

Bronze Age rock carvings at Häljesta, Västmanland, Sweden: domination by isolation

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The Bronze Age rock carvings of Sweden have been known for well over a century, and their discovery and their general characteristics are documented by many books and papers. The distribution of the carvings reflects a Bronze Age landscape that was substantially different from the environment of today, and it is likely that a large majority of sites were selected for carving because they were on or near the Bronze Age coastline, within sight or sound of the sea. Today, because of isostatic uplift of the land, many sites are far distant from the sea, but most of the recent studies of rock carvings acknowledge that the position of sites within the Bronze Age landscape is as important as the traditional typological ordering of the carvings. The carvings of the Bronze Age are not uniformly distributed throughout southern Sweden, and recent fieldwork has emphasised the concentrations of sites in northern Bohuslän, south-west Uppland, and Östergötland, with smaller groups in Småland, Västergötland, Dalsland and Skåne (*fig. 1*). However, the known distribution of rock carvings also continues to expand geographically, with a good deal of amateur as well as professional archaeological involvement in field studies. The pace of discovery has exceeded the rate of publication, and this paper attempts to set on record one of Sweden's largest rock carving sites in an area that does not normally figure in general assessment of Bronze Age society¹.

The site and its landscape

The site of Häljesta in Västmanland was discovered by the resident farmer in 1957, and was reported by SIMONSSON (1960); it has had relatively little attention since that date, other than an important paper by BROSTRÖM (1994). The region has quite substantial evidence, accumulated over many years, of Bronze Age settlement, land clearance, burials and metalwork, although bronzes are not very common; further comments appear

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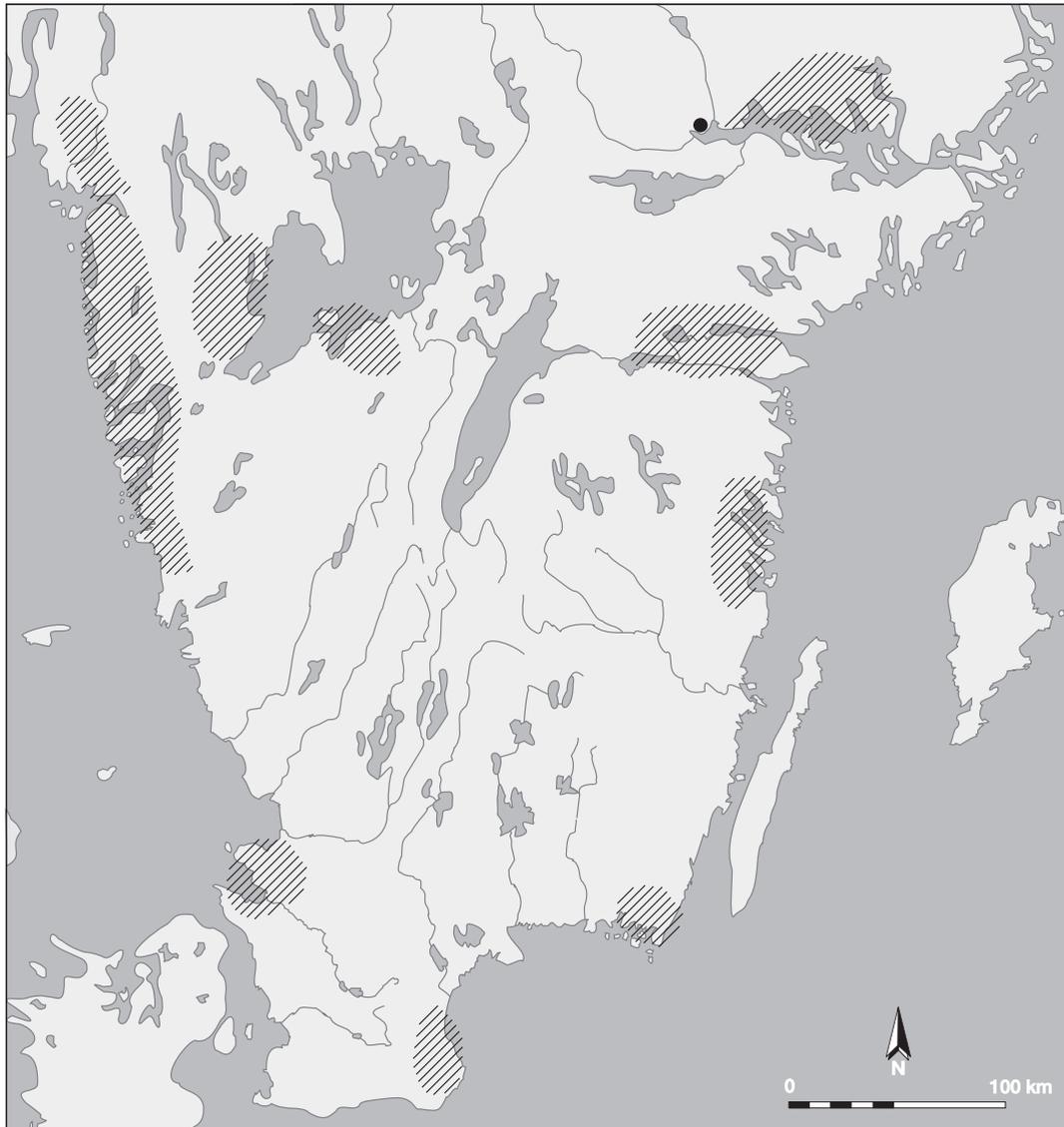


Fig. 1. Map of southern Sweden with the principal areas of Bronze Age rock carvings. The site of Häljesta in Västmanland is marked by a black dot. – M. 1 : 3 500 000.

below. The number of known rock carving sites in Västmanland has increased quite dramatically in recent years, but nevertheless the site of Häljesta is by far the largest. It lies at the western end of a great spread of rock carvings focussed in south-west Uppland (COLES 2000), but it is well separated from the concentrations of Boglösa and other parishes in that province. It deserves to be treated as a primary focus of Bronze Age religion, whether that be commemorative, dedicatory or aspirational. Häljesta also deserves to be fully recorded now because it has severe environmental problems which are noted below.



Fig. 2. The Häljesta ridge from the west. The rock carving site lies on the facing slope. Site A is in front of the NW corner of the big barn on the right. Site B lies between the two long barns, and is in the centre of this photo.

The landscape of this part of Västmanland is generally rather flat, with few of the rocky eminences exceeding 50 m above the present sea level. Much of the immediate area around the site is arable but there are wooded ridges and the E18 motorway cuts through the lowland, and disfigures the Bronze Age landscape (*fig. 2*). Many of the ridges, extending in height only to 30–35 m or so, carry gravefields of the first millennium A.D. as well as historic and modern farm buildings; some of the latter probably overlie earlier settlements. The studies of Bronze Age sea levels have now achieved some measure of agreement about the episodic character of land uplift in relation to post-glacial eustatic rise, and for this area of Sweden it appears that the level of the Bronze Age sea, in relation to today's landform, ranged between 28 m and 20 m, the higher level existing in the earlier second millennium B.C. and the lower level achieved by the beginning of the first millennium B.C. This subject is complex and the rate of uplift of the land through the Bronze Age of southern Sweden (1800–500 B.C.), was variable as well as progressive, that is, interrupted uplift.

The distribution of Bronze Age rock carvings in Västmanland appears to relate quite closely to the parameters of 28–20 m, but it is not clear if a detailed chronology tied to absolute heights can be entirely reliable. Nonetheless, the Häljesta site, lying at c. 24 m, conforms to the pattern. A smaller rock carving site only 400 m to the north lies at c. 27 m and might therefore be somewhat earlier in date, or it could be contemporary.

