had been excavated. These seem to have been worked into rectangular shapes and had been chipped and broken by farmers attempting to break them down for removal and clearing of the fields. At scattered locations all around the rise, large calcareous stones, obviously imported into the area, had been exposed during plowing and removed to the edges of the fields. [A number of these slabs line the edge of the vineyard on the northwestern slope of the tell, and many more are found scattered throughout the village at Mozan. — G. B. and M. K.-B.]

4.3 Relative percentages

During the survey some 14,000 artifacts were collected from the surface and tabulated according to the provisional types established during the first two seasons at Mozan. Typing was made difficult by the fragmentary nature of sherds on the surface, as well as their often heavily weathered and abraded condition, but the material in general displays a clear affinity with the third and early second millennium material found on the High Mound itself and in the excavations there. Predominant are Wet Smoothed, Simple, and Chaff-Tempered wares, with good numbers of Metallic, Pebble-Tempered, and Rough wares as well (for a description of these ceramic wares see above, Section 3.4). Also in evidence are Habur and Halaf painted wares, Ninevite V Incised ware, and several other types. Out of the approximately 14,000 sherds, less than ten were glazed. Ceramic types may be summarized as follows, in decreasing order of frequency (see Figs. 27-32 for drawings of representative samples):

Wet-Smoothed ware — 32% of the total artifact count: This was the major type in practically every controlled collection sampling unit. Of this major type, almost 40% came from the southeastern portion of the rise.

Unidentified — 16% of the total artifact count: In the ten-meter complete collection areas, all sherds, even the smallest, were collected. Many of these were of such minute size that identification by type was not possible; these comprise the bulk of the unidentified category.

Simple ware — 15.5% of the total artifact count: There are three definite concentrations of this ware — one is at square 98Da where Simple ware constitutes 21% of the sherds collected, another encompasses four squares east of the High Mound and the third is on the rise southeast of the High Mound in an area which includes seven squares. The proportion of Simple ware is low on the rise south of the High Mound at Os9 (5%) and on the west (8%; see Figure 8).

Chaff-Tempered ware — 14% of the total artifact count: This ware is present in all the sampled units but is less well-represented in the south-southeast and the south, while it is found in high proportions (above 20%) to the west and east on level ground and on the rise near Os5.

Metallic ware — 7.6% of the total artifact count: In most collected squares, Metallic ware composed 4 to 6% of the sherds. However, the most notable concentration of any type encountered during the survey occurred in the extreme northeast corner of the survey area, where Metallic ware is fully 87% of the 241 sherds selectively collected from Os6. It is interesting to note that three squares bordering on this Metallic ware concentration zone were completely without Metallic ware, as were only two other squares from elsewhere in the Outer City. Square 98Da, near Os6, had more than 20% proportions of both Pebble-Tempered and Simple wares.

Pebble-Tempered ware — 4% of the total artifact count: As with Metallic ware described above, Pebble-Tempered ware is also absent from the three squares near 98Da. Square 98Da itself had a 20% concentration of Pebble-Tempered ware as mentioned above. There are no other concentrations of Pebble-Tempered ware but there are two areas where this ware is significant in its absence: the zone mentioned above where a total of six squares has no evidence of this type, and another of five squares in the east-southeastern portion of the Outer City.

Rough ware — 1.7% of the total artifact count. Rough ware in no instance comprises more than 6% of any one square's collection; more often it occurs in 1 to 3% proportions while many sampling units lack it altogether. No clustering of this type is evident.

Mica Grit ware — 1% of the total artifact count: This ware occurs in only slight quantities throughout the survey area but more so in the eastern portion than elsewhere. The lowest quantities of Mica Grit ware are found in the south and west.

Other types — comprising altogether another 7% of the total artifact count: These include most decorated wares such as Habur painted, Ninevite V Incised, Ur III modelled rope designs, and Halaf painted. None of them ever comprises more than 1% of the collected sherds from any one unit.

Flaked lithic material — A total of 36 blades and blade fragments were recovered, as were two cores, five retouched flakes, and one awl. In most cases the material used was a medium grade flint or chert, ranging in color from black to light tan, but four blades were manufactured from translucent obsidian. Three of the blades display a silica sheen, indicating their use for cutting vegetable matter, and two blades were denticulated.

Groundstone — Six groundstone objects were collected from the surface: a rough cube, a sphere, one with three flat surfaces, one with one flat side opposite a circular depression suggesting usage as a hammerstone or small mortar, and one object perforated from two directions. In addition, a distal fragment of a polished groundstone celt was found on the Outer City surface.

Other stone objects — A perforated stone cylinder with a completely abraded surface was found by a Mozan villager on flat ground approximately 200 meters southeast of the tell, an unfinished pink stone bead was recovered from Os7, and a fragment of cut and polished red marble was collected on the rise north of the mound.

Metal — Only one copper/bronze item was found on the surface of the survey area: a pin or shaft fragment in square 09Cc on the southeast rise.

