

The Nemrud Dağ Project: third interim report

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Abstract

The third campaign of the Nemrud Dağ Project, in 2003, primarily aimed at the protection and conservation of the four tuffit dexiosis reliefs and the lion horoscope on the West Terrace. These were brought to a temporary on-site restoration laboratory, where, in the next years, they will be treated. Furthermore, the statue of Antiochos on the East Terrace was restored by partial dismantling and rebuilding, and the northern statue of the Eagle and the base were partly restored; a job to be fully completed in the next campaign. This work also resulted in some new observations concerning stone working techniques, building structure, letter marks and style of the colossi. The archaeological work furthermore consisted of documentation (SIS) and taking an inventory of remains from Nemrud Dağ in the storerooms of the museum of Adıyaman. This report also contains an essay on the life and work of Theresa Goell, Nemrud Dağ's main explorer in the last century.

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1 INTRODUCTION

The 2003 campaign of the Nemrud Dağ Project had two main points of interest. First, we aimed at the protection and conservation of the four tuffit *dexiosis* reliefs and the lion horoscope on the West Terrace by bringing these reliefs to an on-site restoration laboratory (the tuffit project, cf. section 4.1; fig. 1). In this restoration house, the reliefs will be protected from the tough weather conditions, especially the heavy snow (cf. section 2) and, in the next years, can be treated (cf. section 4.1). In order

to accomplish this work, the reliefs mentioned had to undergo pre-conservation. They then had to be lifted and transported over a road that had to be built over the existing one, to the newly built, pre-fabricated and temporary restoration



Fig. 1. The West Terrace Apollo dexiosis in the process of being lifted from its position into a truck to be transported to the restoration laboratory (photo J. Venneman).



Fig. 2. Arrow head found in the fill of the base of the northern Lion and Eagle (statues H and I) on the East Terrace (photo J. Venneman).

laboratory. Moreover, some of the limestone colossal statues on the East Terrace were (partly) treated and restored (the limestone project, cf. section 4.2). From the north slope of the East Terrace podium, 14 fallen-down blocks belonging to Eagle (H) and Lion (I) were lifted and put next to the terrace in order to be able to fully document them and to put them back sequentially on their restored base. Also, emergency measurements were undertaken on the statue of Antiochos (C).

Simultaneously, the archaeological research, which started during the first two campaigns, was continued (cf. section 3). There were a few (stray) finds while the conservation work that was undertaken prompted some interesting new observations and hypotheses. We worked on the completion of the Site Information System (SIS) and integrated our changes to the physical appearance of the site into this documentation system. Furthermore, we substantially advanced in making an inventory of the artefacts from Nemrud Dağ, mostly parts of the tuffit *dexiosis*- and ancestor reliefs, in the storerooms of the Adiyaman Museum. The campaign lasted from the 1st of June to July 30, 2003.¹

2 SITE CONDITION

On our arrival, we found the site in the same condition as we left it in last year. The snow barrage built behind the *dexiosis* reliefs and the lion horoscope on the West Terrace in order to protect these from falling down, as had happened with two of the reliefs in the winter of 2001-2002 due to the pressure from snow coming from the tumulus, proved to have functioned very well.² The inclined steel pipes of the barrage were deformed by the heavy weight of snow, but there was no new damage to the reliefs. The barrage was removed in the first week of our campaign. Due to the extreme climatological circumstances on top of Nemrud Dağ during the winter, some of the poles of the fence system had broken off. The material of the barrage has been reused for the frames for the transport of the same reliefs to the restoration house (figs. 1, 17).

We made repairs to the well functioning fence system and extended it by erecting new series of poles on the West Terrace. This system must prevent visitors from climbing onto the statues and reliefs, causing damage to the monument.

3 ARCHAEOLOGICAL RESEARCH

The archaeological work consisted of some finds (cf. section 3.1), the completion and up-dating of the Site Information System (cf. section 3.2), new observations and the development of new ideas on the interpretation of the monument (cf. section 3.3) and the beginning of a database of all parts of reliefs and other artefacts from the *hierothesion* that are now in various Turkish and international museums (cf. section 3.4).

It is interesting to note that the ongoing conservation and restoration projects enable archaeologists to get a better insight into the building of the monument. The partly dismantling and rebuilding of the statue of Antiochos, East Terrace (C) provided the unique opportunity to study its building structure from the inside, while emergency works on the East Terrace Herakles (G) revealed clues on the building of the colossi themselves.

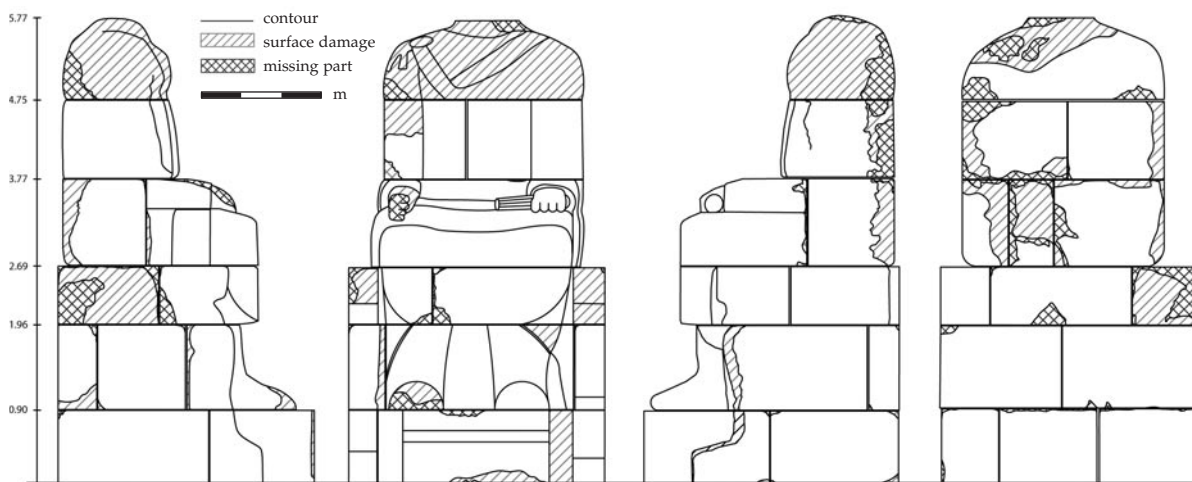
3.1 Finds

Similar to the works carried out by Theresa Goell, our archaeological explorations did not yield many finds so far. This campaign, the removal of the fill of the base of the northern Eagle and Lion on the East Terrace (statues H-I) brought to light one iron arrowhead (fig. 2), whereas at the opposite side, under the north-eastern corner of the A-B statues of the animals, a ceramic sherd was found.³ Worked pieces of limestone were found in the debris and sustaining wall behind the row of statues on the East Terrace and could be partly identified as fragments of the statues themselves. These last finds were no surprise, as Antiochos' head and the fragments of Kommagene had been there for many years, the most substantial fragments being hoisted to the terrace in 2002.

a. Arrow head

Hammered iron head, well preserved and only slightly corroded.⁴ It has a lancet-shaped blade, finishing into a now turned point and having a ring at the lower side. The long pin at its end was to be inserted into a wooden shaft (fig. 2).

The turned point proves that the object has been used. Theresa Goell found an almost identical piece, and other such pieces are well known from



Figs. 3-6. The four sides of the statue of Antiochos (C) on the East Terrace as preserved after rebuilding in 2003 (drawings by A.A. Roeloffs, University of Amsterdam).

Arsameia ad Nymphaeum.⁵ Concerning the iron head from Nemrud Dağ found by Goell, D. Storch wrote: 'that this suggested some final struggle that immediately preceded the abandonment of the site', but this is rather speculative and one may also think of other explanations. The fact that our piece was found deeply hidden corresponds with Goell's case and we may, therefore, attribute the object to the period of Antiochos' building activity; perhaps it was just used for hunting.⁶

b. Fragment of tiara

L 121,⁷ fragment of the tiara of Antiochos on the East Terrace found in the sustaining wall of the tumulus behind the statue itself. It shows fragments of triangles like the top of the Antiochos' tiara on the West Terrace. As there are remains of epoxy, it must have been glued to now missing parts of it.⁸

c. Fragment of tiara or base with claw of eagle

L 122 is a quarter of a circle, slanting in its profile and showing smooth sides, found like no. 6.⁹ It may form part of the tip of a tiara, in that case that of Herakles or Zeus on the East Terrace. The slanting profile, however, makes it more probable to attribute it to the northern Eagle, i.e. the round base under its claws.

d. Fragments of statues

L 123-136, 142: 15 undeterminable pieces of worked limestone, mostly showing one or two worked sides and also found in the sustaining wall. It is probable that many of these parts belong to the fifth or sixth layer of the Kommagene, destroyed severely and split into many pieces.

