

PRELIMINARY REPORT OF THE TELL EL-DAB^a WALL PAINTING PROJECT – SEASON 2011/2012¹

By Manfred Bietak, Constance von Rüden, Johannes Becker, Johannes Jungfleisch, Lyvia Morgan and Erico Peintner

Introduction and General Setting

(Manfred Bietak and Constance von Rüden)

Over the last two decades a sizeable palatial precinct of 13 acres, dating to the reign of Hatshepsut/

Thutmose III and Amenhotep II, was excavated in 'Ezbat Helmi near Tell el-Dab^a (Fig. 1). Its size, date and position at a big harbour basin of 450 x 400 m permit us to treat it as a possible royal residence of the site, identified by Manfred Bietak as



Fig. 1 The palatial precinct of 'Ezbat Helmi near Tell el-Dab^a with excavations areas

¹ This project was financed during the last years by the Institute for Aegean Prehistory in Philadelphia, by the Fonds zur Förderung für wissenschaftliche Forschung, by the German Archaeological Institute, by the Deutsche Forschungsgemeinschaft within a project of the Ruhr-University of Bochum and by the Pulitzer Stiftung at the Austrian Academy of Sciences. We would like to thank all mentioned institutions,

in particular Philip Betancourt, Malcolm Wiener and the Members of the Stiftungskommission at the Austrian Academy. We also would like to thank the Austrian Archaeological Institute in whose name the excavations took place under Manfred Bietak and which puts its infrastructure at Tell el-Dab^a under our disposal and for manifold support of the members of its staff.

the naval base Peru-nefer.² Within the enclosure wall we find three palaces of different sizes on high platforms of mud brick, all accessible by ramps. In spite of the fact that only the substructures were preserved, reconstructions of floor plans are possible to a certain extent.³ Of main interest for the wall painting project are ‘Palace F’ and ‘G’. In their vicinity, mainly at the foot and around the landing of the ramps, more than twenty thousand wall painting fragments have been discovered in dumps. They must have flaked off due to the shrinking of the voluminous mud brick walls on alluvial ground, and then carried down the ramps and dumped there.

Up to now a quite impressive series of motifs and topics has been identified: Within the material of the small ‘Palace F’ the bull-leaping scenes,⁴ the small-scale human and animal hunts (see below Lyvia Morgan), small-scale acrobats, small-scale male figures and architecture,⁵ life-size male figures,⁶ large-scale landscapes (see below Johannes Becker), griffins⁷ and lions, a life-size animal fight,⁸ a floor with maze pattern,⁹ a spiral frieze¹⁰ and large-scale cattle in relief (see below von Rügen) have been identified. The material of the larger ‘Palace G’ is as yet only very partially cleaned and restored. But the current work already brought to light big amounts of so-called ‘architectural imitations’ (see below Johannes Jungfleisch), large-scale landscapes (see below Johannes Becker), a life-size female figure, several ‘decoration-schemes’,¹¹ textile patterns, and different topics conducted in relief, as for example at least two male figures and a lion (below von Rügen).

The study of the wall paintings was initiated directly after their discovery at the beginning of the 1990s as a project of the Academy of Sciences in Vienna, supported by the Institute for Aegean Prehistory. As Manfred Bietak, Nanno Marinatos and Clairy Palyvou started their work, the newly exca-

vated material was considered as a sensation within the archaeological community. Conservation, study and reconstruction were then focused on the bull-leaping and bull-grappling scenes, which were published as a volume in 2007.¹² Within the framework of this project, the first technical studies were conducted by Rudolfine Seeber and Ann Brysbaert.¹³ In the late 1990s Katherina Aslanidou and Lyvia Morgan started to work in the project. Katherina Aslanidou was studying the large-scale male figures of H/I, the miniature paintings of H/IV, and different ‘decoration schemes’ of H/III and H/IV as subject of her PhD,¹⁴ while Lyvia Morgan’s work concentrated on the hunt scenes. Together with Nanno Marinatos she analysed the small-scale felines, published in articles in 2010.¹⁵ Her work is currently continuing with the small-scale hunting scenes (see below Lyvia Morgan). Also since the 1990s the so-called ‘ashlar-imitation’ of ‘Palace F’ is being studied by Clairy Palyvou with the support of students of the architectural department of the University of Thessaloniki. Constance von Rügen joined the team in 2007, focusing on the organisation of a comprehensive documentation, which should pave the way to an integrated study of the material, including conservation, contextual analysis, and technical and iconographical studies. The additional financial support of the German Archaeological Institute in 2009 permitted the inclusion of several students in the study as well as further analyses to support the conservational work. A comprehensive study of the huge amount of material is only possible as a team effort, hence the cooperation of the Academy of Sciences in Vienna and the Ruhr-University Bochum which was agreed in 2010. Since 2012 the study is embedded in a project of the Deutsche Forschungsgemeinschaft, which aims to compare different sites with similar characteristics in Western Asia, Egypt and the Aegean.¹⁶

² BIETAK 2009a; 2009b; 2010a; 2010b.

³ BIETAK 2005, 145–156; BIETAK, MARINATOS & PALYVOU 2007, 21–26. fig. 16–22.

⁴ BIETAK, MARINATOS & PALYVOU 2007.

⁵ ASLANIDOU 2006.

⁶ ASLANIDOU 2005.

⁷ BIETAK & PALYVOU 2000.

⁸ BECKER, JUNGFLEISCH & VON RÜGEN in this volume.

⁹ BIETAK, MARINATOS & PALYVOU 2007, 42f.

¹⁰ ASLANIDOU 2002.

¹¹ ASLANIDOU 2007.

¹² BIETAK, MARINATOS & PALYVOU 2007.

¹³ SEEBER 2000; BRYLSBAERT 2002; 2007.

¹⁴ Published in four articles: ASLANIDOU 2002; 2005; 2006; 2007.

¹⁵ MARINATOS 2010; MORGAN 2010a; 2010b.

¹⁶ Title of the project ‘Aegean Designs in Near Eastern Palaces – Knowledge and Materiality in the Eastern Mediterranean of the Second Millennium BC’ under the direction of Constance von Rügen in collaboration with Johannes Becker and Johannes Jungfleisch.

Conservation and Processing of the Wall Paintings

(Johannes Becker, Johannes Jungfleisch, Erico Peitner, Constance von Rden)

Since 2009, a standardized processing of the wall painting fragments has been established. The conservation of the material is the first step of the processing, and is followed by the general archaeological documentation, which provides the base for the more specific studies of single categories.

Naturally, the consolidation of the wall paintings already began in 1990 with the recovery of the fragments during the excavation by Rudolfine Seeb^{er}, who was then the conservator in charge.¹⁷ Because of the large quantity of material, this process required several campaigns. Due to the humidity, the fragments had to be partly stabilised with Paraloid B 72 in the field, and were afterwards transported in a gypsum bed into the fieldlab, where they are currently stored in wooden boxes. Supported by the Institute for Aegean Prehistory, different conservators, beneath Aris Gerontas and Giorgos Ballis, have been working since then continuously on the conservation of the wall paintings.

The principle aim of the present work by Erico Peitner¹⁸ is to consolidate and conserve the material and to permit the archaeological study of the material. Therefore, a consistent concept of conservation with specific procedures and appropriate selection of material was established, to ensure up to date standards. Individual pieces are in very different conditions, and their treatment has to be adapted to their respective state of preservation. As a first step, the recovery measures, as far as they are reversible, have to be removed. Concerning the plaster fragments that were stabilised with Paraloid, only about 20 percent of Paraloid could be extracted using acetone. Distorted fragments are straightened only if this will not result in a loss of original substance. Otherwise, the fragments are to be left in their current state. In general, considerate measures and a minimum of conservation material are used in order to preserve as much original substance as possible.