Animal figurines — Fifteen fragments of animal figurines in baked clay were collected from the surface, most of them from seven locations on the eastern portion of the rise. One, a small horse with male genitals and faint incised lines on its mane, was almost complete. Eight of the fragments were the torsos of quadrupeds missing head and limbs, and the remaining six are head fragments. Of these, one appears to be a bull's head with one long, curved horn (the other broken off), a painted red band extended from between two applied eyes down the full dorsal length. Another head fragment also has one horn, ears, one eye depression, and incised lines on its dorsal surface. A third head is missing its muzzle but has an applied band across its top and incised circles which may represent curly hair. A fourth head has a long neck and two eye holes separated by a deep groove. The remaining two heads have long snouts and faint eye holes, one of them suggestive of a camel, although the third and early second millennia are thought to be too early for the representation of camels, which are believed to have been domesticated later.

Ceramic objects — Twenty-two miscellaneous objects of baked clay came from the surface of the survey area. Six of these are small wheel fragments, some of them completely perforated, some incompletely perforated. Another six are perforated disks made from sherds of Simple ware, two are perforated clay beads, and one is a very small perforated lump. Other pieces include a perforated spindle whorl, a perforated ceramic cylinder, a possible gaming piece with a circular concave base, a flat, roughly rectangular fragment, a large rough

cone-shaped object, a large squarish piece with a square socket, and finally an undefined piece marked with two incised holes separated by an incised X.

Reconstructible vessels — Five Metallic ware vessels are complete enough to be reconstructed; four are small jars from Os4 and one is a miniature bowl or cup from Os9. A miniature painted Habur ware jar was found on flat ground east of the mound and a support stand painted in red and black hatched triangles and checkerboard motifs was recovered at Os6.

4.4 Distributional patterns

Half of all samples taken were from level ground, either on the roughly level expanse between the High Mound and the outlying rise or in level gaps in that concentric rise. Of the 63 samples collected, 31% was collected on top of a definite rise and another 19% of the total was taken from the slopes of the rise. A marked difference in artifact density is evident between the rise and flat ground as may be seen in the fact that, while half of all sampled units were located on level terrain, the total percentage of all artifacts collected there during the survey was only 34%. A majority of artifacts (66%) was taken from the crest and slopes of the rise. The average density of artifact cover in the sampled squares appears to co-vary with the relative height of the rise. In the table below, areas of the Outer City rise are listed in descending order of height from level ground as judged in the field; artifact density descends roughly in accordance with height from the highest point along the entire rise (in the south) to the west, where no rise at all was apparent.

Rise Segment	Average Artifact Density per Square
South (highest)	1250
Southeast	306.6
East	332
North	252
Northeast	203
West (no rise)	63.8

This would seem to suggest that both natural erosion and human factors such as continual plowing and downcutting for roads have contributed to a disappearance of an original rise with cultural levels, as is true of many tells in the surrounding Khabur Triangle plain. This factor may be construed as additional evidence of a rise which indeed encircled the entire tell. On the other hand, differential artifact densities and the interrupted occurrence of the rise could indicate the presence of separate occupation sites, perhaps in the form of small satellite settlements. In the absence, however, of comparative data from other excavated sites of the third and second millennia, it is difficult to conceive of satellite hamlets occurring in such a regular concentric fashion around the High Mound, so that it is perhaps more reasonable to postulate a continuous zone of occupation from the inner city wall at the base

of the High Mound to an artificial boundary, perhaps in the form of an Outer City wall, on the outer circumference of the area of surface scatter. The density of artifact cover falls drastically immediately after the base of the rise on its outer face, confirming an artificial (cultural) boundary. The depression mentioned earlier, which clearly borders the rise on the south and southeast, should be examined in this regard. Its regularity could possibly represent a canal, although it is wide for a canal (at least 100 meters); extensive sampling by excavation would be required to test such a hypothesis.

The nature of the occupation attested to by material found on the Outer City rise is difficult to determine solely on the basis of a surface collection. The data are not sufficient to allow us to ascertain whether specific activity areas, such as food processing, manufacturing, communal storage, or defense, are represented. The widespread occurrence of large groundstone fragments, possibly of mortars, and the fact that approximately 25% of the total potsherds were of finer wares such as Simple and Metallic, points to domestic habitation activities; ceramic slag points to some pottery manufacturing. Large, heavy, handmade wares, which could have had a storage function, account for roughly 16% of the artifacts represented. A clustering of animal figurine fragments in the southeast may have some significance if such figurines were votive objects. Possible burial areas are suggested by human bones, including a molar at Os6 and several dozen bones at Os3. Likewise difficult to support with data obtained from the surface are definitive statements regarding areal variations, although some general observations can be made. As alluded to above, by far the highest density of artifacts in any one square occurs in the south at Os9. The eastern portion of the rise yielded the most animal figurines, as well as a high proportion of Chaff-Tempered ware; the northeast segment of the Outer City zone has a significant concentration of Metallic ware and somewhat larger proportions of Pebble-Tempered and Mica Grit wares. The western area yielded the lowest density of artifacts. All of these wares are worthy of closer examination, as is the possible disappearance of the rise in the northwest and the west. Further interpretation of the results of this season's survey must await additional analysis. Further surface surveying is required for the collection of more data to allow more sophisticated statistical analyses such as trend surface analysis. It is to be hoped that excavations will be undertaken in selected areas such as Os9, with its dense artifact cover, and Os6, with its Metallic ware concentration, in order to facilitate the interpretation of the Outer City concentric rise, which appears contemporary in almost all respects at this point with what is known of the third millennium occupations on the High Mound itself.