3.2 The SIS (with Tesse D. Stek & Ellen Thiermann)

The Site Information System (SIS) proved to be of great help in the restoration activities executed this campaign on the East Terrace. While during the last years the situation on the terraces themselves was documented, thus far the standing parts of the colossi had received less detailed attention. In view of the partial dismantling of the statue of Antiochos, East Terrace (C), we decided to make drawings of the *in situ* situation; all documentation hitherto (including Goell's) was photographic. Figs. 3-6 show the Eastern Terrace Antiochos (C) from four sides and document, together with the photographic and other data already in the SIS, the 2003 situation after the partial dismantling and rebuilding. Besides this work, we have mainly been engaged with filling in lacunae of the SIS, like the many parts of tuffit reliefs and other elements that lay scattered around the site. Moreover, we constantly had to update the SIS as the restoration and conservation works continuously change the physical appearance of the site. During 2003 the campaign, these new data were imported into the SIS on a daily basis by Jurriaan Venneman (*fig. 7*).

3.3 Some new observations

3.3.1 Stone working techniques

An inventory of the stone working techniques that have been used in building the limestone elements of the monument has not been made before. In close co-operation with Christoph Kronewirth, the

team's stone conservator, we studied the working traces, especially those on the surfaces of bottom and top of the blocks of Antiochos. This work was made possible when we hoisted the blocks for restoration (cf. section 4.2).

The top and bottom surfaces of the blocks that form the Antiochos statue show abundant marks of tooth and pointed chisels, whereas the sides show fewer traces because of weathering. The surfaces are rather rough and nowhere show entirely smooth faces. Apparently, in some cases pointed chisels were used to flatten the surface when the blocks were placed into their final position and resulted to be slightly too thick. The masons worked hastily and in various directions. When we rebuilt the Antiochos blocks, we could observe that the work had not been done with great care: many levels were not exactly horizontal. Neither preparation lines nor other technical features like *anathyrosis* were applied. On the upper side of layer 2, the legs, a small drip of lead, of the size of a coin, was found (fig. 8). It does not look like a specific technical item and could have fallen, when lead was used for other purposes. No other traces of lead were found.

On top of some blocks (not only of the Antiochos, but of other statues as well), we observed rectangular shallow indents at the sides. These had been cut out before systemising the blocks and served



Fig. 8. Drip of lead on the upper side of layer 2 of the statue of Antiochos (C), East Terrace (photo J. Venneman).

for the precise fitting of these blocks, according to a common practice in Greek architecture: the workmen placed crowbars on those spots under the block of the following layer and could move the blocks rather easily into their final position, despite their enormous weight.¹⁰ In fact, our workmen also used this technique when they put the Antiochos blocks into position.

One of the reasons to have a closer look at the stone working techniques was our idea, inspired by Carl Nylander's *Ionians in Pasargadae*, that this might perhaps provide some specific notions in the discussion about the 'Western' or 'Eastern' character of the *hierothesion*.¹¹ If the monument would have been built by workers using Greek methods this does not automatically imply that we can characterise it as Greek, as Nylander has



Fig. 7. Part of the digitalised plan of the East Terrace showing the situation at the end of the 2003 campaign, with the sandstone remains indicated as well as a more detailed image of the platform in front of the statues.

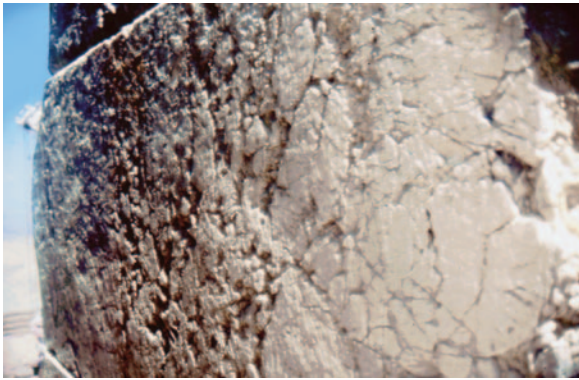


Fig. 9. Northern side view of the statue of Zeus (E), East Terrace, clearly showing irregular stripes of pointed chisel working at the back side (photo M.J. Versluys).



Fig. 10. Top view of layer 5 of the statue of Antiochos (C), East Terrace, with the mortar filling of the inner side of the two blocks of this layer (photo M.J. Versluys).



Fig. 11. The statue of Antiochos (C), East Terrace, fill of layer 1 (photo J. Venneman).

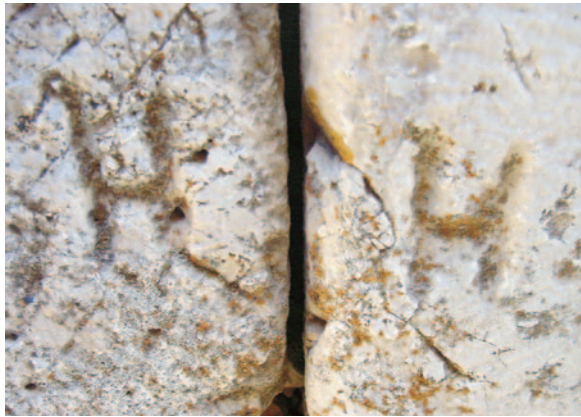
convincingly shown in his case, but it would still be an interesting conclusion. Unfortunately, this is impossible to ascertain, as in the late Hellenistic period specific ways of building and specific building instruments (like the pointed chisel) were already widely and generally established around the (Eastern) Mediterranean. What can be said though is that in general the stone is worked in very differing ways, sometimes smoothly and refined, often roughly and irregularly (fig. 9). This observation can be used as an argument in favour of those who argue that the monument has not been finished, but other explanations are also imaginable. Perhaps, as we have already seen several times, a detailed and refined working off was simply not considered important.

3.3.2 Observations on the building structure of the statue of Antiochos, East Terrace

The (partial) dismantling of the statue of Antiochos on the East Terrace (see section 4.2 18-21) enabled us to get a better insight into the building structure of this colossal statue.

When layer 6 (one large shoulder piece) was lifted on the terrace, we noticed a white discoloration at the bottom of this block. In inspecting the upper part of layer 5 (consisting of two relatively smaller blocks) the reason for this became apparent: the blocks were partly hollowed out on the inside and the round gap thus created had largely been filled up with white mortar (fig. 10). That some of the blocks of the colossi were hollowed out was already known; the West Terrace provides some fine examples of this practise. However, the use of mortar during the construction (or restoration) of the statues had not been established so far. Apparently, the mortar had been applied from below. This becomes clear from its uneven upper surface and of organic material present between the fill and stone. We cannot, therefore, but conclude that when layers 1 to 6 were already *in situ* the mortar was added from inside the already built up statue. This suggests a later (restoration?) phase; if the mortar would have been applied in the original construction process it would have been much easier and practical to apply it before the lifting and positioning of layer 6. It is important to notice that there is no structural need for the presence of the mortar at all. Its presence thus must have had another, perhaps practical reason.

Another observation was that of a corbelled vault under level 6. The breast blocks show their hollow insides in a way that a sort of vault is



Figs. 12-13. Southern side of the statue of Herakles (G), East Terrace showing the letter marks H en O (photos J. Venneman).

formed. Besides, the block at the backside shows a partly slanting surface on top.

Layer 1 has a fill consisting of one well-worked square block in the centre surrounded by earth and small pieces of stone. Apparently the stability of the statue was enhanced by this element, although it was no necessary intervention from the point of view of structural stability. We left the piece in its position and refilled the emptied space around it with clean small pieces of limestone (*fig. 11*).

3.3.3 Letter Marks on the East Terrace Statues

During a close inspection of the East Terrace Herakles (G) we discovered Greek characters on the north and south walls near the joints of the blocks (*figs. 12-13*). They first looked like slight damages to the stone as seen everywhere, but upon more intensive observation, we could conclude that they really are letters. Although Theresa Goell must have seen them, she made no notes about them that could be included in Sander's monograph.¹²

The south wall of the Herakles has on the first layer twice an I, on the second a double H, in the third layer a double O, the left one being oval and turned to its left by 90° (*figs. 12-13*). The north wall has in its lower layer a couple of mirror-facing E and two times an X in the shape of a + and in the second tier a pair of Θ. The north face of the Antiochos shows in the second layer on blocks L 104 and L 108 an X, the Apollo shows in the lower layer on the north side twice an O and twice an I. The Zeus, finally, has a couple of I on the first layer of the northern side. These marks are only present on the flanks of the statues and have not been applied in every layer.

