

## CHAPTER 13

### THE 1986 SURVEY OF HATNUB

by

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#### 13.1 Introduction

The site of Hatnub, consisting of four alabaster quarries and surrounding areas of settlement, lies some 17 kilometres south-east of the plain of el-'Amama. The largest quarry (labelled "P" in Petrie 1894) has been dated by inscriptions to the Old and Middle Kingdoms (Anthes 1928; Simpson 1977). The first Hatnub survey, in January to February 1985 (Shaw 1986), involved the mapping of a large area of Old Kingdom settlement immediately to the south-west of quarry P, and also supplied evidence, in the form of large amounts of wheel-made pottery, of a separate New Kingdom phase of settlement, further to the west. The 1986 survey<sup>1</sup> has continued the 1:1000 scale plan of the settlement north-westwards, concentrating primarily on the extensive area of New Kingdom settlement and supplementing the map with sketch plans and verbal descriptions of the individual stone structures and associated concentrations of sherds and débitage. Apart from this western strip of occupation, the 1986 survey also encompassed two well-preserved stretches of the ancient quarry road, to the north-east and north-west of the New Kingdom settlement. Figure 13.1 is a map of the Hatnub region (based on Timme's survey plan) showing the extent of the 1985 and 1986 surveys respectively.

Work began, on 8 March 1986, in the area adjacent to the peak with carved model steps (labelled "D" in the 1985 survey). The instruments used in 1986 were the Topcon Guppy GTS-10D EDM and the Topcon TL-20P theodolites. A secure link with the 1985 map sheet was established by surveying a series of points and spot-heights in the vicinity of structures N1 and N6 (cf. Shaw 1986: Figure 10.3). A traverse was set up, beginning at point "A" on the 1985 baseline and proceeding westwards up to an area at the edge of the plateau dominated by three very large cairns (beyond the area of New Kingdom settlement). Spot heights taken over the whole area surveyed in 1986 will eventually enable a final plan of the quarry P settlement to be published with contour lines at half-metre intervals, in place of the form-lines used in the plan of the 1985 survey. Most of the structures covering a long plateau between the ancient road and the large wadi to the south-west were surveyed, sketch-planned and numbered W1-W38, NW1-NW24 and NN1-NN20.<sup>2</sup> The main aim of the two seasons has been to study a cross-section of huts of different periods at the site.

#### 13.2 The quarry road

Between the main quarry and the area of New Kingdom settlement, the topography is sharply broken by a wadi, running roughly north-south. This rift would have been the first obstacle encountered by the ancient quarry-men after they had extracted the blocks of alabaster. Most of the 300-metre stretch of road mapped in the 1986 survey is raised only a few centimetres above the *gebel*, simply providing a solid base across the sand rather than altering the topography (cf. Figure 13.2 below). In the wadi, however, the tightly packed stones of the embankment reach a maximum depth of about a metre. Figure 13.3 shows the composition of the causeway at this point. A close examination of the upper surface of the embankment revealed the existence of two parallel track-ways which may have been worn away by pairs of work-gangs hauling the blocks, like those depicted in the tomb of Thutotep at Deir el-Bersheh (Newberry 1894).

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<sup>1</sup> The 1986 Hatnub survey, undertaken in conjunction with the Egypt Exploration Society 1986 expedition to el-Amama, was financed by the E.E.S. Centenary Studentship (1985) and a grant from the Tessa and Mortimer Wheeler Fund.

<sup>2</sup> The huts are numbered according to their rough geographical location; thus hut NW7 is the seventh hut studied within a group in the north-western sector of the survey area.