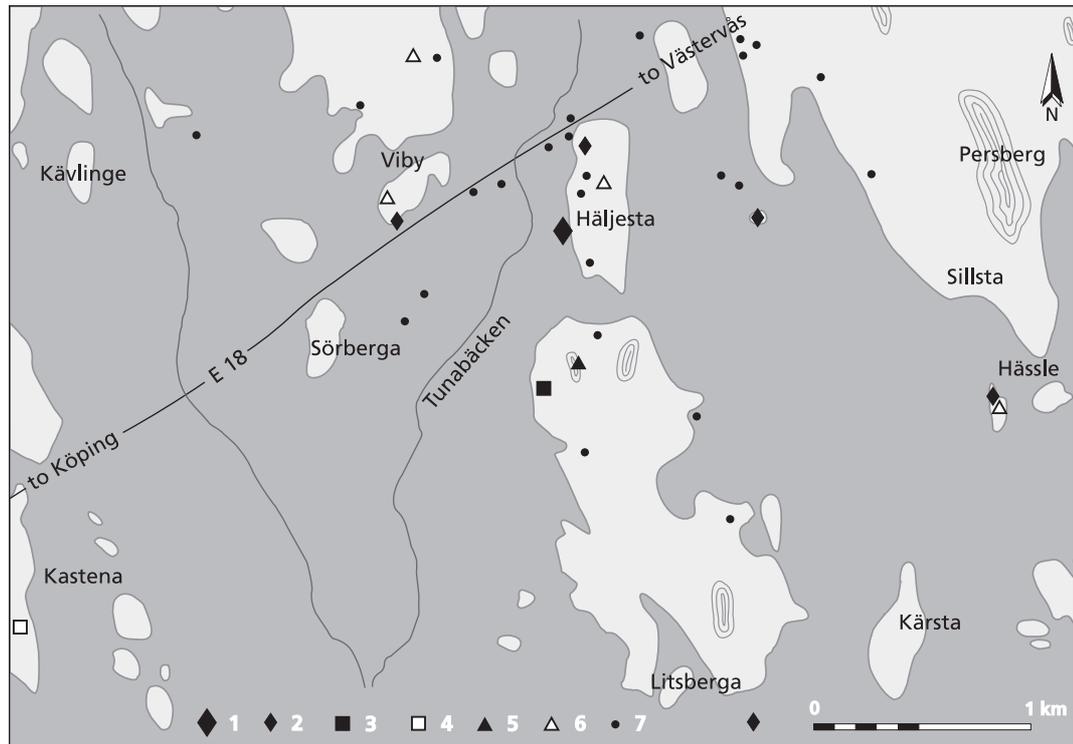


Fig. 3. The Häljesta area today with hamlets marked. For key to symbols see *figure 4*. – Contour at 25 m, M. 1 : 35 000.

The Häljesta site lies on the western edge of a ridge of quartz plagioclase gneiss which extends north-south for c. 750 m, and east-west for c. 250 m (*fig. 3*). The maximum height of the ridge is c. 29 m. To the south, a much larger ridge reaches c. 40 m in height (*fig. 4*) and this can be taken as a boundary to the site's presence and visual influence. Just off the southernmost edge of this ridge is a large block at Litsberga with over 300 cupmarks, set low in the landscape. Behind the Häljesta ridge, to the east, is a wide plain, formerly the sea, which extends over 1 km to a massive ridge which rises to over 50 m. On a promontory of this ridge is a rock carving (Hässle) with a boat and a number of cupmarks. The open flatland extends to the north of Häljesta and to the north-west is a large ridge rising to over 40 m, and clearly visible from the site. At the southern tip of this ridge, a rock carving with ten boats and a few cupmarks has recently been found; this site (Viiby) is a direct link with Häljesta, on either side of the main stream drainage of the plain. Due west of Häljesta, there are only a couple of low and small ridges so that the clear land in front of the site extends for over 2 km. In summary, Häljesta sits in the middle of a flat and low landscape with wide views in most directions; it overlooked a major expanse of water and marshland during the Bronze Age, in a changing environment, and it may be that the rock carvings reflect the responses of society to the visual and economically-significant landscape dynamics, from an essentially water-based to a wet terrestrial-based environment. There is another element in this overview of the physical environment, which may have been important in perpetuation of the site's importance. Immediately in front of the site, today, is a stream, now sluggish



Fig. 4. Map of the area around the site. The Bronze Age land is shown at two levels. At the 25 m sea the site of Häljesta is an island ridge with other islands to west, and mainland to north and east. At the later 20 m sea the site and its adjacent ridge are part of the mainland and the sea is withdrawing. 1 The site; 2 Other rock carvings; 3 Possible settlement location; 4 Fortified sites of post-Bronze Age date; 5 Burial mound, Bronze Age; 6 Other burial mounds near the rock carving sites; 7 Rocks with cupmarks. M. 1:35 000.

but which in the time of sea withdrawal must have carried a considerable amount of water. This stream, the Tunabäcken, flows from north to south, and its former width of influence, that is, its ancient channel, was fully 30 m; moreover, just in front of the site the stream once flowed into and out of a pond or small lake (*fig. 3*). It is tempting to suggest that this feature, a residue of the ancient waters that had surrounded the ridge, may have helped maintain the stature of the site as an important place for assembly and ritual.

The Häljesta ridge has a number of features that may also have attracted or demanded attention. Its position within the wide flatland has been noted, but its relationship to the southern major ridge may well have been significant. The separation of the two is minimal, only 10–15 m at present, perhaps 20 m in the past. The southern ridge was important in the Bronze Age, and a number of burial mounds on its northern heights can be seen today, at least one of them robbed out. The farmstead on the north-west corner of the ridge is an ideal position for earlier settlement and this is where Bronze Age activity is predicted. The presence of later gravefields on the Häljesta and its adjacent ridges is a measure of the environmental attraction of the whole landscape, and a substantial Fornborg (defended height) lies only 2,5 km to the north-east of Häljesta;

another lies at Kastena across to the west. These are likely to be of first millennium A.D. date. The intensive cultivation of the land today has obliterated or smoothed out many traces of ancient occupations, but here and there on these central ridges can be seen the faint signs of prehistoric activity. Among these are the rock carvings, and the Häljesta ridge has two major concentrations, one near the northern end of the ridge, and the other (the subject of this paper) on the western edge. The northern site has a number of boat carvings and over 400 cupmarks, and a large block of rock with cupmarks lies off the ridge to the east. The ridge itself has an interesting profile; from the west the rock rises up smoothly and shallowly to a flattened area which is now occupied by a large farmstead with many outbuildings. A small pond exists within the central area. Then the rock rises further to form a kind of off-centre crest before sloping more abruptly downwards to the eastern edge. The central flat area is in effect a platform or an arena, and it is tempting to suggest that it served as the base for the rituals built around the rock carvings.

The site of Häljesta was first described by SIMONSSON (1960) in an important paper that identified the concentration of rock carvings in the eastern part of Västmanland, with Häljesta well to the west, some 40 km distant from the bulk of known sites. Since then, more sites have been discovered and the uneven distribution of rock carvings in Västmanland still exists, with 28 sites well to the east and far distant from Häljesta; these are logically a part of the great concentration of rock carvings in the south-west Uppland province (*fig. 1*), the spread tailing away westwards into present-day Västmanland. All of these 28 sites have one or more figurative carvings, which distinguishes them from the more numerous rocks which have only the ubiquitous cupmarks. From this point westwards there are very few figurative rock carvings; a recent discovery at Froby (with many boat carvings) lies about 15 km west of the 28 sites, and a site at Svedi has a few circular designs. From this point to the west there are no sites until the Häljesta complex is reached, some 10 km distant, and this surely emphasises the great significance that Häljesta must have possessed in the Bronze Age. It was unique, dominating by isolation as well as by landscape position and by abundance and variety of carvings. Beyond Häljesta, westwards, there is very little sign of major rock carvings; it is as if this site marked an ending, or a beginning, for travellers moving west, or east, and it must have formed an intellectual door to the vigorous and vibrant Bronze Age society of the eastern lands newly emerging from the long embrace of the waters.

This evidence is augmented by other Bronze Age elements in the landscape – burnt mounds, cairns and cupmark sites (LÖTHMAN 1981). This important paper provides a quantitative assessment of the evidence for Bronze Age settlement and activity, and its general distributional pattern points to a Bronze Age presence through the lowlands of Västmanland, with a greater density of sites, overall, in the east and a diminishing spread westwards through present-day north Västerås, Hallstahammar and Köping. This is in effect a detailing of the core-periphery density maps of Uppland and Västmanland (JENSEN 1989b) which document settlement and other economic activities over a wider territory. There is a noticeable concentration of evidence, mostly cairns and cupmark sites, in the area around the site of Häljesta, which must strengthen the thesis that this was a major landmark during the Bronze Age.



Fig. 5. Site A with staining of the surface, barn immediately above the carved surface.

Recording the Site

Since the first major report on Häljesta there has been only an occasional reference to the site in the literature and very few illustrations of the carvings (BRÖSTRÖM 1994). The published photographs, mostly by Stig Johansson, employed a low raking light to create dramatic and revealing images carved into the rock. The site itself poses problems in both photography and drawing; the rock surface is irregular, undulating and cracked by ice pressure and underground forces and it does not easily yield its carved surfaces. At present, two separate carved areas are visible, which will be termed site A (south) and Site B (north) (*fig. 5*). Site A is c. 18 m wide and c. 9 m tall, rising about 1,4 m from base to top. Its carved surfaces are terminated at the top by the huge blocks of a barn which sits upon the rock surface. Between Site A and Site B is a farm track leading down to the arable field and the stream. This track, now grassed, is 8 m wide and probably hides some carvings although the images on site A appear to diminish in number near the edge. Site B measures c. 15 m wide and 8 m tall and the rock surface falls 1,6 m from top to base. The carvings appear in two distinct groups. The divisions within both sites are discussed below. As the complete plan shows (*suppl. 1*), the two sites are not aligned in parallel, as the rock surfaces lie at distinct angles. The surface of Site B is much smoother than that of Site A. Both sites have major cracks that divide the surfaces, and they also have water runs, where rainwater and other surface water gathers and flows across the surface, smoothing and eroding. The selection of water run areas of rock for particular carvings seems to be deliberate, and is well-documented



Fig. 6. Carvings of boats partly obscured by lichen and rock staining.

elsewhere in Sweden. The site is also quite standard in its west-facing outlook, and its carvings are almost all positioned to be viewed from downslope, that is, the observer could best see the carvings in early morning as the light comes over the ridge and down the rock, and illuminates the carvings by shadow and shine.