We know of three reasons to apply such letters to blocks: 1) mason's marks, 2) assembly or setting marks and 3) paying marks. All of them occur rather frequently in the ancient world. The most probable explanation for the tokens at Nemrud Dağ, however, is option 2), as the position of the letters next to the joints and always in exactly the same height on the blocks is striking.¹³ They have been found from the classical period onwards in all sorts of monumental buildings in the Greek and Hellenistic world.¹⁴

Could it mean that the makers introduced Greek working methods to the east of Anatolia (cf. also section 3.3.1)? We can only conclude that all letterings are Greek. The hitherto not interpreted inscription on the lower side of the Herakles' shoulder on the West Terrace could be seen as another sign of assembling.¹⁵

3.3.4 The heads of Apollo and Antiochos on the East Terrace (Eric M. Moormann)

An additional advantage of systemising all heads of the colossi on the East Terrace in one row is that one can study and compare them more attentively.¹⁶ It soon becomes clear that the heads of the king and Apollo differ in several respects from the other ones (*figs. 14-15*). The material seems to be harder than the other limestone heads and is whiter. The sculptural quality also looks higher than that of the others. It is striking that the faces are much more round and possess smaller mouths, which, besides, are closed instead of open, according to the Hellenistic pathos formula of the other figures. It was recorded in our first interim report that the Antiochos head had not been finished, having unworked ears, left flat. There it



Fig. 14. Head of the statue of Apollo (F), East Terrace, frontal view (photo J. Venneman).



Fig. 15. Head of the statue of Antiochos (C), East Terrace, frontal view (photo J. Venneman).

was only tentatively suggested that the Apollo might not be finished either.¹⁷ The shape of the mouths and the fact that they are not open may be additional reasons to once more put forward this suggestion. Moreover, the eyes lie not as deep as those of the other gods and the roundish outline of the face may be taken into account as well.

The dimensions of these two heads are considerably smaller than those of the other gods and that is also true for the set of heads on the West Terrace. The striking similarity between the Apollo and Antiochos heads may suggest a special bond between them, although this does not become clear from the position of the figures within the ensemble or from the inscription on the back.

The set of differences leads to a closer comparison with the figures on the West Terrace that had always been seen as different from the eastern statues. In fact, these statues show a far better sculptural quality than the East Terrace figures, with the exception of the two heads under discussion. It is thus attractive to suggest the possibility that the same workers who made the heads on the West Terrace produced these two heads on the East Terrace: sculptural style, colour and composition of limestone and dimensions are all alike. Both Antiochoi on the West and East Terraces consist of two layers: the head and the Armenian

tiara.¹⁸ If the proposal of the unfinished Antiochos (and possibly Apollo) of the East Terrace is true, this may provide a clue for a further phasing of the chronology of Antiochos' limestone project. The West Terrace might have been made later, forming the second element.

To support this idea some more indications can be taken into account.

- a. The quality of the West Terrace ensemble as a whole is better, both in stylistic and technical sense.
- b. Although the makers of the statues on the West Terrace miscalculated the effect of the bedrock regarding the stability of the statues in seismic situations and used this bedrock in the lower layers of the figures, they had a better understanding of how to construct the statues. The elements fit better into their structural organisation. It is striking that no dowels and pins were necessary to fix the heads, as the gravity points were well calculated in the rear of the heads, for which reason they stand with the backside more bent to the back.
- c. The creation of the platform took much more time: the East Terrace remained more or less in its original shape, as one may conclude from seeing the bedrock under the statues being less systematised and much higher than the level

of the terrace.¹⁹ The West Terrace never took its final shape, because the original part of the mountain at the southern edge was used for making gravel but never entirely removed.

If this is true, we must reconsider the meaning of Antiochos' inscription saying that he was old when he created the *hierothesion*. Were the statues indeed made in a short lapse of time and was this large text created simultaneously, or was the East Terrace arranged previously and did the text refer to the date of erection of the colossi on the Western Terrace in the first instance only?

A fascinating aspect of the king's representation is his youthfulness on the *dexiosis* slabs (Mithradates) and the two colossal portraits (Antiochos): he is beardless, more or less without age. This representation contrasts with that of the ancestral portraits on the sandstone reliefs, which have long beards. When we look at other Hellenistic dynasts in Anatolia like Mithradates of Pontos or Nikomedes of Bithinia, we observe that they are similarly beardless. R.R.R. Smith sees this as a sort of Romanisation and marks these dynasts as *philorhomaioi*.²⁰

3.4 Dispersion of artefacts from Nemrud Dağ (with Ellen Thiermann)

In the storerooms of the museum of Adıyaman are 62 large wooden crates with relief fragments and other pieces of tuffit (and also some limestone) from the *hierothesion* on Nemrud Dağ. In the 2003 campaign we were able to continue the documentation, planned to be finished next year. It is our aim to arrive at a complete inventory of this material, which is indispensable for the tuffit restoration project but also of archaeological interest. The final goal is a publication, including descriptions and photographic documentation of *all* sandstone material from Nemrud Dağ.

The restoration project of the tuffit statues and stelae on Nemrud Dağ aims at the documentation of the *status quo*, the preservation in appropriate conditions (which includes, for some pieces, the removal from the site) and restoration (see also section 4.1). The restoration will include the reunion and re-incorporation (where feasible and desirable) of the museum fragments and the *in situ* pieces of stelae and statues that are planned to be displayed in a future site museum. Although the tuffit remains have been dealt with by J.H. Young in a, as we have now been able to check, very precise and exemplary way, their present whereabouts and documentation is chaotic. As far as the reconstruction of, for instance, the ancestor reliefs is

concerned, during this campaign we found that little can be added to Young's publication. Young worked on the site and was probably present while the material was being unearthed. His interpretation of the fragments as belonging to a certain relief is thus based on an *in situ* situation of the archaeological material, which we now lack. However, changes in the state of preservation of the fragments in the Adıyaman museum, the lack of an inventory list that can be linked to Sanders 1996, and new pieces that have been brought to the museum since Goell's team left the site make an update of Young's study necessary. Although the large majority of the finds is stored in the Adıyaman museum, some other locations preserve fragments of tuffit reliefs from Nemrud Dağ or relevant secondary information (rubber squeezes, casts, photographs etc.): the Museum of Anatolian Civilisations in Ankara, the Staatliche Museen Preussischer Kulturbesitz in Berlin, the University of Münster and some places nearby the site. This material will be incorporated in the database and may hopefully be used within the restoration project.

A nice example of this 'fitting together the pieces' was recently presented to the archaeological world and is worth mentioning here.²¹ On the Western Terrace Herakles *dexiosis* stela, the upper part of the head of the king is at the present time missing. It has become clear that it was illicitly taken from the site. The piece recently returned, thanks to S. Şahin and the Archaeological Museum in Münster, to the Museum of Anatolian Civilisations in Ankara.

4 CONSERVATION AND RESTORATION

4.1 The tuffit project

As had been decided in 2002 the five famous reliefs from the West Terrace (viz. the four *dexiosis* stelae and the lion horoscope) were to be removed to a temporary restoration laboratory as soon as possible. The severe climatological circumstances did not allow leaving them at the spot any longer - where Dörner had erected them in the early 1980s. The realisation of the infrastructure for the execution of the tuffit project, i.e. the building of a restoration house and a road from the West Terrace to this laboratory (necessary for the movements of the ENKA crane and truck that transported the reliefs to the laboratory), proved to be more difficult and time-consuming than we had expected and planned. However, in the 7th week of our campaign the road leading from the West

Terrace to the restoration house and the laboratory itself were finished. The building, prefabricated by ENKA, was placed on a rather flat area at the north flank of the mountain. It measures 13 x 6 m and is 6 m high (fig. 16). It has an electric winch inside with a capacity of 6.3 tons in order to make movements with the stone objects possible. Here, the five reliefs from the West Terrace were stored in the last week of July. The Kommagene and Herakles stelae which were broken off in the winter of 2001-2002 were moved in their actual horizontal position to the new accommodation and will remain so until restoration work starts, whereas the three other slabs could be installed in their original vertical arrangement along the northern wall of the house, resting firmly in frames made from the iron poles of the snow barrier.

In order to make transport possible, the restoration expert Selçuk Şener from Ankara University and three of his students, assisted by Eberhard Wendler, specialist in stone treatment, had carried out tests and realised a so-called pre-conservation. This means that the reliefs were treated in a way to make them removable. The stones were taped with cotton and glued with PIRIMAL AC-33 and at the day of moving they were given a last, temporary fixing layer of Cyclododecan ($C_{12}H_{24}$) that evaporated completely after a couple of hours. With help of the iron frames, the transport of the highly friable stelae could be realised (fig. 17).