Subsequent to the conservation, the archaeological documentation is conducted. To facilitate

the work in a team, the work flow has been standardized to allow comparative studies within the corpus of Tell el-Dab^a. Along with the study of single categories with their specific set of archaeological and anthropological problems (see below), therefore, a central aim and responsibility of the project is to catalogue all painted plaster fragments that have been found during the excavation of the palatial complex at ^eEzbet Helmi/Tell el-Dab^a. The ultimate aim in the future is to provide public access to the complete corpus. To reach that goal the material has been rearranged according to their find context between 2007 and 2011. Furthermore a database has been compiled, which merges all relevant information of the single pieces: Beside the find spot, emphasis is placed on descriptions of iconographic and technical characteristics, the attribution of fragments to specific groups or even reconstructions, and to their current storage; storage in particular is an essential administrative effort due to the huge amount of material which is stored today in three big magazines on the site. The macro- and microscopically obtained technical observations will be selectively complemented by different scientific analytical methods. The current work focuses on areas H/I and H/III where the major part of the material has been found. To date, 7500 pieces have been registered and described. Images of the fragments are produced with a scanner, which allows high-resolution pictures on a scale of 1:1 without any distortion. If the size or weight of a fragment does not permit scanning, photographs are taken. These illustrations are also used for a digital enhancement of the colours of relevant fragments, with a vector graphics editor to accentuate details that are less visible. In publications, however, these enhanced illustrations will be juxtaposed with their unaltered versions in order to make the accentuations comprehensible and verifiable (see, for example, Fig. 3).¹⁹ This method makes it also easily possible to illustrate the sequence of the different applications of paint by the ancient craftspeople, tracing the work flow and practice in the second millennium BC (Fig. 2). As a second step, tentative reconstructions are digitally drawn. In comparison to analogue reconstructions with the original fragments, these virtual reconstructions

¹⁷ SEEBER 1994.

¹⁸ In spring 2012 supported by Adamantia Karampournioti.

¹⁹ See for this method: C. Palyvou, *The Computer Reconstruction*, in: BIETAK, MARINATOS & PALYVOU 2000, 84–88.



Fig. 2 Sequence of the applied paint in case of a small-scale acrobat (H/I – F00007)

have not only the advantage that the present state of preservation is not at risk, but also that different suggestions can be opposed to each other, emphasizing the variability of possible reconstructions of the highly fragmented material.

Landscape paintings (Johannes Becker)

A large amount of plaster fragments found during the excavations of the palatial complex at ‘Ezbet Helmi/Tell el-Dab’a show large-size plants and elements of landscape. Until now only a few single pieces have been published²⁰. Therefore, a full study of the representations of landscape in Tell el-Dab’a

is still pending. It goes without saying that the study will give us new information about the whole material found at the site, but additionally it offers the possibility to compare the Tell el-Dab’a material with the contemporary wall paintings found in the Aegean; an important task in regard to the far-spread use of the depiction of landscape and flora in the iconography of this region.²¹ The material will be studied as part of a PhD thesis concerning the depiction of landscape in the eastern Mediterranean in the second millennium BC with a special focus on Egypt and the Aegean. It aims to identify differences and similarities in the way the environment is represented as well as possible interrelations among the iconographic systems of these regions.

Plaster fragments which show floral motifs and elements of landscape were found in different areas of the excavation at ‘Ezbet Helmi/Tell el-Dab’a and can be assigned to ‘Palace F’ as well as ‘G’. The material is highly fragmented and the sizes of the single pieces vary from about 40 x 30 cm down to 2 x 2 cm.

The biggest part of the so far inventoried material originates from area H/I and belongs to the smaller ‘Palace F’. About 130 pieces show floral motifs whereas on about 50 fragments elements of landscape are depicted. On the basis of technical observations up to now additionally about 50 mostly monochrome pieces belonging to background of the scenery could be assigned to this group. Since the registration of H/I is still in progress more pieces belonging to the background can be expected, whereas in areas H/IV and H/V none of fragments was decorated in this manner.

Because a large part of the wall plaster fragments of the surrounding of ‘Palace G’, found in areas H/II, H/III and H/VI, still needs to be restored, a final statistic of the related pieces remains to be done. Up to now only one piece from area H/II has been attributed to this category of material, but 25 fragments from area H/III and further fragments in the not yet restored material were already identified. The same holds true for the material found in area H/VI of which five pieces are inventoried to date.

²⁰ See for example: BIETAK 1994, 45f. pl. 14A; BIETAK 1996, pl. VIIA–B; MARINATOS 1998, 86f. fig. 13–14.

²¹ For example the ‘Monkeys and Birds Frieze’ from the ‘House of the Frescoes’ at Knossos (MM IIIB–LM IA), cf.

CAMERON 1968. For landscape paintings in the Aegean, cf. CHAPIN 2004; SCHMITZ-PILLMANN 2006; IMMERWAHR 1990, 40–50; MORGAN 1988, 17–40. For landscape elements in Aegean glyptic, cf. KRZYSZKOWSKA 2010.

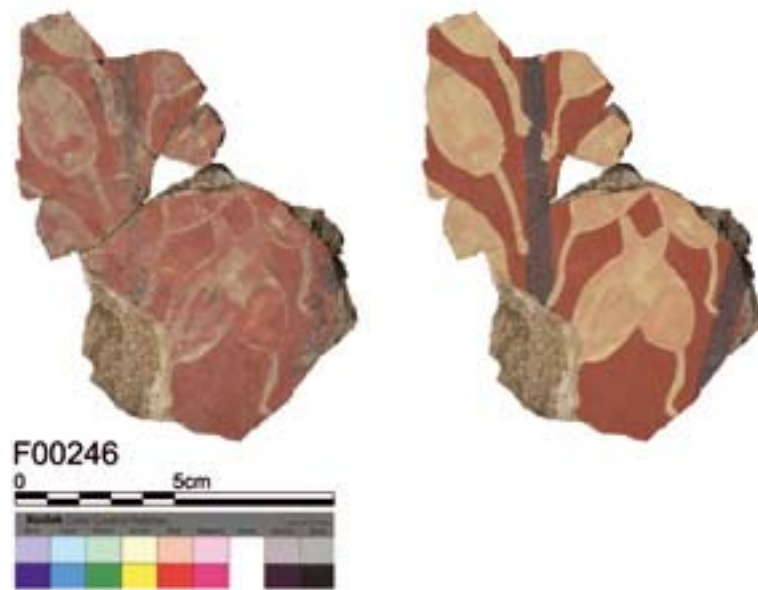


Fig. 3 Fragment of a plant with lancet-shaped yellowish-white leaves (H/I – F00246)

Different types of plants were depicted on the walls of 'Palace F'. In most cases the background is either red or ochre-beige. The most common plant motif has lancet-shaped leaves with curved leafstalks on an either red or black stem. The leaves are executed in blue, greenish-blue, ochre and yellowish-white (Fig. 3). The differentiation in the colours of the leaves might well indicate different plant species. A tentative interpretation for the lancet-shaped blue leaves as myrtle is proposed by means of parallels on Aegean wall paintings.²² An ivy branch is depicted on at least one fragment. Its form is very similar to the execution of the ivy motif in Minoan iconography with characteristic heart-shaped blue leaves on a slightly curved red

stalk.²³ Among other floral motifs that only occur on single pieces, long and narrow blue and greenish-blue leaves could be recognised on different fragments which might be the representation of reed.²⁴

For a final statement it is yet too early, but it seems as if the floral motifs depicted on the walls of 'Palace G' differ from the ones of 'Palace F'. At least one blue papyrus with a row of white dots on the top edge of the umbel, so far unknown from 'Palace F', has been recognised.²⁵ The representation of a plant with oblong oval blue leaves and thin red leafstalks (Fig. 4) is also missing in the material from the smaller 'Palace F'.

²² The same identification has also been proposed by M. Biatak, cf. BIETAK 1996, pl. VIIA. Myrtle could be identified on various wall paintings of the Aegean as for example the so-called 'Fresco of the Goddess' from Agia Triada (LM IA–LM IB), cf. MILITELLO 1998, 104–107. 271. Moreover, the lancet-shaped leaves in ochre on a red stem on three small fragments from 'Building Gamma' at Akrotiri – Thera (LM IA) have been interpreted as myrtle, cf. DOUMAS 1992, 19.

