

# CHAPTER 1: INTRODUCTION TO THE ARCHAEOLOGICAL DESCRIPTION OF THE LATE MIDDLE KINGDOM SETTLEMENT AT TELL EL-DAB<sup>C</sup>A (PHASES H, G/4 AND G/3–1) IN AREA A/II

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The late Middle Kingdom settlement in Area A/II of the Austrian concession at Tell el-Dab<sup>a</sup> was excavated by MANFRED BIETAK between 1966–1969 and 1975–1985.<sup>1</sup> This monograph comprises a description of the archaeological discoveries of 1966–1969 being a detailed square by square and feature by feature discussion. It consists of the excavation history of each square, the records available for interpretation, and the finds made in each location/feature. Numerous archival photos and drawings supplement this discussion.

It has to be stated at the outset that because this excavation was conducted over a period of 20 years (1966–1969 and 1975–1985), the excavation methods and recording techniques became more and more refined over time. Moreover, it has been now more than 50 years since the excavation began and more than 30 years since it ended, thus, some uncertainty about the exact placements of some of the early finds and also the results in general is inevitable. As the author was not present at these excavations some archaeological problems cannot be solved at the desk although consultations with the director of these excavations, M. BIETAK, and original team members took place whenever possible.

The fact that not all of the squares were excavated down to the same depth resulted in fragmentary plans particularly of the earlier levels that are sometimes not connected. For this reason it is often difficult to ascertain whether certain features in distant squares belonged to the same phase or not. This situation was worsened by the lack of sufficient archaeological find material from the earlier phases, which would support a hypothesis backed up by hard data. Especially in the first four years, 1966 to 1969, during the initial

stages of the excavation, it was difficult to keep any fragmentary objects such as pot sherds because the site magazine and the excavation house were still in the process of being built.

Thus only the A- and B-Inventory finds<sup>2</sup> were kept and distributed to the National Egyptian Museum in Cairo and the Kunsthistorisches Museum in Vienna. The find division between Egypt and foreign archaeological missions was then legally possible.

Another reason for the uneven exposure of the lower elevations of the site was the high water table. In these early years there was no possibility to fund or use high tech equipment like the vacuum pumps that have been available since 1996. This meant that as soon as the water came through the surface of the ‘planum’ the excavation had to be stopped because the surface turned into pure mud or even a lake (Fig. 1.1). Some archival photos show this process very clearly. In some cases the digging of a deeper hole in one corner of a square caused the water to collect within it so that the last exposure could at least be recorded. But such tactical considerations did not always work.

The reason for the suspension of the excavation after the spring campaign of 1969 for some years until they started again in autumn 1975 was the series of political conflicts between Egypt and Israel between 1967 and 1973. In the course of these events it was not possible to record all data from the excavation before the need arose to leave the site. The only remedy to these problems would be to initiate a new project to fill in these particular gaps in an overall street plan with the attempt to record what is left of the original baulks down to the depth of the original excavation reached.

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<sup>1</sup> The gap in exploration between 1969 and 1975 was caused by the security ban for archaeological works in the Nile delta due to the Israeli/Egyptian conflicts in those years. Cf. also P. GROSSMANN, Abu Mena. Achter vorläufiger Bericht. Kampagnen 1975 und 1976, *MDAIK* 33 (1977), 35.

<sup>2</sup> The A-Inventory finds were derived from primary closed contexts, while B-Inventory finds can be assigned to certain strati-

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graphic phases. For the definition see also M. BIETAK, TD V, 318. These finds were recorded in the register book with numbers only (A-Inventory) and numbers and letters (B-Inventory). The konvoluten (K-numbers) of the sherd collections were recorded but not kept in this instance. From 1975 onwards (K425) most of the sherd collections were kept in the then existing site magazine. The magazine had to be enlarged several times since then.



Fig. 1.1 Photo of one of the tombs as the ground water breaks through, photo taken by P. FRENCH 1968

In retrospect, it is also clear that the excavations of the late 1960s and late 1970s represent the beginning of the investigation into the famous site of Avaris and in reviewing the material, that is infinitely better known now than it was then,<sup>3</sup> some interesting archaeological problems came to light that were not recognised earlier. Sadly, many of the questions, asked in the text are unlikely to be answered any time soon, as there is currently no plan to undertake new work in the late Middle Kingdom settlement in area A/II.

This first volume covers the excavation area that was first published by M. BIETAK as *Tell el-Dab<sup>a</sup> V*. This area represents the western part of the settle-

ment (see Fig. 1.2) excavated from 1966 to 1969.<sup>4</sup> It seemed reasonable to divide the archaeological report on the overall settlement area of A/II in the late Middle Kingdom in this way also because the archaeological plan of the Phase G/2–1 was published in *Tell el-Dab<sup>a</sup> V*.

The scarcity of archaeological finds in the older excavations, may in part be due to the process of realisation of the nature of settlement finds in general (mostly broken and very small) as well as the initial stage of training of native workmen as well as European participants. More archaeological finds are available for study from 1975 onwards which was presumably caused by the different intensity of use and activities.

Because the oldest Phases H, G/4 and G/3 were not – or could not be – explored in full, the author chose to present the latest of the late Middle Kingdom phases first, i.e. Phase G/2–1, because it affords a full plan of all squares. The older phases were treated in separate chapters (no 5, and no 9) with some partial plans. The second volume differs in that consecutive layers in the same building lay-out are presented as sequences in order to illustrate developments in material culture.

The compounds were numbered independently from the original ‘Bezirke’ as published in *Tell el-Dab<sup>a</sup> V* in the schematic plan of Phase G/2–1. Volume 1 comprises Compounds 10, 11, 12, 13 and 14 in squares A/II-k–o/10–13 (see Fig. 1.2). By contrast, the locus numbers of Phase G/2–1 given in plan 2 of *Tell el-Dab<sup>a</sup> V* were kept, in order to avoid unnecessary confusion.

#### PARTICIPANTS OF THE EXCAVATIONS AND EXCAVATION SEASONS

The first seven seasons of excavation took place from 1966 to 1969 twice a year in spring and autumn except for 1969 in which only a spring campaign took place. In 1966 from 19 July to 3 November and from 24 November to 21 December; in 1967 from 10 May to 4 July and 13 November to 20 December; in 1968 from 17 April to 11 July and from 18 October to 18 December; and in 1969 from 20 April to 10 July.<sup>5</sup>

A large number of people were involved in the recording and cataloguing of the archaeological finds in

<sup>3</sup> Cf. the Tell el-Dab<sup>a</sup> monograph series.