When hoisting it could be observed that Dörner had used pins in the bottom of the lion horoscope, whereas the others, still possessing their original tongues at the beginning of the 1980s, were placed into the sockets of the basis slabs and fixed with a very hard cement. The tongue of the horoscope has been preserved and glued with epoxy. The lower part of the Zeus stela, broken off from the upper zone at the same place where Dörner had placed iron pins, was not removable because of that cement (see fig. 17, left).

4.2 The Limestone Project

As to the colossal statues on the East Terrace the stabilisation of the bedrock underneath and the structural improvement of the pieces themselves are the main points of concern. Furthermore, restoration of single blocks will be necessary. During the 2003 campaign the figure of Antiochos, statue C (see figs. 3-6 and 18-21) and the basis with the Eagle and the Lion at the northern side, statues H-I (see figs. 22-23) were subjects of treatment, whereas the restoration of the upper



Fig. 16. The temporary restoration laboratory provided by ENKA (photo J. Venneman).



Fig. 17. Hoisting of the Apollo dexiosis relief, West Terrace, the iron frame lying ready behind it (photo J. Venneman).

layers of the Kommagene was postponed to a following campaign.

Antiochos' three upper layers (from lap to shoulders) were entirely hoisted by the ENKA crane drivers as well as some of the frontal blocks of layers 1 and 2 (figs. 18-19). The stabilisation problem could be observed near the right foot of the king, where the side block of the throne had



Figs. 18-19. Hoisting of layer 6 and part of layer 5 of the statue of Antiochos (C), East Terrace (photos J. Venneman).



Figs. 20-21. Southern side of the statue of Antiochos (C), East Terrace, before and after the restoration (photos J. Venneman).



Figs. 22-23. Reconstruction of the base of the statues of Eagle (H) and Lion (I), East Terrace: in progress and result at the end of the campaign (photos J. Venneman).

to be temporarily removed. Here, the bedrock was cleaned and the cavities were filled with pieces of local limestone fixed with cement mortar at the proposal of our structural engineer and seismic expert Predrag Gavrilovic. Cracks in front of the footstool were also cleaned and filled with stones and grout, finished with a thin upper layer of lime mortar.²²

The blocks that had been taken off were inspected by Kronewirth who repaired cracks in some of them with lime mortar. The greater cracks were restored more drastically: our restorer drilled holes of some 20-30 cm through the cracks' surfaces and filled these with fibreglass pins and epoxy.²³ One block, broken into two parts, was repaired by the same technique of fibreglass pins and epoxy, whereas the breaks were glued with SIKADUR B-52. Some blocks remained on the spot and could be put into their proper position by means of slight hoisting and pushing with a crick. The re-composition proceeded well, but because of strong winds we could not hoist easily. While putting the blocks into their original position, we could observe that they frequently show negligent mason's work, not being of precise forms and having uneven upper and lower surfaces (cf. section 3.3.1). Therefore, the bottoms sometimes had to be sustained with blades of lead in order to reach a well-levelled upper layer.

The re-erection of the king's head was also discussed: it consists of two parts (head and Armenian tiara) and was transferred in 2002 from its position behind the statue to the terrace. In both matters of statical/structural stability and conservation, this replacement would yield no serious problems according to our experts Gavrilovic and

Kronewirth. To ensure stability, however, the layers 5 (lap-upper body), 6 (shoulders) and 7-8 (head, tiara) should be connected with steel pins, a method that is not reversible. Moreover, the head needs extra treatments (large cracks in tiara should be repaired etc.). After several debates, all participants agreed that the point of reversibility forms the main argument against re-erection. A secondary disadvantage is that the blocks in the upper layers of the statue can no longer be hoisted, when fixed by the pins. On the other hand, the elements of the statues standing on the ground suffer more than those *in situ* (herbs, climbing tourists, vandalism and the like). We will study alternative methods and may come to a new decision in the future.

The work at the northern side of the ET concerned the base of the statues H and I, the guardian animals, Lion and Eagle, the latter of which was still half standing *in situ*. The blocks that had fallen down from the slope were collected and arranged next to the terrace, while the base was cleaned and restored. The interior of the base showed a crumbled surface on the place of the Lion that had to be removed in order to arrive at the solid bedrock some 40 cm below the base's level. This was treated with grout in order to close the remaining cracks in the rock and the lacuna caused by brittle of the carstic limestone was filled with lime stone pieces and grout to get a proper stabilisation (fig. 22). The area under the Eagle was less severely afflicted and was cleaned in the upper section only. The basis wall was restored and the interior refilled with some layers of stone in the ancient dry masonry technique. One block on the frontal side had broken and was pieced together by Kronewirth with glue, whilst another at the back has to be completed

with a newly hewn piece of limestone (figs. 22-23).

As to the Eagle, most pieces are in a good state of conservation. The left wing of the second layer was repaired with two fibreglass pins. The five blocks could be replaced at the last working day, July 29, but there was no time to complete the reconstruction including the head as the strong winds impeded further hoisting.

5 OUTLOOK FOR THE COMING YEARS

Firstly the Limestone Project. As the work on the northern side of the East Terrace could not be completed in 2003, we will continue the re-erection of the Eagle, including its head, and the Lion. At the same time, we hope to reconstruct the base of the guardian animals A and B at the southern side of the slope. Again, part of the Eagle (only one block) is still standing *in situ* whereas the other elements have fallen down the slope. The documentation of the last three years has ensured us that there are sufficient elements to rebuild these two statues.

As to the statues of the gods, the most endangered one is the Herakles statue. Apart from the numerous cracks in the blocks, the block of the lap (level 4) is broken into at least three pieces. The bedrock under the figure has brittle severely and must be inspected and reinforced.²⁴

Wendler's proposal to restore the surfaces of the limestone heads on the West Terrace and the inscriptions on the back of these colossi will be studied and, if feasible, we want to start the application of special material to replace the sandy particles in the interior of the limestone that cause cracks (water loosens the sand, freezes and creates small and big lacunae) by a chemical material.

Secondly, the Tuffit project. If Wendler's test on the sandstone elements yields good results, Şener will start to apply this material to the stelae in the laboratory. The lacking elements, many of which had been assembled by Theresa Goell and brought to the museum in Adıyaman, can be brought back and glued to the original spot. This is especially necessary for the Kommagene *dexiosis* that lacks more or less its entire relief surface.

Thirdly, the archaeological work. Besides the monitoring and documentation of the archaeological remains during the 2004 campaign, this work will focus on the tuffit remains on site and in the storerooms of the Adıyaman Museum. We need an inventory of both in order to be able to fully imply our restoration program for the lion horoscope, the *dexiosis* stelae and other sandstone decorations.

6 THERESA GOELL: A LIFE FOR NEMRUD DAĞ (ERIC M. MOORMANN)

Taking into account that nearly all 20th-century research at Nemrud Dağ had been carried out by one single woman, Theresa Goell, it was felt useful to do some research considering her in her archive files. The following gives some additions to the data already published by Donald Sanders. In fact, Sanders did a great job in organising and editing all paper files that Theresa Goell collected during her many stays at Nemrud Dağ. He presents a succinct but rather complete image of Goell's activities on the mountain and in the surroundings.²⁵

Theresa Goell had a long-lasting relationship with Harvard (see *infra*) for which reason her brother Kermit Goell bequeathed her archive to this institution in 1986, in particular to the Schlesinger Library of Radcliffe, which holds other archives of alumnae in custody. As this library only collects personal documents, the archive was subdivided and the material concerning the scientific research of Kommagene was stored in the Semitic Museum at Harvard in the same year. Sanders' monograph did not include data from the small amount of papers in the Semitic Museum, but our research did not change the results as a whole. There are, however, some interesting items and numerous slides and photographs, mostly covering the illustrations in Sanders' book, but also giving details that he could not provide. Moreover, a few points which were puzzling during our first campaigns could be solved by studying this material, the occasion for which was made possible and agreeable thanks to Joseph Greene, assistant director of the museum, who was extremely helpful.²⁶

Theresa Bathseba Goell (1901-1985) was the second of three children, born in New York from a Jewish middle-class family and lived there for the greater part of her life excluding the periods during which she stayed abroad for her work.²⁷ She studied in Syracuse and was junior of Radcliffe at Harvard, when she married, in 1923, with the son of a famous rabbi, Cyrus Levinthal. The couple got one son, Jay Levinthal. Because of Cyrus' work the family moved to Cambridge UK, where Goell took the occasion to study architecture from 1926 to 1931. One of her tutors there was Theodore Fyfe who had worked as an architect at Knossos and probably inspired her to study archaeology. In 1933, she divorced and went to Palestina to work as an architect and took the first steps in archaeology at Gerasa, modern Jerash in Jordan. Later on, in the 1930s, she returned to New York

City with her son. Again, she worked as an architect in a designing studio, and during the Second World War she enrolled the Brooklyn Naval Yard, preparing models of war ships as the only woman among 1.200 men.