Survey at Hatnub

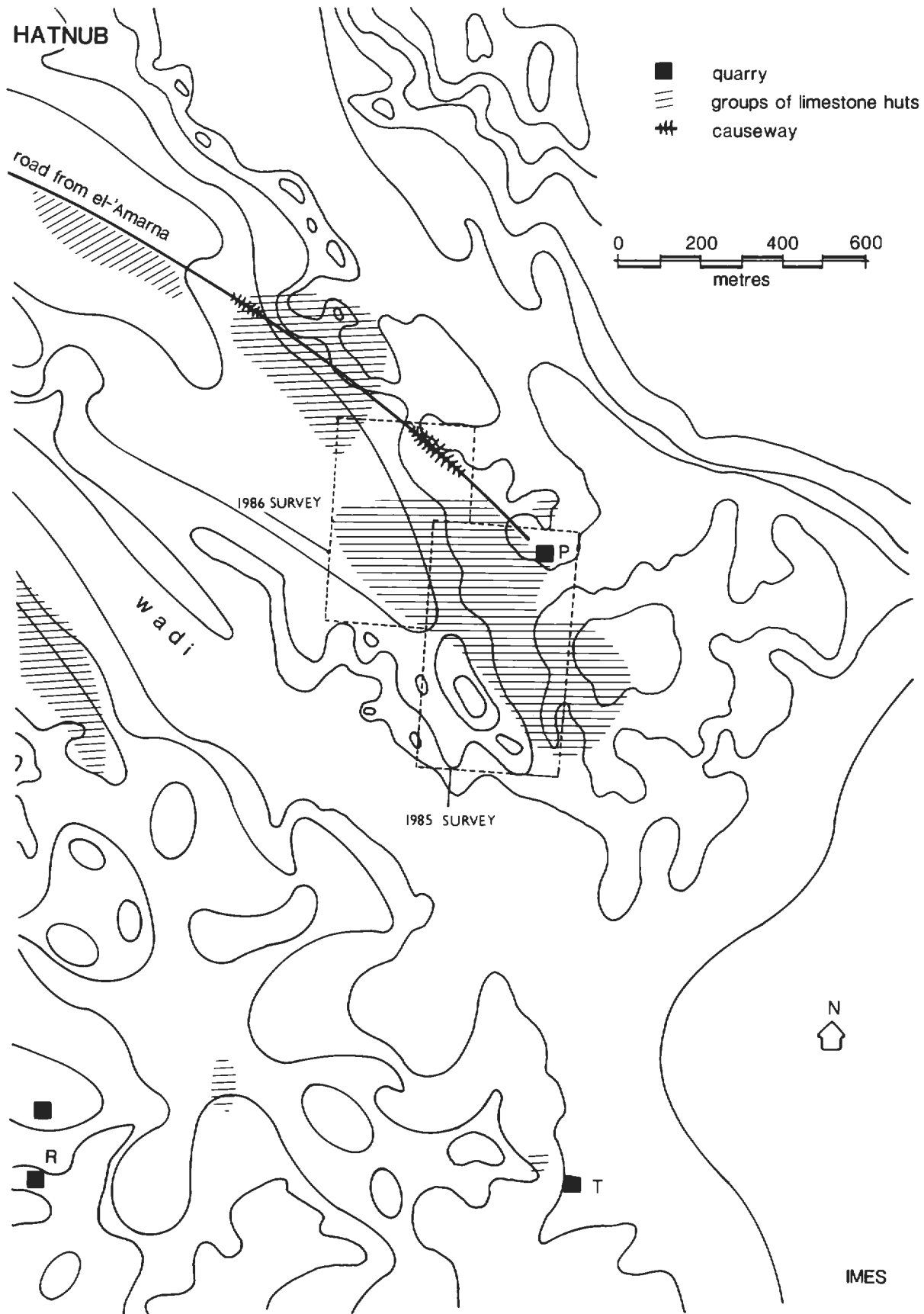


Figure 13.1. A revised version of Timme's map of the Hatnub region (Timme 1917: Blatt 8), showing the extent of the 1985 and 1986 surveys.