<sup>4</sup> Coloured in light grey.

<sup>5</sup> M. BIETAK, Vorläufiger Bericht über die dritte Kampagne der österreichischen Ausgrabungen auf Tell ed-Dab<sup>a</sup> im Ostdelta Ägyptens (1968), *MDAIK* 26 (1970), 15; M. BIETAK, TD II, 21–22.



Fig. 1.2 Schematic plan of Area A/II in Phase G/2-1, adapted from M. BIETAK, 2010, Fig. 14

the field. Without them and their diligence this study would not have been possible. In the first four years in addition to the director MANFRED BIETAK and the co-director HEINZ SATZINGER (restorer) the following participants were listed<sup>6</sup>:

HORST ADLER (archaeologist), MARGARETHE BIETAK (draughtswoman), WALTRAUD BRIGASKY (architect), JOHANN DANMAYR (architect), JOSEF DORNER (geodesist), REINHOLD ENGELMAYER (physical anthropologist), 'ALI 'ABD EL-HAKIM GAMAL EL-DIN (inspector of antiquities service), KATALIN HEGEDÜS (archaeologist), LOTHAR JANIG (architect), JOHANN JUNGWIRTH (physical anthropologist), ERWIN KAZDA (architect), HEINZ KÖNIG (geodesist), ELISABETH KRAUS (physical anthropologist, assistant), ERICH LIEHR (architect), PETER NOVEY (architect), MOHAMMED 'ABD EL-HAK RAGAB (inspector of antiquities service), KONSTANTIN RAKATSANIS (archaeologist), ELFRIEDE REISER-HASLAUER (egyptologist), 'ABD EL-HALIM RISQ (inspector of antiquities service), WALTER STRASIL (draughtsman), HELMUT SWOZILÉK (archaeologist), HERIBERT WITTE (architect).

#### THE RECORDS AND PREVIOUS WORK

The participants of the excavations listed above all took part in the recording of the excavations. The records produced and available in the archive include plan drawings, section drawings, find slips for all finds with a sketch of the location,<sup>7</sup> registration and description of the finds, find drawings and field and object photographs. In the very early years the digging diary was exclusively written by the field director M. BIETAK. From the mid-1970s onwards occasionally other team members also wrote in the diaries.

The analytical work on the stratigraphy and division into phases of the site by means of the sections had been achieved by MANFRED BIETAK over the years and especially during the preparation of the publication of the

area covered by the monograph *Tell el-Dab<sup>a</sup> V*, which appeared in print in 1991. The huge second volume with the inked and analysed sections, discussions (analysis of features and depositions) and field photographs as indicated by the references in *Tell el-Dab<sup>a</sup> V*, is in an advanced planning stage and was extensively consulted by the present author. Due to the generosity of the excavator M. BIETAK, it was possible to include a few of those in this volume. The sections had already been inked by DI HELGA SINGER (†) when the present author was entrusted to evaluate and publish the earlier settlement layers of the tell area A/II with the relevant archaeological material in its entirety. For many of the sections, especially the western part of the site covered by *Tell el-Dab<sup>a</sup> V*, the section analysis and discussions with the final numbering exist in the form of 'old fashioned' tracing paper 'sections' usually two squares together of at least one metre length. They were ultimately worked out and identified by M. BIETAK. For the bulk of the sections towards the east covered by the second fascicle the final numbering has not been done. For these, we have the original field numbering 1–nn per section, whilst in the western area two sections at the time are numbered consecutively.<sup>8</sup> The early phases were usually only distinguished as Phases H and G without the more intricate divisions that were only possible at a later stage.

Those were distinguished and explained by the author during the analysis of the late Middle Kingdom settlement layers.<sup>9</sup> The wall numbers [M1] – [Mx] have been added to the section discussions so that the walls can be identified once the section volume will appear.

In the course of preparing the publication of *Tell el-Dab<sup>a</sup> V*, M. BIETAK set up a numbering system for the sections that were planned for separate publication in tandem with *Tell el-Dab<sup>a</sup> V*. These section numbers have the pre-fix A (= for areas A/I and A/II—the tell) and a number.<sup>10</sup> For the current publication a schematic plan with the relevant numbers had been made,

<sup>6</sup> M. BIETAK, Vorkläufiger Bericht über die dritte Kampagne der österreichischen Ausgrabungen auf Tell ed-Dab<sup>a</sup> im Ostdelta Ägyptens (1968), *MDAIK* 26 (1970), 15; M. BIETAK, TD II, 21–22, for more details.

<sup>7</sup> These find slips are the back bone of the excavation because only they contain the location of the find in three dimensions and the find sketch and so it was possible to reconstruct the original contexts. Two copies exist of each find slip (the copy produced with carbon paper). Whilst one copy stays with the find, the other is kept in a folder containing all the finds of each square. In the end all finds are collected by square in their three dimensional positions.

<sup>8</sup> E.g. A/II-k11-A/II-k12 northern section. They were grouped in twos.

<sup>9</sup> The lack of finds in decisive parts of the settlement layers and a lack of recorded base levels of several walls in the lowest elevations due to various reasons such as the water table, a need to leave the site during an armed conflict in 1969 or the decision to leave some archaeological features standing made this distinction often very tentative.

<sup>10</sup> The second volume with the sections for Tell el-Dab<sup>a</sup> V was projected under the title „Stratigraphie und Chronologie, Textband, Profilatlas I, Profilatlas II“; M. BIETAK, TD V, 9.