The site today has very severe environmental problems. Site B lies well clear of farm buildings and remains relatively clean and washed by rainwater. Some silt is brought down by a central water run but the surface overall is smooth and the carvings, although not deeply cut into the rock, remain clearly visible. A band of quartz runs from top right to central left (south to north) and has been heavily battered in places, probably to extract mica and other bright or hard flakes. Site A in contrast is seriously affected by lichen which has almost totally obscured most of the carvings today. The rock surface here is complicated by the barn which sits directly on the rock at the top of the site. Since first observing the site in 1996, a number of environmental effects have been seen. A major, grassed-over, crack extends across Site A. Above this, the rock surface is clear of lichen but is heavily eroded. This is probably due to the leaching down of the copper oxide paint from the barn, which has stained the foundation blocks and the rock surface, has prevented the formation of lichen, and has weakened the rock. Below the major crack, the rock surface is heavily obscured by very vigorous lichen; this was cleared away by the authorities in 1997–1998, when the plans of the site were made, but within two years the lichen has again invaded. Although today the barn contains only farm machinery, this is a recent event and previously there was a steady flow of effluent from the animals kept in the barn; this flowed across much of the surface, eroding the carvings and then perhaps encouraging the colonisation of the surface by lichen (*fig. 6*). It may be that the rock will need to be sterilised before this problem is eradicated.



Fig.7. Rubbing of a small boat which shows line width and small details normally obscured by paint or by lichen. – Length of keel 20 cm.

At the present time (2000), very few carvings are actually visible on Site A except at the south end where the effluent and its effects were never present in severe degree. Both Site A and Site B had their carvings painted by the authorities in 1998 to make them more visible to visitors; much of the paint fades very rapidly and within one year the effluent on Site A had destroyed the paint on the carvings on the central water run. Painting of the carvings is done to allow visitors to see the image but it tends to mask details and sometimes damages the rock surface, in my opinion.

The site has been the subject of recent efforts to record all of the carvings, so that a full and authoritative documentation can be placed in the official Västmanland archives. Two recording studies have been carried out, coinciding in late 2000; the present paper takes advantage of these parallel records. S.-G. Broström and K. Ihrestam have produced an important document based on 1998 recordings and presented to the academic and administrative world on 1 September 2000 (BROSTRÖM/IHRESTAM 2000). Their report is brief but contains plans of the site at 1:20, a few photographs of painted carvings, and a statement concerning the method of recording; this involved oblique lighting of the surfaces, infilling of carvings with a white neutral 'paint', tracing upon transparent paper, and photographic reduction of the 1:1 sheets. The result appears in the Broström and Ihrestam report, and this has been valuable in the work of recording undertaken by the author. The site was first visited by the author in 1996, and has subsequently been visited every year. In 1998 the entire site was planned with Bo Gräslund, using grid lines, photographic grid frame and colour photography. The plan was then taken into the field for checking in August 2000; this very fortunately coincided with the publication of the Broström/Ihrestam plan and almost two weeks were spent in evaluating both plans and in creating a new plan, presented here, that is believed to represent a reasonably accurate picture of the site. Almost 100 rubbings were made of particular carvings in order to expose details (*fig. 7*), and it was found that lichen-covered rock could be 'exposed' by using a fine-grained 65 g paper; a thinner softer paper was also used on slightly damp lichen-covered rock to reveal new details (see below). When the surfaces are once again cleared of lichen, rubbings will become easier and extra details may be revealed. In the current work, however, a number of carvings were discovered that did not appear on the Broström/Ihrestam plan and many differences in

the detail of other carvings were noted. The programme of making rubbings resulted in the discovery of six boat carvings that were not on the Broström/Ihrestam plan, and extra details were added to 14 images of humans, four discs and three boats. Nonetheless the existence of the Broström/Ihrestam plan greatly aided the work, particularly with regard to cupmark locations. The images illustrated by photographs in this paper may not be identical to their representation in the drawn plans. The drawn plans are based upon rubbings and additional investigation, and are a more reliable indicator of the images than are the painted versions.

The rock surfaces selected for the carving of images in the Bronze Age were not uniformly smooth and unblemished. Many pressure cracks were present, various areas of rock had been eroded or shattered, and there were sometimes deep grooves where subsurface pressures had shifted segments or plates of rock. The carvers who worked on these surfaces could use some cracks or grooves, or small shattered patches, as part of their designs, so a boat keel might be a natural ice-worn groove, a human body might be a shatter mark, a cupmark might have been a pickmark that only needed a little grinding to complete. In the recording of rock carvings it is important to include as many of the natural marks as possible, as these cracks, grooves and picks formed part of the finished rock carving site and in some cases served to divide carvings into separate panels. The plans reproduced here include all of these natural divisions where they could be detected on the surface of the rock; some cracks or grooves are deep and wide, others are very thin and perhaps less significant in the choice of surface for carving.

In recording a rock carving the author attempts to define each individual carving in terms of six features: 1. The image itself (boat, animal, disc, etc.); 2. its size; 3. its depth of carving; 4. its position in the site; 5. its association (proximity); 6. its stratigraphy (overlap).

These help to give each carving a measure of significance within the site, whether dominant or subservient, forcefully carved or merely indicated by the slightest of carving, acknowledging other carvings or wholly independent, and of course representative of a particular class or type of image. Bronze Age imagery on rock carvings was rather restricted in most regions, and the repertoire of designs was tightly controlled. On occasion the carver was able to construct scenes or groupings of images that combine to give emphasis to meaning or to create entirely new concepts (e.g. *fig. 8*). A flotilla of boats, a cluster of cupmarks, and a line of humans represent emphasis, while a pair of animals, a human and an angled groove might combine into a plough scene. The Häljesta site illustrates almost all of the classic Bronze Age rock carving imagery and also the ways by which emphasis and significance were communicated to the observers.

The number of rock carving sites in Västmanland that have figurative carvings is currently about 40, and as noted above a majority of these lie well away from Häljesta. Although these sites have not been fully recorded in this survey, a brief assessment of their carved images allows us to appreciate the absolute dominance of Häljesta in terms of the number of images, their variation in subject, and by implication the size of the site itself. Sites with cupmarks alone are not included in this assessment; their distribution is more widespread, their restricted dating to the classic Bronze Age is not at all established and they appear, where fully mapped and assessed, to have served in part as outliers to figurative sites, as personal demonstrations of commitment and as acknowl-



Fig. 8. A water run on Site B with the carvings painted. – Scale 25 cm.

edgements of the dominance of major figurative sites that occupy the more prominent positions in the landscape. Cupmarks support and amplify the major sites.

The site at Häljesta has about 280 carvings of images of one sort or another; to this can be added about 280 cupmarks. The other 40 Västmanland sites have in total about 180 figurative carvings, including about 30 from the other, smaller, site on the Häljesta ridge. These totals alone indicate the pre-eminence of the ridge in the region's Bronze Age rock carvings, and if we accept a cultic significance for the images on the rocks, then Häljesta must have acted as a centre for such activities. There is one potential uncertainty in all of this, however, in that rock carvings have not been the subject of active field research in Västmanland until recently, and there must be the possibility that many more sites will be found. However, it is clear that the most obvious expanses of rock, facing westwards, have been assessed, and the likelihood is that a number of smaller sites will be found rather than another extremely large site. The recent discovery of many boat carvings at Froby, 10 km to the east of Häljesta, is an indication of the value of current field studies.

The Häljesta carvings

The most abundant impression carved into the rock surface at Häljesta is the cupmark, a circular design that may be as small in diameter as 20 mm or as large as 70 mm; most are within the range 20–30 mm. Their depths vary from a very shallow 5 mm to a maximum of 20 mm. The plans will demonstrate that cupmarks are not uniformly distributed over the site but occur in small groups of concentration, either a cluster or a linear spread, sometimes a single line of cupmarks; isolated cupmarks also occur, but in general the clusters of other carvings tend to exclude cupmarks, as if the area selected was deliberately kept clear of cupmarks.