²³ Ivy is depicted on Aegean landscape paintings for example on the so-called 'Cat Fresco' from Agia Triada (LM IA–LM IB), cf. MILITELLO 1998, 107–109. pl. G1; as well as on the 'Monkeys and Birds Frieze' from the 'House of the Frescoes' at Knossos (MM IIIB–LM IA), cf. CAMERON 1968, 11. 30. fig. 5a. pl. 5.3. In addition, ivy is also depicted as a repetitive

pattern in a frieze from room 1 of 'House Beta' at Akrotiri – Thera (LM IA), cf. DOUMAS 1992, 110f. fig. 78. Ivy as a repetitive frieze pattern is also known from Tell el-Dab'a, cf. ASLANIDOU 2007, 196–199. pl. III.

²⁴ On some fragments the blue and greenish-blue leaves overlap one another. A good parallel for this could be the 'Reed Bed Wall Painting' from 'Xesté 3' at Akrotiri – Thera (LM IA), on which alternate yellow and grey reeds are depicted, cf. VLACHOPOULOS 2000.

²⁵ Papyrus was depicted on various Aegean wall paintings. See for example the 'Nilotic Landscape' from the 'West House' at Akrotiri – Thera, cf. DOUMAS 1992, 48. 64–67 fig. 30–34; the 'Monkeys and Birds Frieze' from the 'House of the Frescoes' at Knossos (MM IIIB–LM IA), cf. MORGAN 2005, pl. 5.2.

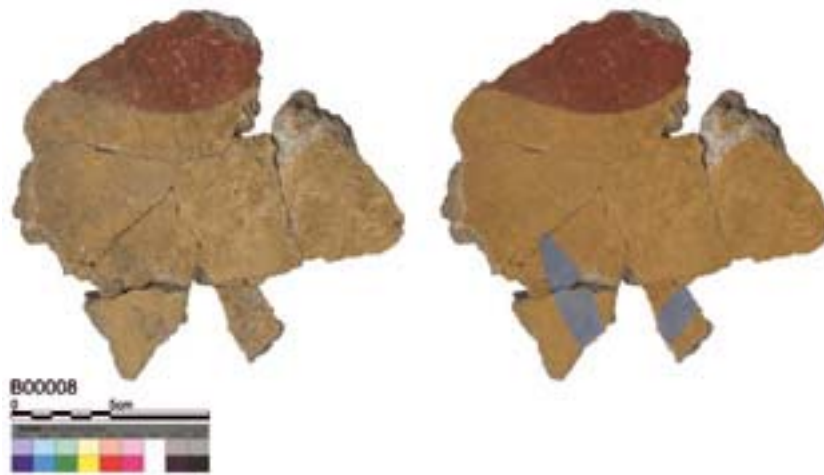


Fig. 4 Fragment of a plant with oblong oval blue leaves in front of a red and ochre background divided by undulation (H/III – B00008)

Regarding the elements of landscape one of the most striking links between the Tell el-Dab^a wall paintings and Aegean frescoes are the so-called ‘easter eggs’ or multicoloured pebbles, a motif that is – apart from Tell el-Dab^a²⁶ – only known in Minoan iconography.²⁷ Another convention for the representation of natural terrain, multicoloured undulating bands or surfaces in different colours divided by undulations (Fig. 4), can also be found.²⁸

The current work on the landscape paintings is still focusing on the identification of all relevant fragments. Especially monochrome fragments belonging to the background still have to be identified on the basis of technical observations. A bigger part of the major fragments were already described and enhanced with the computer. As a further step tentative reconstructions will be composed with the help of digital drawings. In doing so, the small-scale wall paintings found at Tell el-Dab^a will be of great help since a good part of the motifs depicted in large-scale have good parallels in the smaller sized friezes.²⁹ Due to their small size the layout of the motif can be easily understood in the latter even on smaller fragments and thus give val-

uable information for reconstructing the large-sized landscape paintings.

Architectural Simulations from ‘Palace G’ (Johannes Jungfleisch)

Since the unexpected discovery of thousands of lime plaster fragments executed in the ‘fresco’-technique near the modern village of ‘Ezbet Helmi/ Tell el-Dab^a during the 1990s, research focused mainly on the wall paintings from the excavation sites H/I and H/IV, the area of the so-called small ‘Palace F’. But there is also evidence of fresco paintings from the areas H/II, H/III and H/VI, just 200 m south of ‘Palace F’, generally associated with the so-called large ‘Palace G’. Although in recent years some of these wall paintings, especially the ornamental scenes, were subject to thorough studies, the major part still has to be restored and examined.

Amongst the vast number of paintings found in the surroundings of ‘Palace G’ there is a significant group of fragments showing motifs well known in the Aegean for simulating architectural elements and building materials in large scale. Up to now, this kind of mural treatment was almost

²⁶ Cf. MARINATOS 1998, 86f. fig. 14.

²⁷ The pebble motif can be found on various landscape paintings for example on the ‘Partridge and Hoopoe Frieze’ from the so-called ‘Caravanserai’ at Knossos (LM IA–LM IB), cf. SHAW 2005, 104.

²⁸ This convention was used as ground lines for figures and plants or as the rendition of rocky terrain on different Aegean wall paintings. For example on the ‘Papyrus Fresco’ from the ‘House of the Ladies’ at Akrotiri – Thera (LM IA), cf. DOUMAS 1992, 33–37. fig. 2–5.

²⁹ See below Lyvia Morgan.

unknown within the corpus of wall paintings from Tell el-Dab'a. Not for that reason alone, but also because of the special importance of the architectural simulations within the local 'Egyptian' context, a closer examination of this group looks promising. Bearing in mind that access to building materials like stone and timber was restricted in the Nile delta and the actual mud brick architecture of the palatial district follows rather 'Egyptian' models, a wide range of questions arises from this group of paintings: How was painted and real architecture interrelated? What effects did the specific combination of local architecture and innovative wall decoration have on social interactions taking place in these buildings? What are the political, cultural and social conditions causing the architectural and technological change reflected in these fresco paintings?

The same holds true for the appearance of similar architectural simulations and other innovative features apart from wall paintings within the traditional architecture of several other sites in the ancient Near East. Therefore, the study of the architectural simulations from Tell el-Dab'a will be imbedded in a PhD project exploring this phenomenon

in the context of Near Eastern palatial architecture of the second millennium BC.

Up to now about 450 fragments of varying size, including tiny pieces as well as enormous plaster patches, could be assigned to the architectural imitations. At first sight, the plaster pieces of this group originate mainly from the area on both sites of the second entrance gate, leading through the enclosure wall of the palatial district directly to the base of 'Palace G'.

Based on technical and iconographic observations it was possible to recognize different groups belonging to the architectural simulations: The fragments of the following group are characterized by patterns, which are well known in the Aegean for reproducing the appearance of variegated stone slabs normally used as dados. The veining of the stone was rendered by fluent s-curved or scalloped lines executed in red on a white ground (Fig. 5) as well as by irregular undulating black bands on a greyish-white background. In the case of the latter group, there is some evidence for narrow red vertical bands.