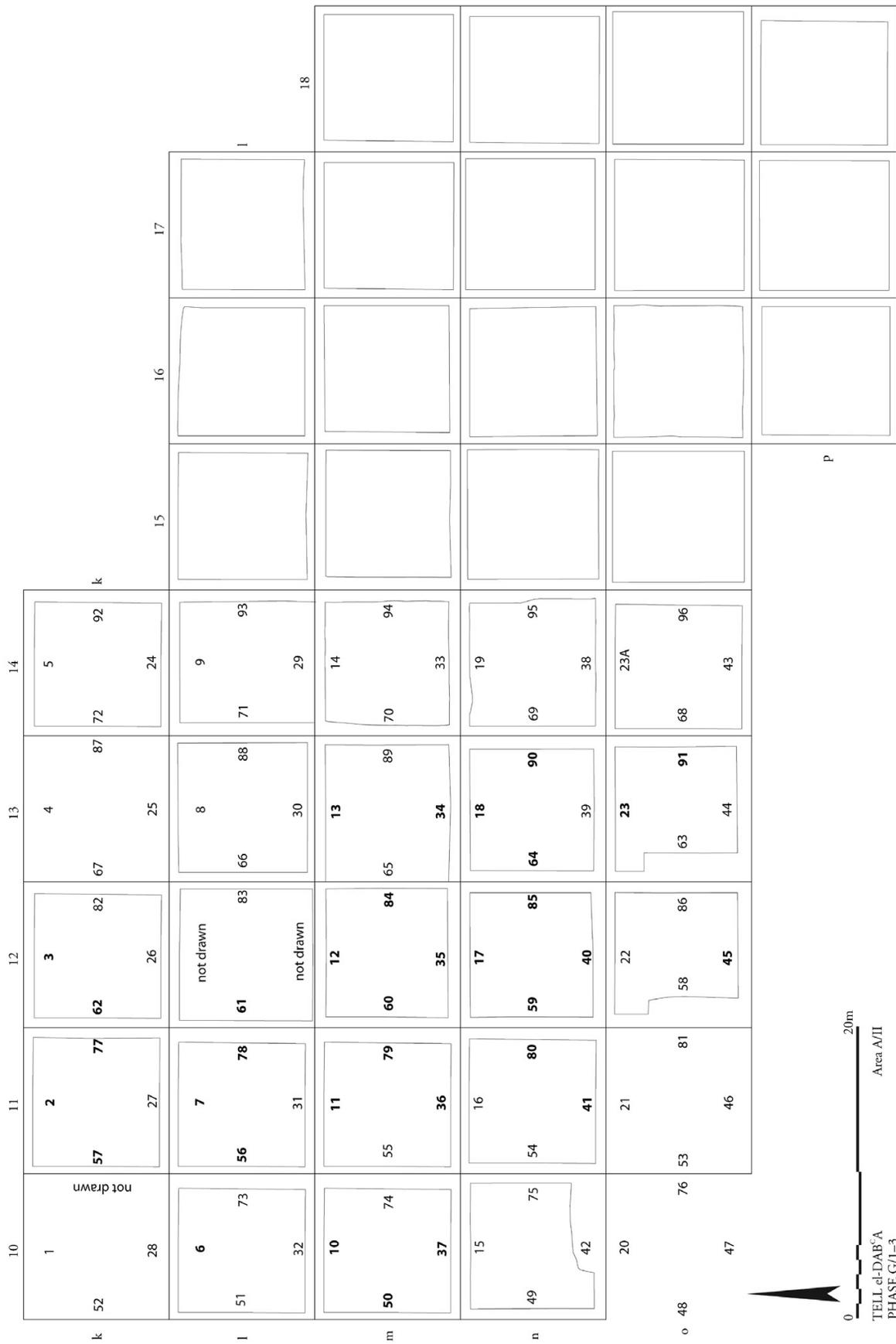


Fig. 1.3 Schematic plan of numbering sections in Area A/II, western half

but it must be borne in mind that the numbering only includes the squares excavated until 1985<sup>11</sup> (see Fig. 1.3). The sections further east have been numbered in continuation from those in the western part. The figures in bold print are sections that are mentioned in various discussions in the text of the publication *Tell el-Dab<sup>a</sup> V*. Please also note that some sections were numbered with the plan to excavate, which for whatever reason then did not happen (e.g. A/II-o/11).

Thus, a huge work load had already been achieved by M. BIETAK and H. SINGER (†) in systematically sorting out the levels and phases of the excavation in all the squares, not just of the part that was published as *Tell el-Dab<sup>a</sup> V* and in inking them. A new auto-cad plan was drawn by N. MATH in the course of the project 15554 of the Austrian National Bank (OENB) *Canaanite Cults and Religion in the Eastern Nile Delta – An Archaeological Approach* led by M. BIETAK, during which the archaeological features of Area A/II were digitised throughout the stratification. This work took place in close co-operation with M. BIETAK, who discussed and clarified some of the structures of the older levels. These were included in the project to create a layered overall site plan for the whole area of A/II.

Although the walls of Phases H, G/4, and G/3–1 have been comprehensively discussed in connection with the sections in this book, in order to show their relation to each other and the later features it has proven impossible to include these sections in this work. The sections will be published as separate volumes, as initially planned, at a later stage by M. BIETAK. Nevertheless the present author did not want to omit these discussions, which are vital to understand the phasing of the early walls, or even only if there were any walls at all before or after. It is clear that these discussions will become only really useful once these other volumes have appeared in print. Each single archaeological feature such as walls, pits, depositions and accumulations of ashes, loam, sand etc., was given a separate number within these sections and described in detail in an attached list, the so-called “Profilbeschreibung”. In the discussions in the book these numbers – set in circles in the section drawing – are called *section numbers* listing the number of the section (A1–A96) and the feature or deposition number attached with a hyphen

(cf. Fig. 3.40). Often they can be conceived as archaeological features, but not always in a strict sense.

Some explanations as to the way of how the plans were executed are in order. The bricks of buildings which were thought to have roofs on them were coloured black in the published plans.<sup>12</sup> All other brick structures that were not thought to have roofs are drawn in outline.<sup>13</sup>

#### THE ARCHAEOLOGICAL PHASES COVERED AND CHRONOLOGICAL TERMINOLOGY

The archaeological phases covered in this volume comprise Phases H, G/4, G/3–1 and in a few instances F, because no other volume would have covered these later finds otherwise (Fig. 1.4).<sup>14</sup> In dynastic terms the phases up to and including G/1 are approximately equivalent to the late 12<sup>th</sup> Dynasty and the early to first third of the 13<sup>th</sup> Dynasty. The phases after G/3–1 are assigned to the early Second Intermediate Period up to Phase E/2, during which the material culture and artefact types, most notably the pottery, change to form a mixed culture combined from Egyptian and Syro-Palestinian traditions.<sup>15</sup> For this period often colloquially and incorrectly named ‘Hyksos’ period, the term Late Second Intermediate Period will be used here. This is done with the thought in mind to avoid as best as possible any confusion that usually occurs if dynastic terminology is used, when it is unclear to say the least which parts of Egypt were actually under the rule of one single Dynasty. A detailed comparative study between the ceramic material of the settlements of Tell el-Dab<sup>a</sup> and Kom Rabi<sup>a</sup> has demonstrated that such a comparison is not easy to achieve and not without uncertainties even if the sites are not very far distant from each other.<sup>16</sup>

#### ARCHIVAL MATERIAL

The enormous amount of archival material for this excavation is currently kept by Institute for Oriental and European Archaeology (Austrian Academy of Sciences) and the Austrian Archaeological Institute, Cairo and Vienna (Austrian Academy of Sciences), where the author had every opportunity to consult and use them

<sup>11</sup> According to the documentation of the excavation the eastern most row of squares excavated was the row A/II-k–o/14.