As a Radcliffe student, she had become aware of a serious handicap, viz. an increasing deafness, for which reason she learnt lip reading and even contacted the then famous Helen Keller, another alumna from Radcliffe. As soon as hearing aids came into being Goell profited from them, although the oldest generations were cumbersome to use because of their heavy batteries.

Despite the economic and social crises in her tormented life as young, divorced mother she did not abandon the idea of becoming an archaeologist. In 1939, she began to follow archaeology classes at the Institute of Fine Arts, New York University, with Karl Lehmann-Hartleben, who clearly inspired her to follow the path of study and to quit her job. Nevertheless, he advised her not to aspire to a PhD, as she would never enrol a university career because of her age and, still more, because of her deafness. As a topic, Lehmann suggested to read Humann and Puchstein's account on Nemrud Dağ forming quite an interesting theme for a paper. At various occasions, she would remember how he had inspired her to do so.²⁸ She also acted on his advice to stop working, albeit hesitantly, as she had been and wanted to remain an independent woman. However, for economic reasons she turned home and lived several years with her parents.

A great occasion was given to her when she was asked to join the American archaeological mission to Tarsus in South-eastern Turkey after the war, directed by Hetty Goldman from Princeton. This enterprising lady had started working there in 1934 and had carried out yearly campaigns until 1940, when the war made further investigations impossible. Goell travelled to Turkey at the end of 1946 and stayed there for three years, most of the time acting as mission's director because of Goldman's absence due to illness.

Before departure, she had promised the excavation's directory board not to marry (again) for at least two years: the mission had lost too many women for that reason! From the way Theresa Goell told that detail to Mrs. Latimer in the interview (see note 27), the reader may gather that she was an entirely independent person, not fearing any difficulty and willing to achieve great things in the same way men were presumed to do. Her career made her concentrate on that and not on family life any longer. The consequent use of her

proper family name Goell and the wish to be addressed as 'miss' underline this point. She often said that her sex was no problem when working in Turkey, as the local people saw her as *ana*, mother. She must have been a strong woman, not suffering from incommunities and even laughing at fellow-Americans who according to her were too weak. She integrated well into the local Kurdish society and conversed with them easily in their own language. Of special value is the atmospheric description of Goell's contacts with her local workmen by Kermit Goell.²⁹

It had been Lehmann who stimulated her to go to Tarsus, saying that she would come nearer to Nemrud. And, as a matter of fact, she succeeded in arriving there in 1947, despite countless difficulties. The account of her first visit has been reproduced in Sanders' Nemrud Dağ study.³⁰ In the summer of 1947 she travelled to Malatya, Gölbasi and Adıyaman from where she had her first glimpse of the peak. One day later, she arrived at the still tiny Yeni Kâhta, where she slept under giant portraits of Atatürk and İnönü and left five days later to Eski Kâhta. So she saw Karakuş and the Severan Çendere Bridge for the first time. From there, on horseback, she rode to Horik and the yayla, the summer resort of the local shepherds. 'The news of our excursion had spread like wildfire, and what had started as a lone scientific expedition, turned out to be a cavalcade of pilgrims going up to the sanctuary. Whilst I, on the one hand, was clinging for safety to my balking horse, the young boys were tapering around in Dionysiac frenzy, dancing up the mountain, or doing acrobatics on their animals.'³¹ The next morning, finally, the party reached the top from the eastern side and the spirit of the day before was still in vigour: 'Part of my objective in coming here was to make a "scientific" photographic record of the monument, but I found the boys who had run up the mountain ahead of us disporting among the Gods, climbing on their shoulders, lying in their laps and standing on their heads. I had great difficulty in taking "scientific" pictures....'³² Whereas the East Terrace made a great impression for its monumentality, the West Terrace did so, being 'a scene of utter desolation'. She was struck by the monument, especially the *dexiosis* stelae: 'These were found upside down in a sorry state of decomposition, a handy target for shepherds who whiled away their long watch by throwing stones at them, and it is amazing that any features like noses and eyes were left in tact. It is only due to the fortunate remoteness of Nemrud Dagh that it was spared the fate of other great Hellenistic cities

like Antioch, Tarsus, Ephesus and Pergamon; of becoming a stone quarry.³³

However, it would not be until 1953 that she could start working there. It was important to gain interest from sponsors and, above all, to get scientific credits from the American School of Oriental Research, in the person of its director, Carl H. Kraeling. The Bollingen Foundation, an organisation that was contacted by Lehmann, donated finances. In the following decades, her elder sister gave a lot of money ('Mr. and Mrs. Philip Godfrey'), whereas her brother Kermit, an architect like Goell, and his wife frequently participated in the campaigns. The 1963 campaign was sponsored by the National Geographic Society.

From the beginning onwards there were many problems, especially that of the provision of goods and work force: 'During the first season it became obvious that our problems would not be mainly archaeological, but those of adjustment to environment and conditions. Extremes of burning heat by day and bitter cold by night; the distance from a water source on Nemrud Dag; absence of trees for fuel and building shelter and equipment; wind, rain, hail and dust storms; the lurking bears all prevented our keeping to a hard and fast programme of work. Our workers were shepherds, unskilled labourers who had to be trained to use picks and shovels, and to work with men outside their own village without continuing their village and family feuds.'³⁴ Some of these problems did not vanish over the years!

Several details add colour to the description of her first ascent. She must have been one of the first western women ever to travel so far without company. Apparently, she was well considered by the local people. At Adıyaman she encountered a group of women. 'They seemed rather disgusted to find that everything I wore was cotton and not nylon, the eight wonder of the world in 1947. They even more deflated because I had no personal friends among the Hollywood stars, and could not give them any gossip about their special "pets" Clark Gable and Betty Grable.'³⁵ In the following pages, she rapidly summarizes the campaigns of 1953, 1954, 1955, and 1956.

Goell turned back to Turkey many more times and had a fruitful cooperation with Friedrich Karl Dörner as we know from their joint publications and from her correspondence. 1973 was the last year Goell was on 'her' mountain, already at an age of 72 years. Later on, she lived in New York where she died after a long illness. Donald Sanders remembers his single encounter with her, shortly before her death in 1985.

Martha Lubell, a niece who is preparing a film on her aunt, 'Queen of the Mountain', characterizes Theresa Goell in a striking manner: 'Theresa, who was my aunt, lived most of her life as an outsider: divorced, a Jewish woman working among Muslim men, alone in a field dominated by men, hard of hearing, and without the required Ph.D. necessary for academic success. Yet, Theresa found her spiritual home in a tent on Nemrud Dag, not in the Brooklyn social circles of her wealthy and domineering immigrant father.'³⁶

Excavation methods

Sanders' volume does not reveal Goell's daily activities on the mountain, apart from the large number of local people involved and the enormous amounts of rubble moved from the Eastern and Western platforms. Unfortunately, no images of the situation before Goell's interventions are given apart from the 1947 pictures, which is especially problematic when one wants to evaluate the trustworthiness of her methods and of her reconstruction of architectural features like the 'Fire Altar' and the steps on the East Terrace.

A glance upon the pictures in the Goell archive makes immediately clear that she was an excellent photographer, and made fascinating photos on the mountain with her Leica. These show a clear romantic feeling of decay, mystery and Great Things To Be Discovered: the fallen colossal heads, the lion horoscope partly covered by three-dimensional guardian animals are paired with good overviews like that of the stelae on the West Terrace, lying upside down on the rubble, whereas their sockets are half-hidden under the gravel.³⁷ A great number of slides in iron boxes are still of surprisingly good quality, both as to photographing and conservation of the colours. Miss Goell wrote her comment on the paper frames or on stickers glued on iron ones.

The material in the Semitic Museum does not give many clues either, but some details may be observed.

The process of cleaning the East Terrace can be seen on a photo dated 1953, on which Miss Goell (left, top) looks at the work on or near the 'Fire Altar' while two workmen are cleaning the area south of the southern row of stelae sockets and altars.³⁸ Some detail photographs show the moment of the discovery of one of the Ancestor Stelae between the sockets (left) and the row of altars (right).³⁹ One sees the red-and-white pole underneath the two fragments of one stela, but no indication of a field grid whatsoever can be seen. This is also true for the detail photos of the same slab.⁴⁰

No grid or whatever sort of location system is plotted and we must fear that, therefore, there are no excavation plans. 1953 was the first of the many campaigns and apparently the system (or better: the lack of a system) is immediately illustrated here.