Both manners of representations find close parallels in the Aegean: s-curved and scalloped lines,

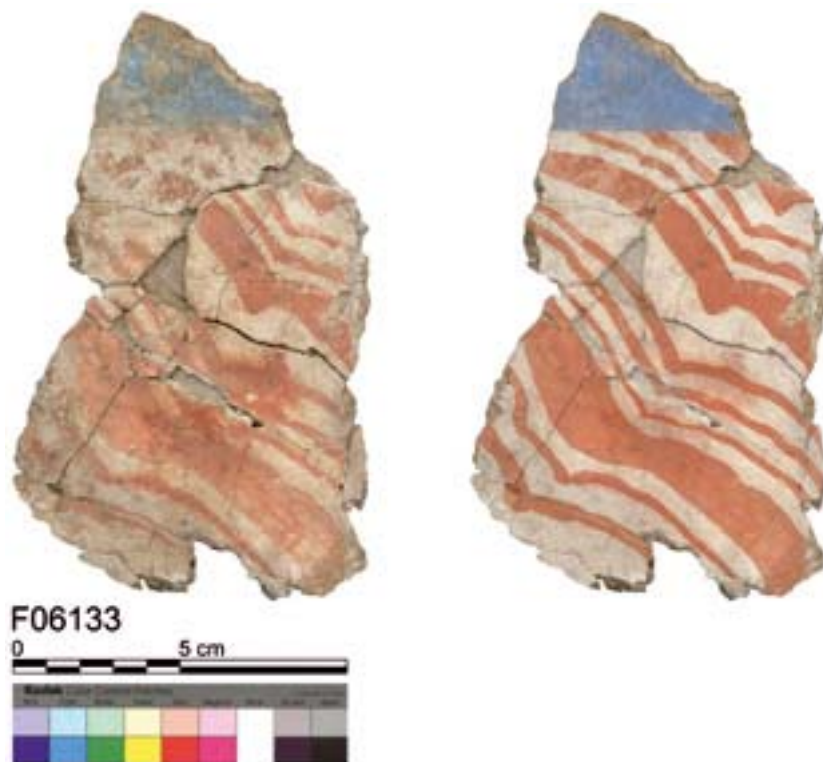


Fig. 5 Simulation of red-veined stone, probably depicting a painted dado slab (H/III – F06133)

reproducing the varied hues of veined stone, are known from Crete³⁰ and Mainland Greece.³¹ Undulating black bands on a greyish ground decorated the walls of a lustral basin in Chania (Crete).³² In addition, red or yellow vertical bands were used in Aegean wall paintings for dividing the painted *dados* in different panels.³³ Usually, these vertical stripes are considered as imitations of wooden uprights, which fastened in real architecture the stone slabs of the veneer to the wall.³⁴ Nonetheless, it should be noted here that reproductions of the material appearance of variegated stone and grained wood is also known from ancient Egypt,³⁵ which will be taken more into account in future.

The aforementioned types of stone imitations are linked to fragments, which show either a linear pattern consisting of intersecting, narrow red stripes on blue ground or a sequence of red rectangles on ochre-beige ground. Because of their fragmentary condition and large-scale representation it is difficult to give an interpretation of these pieces at this early stage of research. The red rectangles are reminiscent of similar motifs known from the wall paintings of a Late Bronze Age building at Alalakh. Here, the reddish rectangles represent the timber of

transverse beams and form part of an architectural simulation reproducing the structural arrangement of a wall in real architecture.³⁶ Furthermore, according to a first tentative explanation some fragments showing narrow red bands on white ground might have given the appearance of a stone masonry façade.³⁷ But before a definitive statement regarding the architectural simulations can be made, further research is needed.

In addition to that, one group of fragments consists of pieces showing rows of alternating red and black circles on white ground, usually interpreted in Aegean iconography as representations of ‘beam ends’.³⁸ The solid circles vary in diameter from approximately 13.5 to 14.0 cm (Fig. 6).

Although ‘beam end friezes’ are prevalent in miniature and small-scale architectural representations, depicting either floor or transverse beams,³⁹ there are only a few examples in large-scale in Aegean iconography.⁴⁰ The most notable examples, showing black and brownish circles with a diameter of 32.0 cm and a wooden beam imitation with knot-holes, were found in the ‘Palace of Nestor’ at Pylos.⁴¹ Usually, the circles were depicted in alternating red and blue colour,⁴² but some examples differ

³⁰ For s-curved lines, cf. FYFE 1902, 109 fig. 2 (Loom Weight Basement, Palace of Knossos, Crete – MM IIB); EVANS 1935, 920f. fig. 894. 895 (Throne Room, Palace of Knossos, Crete – LM II–LM IIIA); for scalloped lines, cf. EVANS 1921, 356 fig. 255 (‘Marbled Dado’, Corridor 94, Palace of Knossos, Crete – MM IIIA); BRYNSBAERT 2000, 54 fig. 3b (Building 6, Roussolakos/Palaikastro, Crete – MM IIIA).

³¹ For s-curved lines, cf. RODENWALDT 1912, 23f. no. 32. fig. 2. 3. (Tiryns, Argolis, Greece – LH IIIA?); for scalloped lines, cf. RODENWALDT 1912, 24 no. 33. pl. III, 11–13 (Inner Forecourt, Tiryns, Argolis, Greece – LH IIIA?); LAMB 1919–1921, 198 no. 28. pl. X, 28 (Ramp House Deposit, Mycenae, Argolis, Greece – LH IIIA–LH IIIB).

³² Cf. ANDREADAKE-VLASAKE 1988, 67f. fig. 9. 11; EVELY 1999, 134. 250 (Lustral Basin 5, Splantzia/Daskaloyannis Street, Chania, Crete – MM IIIB–LM IA).

³³ Cf. EVANS 1921, 356 fig. 255 (‘Marbled Dado’, Corridor 94, Palace of Knossos, Crete – MM IIIA); DOUMAS 1992, 50f. fig. 14–17. 56 fig. 24. 86–91. fig. 49–56. (Room 4 and 5, ‘West House’, Akrotiri, Thera – LM IA); RODENWALDT 1912, 23f. no. 32. fig. 2. 3. (Tiryns, Argolis, Crete – LH IIIA?); LANG 1969, 177f. no. 25D46. pl. 106 (Hall 46, ‘Palace of Nestor’, Pylos, Messenia, Crete – LH IIIB).

³⁴ Cf. PALLYVOU 2000, 425.

³⁵ See for example GANDER 2009.

³⁶ Cf. WOOLLEY 1955, 231f. pl. XXXIX, c (Room 6, House 39/A, Alalakh, Turkey – Alalakh IV, LBA I).

³⁷ Cf. BIETAK, MARINATOS & PALLYVOU 2007, 42.

³⁸ Cf. BULLE 1907, 73; EVANS 1921, 221; LANG 1969, 145; MORGAN 1988, 75–77; IMMERWAHR 1990, 145; PALLYVOU 2000, 249f.

³⁹ For a general discussion of ‘beam end friezes’ in miniature paintings, see MORGAN 1988, 75–77.

⁴⁰ Two LH II tombs, one at Kokla and one at Mycenae, show painted lintels with the characteristic row of circles. Cf. DEMAKOPOULOU 1990, 113. 115f. fig. 3. 4 (Tholos I, Kokla, Argolis, Greece – LH II–LH IIIA1); TSOUNTAS & MANATT 1969, 133f. fig. 49. 50 (Chamber Tomb 81, Mycenae, Argolis, Greece – LH II).

⁴¹ Cf. LANG 1969, 145. 153f. no. 14F45. 207f.: M. Lang and S. Immerwahr note that there are no immediate antecedents for the pylian ‘beam end frieze’ from Crete, but C. Pallyvou mentions a fragment of a stone frieze from Akrotiri/Thera, which shows on the plastered surface a row of blue circles, as possible architectural prototype. Cf. LANG 1969, 28; IMMERWAHR 1990, 145; PALLYVOU 2000, 430.

⁴² Cf. EVANS 1921, 445f. fig. 321 (‘Pillar Shrine Fresco’, West Magazine XIII, Palace of Knossos, Crete – MM IIIB); BULLE 1907, pl. XXVIII, 1 (Orchomenos – LH IIIA/B?); LANG 1969, 138f. 6A5. pl. 78. I (Room 5, ‘Palace of Nestor’, Pylos, Messenia, Greece – LH IIIB); IMMERWAHR 1990, 191 MyNo. 6. pl. 59 (Room of the Frescoes, Mycenae, Argolis, Greece – LH IIIB).