<sup>12</sup> M. BIETAK, TD V, see the plans.

<sup>13</sup> M. BIETAK, personal communication.

<sup>14</sup> These phases are marked in grey in the chronological chart.

<sup>15</sup> Cf. B. BADER, Cultural Mixing in Egyptian Archaeology: The ‘Hyksos’ as a Case Study, *The Archaeological Review from Cambridge* 28/1 (2013), 257–286.

<sup>16</sup> B. BADER, TD XIX, passim.

Middle Bronze Age Phases	BC	EGYPT RELATIVE CHRONOLOGY	TELL EL - DAB <sup>CA</sup>			
			NEW CENTRE MB- Population	EASTERN TOWN	NORTH-EASTERN TOWN	GENERAL PHASES
			F / I	A / I-IV	A / V	
	1410	Dyn.				
LB I	1440	A II	HIATUS			C / 2
	1470	XVIII H T III				
	1500	T II I T I				
	1530	A I				
MB II C (MB III)	1560	AHMOSE	Denuded	D / 2	D / 2	D / 2
	1590	XV HYKSOS	a / 2	D / 3	D / 3	D / 3
MB II B (MB II)	1620	↑	b / 1	E / 1	E / 1	E / 1
	1650			E / 2	E / 2	E / 2
MB II A-B (MB I/II)	1680	KING-DOM of AVARIS ----- NEHESI	b / 2	E / 3		E / 3
	1710		b / 3	F		F
MB II A (MB I)	1740	XIII	c HIATUS	G / 1-3		G
	1770		d / 1	G / 4		G / 4
	1800	So   A IV	d / 2 $\frac{d / 2a}{d / 2b}$	H		H
	1830	A III				
?	1860	XII S II S III	HIATUS			I K & L
	1890		A II			
MB I (EB IV)	1920	S I	e / 1			M
	1950		A I	e / 2-3		N N / 2-3
	1980					
	2000	XI				
	2050	X	EXPANSION OF SETTLEMENT →			

Fig. 1.4 Relative chronological chart showing which phases are treated in this report, after © M. BIETAK, 2011

for this publication. The language of the archival material is, naturally, German, but the author has made every effort to usefully translate the records into English to obtain a larger readership. Nevertheless, reproductions of the original German expressions are sometimes necessary, in order to understand the system of recording and the interrelationships within the archival material. Therefore, it was sometimes inevitable to use the original words, but never without explanation.

#### EMENDATIONS OF AND ADDITIONS TO THE RECORDS BY THE AUTHOR

In some cases the archival material only used abbreviations, which needed to be transcribed for clarity for the reader. Parts of words added to the original were set into “[ ]”. In cases where a translation was necessary the letter was changed: e.g. German T[iefe] was changed to English D[epth] in instances where the absolute elevation was measured from a relative point like the top of a wall. In some instances obvious errors did happen, like a miscounting of the number of the pl[anum] or spit, or a complete omission. Usually such omissions are not disastrous because the remainder of the description is clear and unequivocal enough or it was mentioned on a photograph. In a few rare cases a more thorough explanation is given and in a few rare occasions the related material had to be omitted due to its doubtful provenience.

#### NOMENCLATURE AND MEASUREMENTS

The relative strata/phases were assigned from top to bottom independently according to the recognisable stratigraphy for each square (a–modern–nn). In the western part of the tell more relative strata were iden-

tified because the tell was still preserved there to a higher elevation altogether.

The measurement of length in this report is given in metres and also in Egyptian royal cubits. Some experimentation in calculations with various cubit lengths was undertaken by the author,<sup>17</sup> but the brick sizes, wall thicknesses, dimensions of rooms etc. are very often extremely congruent with the Egyptian cubit, and more particularly with the royal cubit of 52.5 cm (equals 7 palms).<sup>18</sup> The most frequent brick length varies a little from 34.0 to 36.0 cm and the width from 17.0 to 18.5 cm. These measurements relate very well to the Egyptian Royal cubit as 17.5 cm represents exactly a third of a royal cubit (i.e. 2 1/3 palms) while 35.0 cm equals 4 and 2/3 palms or two thirds of a royal cubit.<sup>19</sup> It is true, though, that the lengths measured in the settlement also work out to a certain extent using the short cubit of only 6 palms which results in an overall lengths of 45.0 cm, but the brick sizes in general fit the royal cubit better. Although the number of 7 palms of the royal cubit is not divisible by a natural number, using a cord would make a division of such a length easy. Moreover, the use of 1/3, 1/2 and 2/3 of royal cubits are attested from the Middle Kingdom onwards<sup>20</sup> and the division with 1/3, 1/2 and 2/3 comes to better results in the royal cubit than in the short one. But the fact that the measurements of the royal and short cubit seem to fit the dimensions of the house ground plans is still no proof that they were actually used.<sup>21</sup>

It is obvious that the mud-brick walls are often badly preserved and in the muddy environment do not always allow for exact measurements in the field. Because plenty of measurements were taken within the settlement at the time of the excavation, it is possible to show that this pattern recurs throughout. Thus, a wall of half a brick's width relates to a third of a royal

<sup>17</sup> M. BIETAK used 0.523 m in his plans, presumably because the ceremonial cubit rods of the New Kingdom are of this length. Cf. F. MONNIER, J.-P. PETIT and CHR. TARDY, The Use of the ‘Ceremonial’ Cubit Rod as a Measuring Tool. An Explanation, *The Journal of Ancient Egyptian Architecture* 1 (2016), 1–9. In contrast DI. ARNOLD, *The Pyramid Complex of Senwosret I*, The South Cemeteries of Lisht III, with contributions by DOROTHEA ARNOLD and FELIX ARNOLD, PMMA 25, New York 1992, 9, uses 0.525 m as measurement for one cubit, without giving any reason for his choice. Already investigated by C.R. LEPSIUS, *Die alt-ägyptische Elle und ihre Eintheilung*, Berlin 1865 by means of cubit rods.

<sup>18</sup> See Appendix – dimensions of rooms. It is clear though, that in mud brick architecture the exact length of any distance is often

hard to measure due to the crumbliness of the material. Therefore it is not possible to prove whether the royal cubit in the late Middle Kingdom was 0.523 m or 0.525 m. But 0.525 m seemed to fit slightly better on longer distances.