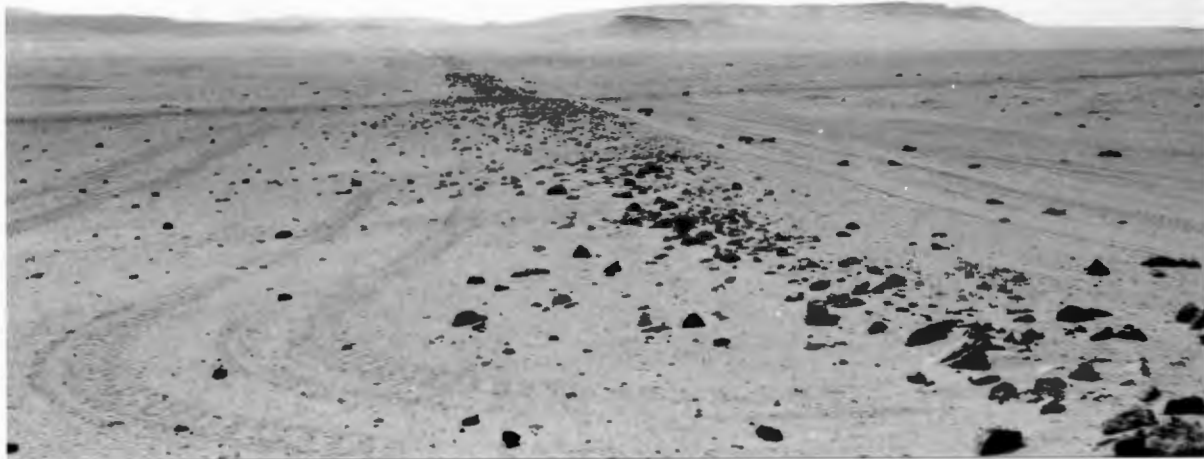


Figure 13.2: View of a typical section of the Hatnub quarry road, crossing flat terrain.

Figure 13.4 is a diagrammatic representation of the series of heights taken along the embankment and along the adjacent surface of the wadi. The profile clearly demonstrates that the road was designed not only to bridge the wadi but also to smooth out irregularities during the crucial descent into the wadi from the east. Such smoothing is achieved both by building up from the natural ground-level and also by cutting down below the surface, as at the eastern and western edges of the wadi. The main aim of the embankment is therefore to ensure that steep gradients are minimized.

After the main embankment across the wadi, the main road continues upwards on to the plateau adjacent to the New Kingdom settlement. Here the *gebel* is harder and flatter, therefore less stones are required to create a solid road surface. After this plateau, the road follows a ridge of high ground north-westwards, eventually making a gradual descent to the desert floor.

At the western edge of the plateau another branch of the quarry road plunges off westwards, down the edge of the huge wadi shown in Figure 13.1. A thick embankment, attempting to ease the steep descent, peters out after about 300 metres. Figure 13.5 shows the profile of this apparently unfinished stretch of road. The sheer steepness of the route seems to have been the reason for its abandonment. The profile shows that the road constructors were unable to create an embankment large enough to smooth out the sharpest section, in the centre of the profile. The alternative route, along the ridge, was therefore followed: this was longer but required much less modification of the topography.

### 13.3 Structures W1–17: Old and New Kingdom settlement

The first zone of occupation to be surveyed in 1986 was in a narrow wadi, running along a south-east to north-west axis, about 200 metres west of structure N1 and the peak “D”. This area, surveyed from two traverse points on knolls to the south-west and north-west, comprised nine simple circular and crescent-shaped one-room shelters and eight multi-roomed clusters. The largest and best preserved of the clusters was labelled W10 (cf. Shaw 1986: Figure 10.7). Structure W10 consists of at least five rooms, with walls up to a height of 1.2 metres, and, just to the north, a probable “working area” with a large amount of alabaster chips on the surface, as well as a rough hammer-stone. While most of structures W1–17 contain Old Kingdom sherds, there are some (W13, W15 and W16) which contain sherds of both Old and New Kingdom date.