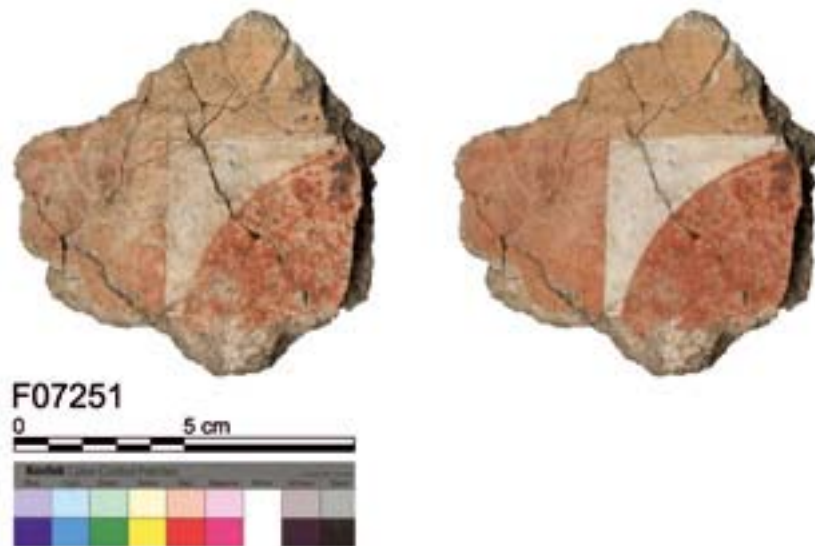


Fig. 6 Part of a red circle, belonging to a 'beam end frieze' (H/III – F07251)

from this convention, showing other colour combinations like red and black.⁴³

Comparing the architectural simulations of 'Palace G' with the motif repertoire of 'Palace F' it becomes apparent that imitations of variegated stones as well as 'beam ends' are completely missing in the latter. As opposed to this, Clairy Palyvou could recognize many fragments belonging to the depiction of a possible ashlar façade among the wall paintings of 'Palace F'.

The processing of the wall paintings from 'Palace G' in general and the architectural simulations in particular are still at the beginning. The following study season will concentrate mainly on the identification and conservation of diagnostic pieces, which can provide new information, especially in regard to the transitions between the different (architectural) motifs. Apart from conservation and inventorying, work will continue on image processing of single pieces. Because of the fragmentary state of preservation and the large-scale depiction, it is equally important to evaluate all available information about architecture, representations of architecture and the reproduction of material appearances in the Aegean, Western Asia as well as Egypt. This approach provides an important basis

for future digital reconstructions and a better understanding of the architectural simulations of Tell el-Dab^a.

The Hunt Frieze (Lyvia Morgan)

The Hunt Frieze is being studied and reconstructed from amongst the many fragments of wall paintings from the small ceremonial 'Palace F' at Tell el-Dab^a. Like the majority of the painted plasters from the site, the frieze is Aegean in technique, idiom and theme, and is datable to the early Thutmose period. It was part of an iconographic programme that centered on the physical manifestations of male prowess and animal power, with the now famous bulls frieze,⁴⁴ a related scene of acrobats, and the hunt frieze, which included hunters with dogs, as well as feline predation within a rocky landscape with plants. The fragments were found in a large dump in area H/I, by the entrance ramp to the palace, mixed with fragments of plaster reliefs, large-scale animals (griffin, leopard, bulls) and plants, processional male figures, maze-pattern floor, and imitation ashlar masonry.⁴⁵ All these must have constituted a unified palatial programme. There is a distinct echo between the large-scale plants and animals, which presumably adorned the

⁴³ Cf. MILITELLO 2001, 97 F GF.2 ('Grana Frana', Phaistos, Crete – MM II–MM IIIA); LANG 1969, 138 4A20. 5A20 (Room 20, 'Palace of Nestor', Pylos, Messenia, Greece – LH IIIB).

⁴⁴ BIETAK, MARINATOS & PALYVOU 2007.

⁴⁵ von RÜDEN (reliefs), Becker (plants), Palyvou (masonry); BIETAK & PALYVOU 2000 (large griffin); ASLANIDOU 2005 (male figures); BIETAK, MARINATOS & PALYVOU 2007, 43 (maze floor).

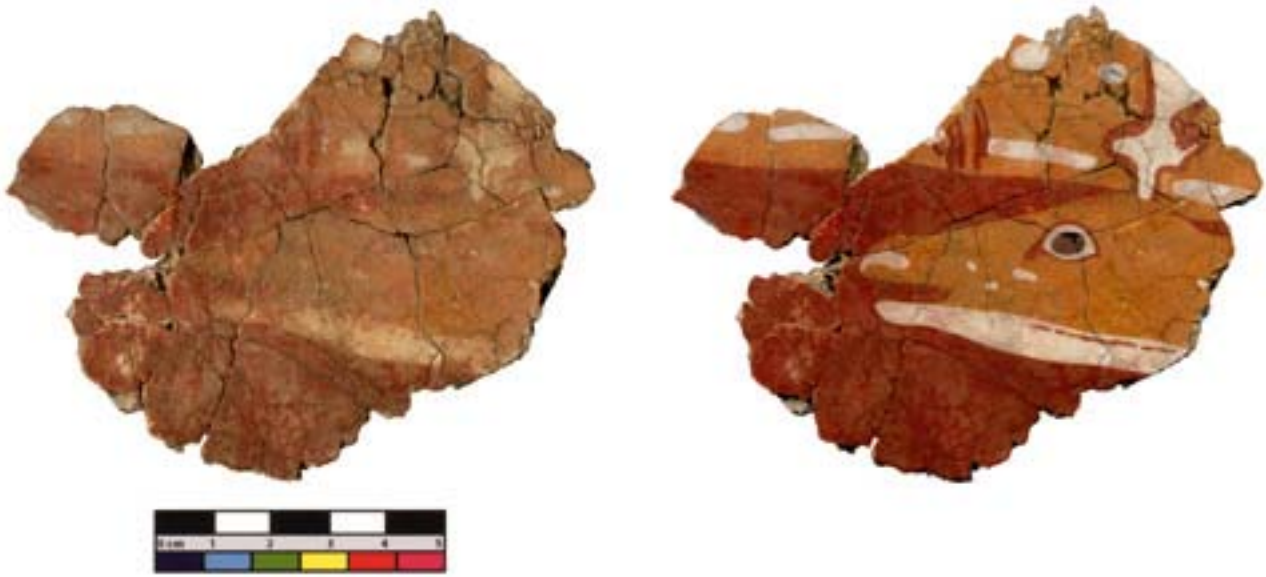


Fig. 7 Fragment of the head of a fallow deer, with a second deer behind, showing the original scanned fragment (left) and the digitally enhanced image (right)

Throne Room at the inner end of the palace, and the Hunt Frieze, which most likely ran above the windows and doors of the adjacent room or in a room on the floor above.⁴⁶

Preliminary publications of the feline predators appeared in *Ä&L*, with articles on the lions (Marinatos), leopards and griffin (Morgan).⁴⁷ Over the years, I have been studying all the fragments, preparing the publication of the Hunt Frieze as a companion volume to the Bulls Frieze. In total there are some 700 fragments, of which 450 are sufficiently well preserved to be diagnostic.⁴⁸ The vast majority are of the landscape in which the action took place. The first task was to organize the pieces into groups according to the background colour of red or yellow and the main subject (hunters and dogs, lions, leopards, deer, goats and bulls, plants, rocks etc.). They are now stored in 16 boxes according to such categories, with their excavation contexts written on the backs. To date, all the fragments have been scanned, and some (with more to follow) have been restored on the computer with digital enhancement

of the colours. In the publications, the fragment appears next to the restored version (Fig. 7). The process involves careful study of the fragment, with observations on layers of paint and state of preservation (which I undertook) preceding the process of digital enhancement, which is skillfully executed by Marian Negrete-Martinez. At the same time, I made drawings as study aids. Each fragment was examined with a x12 magnifying glass and selected fragments have been viewed and photographed through a usb microscope, enabling me to study the techniques. Erico Peintner, the conservator now working at Tell el Dab'a, has provided me with invaluable advice on several of the pieces. In May 2012 I completed the catalogue.

Reconstructions, which are still in progress, are done first on paper then on the computer. The process began with sorting the fragments and establishing associations. Attention was paid to the top and bottom of the composition, recognizable by the flattened edge of the plaster where it abutted the wooden frame in the wall. Associations were noted

⁴⁶ Plan and reconstruction of the palace: BIETAK 2005, 88. fig. 3.5. Two stairways either side of the interior of the building indicate that there was an upper storey above the Throne Room.