<sup>19</sup> 1 cubit equals 7 palms. Taking as measurement 0.525 m this would relate to 17.5 cm (1/3 of cubit) and 35.0 cm (2/3 of cubit). Using 0.523 m as measurement provides very similar measurements for the wall thickness 17.45 cm and 34.8 cm. This difference will, in fact, not be of any consequence. For the short cubit 1/3 amounts to 15 cm, 2/3 to 30 cm and 1/2 to 22.5 cm.

<sup>20</sup> C. ROSSI, *Architecture and Mathematics in Ancient Egypt*, Cambridge 2004, 58–60, 117, 154–155.

<sup>21</sup> For general caution see C. Rossi, *passim*.

cubit, one brick's width to two thirds of a royal cubit and one and a half brick's width to one royal cubit<sup>22</sup> and so on. One and a half brick's width wide walls occur most frequently in the settlement of Phase H, G/4 and G/3–1 at Tell el-Dab<sup>a</sup>. Thus, it seems to be certain that the underlying measuring system is deeply rooted in Egyptian traditions at least at the time of the building and development of the late Middle Kingdom settlement until the end of Phase G/3–1. And it seems to stay that way for some time after until the brick format and the composition of the raw material change.<sup>23</sup> It is interesting to note that at the settlement at Kom Rabi<sup>a</sup>/Memphis similar brick sizes seem to have been used.<sup>24</sup> Although nowhere explicitly described, the information coming forward from the width of walls and the odd measurement seems quite similar to those at Tell el-Dab<sup>a</sup>, although deviations occur. There is too little published information to be certain whether two different brick sizes were used in that settlement.<sup>25</sup> For Memphis level VIII only one measurement of a brick is known: 0.34 × 0.15 m.<sup>26</sup> In the other levels a frequently recurring width of walls, presumably of one and a half brick's width ranges around 0.54 to 0.56 m, while others in a range of 0.50 to 0.58 also appear.<sup>27</sup> Even in the later levels 0.18 m for widths of bricks are reported<sup>28</sup> as well as lengths of ca 0.36–0.38 m.<sup>29</sup> Even more interesting is the fact that sand tempered bricks were used there<sup>30</sup> just like at the late Middle Kingdom settlement at Tell el-Dab<sup>a</sup>.

A distinctive difference in mud-brick sizes as observed by Czerny<sup>31</sup> and Millet<sup>32</sup> in the earlier Middle Kingdom could not be verified in Phases H, G/4 and

G/3–1. Considering that larger bricks seem to signify the first building stage at Lahun, which was initiated by the central administration in the late Middle Kingdom,<sup>33</sup> the fact that there is only an average “small” size in Area A/II at Tell el-Dab<sup>a</sup> in this period, may hint at the more ‘private’ nature of this particular part of the settlement.

A few expressions used throughout the text of the volumes have to be explained. ‘Navel pit’ refers to oval pits usually dug from the modern surface which were created by workers of the first explorer of the site, ÉDOUARD NAVILLE in order to find structures.<sup>34</sup> Usually they are just long enough for one person to stand inside the pit and use a digging tool to excavate the hole.

The animal bones are referred to by the Latin names in singular no matter how many bones were found in each category. This was done to keep the nomenclature as simple as possible. Due to the kindness of A. VON DEN DRIESCH (†) it was possible to include the original records (from 1975 onwards) of JOACHIM BOESSNECK'S (†) and her own work with the find slips, which are vital to piece the find contexts together after the excavation.<sup>35</sup> Although their records and analyses have been published in bulk in the *Tell el-Dab<sup>a</sup>* series volumes III and VII, it is incredibly interesting to reconstruct the archaeological settlement contexts as completely as possible, which in this case was made possible only by her permission.<sup>36</sup> In this way any differences and clustering between various contexts can be recognised. It is clear that the author is certainly no specialist in archaeo-zoology, but the full publication

<sup>22</sup> There seems to be no relation to the smaller units such as *mh šrj*, *rmn* or *ḏsr*.

<sup>23</sup> M. BIETAK, TD V, 167.

<sup>24</sup> L.L. GIDDY, *Kom Rabi<sup>a</sup>: The Late Middle Kingdom Settlement (Levels VI–VIII)*, The Survey of Memphis VI, Egypt Exploration Society, Excavation Memoir 94, London 2012.

<sup>25</sup> There are several instances of brick lengths between 0.60 m and 0.66 m, which may hint at such a use. Cf. L.L. GIDDY, *Kom Rabi<sup>a</sup> VI*, chapter 2, 119–158, in Levels VIII, VIc, VIb and VIa.

<sup>26</sup> L.L. GIDDY, *Kom Rabi<sup>a</sup> VI*, 41.

<sup>27</sup> L.L. GIDDY, *Kom Rabi<sup>a</sup> VI*, wall 847 in Level VIa, chapter 2, 121.

<sup>28</sup> L.L. GIDDY, *Kom Rabi<sup>a</sup> VI*, 123, in Level VIb, wall 887.

<sup>29</sup> L.L. GIDDY, *Kom Rabi<sup>a</sup> VI*, 121, Level VIb, wall 842. See in general chapter 2, 119–158 in levels VIII, VIb and VIa.

<sup>30</sup> L.L. GIDDY, *Kom Rabi<sup>a</sup> VI*, throughout in Levels VIII, VIIa, VIe, VIc, VIb and VIa, cf. chapter 2, 119–158. Beside sand tempered bricks also regular mud-bricks were used. These Levels represent the period from the late Middle Kingdom to the end of the Second Intermediate Period.

<sup>31</sup> E. CZERNY, TD XXII, 174.

<sup>32</sup> M. MILLET, *Architecture civile antérieure au Nouvel Empire: Rapport préliminaire des fouilles archéologiques à l'est du lac Sacré, 2001–2003*, *Cahiers de Karnak* 12 (2007), 686.

<sup>33</sup> See F. ARNOLD, *Baukonstruktion in der Stadt Kahun: Zu den Aufzeichnungen Ludwig Bocharchts*, in: P. JÁNOSI (ed.), *Structure and Significance. Thoughts on Ancient Egyptian Architecture*, Vienna 2005, 83, with additional bibliography.

<sup>34</sup> É. NAVILLE and F.L. GRIFFITH, *The Mound of the Jew and the City of Onias: Belbeis, Samanood, Abusir, Tuh el Karmus. 1887 / The Antiquities of Tell el Yahūdiyeh, and Miscellaneous Work in Lower Egypt during the Years 1887–1888*, Memoir of the Egypt Exploration Fund 7, London 1890, 56–57.