5. SOUNDINGS ON THE HIGH MOUND

5.1 Introduction — G. Buccellati and M. Kelly-Buccellati

As a result of the surface survey and the study of the topography we decided to excavate on one of the rises which surround the central depression. Area B1 was chosen because it was an area where late third millennium sherds were found. We had also noted that there was a large patch of red which had even colored the sod layer on top. A consideration which emerges from the earlier discussion of the Urkish lions (Section 2.3) has to do with the question: if the lions were to have come from Mozan, where could they have been found? Since they are foundation deposits of the late third millennium, they may seem a priori unlikely to have originated from any point at the top of the mound. As it turns out, this is not necessarily the case, since third millennium foundations are in fact very close to the surface, at least in Area B, and any one of the recent burials (a small cemetery is located at a short distance to the northeast of B1) could easily have been dug to a depth corresponding to that of potential foundation deposits.

In addition to Area B1 we decided to clean the portion of the city wall on the east (K1) which had already been partially exposed by some farmers who had been removing soil for their fields.

A small operation was also started in Area P on the slope of the highest portion of the mound. The object of this sounding was to determine how deep the Old Babylonian deposit was there since this was the portion of the site with the greatest concentration of Khabur surface ceramics. See Section 6.1 for a brief discussion of this excavation unit.

Finally, we made a small sounding in the Outer City (Os2) in order to check for possible occupation there; the sherd material from this shallow exposure can be dated to the late third millennium through comparison with those excavated in Area B1.

We provide here two brief reports on the excavations in Areas B1 and K. Both are limited in scope for different reasons. In Area B1, in spite of a considerable horizontal exposure, we were able to uncover only a small corner of what is apparently a much larger building. For the purposes of our initial soundings these results were more than adequate, but we prefer to leave a fuller account of the stratigraphic unit for the end of the next season.

As for Area K, a somewhat more substantial picture has emerged, albeit still preliminary, but it has proven impossible for the excavators, G. L. Bunnens and A. Roobaert, to provide a fuller report, on account of their participation in the Fall season at Qraya and subsequent move to the University of Melbourne. Accordingly, we have chosen to publish a brief interim report which they had submitted after the close of the first season, and to supplement it only with a sketch section of K1 (Fig. 12), plus a few additional comments which follow.

The main goals for the second season in Area K were: (1) to look for a definition of the inner face of the city wall; (2) to follow the slope of the glacis ideally to a point where it might begin to level off; (3) to look for a possible gateway in the vicinity of the excavations of the first season; and (4) to explore further the indications visible on the surface for possible structural details connected with the defensive system.

The main result in answer to points (1) and (2) is summarized in the sketch section in Fig. 12: sounding A of the first season (see Fig. 13) was extended as a narrow 1 m. trench in a direction perpendicular to the face of the wall (almost in a straight east-west direction), toward both the outside and the inside (Illustr. 14, 19). Excavations in the outer area revealed a continuation of the uniform burnt debris which contained a large number of door sealings (described in detail below in Section 6.2); the slope of the glacis continued to the end of the trench, and it is not clear whether it might continue even further, or whether it would begin to level off after that point. The great depth of the slope below the edge of the tell has considerable implications for an understanding of the nature of a potential settlement in the Outer City: if this is indeed a glacis, rising from the ancient plain level to the base of the city wall, and not, for instance, the edge of a moat, then the surrounding Outer City would have been at an elevation somewhat lower than the present plain level; and if so, more of the ancient settlement which may be postulated for the Outer City is preserved than meets the eye. Also, the ring which encircles the Outer City (see Section 4.4) would in this case have a deeper foundation than the present contour lines reveal.

As for the inner face of the city wall, it was not identified on the inner side of the trench (K3). However, some brickwork of a type that is similar to that apparent on the eroded side of the tell was uncovered at the base of the trench in a couple of points, which indicates that the inner face lies further to the west of these points. In other words, we have a minimum width of some 8 meters, and a minimum height of 5 meters.

The search for a city gate proved somewhat inconclusive, although some possible traces were identified to the west of the main trench in K1.

The search for surface indications of structural brickwork associated with the defensive system revealed some sizable traces immediately west of K1, which however could not be fully understood. It is from this area that the two botanical samples came that are briefly described below by K. F. Galvin (Section 7.1). K1.2 comes from Feature 5 and K1.14 from Feature 8 (both features are shown in Fig. 14).

The burnt deposit however appears to give us a *terminus ante quem* for the use of the glacis. As seen in the section Fig. 12 the thickness of the burnt deposit was essentially masking the extreme slope of the glacis and therefore removing its utility for defense. The nature of the materials found in the burnt deposit is also very interesting (see Section 6). As stated above there were few ceramic types in it: Rough ware storage vessels, Simple ware spouted pots and small bowls, some Wet Smooth ware jars, three metal pins, a small ceramic