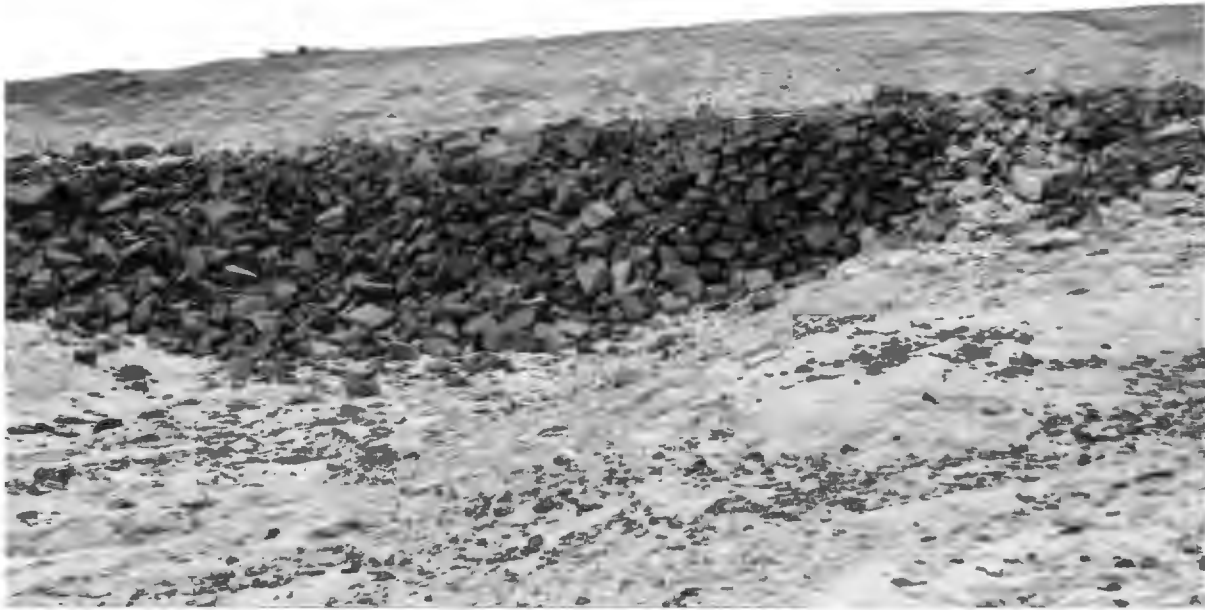


Figure 13.3: Detail of the main quarry road: two views of the embankment near quarry P.

These three structures are the only part of the quarry settlement showing traces of both phases of activity. The New Kingdom quarry-workers evidently expanded beyond their own huts to occupy at least a few of their predecessors' structures. It is clear, however, that, apart from this slight overspill to the south of their settlement, the New Kingdom quarry-workers were clustering

PROFILE OF MAIN STRETCH OF QUARRY ROAD.