<sup>35</sup> On a visit to Munich in 2009, where these records are kept in the Institut für Paläozoologie, Prof. VON DEN DRIESCH very kindly allowed me to take digital photographs of the records.

<sup>36</sup> The author regrets very much that Prof. VON DEN DRIESCH did not see the result of her kindness.

of the description of the finds by specialists will give specialists the opportunity to conduct their own studies with this material in the context of a settlement. For this reason this study is the only report of a settlement of the late Middle Kingdom with all find groups combined.

#### WHAT HAS NOT BEEN FOUND AT TELL EL-DAB<sup>a</sup>

The above statement is only almost valid, because in the early years of the excavation the soil was not dried before sieving nor floated. Therefore, for the late Middle Kingdom settlement no evidence for the administration in the form of mud sealings, which almost certainly existed, can be added to the contexts. This is nobody's fault as it was *communis opinio* at that time that unbaked sealings and seal impressions would simply not be preserved in the wet environmental circumstances of the Delta and in similar conditions. Only around the year 2000 trials with drying the earth and sieving it yielded stunning results.<sup>37</sup> Similar observations can be made about archaeo-botanic remains, which were only conducted in the later years of the excavations (from the early 1980s, see fascicle 2 for the available information<sup>38</sup>). The other object groups missing from the archaeological contexts are the organic ones, such as papyrus, textiles, leather and wood, which sometimes could be seen as a discolouration of the ground. This is of course due to the wet surrounding of the environment and thus, stands in stark contrast to places like Lahun,<sup>39</sup> where all these finds appeared, but their exact locations and the composition of the assemblages are largely unknown.<sup>40</sup> It is also noteworthy that in contrast to Lahun almost no metal finds were reported from the settlement of the late Middle Kingdom at Tell el-Dab<sup>a</sup>.<sup>41</sup> The reasons for this absence may lie in a different distribu-

tion system or constant re-use of the material that has become unusable. Note that some metal working may well have taken part at that site (cf. chapter 2, 3) or the nearby area F/I.<sup>42</sup>

#### MEASUREMENTS IN THE ARCHAEOLOGICAL PHOTOGRAPHS

In order to better understand the sizes and distances shown in the archival field photographs a schematic explanation for the measurement rods is given in Fig. 1.5.

#### POTTERY RECORDING

As a rule the rim diameter given in the description of the pottery represents the actual aperture unless both measurements (interior and exterior) are given. All measurements are in centimetres. The division of 'A- and B-inventory' and tertiary finds outlined by M. BIETAK<sup>43</sup> is kept in as far as the detailed description used for the 'A- and B-inventory' is only applied for the more complete find categories, which were registered in the registry system of the site. The system of abbreviations describing the technological features of the ceramic finds introduced by M. BIETAK was kept.<sup>44</sup> No attempt has been made to translate these assignments into English for reasons of clarity and consistency with the system in use at the site. The pottery fabrics follow the Vienna System<sup>45</sup> with the equations given in the system of the pottery recording system.<sup>46</sup> Sherds from konvolutes or 'sherd collections' are described more cursorily in tables with the use of those codes, derived from the comparative work with Kom Rabi<sup>a</sup>.<sup>47</sup> The measurement of quantity is again expressed in *Estimated Vessel Equivalents* of the preserved portions of the rim sherds. This quantitative data is abbreviated as rim *Eves*. The advantages and disadvantages of using

<sup>37</sup> See the publications on sealings from Tell el-Dab<sup>a</sup> since then, e.g. N. SARTORI, Die Siegel aus Areal F/II in Tell el-Dab<sup>a</sup>: Erster Vorbericht, *Ä&L* 19 (2009), 281–292; C. REALL, The Seal Impressions from 'Ezbet Rushdi, Area R/III of Tell el-Dab<sup>a</sup>, *Ä&L* 22–23 (2012–2013), 67–73.

<sup>38</sup> These studies were undertaken by URSULA THANHEISER and I would like to thank her for her collaboration in this project.

<sup>39</sup> W.M.F. PETRIE, *Kahun, Gurob and Hawara*, London 1890; W.M.F. PETRIE, *Illahun, Kahun, Gurob*, London 1891.

<sup>40</sup> C. GALLORINI, A Reconstruction of Petrie's Excavation at the Middle Kingdom Settlement of Kahun, in: S. QUIRKE (ed.), *Lahun Studies*, Sia Publishing 1998, 42–59.

<sup>41</sup> In the second fascicle there will be a few mentioned.

<sup>42</sup> M. MÜLLER, *Das Stadtviertel F/I in Tell el-Dab<sup>a</sup>/Auaris Multikulturelles Leben in einer Stadt des späten Mittleren Reichs und der Zweiten Zwischenzeit*, PhD Dissertation, University of Vienna, Vienna 2012.

<sup>43</sup> M. BIETAK, TD V, 318–319.

<sup>44</sup> M. BIETAK, TD V, 317–333.

<sup>45</sup> H.Å. NORDSTRÖM and J.B. BOURRIAU, Ceramic Technology: Clays and Fabrics, in: DO. ARNOLD and J. BOURRIAU (eds), *An Introduction to Ancient Egyptian Pottery*, SDAIK 17, Mainz am Rhein 1993, 149–190.

<sup>46</sup> Nile B1 = I-b-1; Nile B2 = I-b-2; rough Nile B2 = I-c-1; Nile C = I-c-2; Nile D = I-d; Nile E = I-e-1 (with some vegetal matter) and I-e-2. For the Marl clays see B. BADER, TD XIX, 602.

<sup>47</sup> B. BADER, TD XIX, Appendix 1.