⁴⁷ Lions: MARINATOS 2010; Leopards and Griffin: MORGAN 2010a, 2010b. See also on the Hunt: BIETAK & MARINATOS

1995; MARINATOS 1998, 2000, 2005; MORGAN 1995, 1998, 2004, 2006.

⁴⁸ By 'fragment' is meant what is now a fragment, which in many cases is composed of several pieces (usually between 2–10, occasionally as many as 60–70, albeit small) joined in conservation.

according to which plants occurred with which animals, figures etc., how the red and yellow background were related and how the rocks were integrated. Drawings which bring fragments together are all executed at 1:1 scale using tracing paper, while some colour sketches are made to provide an overall impression of how the reconstructions are developing. Comparative hunt scenes in Aegean art were compiled, as were those in Egyptian art. To date, all the felines and most of the prey have been reconstructed, while preliminary sketches have been made of the hunters and dogs and some of the landscape. There appear to have been at least four or five hunters with six or more dogs,⁴⁹ and there are ten lions, six leopards, one griffin, six deer, and at least three goats, two of which are attacked by a dog. There are also many more white animals (goats and bovines), not yet reconstructed and mostly recognizable by their surviving legs. Reconstruction of proportions and postures is drawn from the information available in the fragments, supplemented by comparanda, especially the many hunt scenes on Aegean sealstones. Once the reconstruction drawing is complete, it is scanned. Marian Negrete-Martinez then re-draws the lines on the computer and places the enhanced fragments into the drawing. The final stage is the application of colour to the reconstructed parts of the scene (Fig. 7).

The hunters and dogs appear on both red and yellow backgrounds, and one fragment indicates how the two colours were divided by an area of banded rocks with pebbles.⁵⁰ Ivy, reeds and papyrus are associated with them. The men wear loin cloths and white boots with lacings, while the dogs, pink, white, or black, have red collars and are held by a leash. The lions also occur on red and yellow backgrounds, with red below or above, while multi-coloured rocks lie beneath yellow ground, and blue rock interrupts red above, demonstrating the complexity of the landscape design. Reeds and papyrus are the associated plants. Most appear to be galloping, eight lions to the left, two to the right. A bull is attacked by two of them, blood dripping from the wound.⁵¹ The single griffin is against yellow ground and moves to the left in 'flying gallop'.⁵² In the

preliminary publication only the creature is reconstructed, but pinkish-ochre beneath the beak suggests a prey, while grey-blue rocks probably belonged beneath. Of the leopards, all but one moves to the left, three pounce downwards to an unseen prey, while three prowl, demonstrating the characteristic hunting methods of leopards. All are against a red background, two providing evidence for (mostly) blue rocks beneath and another for plain red at the top. They therefore occupied the entire height of the frieze. Two plants are associated, quite different from those with the lions, a tall stemmed trefoil plant (Fig. 8) and a ground-covering stemless plant with five leaves. The latter also occurs beneath a deer that is upside down, hence stricken, presumably having been attacked by the leopards. Like the leopards, the deer are all on red ground. Spots on their hides and a preserved head with antler establish that they are fallow deer (Fig. 7). One has blood on its hide. Some are associated with plants with lanceolate leaves. One of the goats so far reconstructed is on red ground; two others are on yellow ground with blue rock and plants, one attacked by a dog, the other crumpling to the ground.⁵³ The largest number of fragments by far belongs to rocks, which must have lined the bottom of the frieze.

As a preliminary conjecture, in a frieze that ran over two, perhaps three walls, the hunters and dogs appear to be tracking goats (or antelope), and may have been in the vicinity of, but not hunting with, the lions, who attack bulls, while the leopards were hunting deer, and were separate from both the lions and the men. The frieze was carefully planned, with large areas destined for blue rock left in reserve when the red and then yellow ground were painted, a technique that was employed in Aegean painting, as noted in particular at Knossos and Ayia Irini, Kea.⁵⁴

The Bulls Frieze and Acrobats are likely to have occupied a single long wall, while the Hunt Frieze ran along the others, each part of the frieze complementing the other in a series of scenes that drew attention to the relative hierarchy of species and the parallel prowess of man and animal, in a palatial

⁴⁹ For the hunters and dogs, these are provisional numbers, as reconstruction is still in progress.

⁵⁰ BIETAK & MARINATOS 1995, 59. fig. 14. Drawing: Lila Brock.

⁵¹ MARINATOS 2010, 341 fig. 22. 344 fig. 27.

⁵² MORGAN 2010b, 305 fig. 1.

⁵³ MARINATOS & MORGAN 2005, col. pl. 15:1. Reconstruction by Clairy Palyvou and Nanno Marinatos.

⁵⁴ Knossos: CAMERON 1975, 281–283. 285. Kea: MORGAN, *forthc.*



Fig. 8 Leopard with plants. Reconstruction: Lyvia Morgan. Computer realization: Mara Antonia Negrete-Martnez. (MORGAN 2010a, 266, fig. 2)

programme that no doubt promoted royal power and reflects intercultural relations.

The Stucco-Reliefs (Constance von Rden)

In contrast to other Near Eastern sites with ‘Aegean Style’ fresco paintings, the material from Tell el-Dab^a is not restricted to paintings on a flat surface; additionally more than 350 fragments of stucco relief have been identified.⁵⁵ With the exception of one or two pieces from the Argolid, whose original find spots are unknown due to the upheaval caused by the World War II,⁵⁶ and few examples from The-

ra⁵⁷ up to now reliefs have been detected only on Crete, including the island of Pseira directly adjacent to it.⁵⁸ Their discovery alone, therefore, at a site in the Eastern Nile delta far away from Crete, is exceptional; additionally, the very wide range of identifiable motifs shows the distinctiveness of the corpus.

As is the case for other fresco paintings in Tell el-Dab^a, the stucco-reliefs have been discovered in the direct precincts of ‘Palaces F’ and ‘G’. Their fragmented state often makes an identification of the motifs extremely difficult, but to reconstruct the

⁵⁵ For a first identification see BIETAK & MARINATOS 1995, 54. fig. 5; furthermore BIETAK, MARINATOS & PALYVOU 2007, 41–42. fig. 40.

⁵⁶ It is unclear if the literature which refers to depictions of the hip of, more or less, life-size women, describes two different fragments or the very same one (KAISER 1976, 306. fig. 473, RODENWALDT 1921, fn. 152). One of the fragments is today stored at the Apothiki of the Tiryns excavation.

⁵⁷ DOUMAS 1992, 131. I am very grateful to Lyvia Morgan to call my attention to these examples.

⁵⁸ An example of a quite low relief of a decorative pattern is additionally found on Thera. Outside Knossos reliefs have been detected in Pseira, Gournia, Palaikastro, Kato Zakro, Agia Triada and Chania (for an overview see KAISER 1976, 299–304).



Fig. 9 White leg with blue boots in relief on a red background (H/II – F00037)

whole composition is at the very least a very challenging, if not in many cases a simply impossible task. Therefore, in this preliminary discussion of the material, I will restrict myself to the identification of some motifs and some technical aspects of the material.

In the north-east of ‘Palace F’, at the foot of the entrance ramp, mostly unpainted, but often highly burnished fragments have been brought to light. Some of them can be clearly identified as extremities of cattle, possibly bulls, while other can only be broadly attributed to the bodies of the same animal. The angle of the leg’s joint suggests that we have depictions of rather calmly pacing animals than, for example, bulls running in flying gallop, as it is the case in the bull-leaping scenes of the site⁵⁹ or the famous bull of the ‘North Entrance Passage’ from Knossos.⁶⁰ The range of motifs from the surroundings of ‘Palace G’, excavated primary in the south-east of the building, is much wider: for example depictions of at least one lion, possibly a griffin, sections of textiles and architectural elements, as well as human beings. Of the latter two examples with red skin, possible males can be identified. Their technical properties suggest that they belong to the same composition, probably facing each other. One envelops an ochre pole with his hand, evoking well known compositions in the Aegean, as for example in the so-called Master Seal Impression from Chania⁶¹ or the so-

called Chieftain Cup from Agia Triada with a young man in three quarter view also holding a pole.⁶² Another highly interesting fragment depicts a white-skinned human leg with a blue boot (Fig. 9). The boot is corded with an ochre string; it can be, therefore, assumed that tied textiles are depicted here, and, of course, not boots in our modern sense. The white skin of the leg is more puzzling. Traditionally, this would have led us to assume the representation of a woman, but similar boots are more common for acrobats and bull leapers, usually considered to be men. It is perhaps simply our modern imagination of gender-dichotomy rather the material itself which confuses us here. Generally, the motifs themselves and their stylistic execution have parallels in the Knossian reliefs or Cretan iconography, but parallels in the syntax of the paintings are more difficult to assign, and need further research. The same holds true for the embedding of the images into their local context and their possible reception within it.