The site is above all dominated by the image of boats, and about 140 have been recorded. Their design is varied, and they exhibit differences in size as well. The range in length is from 20 cm to c. 130 cm but a majority of boats are 50–60 cm long (*fig. 9*). The plans illustrate the design variations, from boats with a single hull line, curving up at prow and stern, to boats with double hull lines, a keel and a gunwale distinguished by separate carved lines. A few boats have hammered hulls, the whole body carved out, and this type of boat occurs more often at the north of the site. The prows of boats can be simple, a single line curving up and often turning forward at the top. One of the larger boats has an elaborate prow line that loops back upon itself in front of a false animal-head prow, perhaps an emblematic pole rather than a structural member. A few prows have rudimentary animal heads. At the stern, the keel line has a gentle curve or there may be a straight termination of the line, sometimes supported by a bar extending down from the upcurved gunwale line. It is the differences between the upward gunwale lines, at either end of the boat, that determines its direction of travel, and most of the boats are facing towards the south. Most of the boats have strokes, short upright lines extending up from the gunwales. These are often considered to represent the crew, and the numbers on the boats at Häljesta range from about 4 to about 30; many boats have 8–12 strokes. It is likely that the higher numbers of strokes do not represent reality, and are an exaggeration of the size and carrying capacity of the boats. Occasionally, one or more strokes are larger than the others, but in no case could we identify any particular stroke as indicating a major pre-eminence over the others. There are one or two examples where two strokes bend over at the top, and join to make a small arch; these might indicate paired lur-blowers, as is well-displayed in other regions of Sweden, but here at Häljesta the curvatures are minimal and may be fortuitous.

In the area of the site where boats are clustered together, three rather small boats have images of humans directly and deliberately placed upon the hull. One of these boats holds two upright humans, both with outstretched arms; they stand towards the stern, with simple strokes towards the prow. The other two boats with human images are very small, only 10–12 cm long, with hammered hull, rudimentary animal-head prow, and each holds two humans standing in the boat. One human in each boat holds some sort of rod out beyond the sternpost and this curves sharply down, as if it may be a fishing line (*fig. 10*).

Images of humans are quite abundant on the Häljesta site, and all of them except one are rather small, about 15–40 cm tall, with a large majority about 20 cm tall. Some



Fig. 9. Stacked boats on Site A, different sizes and all affected by staining of the rock. Photo with paint peeling away from some of the carvings.



Fig. 10. A small boat, perhaps a fishing scene. – Scale 25 cm.

consist only of a head, body and two legs, but others have arms outstretched and curving upwards, in a pose often described as adorant. It is noticeable that pairs of humans occur, as well as singles. Few are phallic. Near the base of the rock in the central clustered area is one human with a bow. Near this figure are two humans standing in a boat, and two humans holding an ard and guiding paired animals lie just above; this image receives comment below. Higher up the rock are pairs of humans, probably fishing, in tiny boats. Several humans appear elsewhere on the site to be supporting boats, as if lifting it or perhaps launching it. One larger human, lacking arms and with a long body, is an isolated figure placed higher up the rock, with a small animal sniffing the legs.

The major image of humans at Häljesta is the procession of small figures that progress across the rock towards the north. There are 17 humans in this group, five at a lower level, 10 higher up and two above (*fig. 11–13*). None has arms or indication of sex. They are associated by proximity with a line of cupmarks and the humans appear to overlies the cupmarks although the distinction is difficult to determine. Other lines of humans are well-known from the Swedish rock carvings, in Bohuslän and Östergötland (see below) but here at Häljesta their near-isolation on the rock and their eminent position provides an emphasis to their present.

The largest human image on the site lies at the top of the rock well away from the bulk of the carvings. The figure is almost 50 cm tall, is placed sideways on the rock, head to north, and has a squared-off body separated by an uncarved band from a lower body with legs. Arms seem to hang down from the shoulders and the hands are entirely fingers with no palms. The head is obliterated by damage. An upward-curved penis is carved as well as two small cupmarks which are in the appropriate place for testicles. Beneath each hand is an animal and another possible animal image lies beside one of the hands. There is heavy damage within and around this small group.



Fig. 11. Processing of humans, with line of cupmarks below, painted red in 1998 and now totally obscured by lichen (*fig. 12*). The existence of a faintly-carved boat below four of the humans was first revealed by a rubbing made in 2000 (*fig. 13*).



Fig. 12. The rock surface with human images in 2000, wholly obscured by lichen.

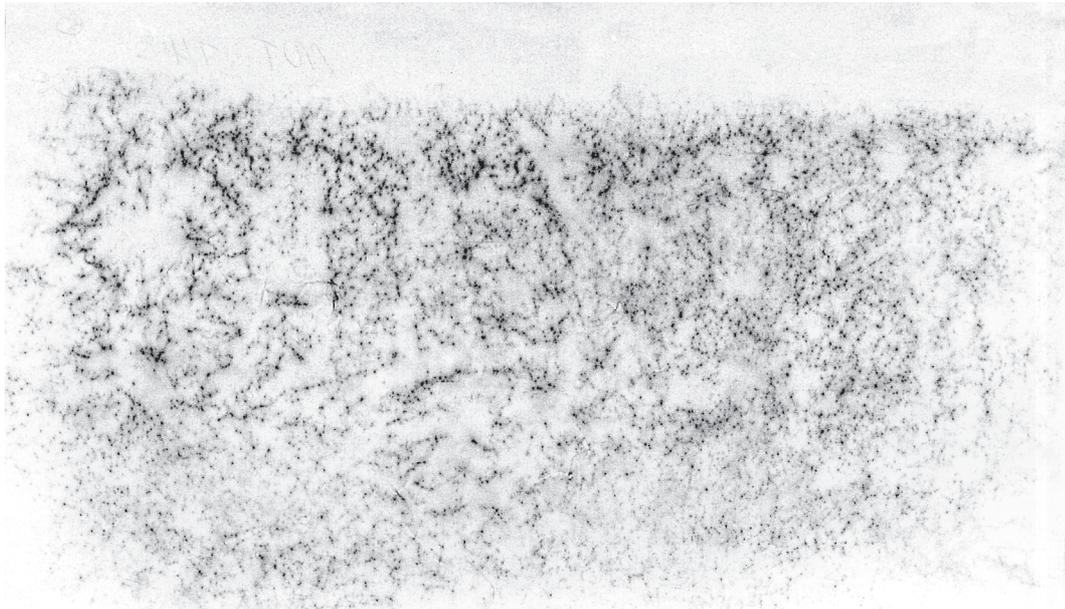


Fig. 13. Rubbing of human images with faint boat carving revealed through the lichen.



Fig. 14. Rubbing of a complicated carving with two animals, an ard-like object, and two humans, one with a large hand or perhaps holding a branch of a tree.



Fig. 15. A shield-like design set apart from the line of humans and cupmarks. – Scale 25 cm.

Images of animals are not at all common on the site and only seven are clearly identified. Three surround the human noted above, another at the legs of the isolated human also noted above, and two appear to be pulling an ard (*fig. 14*). All of these are four-legged animals with heads either simple or with two narrow ears. One animal with elongated ears and a strange flower-like design immediately above might be an elk (*fig. 8*); this animal overlies a small enclosure measuring 30×25 cm which contains a small boat. The animal is placed as if to demonstrate its escape from the enclosure.

About 10 discs or circular images are now recorded from the site. These are varied in their intent and are scattered through the site except for a group of three small discs in the northern sector, placed above some boats, and a very distinctive group of four below and beside the line of humans in the southern sector. These four discs consist of an irregular wheel-cross with a rudimentary boat on either side, a spoked wheel and a smaller design, like a six-pointed star made by cupmarks joined by a groove and with a central cupmark. These three images lie along the base of the rock. Above, and beside the line of humans, is a shield-like image, with four concentric rings and a central cupmark (*fig. 15*). Three of this group of discs are quite large, 30 cm diameter, and their isolation on the surface emphasises their importance.

Within this complex of human lines and discs are seven footsoles, carved images of the human foot, two pairs (left and right) and three singles. Three are hammered-out, four are outlined and three of these have a central cross-strap. This area of the site has a terrestrial aspect, humans, wheel-like designs, and footsoles, in contrast to the boat-dominated groups to the north in abundance and to the south as well.

There are a number of incomplete images, to our eyes at least, on the site. Unfinished designs or unidentifiable images are scattered here and there, and some are certainly rendered imperfect because of damage to the rock surface. Some damage may well be deliberate, a defacement of carvings, while other damage is environmental through pollution and freezing water. However, there also remain several unusual carvings that do not readily fit into our framework of knowledge. An image at the northern edge of the southern site, next to the farm track, consists of a series of short curving lines which merge to form an arched effect. It is possible that this is surmounted by a small disc but the rock here is heavily overtaken by a concretion and this makes for difficulty in recording. There is a comparable carving from Östergötland but it is not possible to ascribe a subjective identification to these designs.

More uniform and widespread are images of nets or frames, and three of these appear on the site quite close together. The largest, about 68×72 cm, is divided into 15 rectangles, probably originally 16 equal-sized rectangles, and is very lightly carved into the surface; the other two frames are smaller and equally shallowly-inscribed. Frames like these but often more elaborate are a feature of some of the Östergötland sites. At Häljesta, the frames seem to be a different artistic technology from the more normal boats and humans and they are carved with much less assurance, and placed high up and off the main thrust of the carved surfaces. Above the large frame is a sinuous line, like a snake, which has one termination destroyed by erosion or battering.