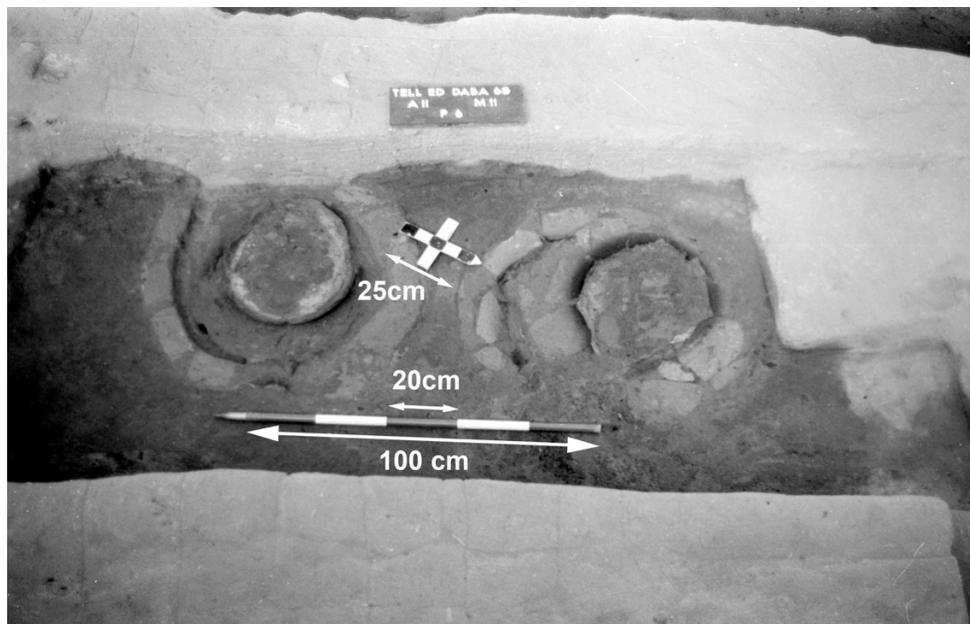


Fig. 1.5 The metre sticks and measuring devices used

this measurement, its quality and properties have been described extensively before.<sup>48</sup>

#### RE-RECORDING OF MATERIAL

Wherever possible the author undertook to re-record the finds, which are located in the Egyptian National Museum Cairo, the site magazine at Tell el-Dab<sup>a</sup> and the Kunsthistorisches Museum in Vienna. Whilst it was possible to re-record and redraw most of the finds in Vienna<sup>49</sup> and in the site magazine at Tell el-Dab<sup>a</sup> the author had so far no access to the material kept in Cairo. Altogether almost 5500 ceramic vessels and diagnostic sherds were drawn by the author as well as about 100 objects.

#### THE INITIAL TOPOGRAPHY

Some remarks on the initial topography of the tell area A/II are also in order. Due to the nature of the swampy delta over time *gezirahs* or turtle backs de-

veloped caused by activities of wind and the Nile, which provided raised areas on which to build even during the flooded period in summer. In a few squares of the tell the excavation went down far enough to ascertain the top of the elevation of the *gezirah* (e.g. A/II-k/12 below 3.90 m/NN; A/II-m/12 at 4.10 m/NN the *gezirah* sand appeared; A/II-n/12 at 4.10 m/NN; A/II-n/11 at 4.20 m/NN in the western section but below 4.00 m/NN in the southern section). Nevertheless, the topographical relief of that *gezirah* surface remains largely unknown, so that differences in the elevation of base levels of buildings do not necessarily mean that the higher ones must be later than the lower ones.

During the settlement history of the tell this situation gradually ‘worsened’, because in addition to the – presumed – natural unevenness the mud-brick rubble and refuse of the settlement cycle of building – maintaining – falling into disuse and dismantling added to the formation of the hill-like nature of the tell.<sup>50</sup> In addition, settlement activities producing deposits of

<sup>48</sup> B. BADER, TD XIX, 62–63; B. BADER, Quantification as a Means of Functional Analysis: Settlement Pottery of the Late Middle Kingdom at Tell el-Dab<sup>a</sup>, in: B. BADER, C.M. KNOBLAUCH and E.C. KÖHLER (eds), *Vienna 2 – Ancient Egyptian Ceramics in the 21<sup>st</sup> Century*, *Orientalia Lovaniensia Analecta* 245, Leuven – Paris – Bristol, CT, 2016, 47–67; B. BADER, Processing and Analysis of Ceramic Finds at the Egyptian Site of Tell el-Dab<sup>a</sup>, in: B. HOREJS, R. JUNG and P. PAVÚK (eds), *Analysing Pottery. Processing – Classification – Publication*, *Studia Archaeologica et Mediaevalia IX*, Bratislava 2010, 209–233; B. BADER, G.K. KUNST and U. THANHEISER, Knochen, Körner und Keramik, *Ä&L* 18 (2008), 15–48.

<sup>49</sup> Here the director of the Egyptian collection REGINA HÖLZL and curator MICHAELA HÜTTNER need to be mentioned because they enabled in a very forthcoming manner the re-recording work in 2013 almost in the middle of the moving of the collection to an external depot. I would like to say a heartfelt Thank you!

<sup>50</sup> See M. BIETAK, Stratigraphische Probleme bei Tellgrabungen im Vorderen Orient, in: H. MITSCHA-MÄRHEIM, H. FRIESINGER and H. KERCHLER (eds), *Festschrift für Richard Pittioni zum siebzigsten Geburtstag*, Wien 1976, 471–493.

ash, sand and organic materials also have the same effect. Estimating growth rates for such sedimentation has proved difficult to carry out. Further, relating this growth to the passage of time has proved to be impossible.<sup>51</sup>

#### GENERAL REMARKS: THE INHABITANTS OF THE SETTLEMENT OF THE LATE MIDDLE KINGDOM

At the beginning of the report I would like to point out that the discoveries at Tell el-Dab<sup>a</sup>/Avaris are all too frequently taken as a monumental block of evidence for the immigration of “people with Syro-Palestinian cultural background” in all areas and all phases of the site.<sup>52</sup> Research in the last decades has shown that the first settlement in the early 12<sup>th</sup> Dynasty was purely Egyptian and that the “infiltration” or “immigration” was a gradual process that left specific traces in the archaeological record. Moreover, it seems extremely unlikely that the settlement was completely devoid of Egyptians, when the installations of daily life do not particularly evoke an impression of Syro-Palestinian cultural behaviour. It has to be admitted that such items may not differ too much between geographical areas. The usual and common bone grinding tasks of producing subsistence by means of agriculture and food processing might lead to similar artefacts used in daily life, e.g. querns.<sup>53</sup> However, the connection of material culture with ethnic

identity is a very complicated one with no simple answer and it seems to be a very equivocal indicator for far reaching historical conclusions.<sup>54</sup> Moreover, ethnic identity is only one component of group identity.<sup>55</sup> More discussion will follow.<sup>56</sup>

It is absolutely necessary to distinguish between the single phases and acknowledge the developments from one to the next. It is also vital to analyse the areas separately because the research in the contemporary settlement areas of A/II and F/I in Phase G/3–1 (= c) has clearly shown that at least those two are quite different from each other and seem to cover distinct needs and functions.<sup>57</sup> Therefore it seems wise not to rule out such differences in other parts and phases of the site beforehand.