Reliefs have often been regarded as a simple sub-group of wall paintings on a flat surface.⁶³ This has been criticized by Fritz Blakolmer with regard of their iconography. He has observed that more emblem-like compositional schemes are favoured within this genre.⁶⁴ This might be also a result of their shaping in a third dimension, requesting a very sophisticated production technique. The process needs an even firmer planning than paintings on a

⁵⁹ BIETAK, MARINATOS & PALYVOU 2007.

⁶⁰ EVANS 1930, 172–174. fig. 16.

⁶¹ HALLAGER 1985; CMS V Suppl. 1A Nr. 142.

⁶² FOSDYKE 1952, 13–16.

⁶³ See for example KYRIELEIS 1968, 16.

⁶⁴ BLAKOLMER 2006, 17.



flat surface, allowing less space for spontaneous experimentation or a more impressionistic ductus.

A brief consideration of the *chaîne opratoire* of the relief-production and thus the required skills might illustrate this. Most of the reliefs of Tell el-Daba have been recovered without the background plane on which they had been originally attached. This exposes a roughly flat back with thin crossing ridges, around 1–3 mm high, sometimes arranged in a net-like fashion (Fig. 10). Additionally, remains of red colour at the edges of the elevated part of the relief can be detected in some cases. These observations give us an idea about the method of planning and execution of the reliefs. Obviously, the outline of the sculptured representation has been firstly

applied with a red preliminary drawing on the freshly plastered background plane. Then the interspaces have been incised with thin lines as anchorages for the application of the sculptured plaster. Only after all this preparation the craftsperson applied the different plaster layers, composing the massive body of the elevated relief. Their heights range from relatively low reliefs of 1–2 cm up to very high and heavy examples of around 6 cm. The humid plaster then absorbed the colour of the red preliminary drawings on its rear, and the ridges of the anchorages are imprinted, traces of which thus helped us reconstruct important aspects of the production process.⁶⁵

⁶⁵ VON RDEN, in print.

If we think about parallels in these processes, we necessarily have to take the material of Crete, and especially Knossos, into consideration, due to the lack of similar findings in other regions. There we can often trace a very fine reddish plaster layer between the background plane and the sculptured relief itself.⁶⁶ At present, it is difficult to say if this layer was restricted to the area where the relief was applied. If this is the case, it might have had a similar function as the preliminary drawings in Tell el-Dab^a, but executed in a different way; here more research is still required. Furthermore, comparable net-shape incision as anchorages of the sculptured stucco can be identified in Knossos.⁶⁷ The technique is not used exclusively for a stronger attachment of the sculptured material on the background

plane; such anchorages are also found between single layers of the relief body. This is observable on the famous wall paintings of women from Pseira, and on two fragments of female breasts from the ‘Blocked Corridor’ in Knossos.⁶⁸

The similarities to the Knossos material are thus obvious, but slight differences in the technique can be observed as well. Future research aims on the one hand to complete the full *chaîne opératoire* of the production process and give a more holistic picture of the identified motifs and possible compositions, and on the other hand to focus in more detail on their consumption and their visual and haptic characteristics within the local context of the buildings.

Bibliography

ANDREADAKE-VLASAKE, M.

1988 Υπόγειο άδυτο ή ‘δεξαμενή καθαρών’ στα Χανιά, *AAA* 21, 56–76.

ASLANIDOU, K.

2002 Der Minoische Spiralfries aus dem Grabungsareal H/IV in Tell el-Dab^a. Malvorgang und Rekonstruktion, *Ä&L* 12, 2002, 13–27.

2005 The Minoan Wall Paintings from Tell el-Dab^a/Ezbet Helmi: The Life-Sized Male Figures, 463–469, in: R. Laffineur and E. Greco (eds.), *Emporia: Aegeans in the Central and Eastern Mediterranean, Proceedings of the 10th International Aegean Conference, Athens, Italian School of Archaeology, 14. – 18. April 2004*, Aegeum 25, Liège – Austin.

2006 Eine Priesterdarstellung aus Tell el-Dab^a, 67–71, in: CZERNY et al 2006.

2007 Some Ornamental Scenes on the Wall Paintings from Tell el-Dab^a. Iconography and Context, 191–205, in: M. Bietak and E. Czerny (eds.), *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium B.C.*, vol. III, *Proceedings of the SCIEEM 2000 – 2nd EuroConference, 28. May – 1. June 2003*, Vienna.

BIETAK, M.

1994 Die Wandmalereien aus Tell el-Dab^a/Ezbet Helmi. Erste Eindrücke, *Ä&L* 4, 44–58.

1996 *Avaris. The Capital of the Hyksos. Recent Excavations at Tell el-Dab^a*, London.

2005 The Setting of the Minoan Wall Paintings at Avaris, 83–90, in: MORGAN 2005.

2009a Perunefer: The Principal New Kingdom Naval Base, *EA* 34, 15–17.

2009b Perunefer: An Update, *EA* 35, 16–17.

2010a Houses, Palaces and Development of Social Structure in Avaris, 11–68, in: M. Bietak – E. Czerny – I. Forstner-Müller (eds.), *Cities and Urbanism in Ancient Egypt: Papers from a Workshop in November 2006 at the Austrian Academy of Sciences*, Vienna.

2010b Minoan Presence in the Pharaonic Naval Base of Perunefer, 11–24, in: O. Krzyszkowska (ed.), *Cretan Offerings. Studies in Honour of Peter Warren*, British School at Athens Studies 18, London.

BIETAK, M. and MARINATOS, N.

1995 The Minoan Wall Paintings from Avaris, *Ä&L* 5, 49–62.

BIETAK, M., MARINATOS, N. and PALYVOU, C.

2000 The Maze Tableau from Tell el-Dab^a, 77–88, in: SHERATT 2000.

2007 *Taureador Scenes in Tell el-Dab^a (Avaris) and Knossos*, UZK 27, Vienna.

BIETAK, M. and PALYVOU, C.

2000 A Large Griffin from a Royal Citadel of the Early 18th Dynasty at Tell el-Dab^a, 99–108, in: *Πεπραγμένα Η’ Διεθνούς Κρητολογικού Συνεδρίου, Ηράκλειο, 9. – 14. Σεπτεμβρίου 1996, Τόμος Α1*, Herakleio.

⁶⁶ KAISER 1976, 296.

⁶⁷ KAISER 1976, 296. fig. 464 on the right side.

⁶⁸ KAISER 1976, 296. fig. 451b.