These categories of carvings are mere description, and may well mask or distort the variation of meanings that were ascribed to them by subtle changes in design or execution. A deeply-carved boat or human may have had an equivalent increase in dominance on the rock and in a greater significance to be attached to the operation of carving or the observation of the result. The use of colour for all or some of the carvings would emphasise particular designs, perhaps at different episodes of visitation and different cultic practices. There is hardly any documented evidence that colour was applied to Swedish Bronze Age rock carvings but that may well be a measure of exposure and deterioration of surface traces. What seems clear from Häljesta, as for other sites both large and small, is that organisation and structure were carefully imposed on the rocks.

Commentary on the carvings

Carvings of boats, in small clusters, or stacked up a rock, are quite commonplace in the Bronze Age repertoire and can be seen on a number of sites along the shores of the 20–25 m sea in what was to become the Mälaren Lakes; examples in south-west Uppland include Boglösa 128 for clustering and Enköping Vårfrukyrka 176 for stacking (COLES 2000 fig. 43; 65). Lines of humans are more rarely encountered on the rocks, although Boglösa 94 has a scattering across the top of the panel (*ibid.* fig. 35) and a very strange site at Biskopskula 71 has a line of disc-bodied figures (*ibid.* fig. 21). Farther afield are closely-packed lines of humans at sites such as Ekenberg (*fig. 16*) and Leonardsberg in Östergötland (NORDEN 1925 fig. 101; 66; BURENHULT 1973, 137; 146), Aspeberget in Bohuslän (BALTZER 1881–1908 pl. 26; MILSTREU 1996, 70f.) and Leirfall in Nord-Trønde-



Fig. 16. Line of human images at Ekenberg. – Scale 25 cm.

lag (MARSTRANDER/SOGNNES 1999 fig. 107). These lines appear to represent the assembly and ordering of humans, with none of them larger or more dominant than the others except for one at Ekenberg. There are from nine to 17 figures in these lines, and the Häljesta and Ekenberg sites each have 17 humans. At Ekenberg the line is set on a panel with a large boat above and upside-down boat below, and a large disc held aloft by a human just below. The Leonardsberg humans are surrounded by animals and small boats. The potential link with Östergötland is further suggested by the unusual arc set in isolation on Site A at Häljesta, which has a rather interesting similarity to a design at Klockaretorpet (*fig. 17*). More commonly occurring are images of boats being held up or supported by single humans, wheel-crosses and spoked discs, and these can be seen on sites in south-west Uppland and Bohuslän (e.g. COLES 2000 fig. 36; 100; HYGGEN/BENGTSSON 2000, 149). More unusual is the detail shown on the Häljesta carving of a bowman, with what appears to be a composite bow; one of the south-west Uppland sites has a similar figure as well as stacked boats (COLES 2000 fig. 65). In summary then, the carvings at Häljesta do not fall outside the traditions of the Bronze Age as laid down for representations on the rocks.

The site structure

The organisation of the site at Häljesta has all the appearance of careful planning. Each carving was probably positioned according to a pre-conceived structure which involved the evaluation of the rock surface, the position of the major cracks, water runs and



Fig. 17. Unusual designs at Klockaretorpet, the arcs at top comparable to the heavily eroded design at Häljesta on Site A, near Panel 5. – Scale 25 cm.

rock variations in colour and texture. These determined the placement of images, their orientation and associations, and in a few cases their overlapping with other images. These divisions with the site can be very briefly described, and inspection of the plans will be the best guide (*fig. 18–28*). The use of the word ‘panel’ will be employed here as it has been found to be useful on other sites. A panel is generally separated from its neighbours by either a space of uncarved rock or a significant crack across the surface.

At the most northerly part of the site there is a panel consisting of boats, some high up the rock but most lower down and washed by a water spread, where rain water flows evenly over a wide expanse. One boat is large with many strokes and all of the others are rather small. Most are facing south (*fig. 18*) This panel is separated from the rest of the site by a deep crack, and a vein of quartz c.30 cm wide which cuts obliquely through the site. The interval between this panel and the next is almost 5 m, a very large gap.

The second panel is narrower and more compact and is placed directly on a concentrated water run. The dominant image is the boat, all rather small and most facing south (*fig. 19*). The boats are stacked on the north part, that is, they lie upslope of one another and an enclosure with boat inside and animal escaping lies in the middle of the

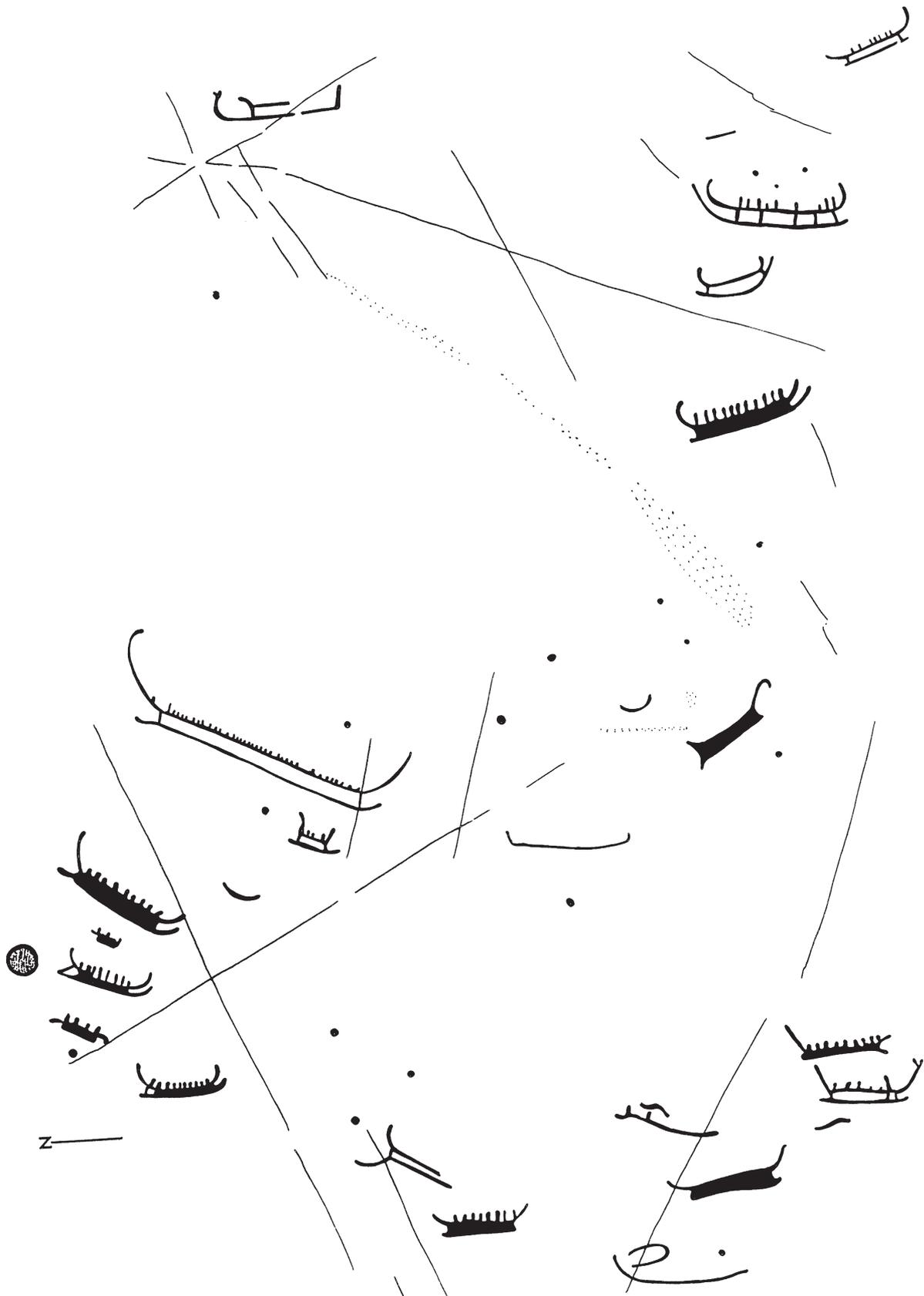


Fig.18. The Panels of carvings at Häljesta. The Panels are numbered from north to south, Site B (Panels 1-4), Site A (Panels 5-11). Panel B1. About 20 boats, most moving southwards. Scale 1:25.

