

Epigraphic Research - Prof.dr. Onno van Nijf & Frits Steenhuisen

During the 2002 campaign our team worked from 4 to 20 June.¹ The main aims for this campaign were to complete the photographic and topographic documentation of the inscribed surfaces on Nemrud Dağ itself, and to identify epigraphic material from the site in the museums of Adıyaman and Gaziantep. A secondary aim was to explore the area surrounding Nemrud Dağ, in order to identify sites of (potential) epigraphic interest.

We have completed our photographic documentation of the inscriptions that are still present on Nemrud Dağ, with the exception of the remains of the northern parodos inscription (currently lying upside down near the north parodos, see Fig. 1), and fragments reportedly in the care of the site attendant. This year we also experimented with recording texts using a Minolta High Definition non-contact 3D scanner placed at our disposal by the Groningen Institute of Archaeology. Our aim was to make detailed scans of the 'palimpsest' inscriptions on the backs of the stelae on the West Terrace, which are very hard to read due to erasure in Antiquity and climatic influences. The purpose of the scans was to make a detailed 3D record, in order to preserve the current state of the stelae. We expect that the 3D images can be digitally enhanced to increase legibility.

On our arrival it appeared that a number of stelae on the West Terrace had toppled over because of heavy snow in the winter (see Section 2; Fig. 1) and some of these were in a precarious position. It was too dangerous to make scans of these slabs. We concentrated our efforts on the stelae that were still standing. The Minolta VI-900 non-contact scanner uses a laser to determine the surface topography and simultaneously measure the colour (RGB) of each measuring point in order to create a texture. Per scan we recorded approximately 300,000 measuring points. The scanner was set at a distance of about 1 metre from each stone so that we could scan a large number of small segments of approximately 20 x 20 cm. These segments were later digitally processed and joined together.

Initially there were some technical problems to be solved. The sensors did not cope well with the high concentrations of scattered UV and IR in the light at this altitude. A major problem was caused by reflections from the light-coloured limestone. We avoided this problem by using a makeshift tent, which blocked enough of the incoming light (Fig. 27). We are now working on a more permanent solution by using special filters and providing effective shielding from direct sunlight.

We have processed the scans by means of the software package RapidForm and joined the individual scans, per stele (fig. 28). The next step is to render the topography of the stelae in the form of a TIN raster (triangular irregular network) and read the data into the GIS. In this way we hope to develop a model for pattern recognition. After our return Huib Waterbolk and Frits Steenhuisen began processing the data, but there has been a considerable delay due to the illness and subsequent death of Waterbolk.

We were not able to study the inscribed material in the museums of Adıyaman and Gaziantep because of the late arrival of our permit. We were able, however, to explore some sites in the area surrounding Nemrud Dağ – i.e. Karakuş, Gerger (ancient Arsameia ad Nymphaeum), Bazık and Direk Kale – and have identified a number of promising sites. We especially hope to be able to extend our research to the site of Direk Kale in the years to come.

¹ The members of the Groningen team wish to express their gratitude to the Groningen Institute of Archaeology, which put a Minolta VI-900 scanner at our disposal, and who have made the time available for † Huib Waterbolk, and Frits Steenhuisen to come to Nemrud Dağ, and to the N.V. Nederlandse Gasunie, Groningen, who have made a generous contribution towards our travel expenses.