- BLAKOLMER, F.
2006 The Minoan Stucco Relief: A Palatial Art Form in Context, 9–25, in: *Πεπραγμένα Θ' Διεθνούς Κρητολογικού Συνεδρίου, Ελούντα 1. – 6. Οκτωβρίου 2001, Τόμος Α3*, Herakleio.
- BRYLSBAERT, A.
2000 The Role of the Field Laboratory in the Preliminary Study of Bronze Age Plaster Finds from Palaikastro, East Crete, *Papers from the Institute of Archaeology* 11, 47–66.
2002 Common Craftsmanship in the Aegean and East Mediterranean Bronze Age: Preliminary Technological Evidence with Emphasis on the Painted Plaster from Tell el-Dab^a, Egypt, *Ä&L* 12, 95–107.
2007 A Technological Approach to the Painted Plaster of Tell el-Dab^a, Egypt: Microscopy and Scientific Analysis, 151–162, in: BIETAK, MARINATOS & PALYVOU 2007.
- BULLE, H.
1907 *Orchomenos I. Die älteren Ansiedlungsschichten*, München.
- CAMERON, M.A.S.
1968 Unpublished Paintings from the House of the Frescoes, *BSA* 63, 1–31.
1975 *A General Study of Minoan Frescoes with particular Reference to Wall Paintings from Knossos*, 4 vols., unpublished PhD thesis, University of Newcastle-upon-Tyne (copy housed at the British School of Archaeology at Athens).
- CHAPIN, A.
2004 Power, Privilege and Landscape in Minoan Art, 47–64 in: A. Chapin (ed.), *Charis. Essays in Honour of Sara A. Immerwahr*, Hesperia Supplement 33, Princeton.
- CZERNY, E., HEIN, I., HUNGER, H., MELMAN, D. AND SCHWAB, A. (eds.)
2006 *Timelines. Studies in Honour of Manfred Bietak*, OLA 149, Leuven – Paris – Dudley MA.
- DOUMAS, C.
1992 *The Wall-Paintings of Thera*, Athens.
- DEMAKOPOULOU, K.
1990 The Burial Ritual in the Tholos Tomb at Kokla, Argolis, 113–123, in: R. Hägg and G.C. Nordquist (eds.), *Celebrations of Death and Divinity in the Bronze Age Argolid. Proceedings of the 6th International Symposium at the Swedish Institute at Athens, 11. – 13. June 1988*, Stockholm.
- EVANS, A.J.
1921 *The Palace of Minos at Knossos*, vol. I, London.
1930 *The Palace of Minos at Knossos*, vol. III, London.
1935 *The Palace of Minos at Knossos*, vol. IV, London.
- EVELY, D.
1999 *Fresco. A Passport into the Past. Minoan Crete through the Eyes of Mark Cameron*, Athens.
- FORSDYKE, J.
1952 Minos of Crete, *JWCI* 15, 13–19.
- FYFE, T.
1902 Painted Plaster Decoration at Knossos. With Special Reference to the Architectural Schemes, *JRIBA* 10, 107–131.
- GANDER, M.
2009 Materiallimitationen. Bemalte Gefäße aus Gräbern des Neuen Reiches aus dem Ägyptischen Museum und Papyrussammlung Berlin, *SAK* 38, 83–99.
- HALLAGER, E.
1985 *The Master Impression. A Clay Sealing from the Greek-Swedish Excavations at Kastelli, Khandia*, SIMA 59, Göteborg.
- IMMERWAHR, S.
1990 *Aegean Painting in the Bronze Age*, Pennsylvania.
- KAISER, B.
1976 *Untersuchungen zum minoischen Relief*, Bonn.
- KRZYSZKOWSKA, O.
2010 Impressions of the Natural World. Landscape in Aegean Glyptic, 169–187, in: O. Krzyszkowska (ed.), *Cretan Offerings. Studies in Honour of Peter Warren*, British School at Athens Studies 18, London.
- KYRIELEIS, H.
1968 Eine Eigenart spätminoischer Reliefarbeiten, *MarbWPr* 1968, 2–21.
- LAMB, W.
1919–1921 Frescoes from the Ramp House, *BSA* 24, 189–199.
- LANG, M.L.
1969 *The Palace of Nestor at Pylos in Western Messenia*, vol. II: *The Frescoes*, Princeton.
- MARINATOS, N.
1998 The Tell el-Dab^a Paintings. A Study in Pictorial Tradition, *Ä&L* 8, 83–99.
2000 The Hunting Scenes from Tell el-Dab^a: Hunting in a pink Landscape, 259–265, in: *Πεπραγμένα Η' Διεθνούς Κρητολογικού Συνεδρίου, Ηράκλειο, 9. – 14. Σεπτεμβρίου 1996, Τόμος Α2*, Herakleio.
2010 Lions from Tell el-Dab^a, *Ä&L* 20, 325–355.
- MARINATOS, N. and MORGAN, L.
2005 The Dog Pursuit Scenes from Tell el-Dab^a and Kea, 119–122, in: MORGAN 2005.
- MARINATOS, N. and PALYVOU, C.
2007 The Taureador Frescoes from Knossos. A New Study, 115–126, in: BIETAK, MARINATOS & PALYVOU 2007.
- MILITELLO, P.
1998 *Haghia Triada I. Gli Affreschi*, Padova.
2001 Gli affreschi minoici di Festòs, *Studi di Archeologia Cretese* 2, 13–221.

- MORGAN, L.
- 1988 *The Miniature Wall Paintings of Thera. A Study in Aegean Culture and Iconography*, Cambridge.
- 1995 Minoan Painting and Egypt: The Case of Tell el-Dab^a, 29–53, in: W. Davies and L. Schofield (eds.), *Egypt, the Aegean and the Levant. Interconnections in the Second Millennium B.C.*, London.
- 1998 Power of the Beast: Human Animal Symbolism in Egyptian and Aegean Art, *Ä&L* 7, 17–31.
- 2004 Feline Hunters in the Tell el-Dab^a Paintings: Iconography and Dating, *Ä&L* 14, 285–298.
- 2006 Art and International Relations: The Hunt Frieze at Tell el-Dab^a, 249–258, in: CZERNY et al 2006.
- 2010a A Pride of Leopards. A Unique Aspect of the Hunt Frieze from Tell el-Dab^a, *Ä&L* 20, 263–301.
- 2010b An Aegean Griffin in Egypt. The Hunt Frieze at Tell el-Dab^a, *Ä&L* 20, 303–323.
- forthc. *Keos XI. Ayia Irini: The Wall Paintings of the Northeast Bastion*, Mainz.
- MORGAN, L. (ed.)
- 2005 *Aegean Wall Painting. A Tribute to Mark Cameron*, British School at Athens Studies 13, London.
- PALYVOU, C.
- 2000 Concepts of Space in Aegean Bronze Age Art and Architecture, 413–436, in: SHERRATT 2000.
- RODENWALDT, G.
- 1912 *Tiryas II. Die Ergebnisse der Ausgrabungen des Instituts. Die Fresken des Palastes*, Athen.
- 1921 *Der Fries des Megarons von Mykenai*, Halle.
- VON RÜDEN, C.
- in print Minoan Style Reliefs in Tell el-Dab^a. A Case of Trans-mediterranean Knowledge Distribution, in: *Proceedings of the International Conference 'Minoan Archaeology. Challenges and Perspectives for the 21st Century'*.
- SEEBER, R.
- 1994 Minoische Fresken in Ägypten, *Restauratorenblätter* 14, 12.
- 2000 The Technique of Plaster Preparation for the Minoan Wall Paintings at Tell el-Dab^a, Egypt. Preliminary Results, 91–102, in: SHERRATT 2000.
- SCHMITZ-PILLMANN, P.
- 2006 *Landschaftselemente in der minoisch-mykenischen Wandmalerei*, ed. V. Stürmer, Berlin.
- SHAW, M.
- 2005 The Painted Pavilion of the 'Caravanserai' at Knossos, 91–111, in: MORGAN 2005.
- SHERRATT, S. (ed.)
- 2000 *Proceedings of the First International Symposium 'The Wall Paintings of Thera'*, Thera 30. August – 4. September 1997, Athens.
- TSOUNTAS, C. and MANATT, J.I.
- 1969 *The Mycenaean Age. A Study of the Monuments and Culture of Pre-Homeric Greece*, Amsterdam.
- VLACHOPOULOS, A.
- 2000 The Reed Motif in the Thera Wall Paintings and its Association with Aegean Pictorial art, 631–656, in: SHERRATT 2000.
- WINKELS, A.
- 2007 Restauratorisch-naturwissenschaftliche Untersuchung von Tuthmosidischen Putzen aus 'Ezbet Helmi/Tell el-Dab^a, *Ä&L* 17, 273–293.
- WOOLLEY, C.L.
- 1955 *Alalakh. An Account of the Excavations at Tell Atchana in the Hatay, 1937–1949*, Reports of the Research Committee of the Society of Antiquaries of London XVIII, Oxford.