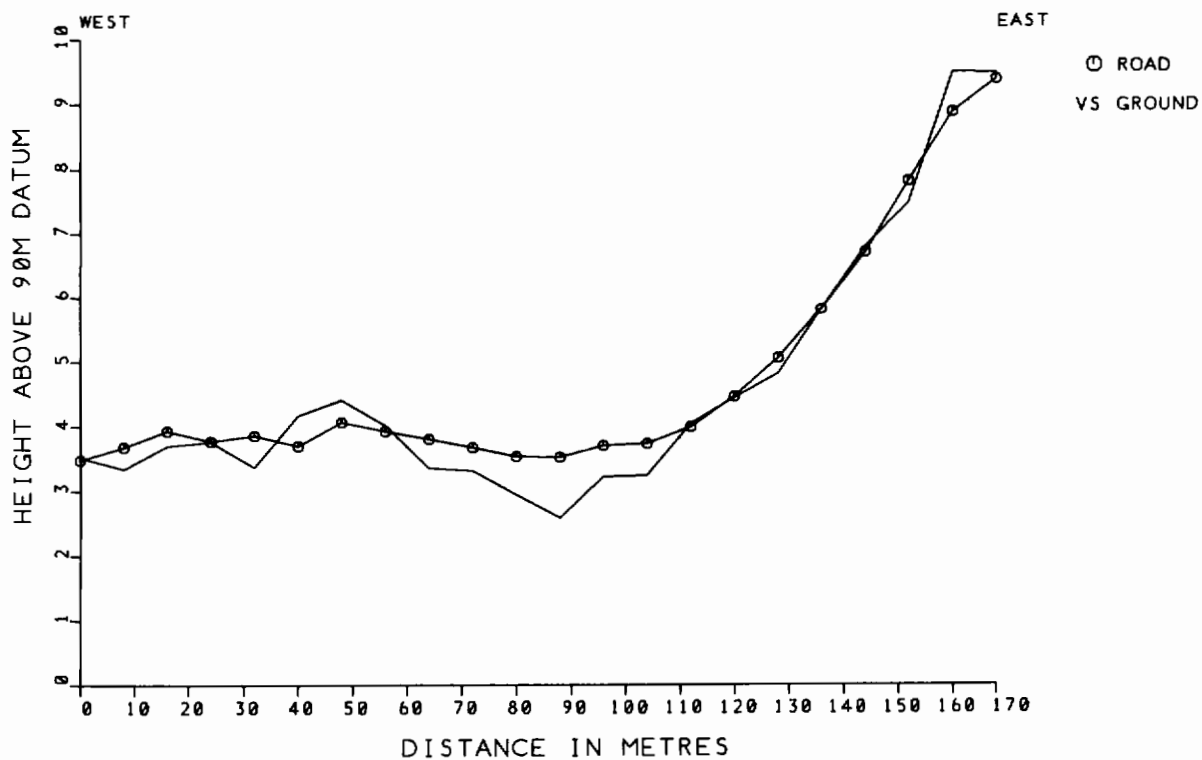


Figure 13.4: Profile of the main stretch of quarry road near quarry P (produced with the PLOTALL graphics package).

together, some distance away from quarry P and well away from the core of the Old Kingdom quarry settlement. The reasons for this separation are difficult to comprehend.

### 13.4 Structures W18-38 and NW1-5: the New Kingdom settlement

The main focus of this year's survey was the New Kingdom settlement, consisting of some twenty-five to thirty structures which, in most cases, differ noticeably from the structures of the Old Kingdom. All but four of this group are single-roomed circular or crescent-shaped types (only W19, W23, W36 and NW5 having more than one room) and the materials used are, on the whole, loosely assembled limestone slabs and boulders, rather than the closely-packed combinations of medium sized stones and pebbles encountered elsewhere at the site. Figure 13.6 shows the typical New Kingdom crescent-shaped shelter (NW3) with a small *zir*-emplacement in the left foreground. The overriding impression of the New Kingdom settlement is therefore of a series of temporary shelters hastily assembled by individuals. The typical Old Kingdom structures, on the other hand, are sprawling communal quarters of gangs of workmen such as N1, S8 and W10.

The 1986 survey sheet<sup>3</sup> shows the extent of the limestone surface quarry which seems to have been an integral part of this concentration of New Kingdom activity, with three worked blocks lying among the huts themselves (cf. Shaw 1986, Fig.10.8). It is possible that this evidence of limestone quarrying provides at least one reason why the New Kingdom quarry-workers set up

<sup>3</sup> To be published at a later date.