One picture shows the situation of the conservation of the 'Fire Altar', seen from the north and with parts of two sandstone eagles and one lion of the same material.⁴¹ It must be noted how much these statues deteriorated over the 50 years to follow their exposure here (although it does not become clear whether Goell discovered them under the debris or saw them standing and lying as they are on the photos).

Working Circumstances

To reach the monument is nowadays a relatively easy task: the road from Kâhta leads to the cafeteria from which one walks a stepped road to the East Terrace. From the Malatya side the access by motorcar is even easier, as one arrives only slightly lower than the East Terrace. In Goell's days, one had to arrive by foot or on the back of a donkey. Dörner, as a former cavalry officer, always used to go around the area on horseback.

As late as 1963 the Lerici team (see below) still had to arrive from Eski Kâhta by foot and with animals carrying their working tools: 'Early Tuesday morning, August 6 [viz. 1963], we left Eski Kâhta by foot and animal for Nemrud Dag and rested half way up the mountain at Horik, the shepherds' settlement. Finally, after a strenuous ascent, the group reached the Nemrud Dag camp in the late afternoon.'⁴²

Goell's publications

The archive contains many drafts of articles, some off-prints and several versions of her Master Thesis on Nemrud Dağ to be submitted at New York University in 1961, but never given to her jury. The manuscripts consist of thick heaps of thin paper, typewritten and copied with carbon paper a couple of times. Hand-written improvements show that these versions were never the last ones. All these texts were edited by Sanders.

In fact, Sanders also used the preliminary publications as far as necessary, but it may be useful to present them on their own.

The first article we know is from 1952 and predates the first campaign Goell made at the mountain.⁴³ She claims it to be 'a project unequalled in the ancient world. Still practically unknown to art historians, it has received the attention mainly of epigraphers, theologians, and astronomers.' The

data, known from Humann, Puchstein *et alii* are clearly exposed and Goell announces the conclusion of Otto Neugebauer pertaining the Lion Horoscope.⁴⁴ Furthermore, she tells about her first visit in 1947 and that in 1951. Goell recognizes a link with the 'Anatolian-Hittite tradition' (p. 141) she already knew of the Tarsus excavations. Although the seated position of the colossi is like that of the Branchidae at Miletus, the link with the eastern tradition of colossal statues at Carchemish and Sinçirli is much stronger. As to the conception of a tumulus tomb she refers to both Iranian and near-eastern traditions. Goell announces research on the spot in the near future. The position of Antiochos and Apollo are changed.⁴⁵

This first project, carried out from 24 Augustus to 1 October 1953 is shortly presented in the second publication, the official report in the Turkish archaeological gazetteer, as late as 1956.⁴⁶ The clearing away of the debris on the East Terrace has made clear that there was a stepped construction carrying tuffit reliefs, among which a lion horoscope, at the foot of the colossi. Another discovery is that of the 'Stepped Altar', measuring some 13x13 m, and the tuffit lion and eagle 'that originally surmounted its apex'. Furthermore, the ancestor reliefs and their altars were partly cleaned. As to the tuffit reliefs on the West Terrace - which is briefly described, as no work was carried out there - Goell remarked the deterioration of their surfaces and 'the rapid disintegration. The lion horoscope in particular has lost parts of its face, stars, and inscription, as it seems to be a special target for visitors hurling stones at it.'

This series of published reports was apparently not continued and neither this nor other reports give all aspects of the exploration. In a short, more or less popular article, Goell and Dörner describe the creation of a path behind the eastern colossi and the fabrications of squeezes by Goell's brother Kermit.⁴⁷ As a result, the head of Antiochos and a part of his tiara were found behind the statue.⁴⁸ Goell's hope to discover Antiochos' tomb led her to a large-scale removal of the gravel from the tumulus and the search for an entrance in 1953, 1954 and 1955. Even with the assistance of the mine engineer Heinrich Bürger, she did not succeed.⁴⁹ Another popular account in the 1955 *Illustrated London News* included a short contribution by Kermit Goell on the squeezes made from various inscriptions and relief decorations.⁵⁰

A 1957 report gives the first longer account of the work carried out between 1953 and 1956.⁵¹ This report contains the well-known plans of the mountain and its surroundings made by Heinrich

Brokamp in 1954. Goell clearly describes the remains of the 'Stepped Altar' and its surroundings. She also mentions her demolition of the traces in front of the altar.⁵² Much attention is paid to the discovery of the tomb. Goell maintains to have found the beginning of a tunnel made by robbers, but unfortunately she does not document the find itself and we can no longer reconstruct what it may have been. The deposition of the gravel unveiled a stepped structure of the living rock, made so in order to prevent the top layer from rolling down.⁵³ A detail we do not find in Sanders' book is the discovery of the quarry of the tuffit by the geologist H.G. Bachmann, to the east of the East Terrace.⁵⁴ Unfortunately, this interim report is too short to gain insight into either the precise working methods or the result gained during the three-month campaigns. The final report, which was announced several times, did not appear at all.

The altar remained a fascinating item. One year later it had become a 'Persian Fire Altar for observance of the Persian-oriented ritual of Antiochus who claimed descent from the Achaemenids'.⁵⁵

Thanks to her close contacts with Dörner, begun after the 1951 discoveries at Arsameia of the great inscriptions by both Goell and Dörner, she was introduced in Germany and gave lectures there.⁵⁶

A report to one of the sponsors reveals the difficulties encountered in 1953 (and presumably in the years after): 'For the survey of the *Hierothesion* of Antiochus I, camp was pitched at the eastern base of Nemrud Dag, by the only spring in the area. From here, it took about an hour and a half on foot and by animal to reach the site. Some forty-odd shepherds, unskilled in archaeological work, had to be trained for the demanding task of extracting the remaining fragments of the monument from the chaotic débris which covered the terraces. In addition to the difficulties of working with unskilled men, the extreme heat by day, cold by night, constant tempests, sandstorms, and early rain and hail were added obstacles warning the expedition that any future undertaking on Nemrud Dag would be attended by unusually physical conditions.'⁵⁷

The obsession to find the tomb of Antiochos, thought to be located inside the lining rock of the mountain, made Goell explore various methods. After the lack of success with the excavations behind the statues on the East Terrace⁵⁸ she involved members of the Istituto C.M. Lerici from Milan in 1963 to carry out geophysical research on the mountain. A grant of the National Geographic Society enabled Goell to finance it.⁵⁹ Goell's contacts with this institution dated back to around 1960

and had resulted in a popular contribution to the worldwide known *National Geographic Magazine* (Goell 1961). The Fondazione Lerici was well known at that time thanks to its discoveries of tombs in Tarquinia. Carlo M. Lerici did not come personally; Maurizio Girelli and Franco Brancaleoni, assisted by some of the geologists involved in previous campaigns, did the tests.⁶⁰ The short papers as well as other reports duly tell about the various methods used to detect the presence of cavities under the surface, but the results that Goell longed for were not reached. According to the 'Seismic Refraction Method', holes should have been found by measuring the effects of seismic movements provoked by dynamite explosions. The members of the Lerici team thought it of little value in this situation, but Goell hoped to gain insight into the shape of the mountain underneath the gravel.⁶¹ Despite the risks to damage the monument, some proofs were done with 50 kg of dynamite.⁶² Goell dwells upon the other two methods and their (equally) negative results, whereas the seismic method is mentioned shortly as to not to have produced results equal to its risky nature.⁶³ No pictures are given apart from images of the devices used for the two simple resistance methods.

The Lerici team encountered many problems (wind, wind noise disturbing the 'geophones') and more explosives were needed: 'With the first blasts, it was found that the rubble which comprises the surface and the peak of the tumulus, in addition to having a very low wave transmission velocity (which had been anticipated), absorbed energy to an exceptionally high degree. To have overcome these conditions required the use of explosive charges much greater than the quantities available. The quantity of explosive at hand was the maximum which Miss Goell could obtain from the Emniyet Müdürlüğü (Security Department) of the Turkish government in Ankara and bring into the militarily restricted zone of Adıyaman Vilayet.' No results whatsoever were booked.⁶⁴

'Further, the charges required to obtain good refracted signals would have had to be so large as to constitute a menace to the stability of the monument. Altogether, six profiles were run on the tumulus (Fig. 5: Profiles 1-6). The greatest obstacles were the low supply of explosives and the impossibility of using it in adequately large charges for fear of damaging the monument.'⁶⁵

In some publications it is observed that the Kommagene head was standing as late as 1959 or 1960 and that it had fallen some later year, before Goell came back. As a matter of fact, Goell still

took photographs of the complete statue, with the head on top, as late as 1963, the year the Lerici Foundation came to Nemrud Dağ. Goell, in the Latimer interview (see note 27), explains the damage as the consequence of lightning in 1964. Slides from 1964 onwards show a beheaded goddess.