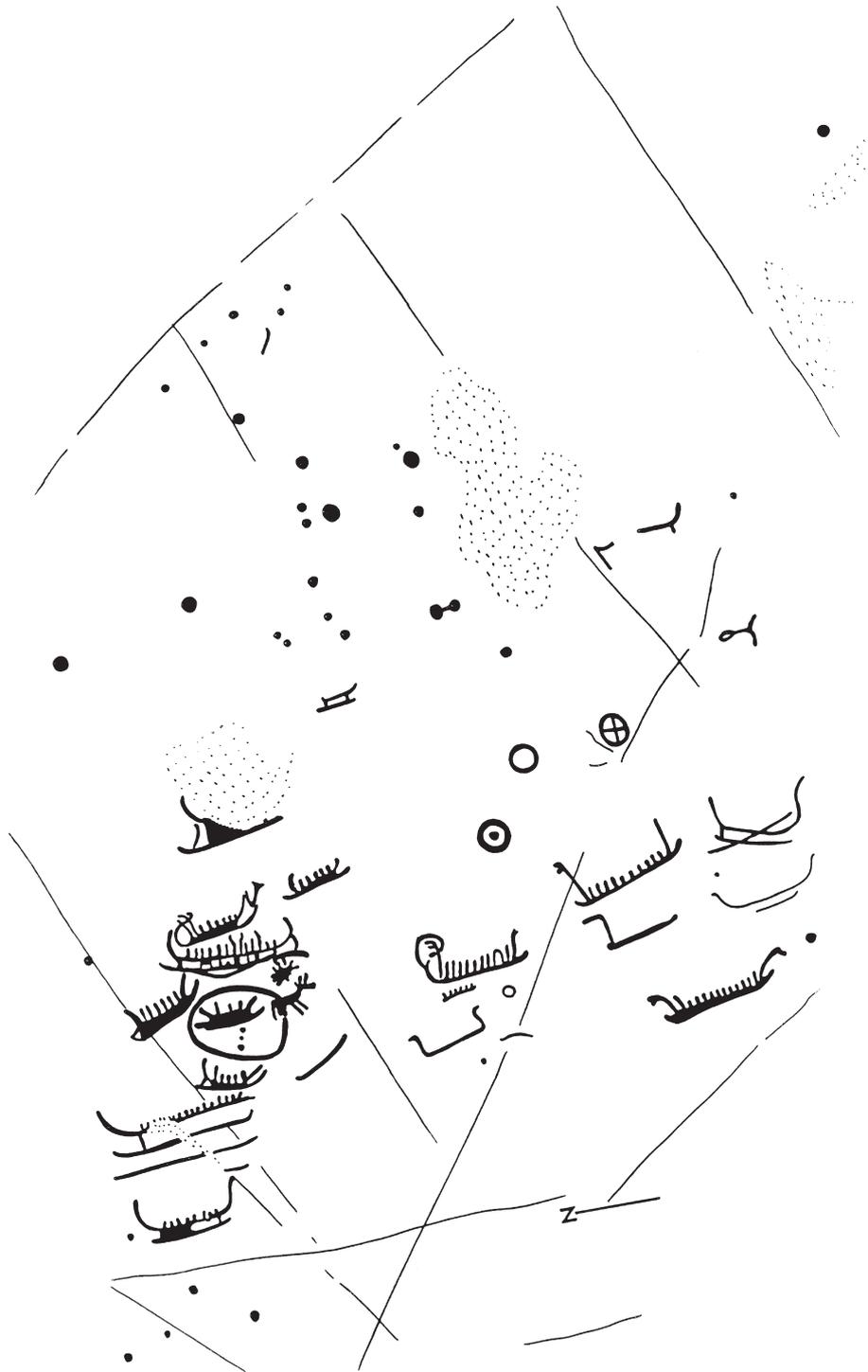


Fig. 19. Panel B2. Complex panel of boats, one animal (see *fig. 8*), and cupmarks at top. – Scale 1:25.

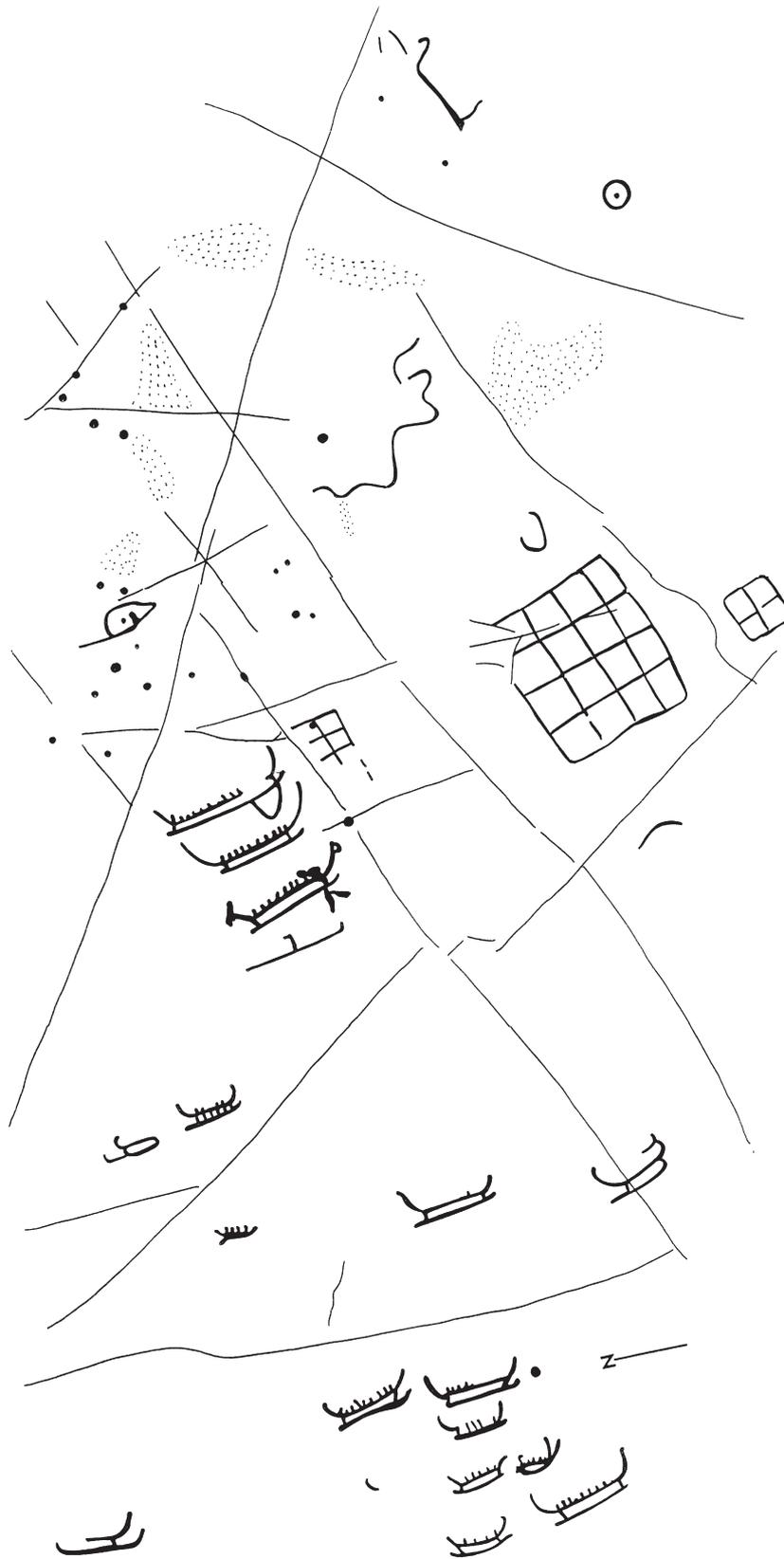


Fig.20. Panel B3 (top), B4 (centre and base). The frames of Panel B3 are shallowly carved. – Scale 1:30.



Fig. 21. Panel A5. Adorant humans supporting boats. – Scale 1:25.

boats (*fig. 8*); beside this stacked group are boats spread more evenly. Above these are three small discs, one a wheel-cross. Cupmarks are clustered above all the figurative carvings. There is a significant gap between this panel and its neighbour, barely one metre but the rock surface is noticeably clear, smoothly so as if to state that the gap is definite and deliberate. The panel on the south of this gap is again mostly of boats, stacked at the top and of moderate size, with small and tiny boats below in a separate group (*fig. 20*). Some cupmarks lie above the boats. The division between this panel and the next is image-driven as much as by major surface cracks, although there are a number of distinct cracks neatly marking the boundary of the larger boats. The rock surface now is in part covered by a grassy farm track and part of the next panel is therefore hidden from us. What remains, however, is a wholly different panel from its neighbour, and several frame-patterns occur along with a sinuous line and not much else (*fig. 20*). The major frame is a very large carving but all of the frames are shallowly-carved and lack the ordinary confidence in carving shown by boats and other images, more deeply and more sharply defined. The farm track offers an artificial gap of almost 10m before the first carvings of the next panel appear. However, there are a few cupmarks and an unusual arc design set well apart from the next panel, and these may represent a fragment of a panel now buried by the farm track. The alignment of the rock surface is now different from that of the northern panels and there may be only a fault or sunken surface intervening.