Finally, some remarks should be made concerning the status of the people living in the three consecutive phases in this settlement. Whilst it is difficult to reach a personal level in Phases H and G/4 due to a lack of burials (only two infant burials without any burial gifts without container or coffin, one of which is in the area east, fascicle 2), the archaeological record provides more information in Phase G/3–1. For the two older phases the information on house sizes and the like is very sketchy, which is why not much can be said about any patterns of status based on such information. The small number of eight burials of Phase G/3–1 offers

<sup>51</sup> Cf. L.L. GIDDY, *Kom Rabi'a VI*, 59, 77, 199–200.

<sup>52</sup> E.g. W.G. DEVER, Relations between Syria-Palestine and Egypt in the ‘Hyksos’ Period, in: J. TUBB (ed.), *Palestine in the Bronze and Iron Ages*, Studies for Olga Tufnell, London 1985, Institute of Archaeology Occasional Publications no 11, 69–87. Also the extremely shortened descriptions of the archaeological nature of Avaris in works of overviews may be too simplified and not do justice to this multi-period site with a long and interesting development. It is this development of the material culture which allows inferences about changes in the social relations of the inhabitants to each other and the outside.

<sup>53</sup> The querns at Tell el-Hayyat in Jordan look very similar to those found at Tell el-Dab<sup>a</sup>. Cf. S.E. FALCONER and P.L. FALL, *Bronze Age Rural Ecology and Village Life at Tell el-Hayyat*, Jordan, BAR IS 1586, Oxford 2006, 121, fig. 7.15–16.

<sup>54</sup> Cf. for the time being B. BADER, Cultural Mixing in Egyptian Archaeology, 257–286.

<sup>55</sup> F. DAIM, Archaeology, Ethnicity and the Structures of Identification: The Example of the Avars, Carantanians and Moravians in the Eight Century, in: W. POHL and H. REIMITZ (eds), *Strategies of Distinction: The Construction of Ethnic Communities, 300–800*, Leiden 1998, 71–93; N. MACSWEENEY, Beyond Ethnicity: The Overlooked Diversity of Group Identities, *Journal of Mediterranean Archaeology*, 22/1 (2009), 101–126.

<sup>56</sup> B. BADER, Material Culture and Identities – Complexities of Identity Research in Archaeology as seen in a late Middle Kingdom Settlement in Ancient Egypt. A Case Study, Habilitation Thesis, Vienna 2019, chapter 1 and 6; Cf. for now B. BADER, Cultural Mixing in Egyptian Archaeology, 257–286; B. BADER, Zwischen Text, Bild und Archäologie – Eine Problemdarstellung zur Konzeptualisierung von Kulturkontakten, in: S. BECK, B. BACKES and A. VERBOVSEK (eds), *Interkulturalität: Kontakt – Konflikt – Konzeptualisierung*, Beiträge des Sechsten Berliner Arbeitskreises Junge Ägyptologie (BAJA 6) 13.11.–15.11.2015, GOF 63, Wiesbaden 2017, 13–34. For a very different position but mostly concerning phases after the late Middle Kingdom at the site, see M. BIETAK, The Egyptian Community at Avaris during the Hyksos Period, *Ä&L* 26 (2016), 263–274.

<sup>57</sup> Cf. B. BADER, Contacts between Egypt and Syria-Palestine as seen in a Grown Settlement of the late Middle Kingdom at Tell el-Dab<sup>a</sup>/Egypt, in: J. MYNÁŘOVÁ (ed.), *Egypt and the Near East – The Crossroads*, Proceedings of the International Workshop on the Relations between Egypt and the Near East in the Bronze Age September 1–3, 2010, Charles University in Prague, Czech Institute of Egyptology, Faculty of Arts, Prague 2011, 41–72; M. MÜLLER, Late Middle Kingdom Society in a Neighborhood of Tell el-Dab<sup>a</sup>/Avaris, in: M. MÜLLER (ed.), *Household Studies in Complex Societies*, Papers from the Oriental Institute Seminar 10, Chicago 2015, 339–370.

a small glimpse on the people who presumably lived there.<sup>58</sup> Most of the deceased were women and children, only one male burial with Syro-Palestinian weapons was found in this area. The burials are marked by modest graves and grave goods, although one had a stone sarcophagus with a stone vessel and a carnelian bead necklace and another quite a rich assemblage of beads of gold, amethyst and Egyptian amulets.<sup>59</sup> Thus, at least some of the people were comfortably well-off judging by their grave goods. The sizes of the houses in Phase G/3–1 provide another hint at their status (see Fig. 1.2). Comparison with the earlier dwellings of the 12<sup>th</sup> Dynasty in Area F/I and Ezbet Rushdi exemplify that the average house size had increased by Stratum G/3–1. This can be interpreted as a token of relative affluence.<sup>60</sup> One may also note that around one relatively large building several smaller ones were grouped.

The agglutinating lay-out of Compound 12 is without parallel in Egypt and the Levant and it is difficult to explain it especially as not many finds were reported. A detailed analysis of the lay-out and the house sizes appeared in print.<sup>61</sup>

Thus, the title of the book terms the people once living in late Middle Kingdom Tell el-Dab<sup>a</sup> as non-élite inhabitants although no precise estimate of their place in the Egyptian social structure can be given on current knowledge. The evidence seems to suggest that they did not belong to the poorest stratum of society, but the lay-out, size of buildings and objects found also do not indicate a rich élite.<sup>62</sup> Of course, the difference of how the social situation was in reality and how the deceased (or his family) wanted to appear to posterity are factors that have to be considered.

<sup>58</sup> B. BADER, *Contacts between Egypt and Syria-Palestine*, passim; I. FORSTNER-MÜLLER, TD XVI, 129–140.

<sup>59</sup> Cf. B. BADER, *On Simple House Architecture at Tell el-Dab<sup>a</sup> and its Parallels in the late Middle Kingdom*, *Ä&L* 28 (2018), 107–142.

<sup>60</sup> M. BIETAK, *Houses, Palaces and Development of Social Structure in Avaris*, in: M. BIETAK, E. CZERNY and I. FORSTNER-MÜLLER (eds), *Cities and Urbanism in Ancient Egypt*, Vienna 2010, 11–68.

<sup>61</sup> B. BADER, *On Simple House Architecture*, passim.

<sup>62</sup> J. RICHARDS, *Society and Death in Ancient Egypt: Mortuary Landscapes of the Middle Kingdom*, Cambridge 2005.