The Kommagene is the only statue to be damaged in so severe a way, viz lacking the head and having the shoulder and rump layers consisting of sharply broken pieces only.⁶⁶ We established, when lifting the fragments of the two layers under the head from their position in 2002 and 2003, that the blocks had broken into several pieces, with sharp splits on the fracture planes. Various smaller fractions could be gathered, but re-piecing them will be a difficult job. When compared to fractures in other statues like the lap of the Herakles, the Kommagene blocks show sharper and fresher fracture areas than the other ones.

In a letter of 1964 to the mine expert Bürger, who had worked with her from the 1950s (see above) Goell expresses her concern as to the use of dynamite in one of the coming campaigns and she decides to refrain from it, as the risks are too high. As a matter of fact, during the 1964 campaign the use of dynamite was avoided, thanks to the (hopefully) better devices, but also: 'Not only is the risk of damage to fragile structures minimized, but in this case, because the site was part of a National Park area, the use of explosives was severely restricted by the Turkish Government.'⁶⁷

With no syllable, however, in all correspondence, private notes and publications, reference is made to the Kommagene or the Lerici project. It is only for the reason of data, coincidence with the Lerici work and the letter to Bürger that we may conclude that the circumstances were suspect. On the other hand, the Turkish government continued to give her permission for later campaigns, so that Goell was given (at least) the benefit of doubt to continue her work.

We do not want to suggest that the East Terrace Kommagene Head exploded on purpose. We fear that some splitter bombardment, caused by an explosion, hit the statue on weak points in the shoulder or breast layer and caused the crumbling down of the upper part. Remarkably and fortunately, the head did not suffer severely from its fall onto the back path, whereas - as stated - the two layers underneath were heavily damaged.

Another team member, Jeremy R. Hutt did further attempts to find the tomb entrance by means of geophysical methods in 1964, again sponsored by the National Geographic Society. As during

the previous campaign, no results whatever were produced. For that reason Goell concludes: 'Further exploration is a crying need.'⁶⁸ But, as far as we can see, she stopped working there and went back to the United States with a great delusion of not having found the last resting place of Antiochos. In later years she concentrated on the Arsameia project Dörner had already started and so contributed to the exploration of ancient Kommagene until 1973, her last visit to this area.

NOTES

¹ Composition of the UvA-RU-INF team: Herman A.G. Brijder and Eric M. Moormann, project managers, Miguel John Versluys, acting project manager, Louis van den Hengel, Ellen Thiermann and Juriaan Venne-man, Site Information System, all Universities of Amsterdam and Nijmegen; Anne ten Brink and Ernest Mols, prehistorians, Maurice L.A. Crijns, project coordinator, Jaap Groot, constructing engineer, all International Nemrud Foundation; Selçuk Şener, University of Ankara and Christoph Kronewirth, Trier, stone conservators; Predrag Gavrilovic, St. Cyrillus and Methodius University Skopje, structural engineer; Eberhard Wendler, Munich, stone conservation researcher. Temsilci İlknur Eryıldırım (Museum of Anatolian Civilisations, Ankara) and Ömer Faruk Türkan (Museum of Akşehir) acted as representatives of the Ministry of Culture of Turkey. We would like to thank the Turkish Ministry of Culture and Tourism for its kind cooperation. The International Nemrud Foundation, Akbank (Istanbul), the Shell Company of Turkey Ltd, the Allard Pierson Foundation (Amsterdam) and the Universities of Amsterdam and Nijmegen provided financial support for the 2003 campaign. ENKA (Istanbul) funded the temporarily restoration laboratory and kindly put to our disposal the crane and its operators. Olivier Hekster (Merton College, Oxford/University of Nijmegen) was so kind to correct the English text.

² Moormann/Versluys 2003, 156-157, figs. 1-3.

³ Wall fragment of undeterminable shape and unknown date. Red, fully fired. 5 cm.

⁴ T. İlknur Eryıldırım, our representative for restoration, cleaned the head; it was brought to the archaeological museum of Adiyaman.

⁵ Cf. Stronach 1963.

⁶ Sanders 1996, 475-479, figs. 611-617.

⁷ 'L' means limestone, the number refers to the SIS.

⁸ 22 x 33 x 9 cm. It is visible on some of Goell's photographs dating to 1958: Sanders 1996, figs. 131-132, but is not mentioned in the text.

⁹ 30 x 28 x 20 cm.

¹⁰ Orlandos 1968, 57-58 (μολοβόθριον).

¹¹ Nylander 1970.

¹² At least, they are not mentioned in the long descriptions of the statues in Sanders 1996. The Goell archive at Harvard (see further section 3.5) contains one box of squeezes made in October 1961 by some 'M.M.' (box 42, nos 68-78). None of the text files, however, give descriptions or whatever sort of notes.

¹³ Our stone expert Christoph Kronewirth endorsed this suggestion.

¹⁴ Orlandos 1968, 84-87 'marques d'assemblage' (σήματα);