The most northerly panel on the new alignment of surface is small and consists of a number of small human images, two of which appear to be supporting small boats, one figure seemingly holding a boat with outstretched arms (*fig. 21*). Immediately be-

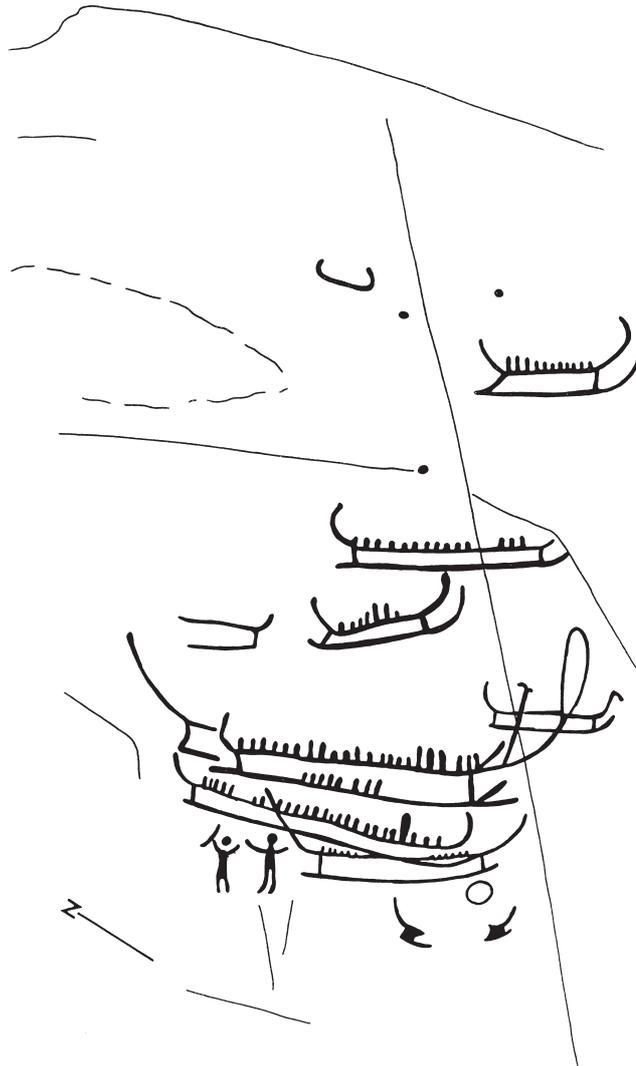


Fig. 22. Panel A6. Boat panel, all moving southwards. – Scale 1 : 25.

side this panel is a much larger panel consisting of boats, mostly facing south, and several of them quite large. They are stacked, and a couple of small human images are lower down on the rock (*fig. 22*). The surface is partly within a distinct water run. Just beside this panel is another major boat panel, with stacked boats directly within the water run; most of the boats face south (*fig. 23*). At the base of the rock are small human images, in pairs, with two humans standing in a boat, two below, and an archer. This human faces a small plump human and a straggle of thin boats. Above are a few lines and uncertain figures, and higher up, beside the uppermost stacked boats are two or three human images. One image in particular deserves note; this lies low down within the human image grouping, and consists of paired animals, a possible ard, and one or two humans with, perhaps, a leafy branch or an extremely large hand with fingers (*fig. 14*).



Fig. 23. Panel A7. Large panel, maritime and terrestrial elements. A possible ard with paired animals overlies a boat (see *fig. 14*). – Scale 1:25.

The next panel is separated by a narrow gap and by its position higher up the rock. This panel consists almost entirely of human figures with lines of small cupmarks, some of which seem to underlie the humans. Footsoles occur both below and above the humans, who are facing northwards (*fig. 24*). They are not sexed and have no arms indicated by carving. The procession, for that is what it appears to be, seems to be dispersing at the front, as if the humans were peeling off from the march forward. This design is quite remarkable here, although lines of humans are known elsewhere as noted above.

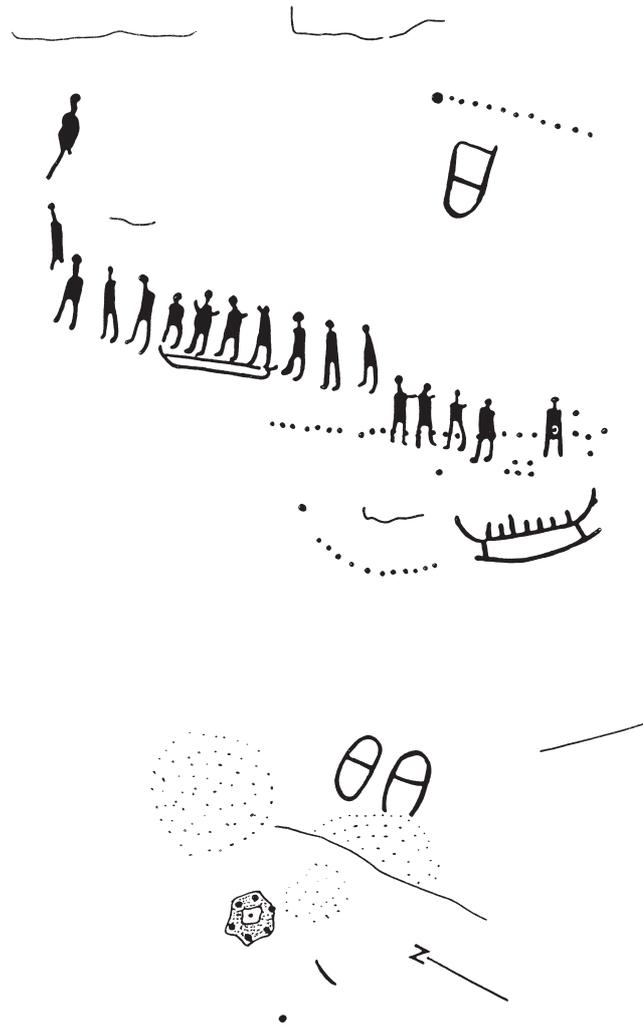


Fig. 24. Panel A8. Procession of humans moving northwards. Four may be placed over a faint boat (see *fig. 13*), and the lower humans overlies cupmarks. – Scale 1:25.

The rubbing (through lichen) of the line of humans revealed that four figures appear to be standing within or just above a very faintly-carved boat (*fig. 13*).

The rock carvings behind the humans are so distinct that they may constitute a separate panel, the carvings placed apart from one another but each consisting of a large disc, one at the base a wheel-cross (with boats beside), a more complex spoked wheel and, above, a shield-like design (*fig. 25*). The tight structure of the site as a whole is now loosened by the imposition on the crest of the rock of two boats, one very large and facing north. A human figure with a small animal at its feet also appears isolated.

Below and to the south is a more standard panel, of mostly small boats, facing south; these lie within a water run (*fig. 26*). A narrow vein of quartz lies to the south and separates this small panel from the most southerly panel. This panel is less organised, with boats at base and clusters and spreads of cupmarks above (*fig. 27*). A small wheel-cross lies at the base of the exposed rock. It is not known if carvings lie hidden to the south.



Fig. 25. Panel A9 (base) with various disc images. Boats and human isolates above. – Scale 1:25.

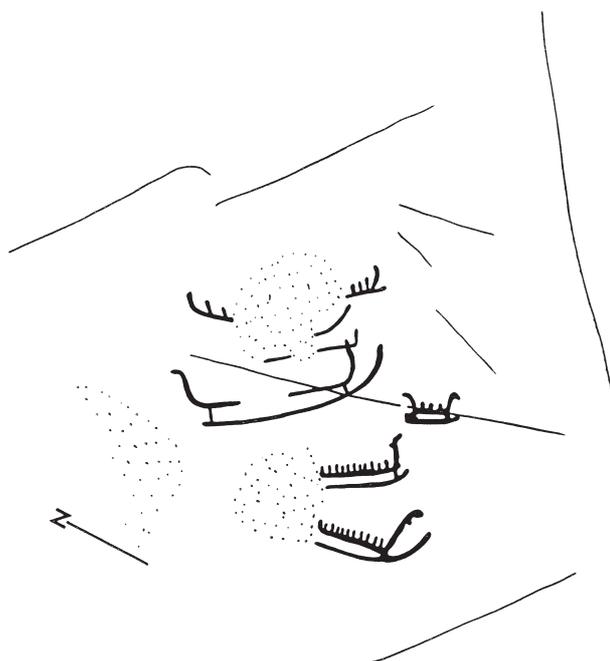


Fig. 26. Panel A10. Small boat panel, moving southwards. – Scale 1 : 25.