## PROFILE OF WESTERN STRETCH OF QUARRY ROAD.

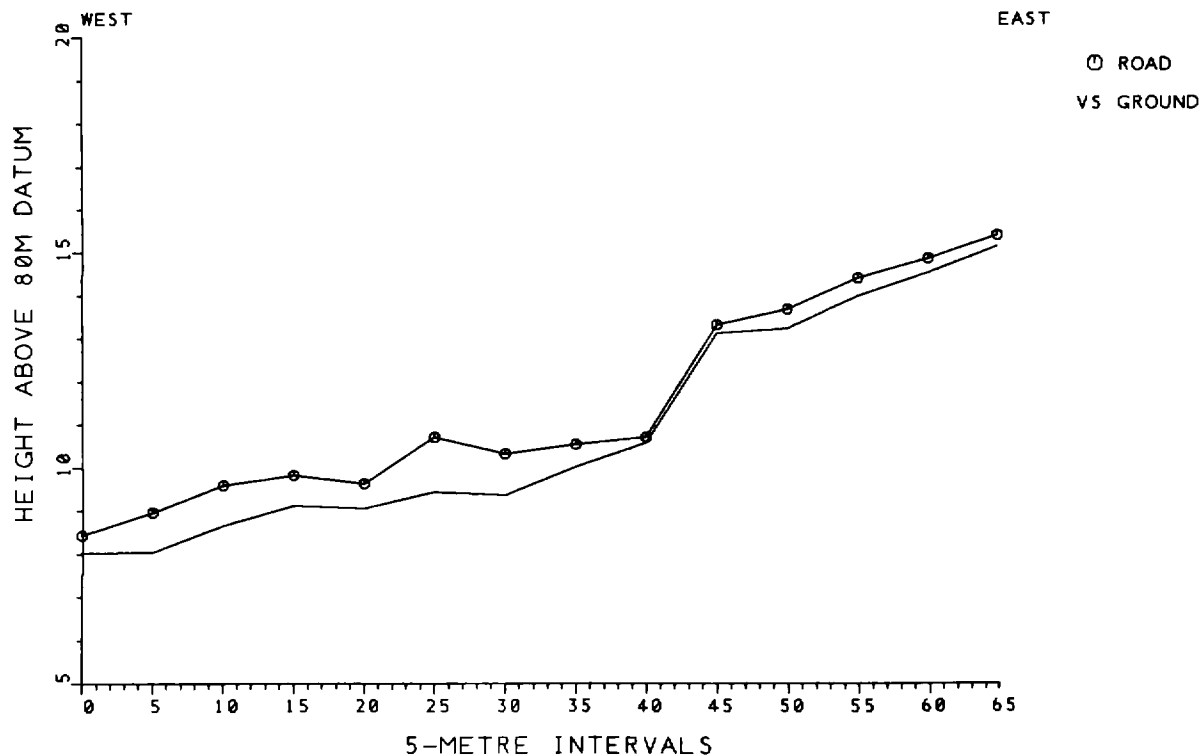


Figure 13.5: Profile of unfinished western stretch of the quarry road (produced with the PLOTALL graphics package).

camp away from the alabaster quarry itself.

Figure 13.7 shows several flint tools which were recorded as surface finds in the vicinity of the New Kingdom settlement. It is not clear whether these implements were made by the quarry-workers, especially as they may pre-date even the Old Kingdom activity (Robert Miller: pers. comm.). However, the proximity of the tools to the New Kingdom living quarters suggests that they were at least re-used, probably for rough dressing of stone.

### 13.5 Structures NW6-24 and NN1-20: settlement by the road

Beyond the New Kingdom huts, to the north and west, the Old Kingdom settlement resumes, following the course of the ancient quarry road. Most of these huts are single-roomed circular structures, but a large three-roomed complex, labelled NW23, occupies a small knoll near the centre of the plateau, with a larger than usual quantity of sherds, and several ancient pathways leading up to it from various directions. A central rectangular room, flanked by two smaller rooms, includes a northern wall which is well over a metre in height. To the north-west on the western face of the knoll, is a semi-circular shelter evidently used as a working area, judging by the quantities of alabaster chips associated with it. Structure NW23 may have acted as an administrative centre at a crucial point where the quarried blocks were beginning their long journey across the desert. This possibility is reinforced by the existence of a small shrine-like structure, similar to those planned in 1985 (eg. S2, N3 and S11), just to the north of NW23.

The "shrine" (labelled NW24) consists of a pointed stone (28 cm. in height) and a pathway (120 x 50 cm.) leading up to it, marked out with two rows of stones laid on the *gebel* surface. One extra feature distinguishes this structure from the rest: there is a stone-built emplacement



Figure 13.7: Several flint tools (date uncertain): surface finds from the immediate vicinity of the New Kingdom settlement.

behind the pointed stone which may have contained offerings, thus serving the same purpose as the roofed building in shrine S2 (cf. Shaw 1986: 207, Figure 10.11).

### 13.6 Results of the 1986 Hatnub survey

The 1986 survey has provided the basis for a further map-sheet of the settlement surrounding quarry "P" at Hatnub, enabling the lay-out of huts and sherds to be seen in the context of the quarry itself and the ancient road. The contours and form-lines show that some structures were built in *wadis* and basins, taking advantage of the terrain for extra shelter. Others however were located in exposed positions on knolls and along ridges, presumably with the intention of providing observation points or guard-posts. The numbers of rooms and the general patterning of the structures suggest an organisation which alters gradually as one moves away from the quarry (and also over the course of time).

The huts evidently represent not so much a sprawling and heterogeneous simultaneously occupied settlement, but a series of different kinds of shelters erected in specific locations for particular purposes, perhaps even for particular labour forces (cf. Sadek 1980; Seyfried 1981, 188-220). The 1985 and 1986 Hatnub surveys have now provided a large enough section of surveyed settlement at Hatnub to enable the chronology and spatial patterning at this unusual site to be observed and analysed.

### Acknowledgements

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Figure 13.6: New Kingdom hut "NW3", seen from the south, with *zir*-emplacement (left foreground).

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