- Martin 1965, 225-231 with numerous examples. For the technical terms see Ginouvès/Martin 1985, 123. See also Hellmann 2002, 88-91 'marques et repères'.
- 15 Cf. O. van Nijf in Moormann/Versluys 2002, 106-107.
- 16 Moormann/Versluys 2003, figs. 6-12.
- 17 Moormann/Versluys 2002, 104 and note 87 (Moormann's idea only).
- 18 The schemes in Moormann/Versluys 2003, figs. 19-22 illustrate the number of layers. The other heads on the West Terrace do not show more elements; even the Kommagene has no socket for a kalathos, which, moreover, is hitherto missing. As to the ET Antiochos we were happy to find a small fragment of the upper edge of the tiara showing the triangles that imitate the feathers of the Armenian tiara (no. L 121, measuring 22 x 33.9 cm).
- 19 See also Moormann/Versluys 2002, 101.
- 20 Smith 1988, 104-106, 130-132; he does, however, not include the Commagenean portraits, treated at p. 102-104.
- 21 See N. Turhan, 'Antiochos'a ait baş parçası, in *Yitik Miras'ın Dönüş Öyküsü*, Ankara 2003, 186-189 (with photograph).
- 22 Grout is a fine sort of mortar that penetrates into the cracks. We used Grout-Harcı, YKS EMACO S55, approved by a laboratory test by Eberhard Wendler in Munich. The cement applied was Cimku Cimento ISO 9002.
- 23 This was done with the blocks L 92, 94, 96, 97a and 97b, 98, 99, and 100.
- 24 We did some provisory enforcement in the frontal zone in 2002 by filling the lacuna with limestone material in dry masonry.
- 25 Sanders 1996, xvi-xix.
- 26 I express my gratitude to Joseph A. Greene, Assistant Director, of the Semitic Museum, Harvard University, for his warm cooperation. All boxes that I wanted to consult were put at my disposal. The Faculty of Arts of the Radboud University of Nijmegen gave me a special grant to make the trip to Harvard. I am also deeply indebted to Donald Sanders who critically read a draught of this section and gave important comments. He just published an article on Goell's life and work: D.H. Sanders/D.W.J. Gill, Theresa B. Goell, in G.M. Cohen/M.S. Joukowsky (eds.) *Breaking Ground: pioneering women archaeologists*, Ann Arbor 2004, 482-524.
- 27 Much personal information could be found in an 'Interview by Rebecca H. Latimer in 1965', of which there is a typewritten copy in the correspondence concerning the Goell archive in the Semitic Museum at Harvard.
- 28 Goell 1952, 138; Goell 1957, 21.
- 29 Sanders 1996, xxxix-xliv: K. Goell, 'A Personal Story About My Sister'.
- 30 Sanders 1996, xxiv-xxx. There is one copy in Box FF of this untitled document in various drafts, ca. 25 pp.
- 31 Goell, memoir, p. 14.
- 32 Goell, memoir, p. 15.
- 33 Goell, memoir, p. 16-17.
- 34 Goell, memoir, p. 19.
- 35 Goell, memoir, p. 12.
- 36 I quote these lines from the film description Martha Lubell kindly sent me.
- 37 Box BB, photo 10B: 'Tumulus Tomb of Antiochus I, King of Commagene, on Nimrud Dagħ/Orthostat Relief on West Court showing [sic] Antiochus Holding Hand of His Syncretized Gods. Lion Horoscope to right.' This photo is reproduced upside down in Goell 1952, 144 fig. 12.
- 38 Box NN, photo 1) 53-II-12. On the back the following description is given: 'East Terrace. South wall with decomposed fragments of Greek ancestor stelae. Theresa Goell supervising cleaning of stepped pyramid platform from Fire Altar on east side of Court. August 1953.'
- 39 Box QQ G55-V-8, with text on back: 'East Terrace South Sockle I Greek Ancestor Stela fragments lying *in situ* - sandstone seen from east. New find 1953 (no inscription found on back when lifted in 1956).' As to dating the texts on the photo are confusing: '55' is the year of development and prints, '1956' concerns a later comment, so that 1953 must be the year in which the cleaning work was carried out.
- 40 Box QQ, photo G55-V-10 and G55-V-5, probably like a figure from 1953. The latter has the following text on its back: 'East Terrace South Sockle I - Greek Ancestor Stela - fragments lying *in situ* - sandstone seen from north.'
- 41 Box QQ, photo G55-XCIX-15 from 1953.
- 42 Lerici 1963, 17.
- 43 Goell 1952. In Goell 1952 and Goell 1956 the name 'Nimrud Dagħ' is used, in other publications always 'Nemrud Dagħ'.
- 44 Also in Goell/Dörner 1956, 41. Neugebauer's hypothesis was to be published as late as 1959. Cf. Sanders 1996, 172 for Goell's interpretation. See now M. Crijns in Moormann/Versluys 2002, 97-98.
- 45 Goell 1952, 142; Goell/Dörner 1956, 38. It will be her colleague J.H. Young who solves the problem of identification the young men's heads thanks to the distinction of the headgear (Young 1964; cf. Moormann/Versluys 2002, 102-103).
- 46 Goell 1956. Friedrich Karl Dörner, the only mentioned not-Turkish team member, was focusing on the inscriptions.
- 47 Goell/Dörner 1956, 43 with illustrations.
- 48 There are no illustrations of the exact findspot and find-context. The same is said in Goell 1958, 371. In all these publications the head is seen as that of Apollo, following the naming of the colossi themselves. Cf. note 45.
- 49 Goell/Dörner 1956, 43-44. Other engineers are mentioned in Goell 1957, 12 note 28 and 16 note 38.
- 50 Goell 1955 (especially on squeezes made at Arsameia ad Nymphaeum). These squeezes are in the archive of the Semitic Museum at Harvard University.
- 51 Goell 1958 is a report because of 'Grants No. 1610 (1953), \$2,000 and No. 2271 (1957), \$750' from the American Philosophical Society.
- 52 Goell 1957, 11-12 ('bird trap'). Cf. Moormann/Versluys 2002, 102.
- 53 Goell 1957, 12-14. Cf. the impressive photo in Goell/Dörner 1956, p. 42. This situation is no longer visible.
- 54 Goell 1957, 19. Cf. Moormann/Versluys 2002, 89.
- 55 Goell 1958, 370.
- 56 Goell 1959 is the result of a lecture at Münster in May 1959. As to the discoveries at Eski Kahta by Dörner and herself Goell 1958, 369.
- 57 Goell 1958, 369.
- 58 Other dig holes are visible behind the statues on the west terrace and in the northern flank of the tumulus, but it is not known when explorations at these spots had been effectuated. Apparently, Goell wanted to find entrances to the tomb at all quarters of the compass.
- 59 Goell 1968: 'Grant No. 398'.
- 60 Lerici 1963. As far as we know, no publication was made on the basis of these experimentations apart from the short description in Goell 1968.

- ⁶¹ Lericci 1963, 14.
⁶² Goell 1968, 88-93. Weight of dynamite in Lericci 1963, 16.
⁶³ Goell 1968, 101.
⁶⁴ Lericci 1963, 26-27, 28.
⁶⁵ Lericci 1963, 18-19. The figure referred to is lacking in the archive. Some writing errors have silently been corrected in this transcription. Cf. for this research Goell 1968, 88-93, fig. 4-5.
⁶⁶ The head had fallen behind the statue together with the back of the shoulder, whereas the other block fragments were still *in situ* (see for the shoulder Moormann/Versluys 2002, fig. 12). The elements lying on the terrace were moved with the crane to the front in 2002 (Moormann/Versluys 2003, 158), the others in 2003 (here p. 133).
⁶⁷ Goell/Hutt 1975, n.p. The illustration showing an overview of the East Terrace colossi shows Kommagene with her head on top.
⁶⁸ Goell/Hutt 1975, last sentence.

BIBLIOGRAPHY

- Ginouvès, R./R. Martin 1985, *Dictionnaire méthodique de l'architecture grecque et romaine* I, Paris/Rome.
 Goell, K. 1955, A Modern Archaeological Method: Recording Inscriptions in Rubber Latex, and What is Probably the Largest 'Squeeze' Yet Made in the Field, *Illustrated London News* 226 [July 9, 1955], 68-69.
 Goell, Th. 1952, Nimrud Dagħ: The Tomb of Antiochus I, King of Commagene, *Archaeology* 5 no. 3, 136-144.
 Goell, Th. 1956, Report of the Preliminary Survey of the Tomb of Antiochus I King of Commagene Conducted by the American School of Oriental Research in 1953, *Türk Arkeoloji Dergisi* 6, 3-6.
 Goell, Th. 1957, The Excavation of the "Hierothesion" of Antiochus I of Commagene on Nemrud Dagħ (1953-1956), *BASOR* 147, 4-22.
 Goell, Th. 1958, Archaeological Work at Nemrud Dagħ, Turkey, *Year Book of the American Philosophical Society*, 366-372.
 Goell, Th. 1959, Das Grabmal Antiochos I. in Kommagene, *Mitteilungen Deutsch-Türkische Orientgesellschaft E.V. Bonn* 30, 1-5.
 Goell, Th. 1961, Throne above the Euphrates, *National Geographic Magazine* 119.3, 390-405.
 Goell, Th. 1968, Geophysical Survey of the Hierothesion and Tomb of Antiochus I of Commagene, Turkey, in *National Geographic Society Research Reports. 1963 Projects*, Washington D.C., 83-102.
 Goell, Th. 1969, The Nemrud Dagħ (Turkey) Geophysical Surveys of 1964, in *National Geographic Society Research Reports. 1964 Projects*, Washington D.C., n.p.
 Goell, Th./F.K. Dörner 1955, Last resting place of Antiochus I, King of Kommagene; the colossal mountain-top burial monument, *Illustrated London News* 226 [June 18 1955], 1094-1097.
 Goell, Th./F.K. Dörner 1956, The Tomb of Antiochus I, *Scientific American* July 1956, 38-44.
 Goell, Th./JR. Hutt 1975, Nemrud Dagħ: 1964 Geophysical Surveys, *Archaeological Reports* 6.1, n.p.
 Hellmann, M.-C. 2002, *L'architecture grecque 1. Les principes de la construction*, Paris.
 Hoepfner, W. 1966, Direk Kale. Ein unbekanntes Heiligtum in Kommagene, *IstMitt* 16, 157-177.
 Lericci 1963: Final Report Fondazione C.M. Lericci, Milano, typescript Goell Archive, Box FF, Lericci File.
 Martin, R. 1965, *Manuel d'architecture grecque I. Matériaux et techniques*, Paris.
 Moormann, E.M./M.J. Versluys 2002, The Nemrud Dagħ Project: first interim report, *BABesch* 77, 73-111.
 Moormann, E.M./M.J. Versluys 2003, The Nemrud Dagħ Project: second interim report, *BABesch* 78, 141-166.
 Nylander, C. 1970, *Ionians in Pasargadae: studies in old Persian architecture*, Uppsala.
 Orlandos, A.K. 1968, *Les matériaux de construction et la technique architecturale des anciens*, Paris.
 Sanders, D.H. (ed.) 1996, *Nemrud Dağı. The Hierothesion of Antiochos I of Commagene. Results of the American Excavations directed by Theresa B. Goell I (text), II (illustrations)*, Indiana.
 Smith, R.R.R. 1988, *Hellenistic Royal Portraits*, Oxford.
 Stronach, D. 1963, Metallfunde in Arsameia am Nymphaios, in F.K. Dörner/Th. Goell, *Die Ausgrabungen im Hierothesion des Mithridates Kallinikos von 1953-1956* (=Ist Forsch 23), Berlin, 275-281.
 Young, J.H. 1964, Commagenian Tiaras: Royal and Divine, *AJA* 68, 29-34.

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