The arrangement of panels on the site can now be addressed (*suppl. 1*). From the northern panel and moving south, the sequence is:

1. A boat panel, with most of the boats facing southwards, and carved into a surface where water spreads evenly over much of the surface (*fig. 18*).
2. Another boat panel, the boats now tightly clustered, mostly facing south, and placed directly upon a water run (*fig. 19*).
3. A panel with boats now stacked in two groups, on a surface with an even water spread, the boats facing south (*fig. 20*).
4. A small panel with frame or net designs, high up on the rock (*fig. 20*). Note the sprinkle of cupmarks on the higher parts of all of these panels. There is now a gap in the record created by the farm track and it is not known if carvings exist beneath the grass; the rock surface appears to dip and perhaps there was a real absence of carvings.
5. A very small panel near the base, with humans and small boats; some humans are in the adorant position (*fig. 21*).
6. A boat panel with tightly clustered boats, partly on a water run; the boats face south (*fig. 22*).
7. A large panel with stacked boats and a few humans, the boats facing south, and placed directly upon a water run (*fig. 23*).
8. A major panel with few boats and many humans, mostly facing north, that is, facing the boats (*fig. 24*). A line of humans may be approaching the boats, and if so then the change from sea to land is marked by the edge of the water run. A few footsole images might represent a stationary position, and these lead into panel A 9.



Fig. 27. Panel A11. Cupmark panel, with clusters and some boats near base. – Scale 1 : 25.

9. A dispersed panel with few images but dominated by circular designs, probably wheels and perhaps a shield (*fig. 25*). These are terrestrial images. High up the rock are two large boat carvings, isolated and perhaps representing a particular passing by, as both face north; it is as if they are moving around the social unit that is represented below, passing back to the beginning.
10. A small panel of boats, facing south and carved into a water run surface (*fig. 26*).
11. A dispersed panel with boats and cupmarks, the boats facing various directions and the cupmarks spread above them (*fig. 27*).

Note should be made of the image carved high up on the rock above panel 9 and above the large isolated boats. This carving of a large human with large hands and



Fig. 28. Image of human and animals carved at top of Site A, heavily damaged. – Scale 1 : 25.

small animals (*fig. 28*) seemingly associated has few parallels other than large-handed designs in Bohuslän. Its place at Häljesta seems peculiar, and its defacement by battering may be of great antiquity.

In summary, the panels and their organisation might represent a continuum, a panorama of activity, with boats in convoy moving southwards towards the land, which is occupied by humans and terrestrial designs. Cupmarks are restricted in the main to higher surfaces or at the edges of the panelled sequence; the absence of cupmarks within the major boat groupings is distinct.

There are, however, a very few carvings that provide indications that the structure outlined above was in reality more complex. Panel 2 (*fig. 19*) has a carving of a ring or enclosure, with an elk carved over it as if escaping; a boat remains within the enclosure. Panel 7 (*fig. 23*) has a very intricate carving of a boat interwoven in part, but essentially over-carved by an ard drawn by two horned or long-eared animals and guided by two humans one of which seems to have either an immense figured hand or, more likely, a spreading tree. Perhaps the carving represents the translation of the former watery environment to one where the ard had replaced the boat as the dominant force. This leads us to final thoughts on Häljesta.

Site, symbol and settlement

The area under study lies along the northern shore of the great system of waters that are today the Mälaren lakes. In the Bronze Age it was a young land, emergent and emerging from the sea. The map of the site of Häljesta in its contemporary landscape suggests that, at the time of its selection for the carving of the society's symbols c. 1500–1300 B.C., the waters stood at about 23–24 m above the level of today, in relation to the land (*fig. 4*). Settlement of the land was underway and woodland, meadow and marsh were occupied. The pasturing of animals was important, and there was some arable cultivation (PÅHLSSON/ALM/HAMMAR 1994; WELINDER 1998). But the sea was dominant, yielding its own rich harvest and providing the only realistic environment for travel and transport. Land routes along the coasts and inland were soon established, and hunting as well as gathering were important elements in the economy. These ac-

tivities are represented on the rock of Häljesta, not necessarily in reality but in concept – animal, ard, boat, wheel and human – whereby they may have assumed a power that would otherwise have been denied or diminished. In any event, the concepts were memorialised on the rock.

The settlement traces in the area are widespread but in the main do not inform us about the precise organisation of society. Burnt stone mounds, of daub, stone, bone, potsherds and charcoal suggest that settlements were mostly small (JENSEN 1989a) although a number of major sites in the wider region are now known. Small settlements may have been consecrated by the carving of a few cupmarks, marking a permanence of occupation (THRANE 1999). Burials of the dead under mounds of earth or stones were often placed on the heights, overlooking the lowlands and the sea (AMBROSIANI 1989, and see LARSSON 1993). Flat cemeteries were also established. Stone, bone and wood were the major materials for domestic use, and metal, in copper, tin and gold was scarce in the whole region. Those acquired by societies in the area might have achieved a value unmatched in more southern regions of the north (KRISTIANSEN 1999), and the deposition of certain pieces in marsh and in water would have augmented the ceremonies enacted on and above the carved rocks (LARSSON 1987). Rock carvings may have served in some way as replacements of metal (MALMER 1981; ID. 1989) but representations of particular objects such as axes, spears and necklets are very rare in the study area, although more abundantly represented elsewhere to south and west. The shield representations at Panko and Karleby in eastern Västmanland are matched by only one carving at Häljesta. On the basis of environmental change, the images and general Bronze Age chronology, it seems likely that the site at Häljesta, the dominant place for symbolic carvings, may have been in active use for 500 years or more, until the collapse of Bronze Age ideologies and transference of ritual activities into other places and other media.

We must look beyond the carvings themselves, into the symbolic systematisation of the world, if we are to comprehend the relationships of Bronze Age societies to their rock carvings. A site like Häljesta suggests a long interest in the rock ridge, in its outlook to sea and to sky, and in its place for the gathering of people at special times and for special purposes. Power, movement, colonisation, settlement, wealth, leadership and death may be represented here, tracing the lives and thoughts of the community. What seems striking about Häljesta is its remote position within the hierarchy of Bronze Age settlement along the emergent Mälaren lakes. Well outside the major thrusts of Bronze Age society to the south and east, well beyond the compass of the communities to the west, Häljesta was a remarkable site, marking a significant presence in a remote land, serving as a centre for ritual and ceremony, and providing a permanent marking of the land, at first perhaps tentatively, then with more authority as time went on. The assuredness of the carvings, the strong boats, deep cupmark clusters, and firm procession of humans, suggest a confidence in settlement and economy as well as a belief in the power of the unseen forces. The carvings at Häljesta mark a structuring of ideology and a clear signal to observers of the power of this place.

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Abstract: Bronze Age rock carvings at Häljesta, Västmanland, Sweden: domination by isolation

The rock carving at Häljesta in Västmanland is one of Sweden's largest sites but it has been overlooked in most assessments of major carvings. It lies in isolation well away from the large concentrations of rock carvings to west, east and south. A project to record and analyse the site has discovered hitherto unknown carvings and has identified a series of panels across the site. These appear to represent a structure which reflects Bronze Age imagery of water-based and terrestrial elements. The immediate landscape of the Bronze Age is outlined, to show the absolute dominance of Häljesta at a time of dynamic environmental change.

Zusammenfassung: Felszeichnungen bei Häljesta, Västmanland, Schweden: Vorherrschaft durch Isolation

Die Felszeichnungen bei Häljesta in Västmanland stellen eine der größten Fundstätten in Schweden dar, wurde aber in den meisten Bearbeitungen bedeutender Gravierungen übersehen. Sie liegen abgelegen, ein gutes Stück entfernt von den großen Konzentrationen von Gravierungen im Westen, Osten und Süden. Bei der Bestandsaufnahme und Analyse der Fundstätte wurden bisher unbekannte Zeichnungen entdeckt und eine Reihe von Bildflächen identifiziert. Diese scheinen bronzezeitliche Motive des Wasser- und Landlebens zu zeigen. Die Morphologie der umliegenden Landschaft in der Bronzezeit wird skizziert, um Häljestas absolute Dominanz während eine Periode dynamischer Umweltveränderungen zu zeigen.

Résumé: Gravures rupestres à Häljesta, Västmanland, Suède: domination par l'isolement

Bien que les gravures rupestres de Häljesta, dans le Västmanland, constituent un des sites les plus étendus de Suède, elles n'ont jamais été considérées comme un site rupestre majeur. Le site est tout à fait isolé des autres grandes concentrations de gravures rupestres à l'Ouest, à l'Est et au Sud. Un projet d'enregistrement et d'analyse du site a permis de découvrir des gravures inconnues jusque-là et d'identifier une série de panneaux sur le secteur concerné.

Ces panneaux semblent présenter une structure renvoyant à l'imagerie de l'âge du Bronze, basée sur des éléments marins et terrestres. Le paysage alentour de l'âge du Bronze est esquissé pour montrer une prédominance absolue de Häljesta à une période de changement de la dynamique environnementale.

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