The 1996 Petroglyph Project: Phase I

Interim Report

Department of Archaeology

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Inuit Heritage Trust

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INTRODUCTION

The Petroglyph Project originated from the Municipality of Kangiqsujuaq who had for a number of years expressed some concerns about the preservation of the Qajartalik site (JhEv-2) (Figure 1). In recent years, increased visits at the site have had negative impacts on the petroglyphs. Thus, it was decided that a first expedition would be organized in 1996 to verify the state of preservation of the Qajartalik site, as well as implementing a preliminary survey of the area to determine its archaeological potential for a long-term research project.

The following document summarizes this first field season. First, a brief history of the discovery of the site and events leading to this year's intervention will be presented. This background information is important in understanding the present state of the site. It will be followed by a section detailing specifically the petroglyph project: site description, description of the work done, and recommendations for the conservation of the site, and continuation of the project. Finally, a final chapter will briefly discuss the results of the preliminary survey.

The field work team was composed of Daniel Gendron, archaeologist at Avataq and Director of the project. He was assisted by Claude Pinard and Tommy Weetaluktuk, both also from Avataq. Daniel Arsenault, Ph.D., postdoctoral researcher at Laval University and Director of the PETRARQ project, and Louis Gagnon, Ph. D. candidate, Art Historian and Conservator and associate in the PETRARQ project, were in charge of the petroglyph aspect of the project. The crew was accompanied by 4 Inuit students (Louisa Tumasie, Lizzie Sakiagak, Jimmy Uqittuk, and William Tuukak), and Emma Farid, undergraduate student at Memorial University, St. John's. A Taqramiut Nipingat Inc. crew, directed by Claude La Rue, videotaped the diffrent activities that took place during the 10 days that lasted the project. Finally, 3 hunters-guide (George Pilluurtut, Attasi Nappaaluk, and Joanasi Kaitaq), and one cook (Qipitaq Alaku) completed the field crew.

We would like to thanks also the following individuals and organisations for their help and support: Mr. Charlie Arngak, former Mayor of Kangiqsujuaq; Minnie Nappaaluk, Replacement Mayor, without whom the project would not have functioned so smoothly; the other Councillors; Mr. Naalak and Lucassie Nappaaluk, and Mrs. Mitiarjuq Nappaaluk, for their precious observations, essential information, and enthousiasm in the project; Mr. Robert Fréchette, from the Corporation of Kangiqsujuaq, for his technical help and interest in the project; Mr. André Bergeron, Centre de conservation du Québec, for his knowledge and advice on conservation; Mr. Claude Roy, Département de Phytologie, Université Laval; Mr. Alan Watchman, for his advice on

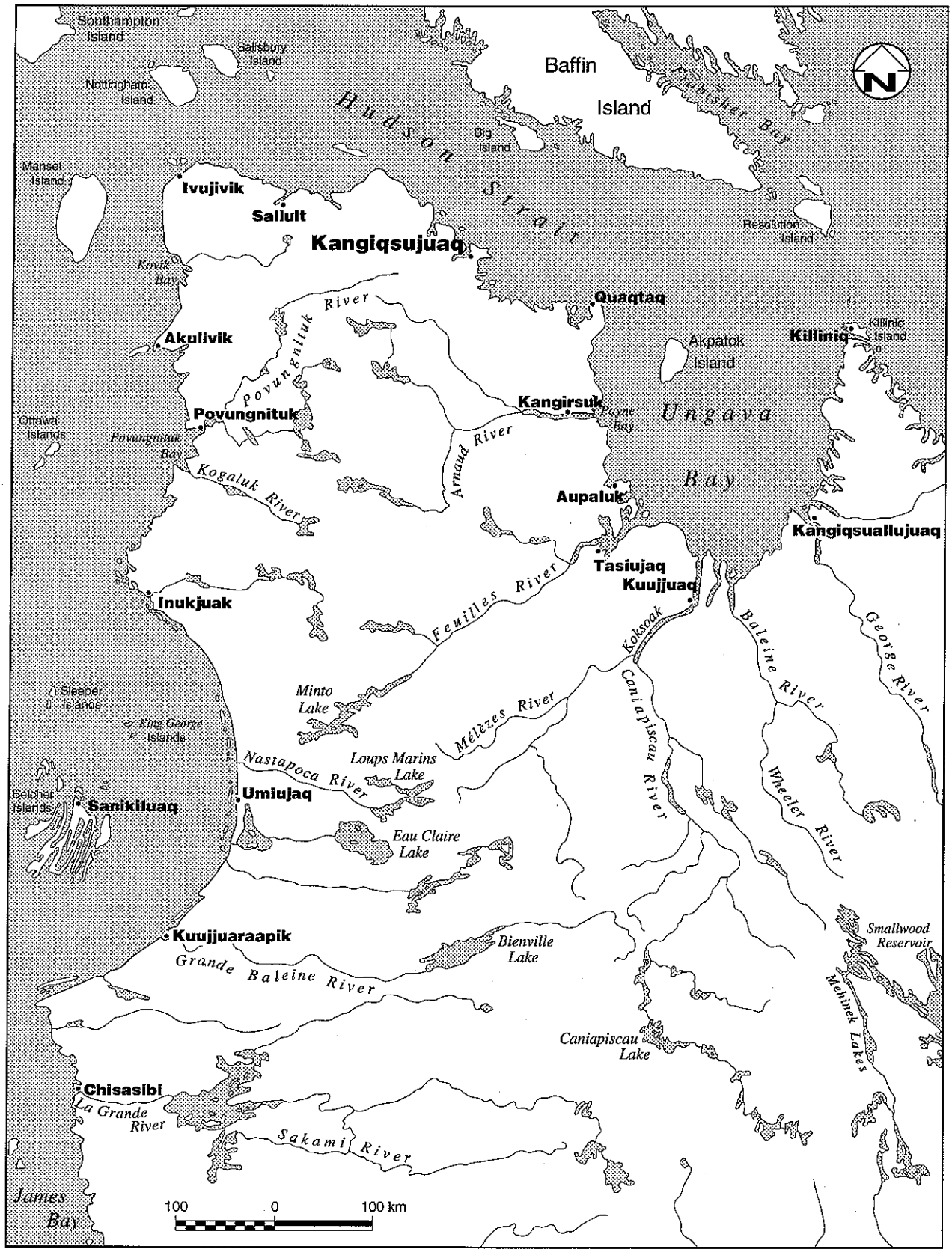

Figure 1. Location of Kangiqsujuaq, Nunavik.

rock art sampling techniques, and his participation in the dating process; and to Mr. Bernard Saladin d'Anglure, for his availability and interest in the project.

And to all Kangiqsujuamiut, thank you.

A Brief History of Events Surrounding the Discovery of the Qajartalik Site

The existence of the petroglyph sites in the Kangiqsujuaq area was first brought to public attention in 1961 by anthropologist Bernard Saladin d'Anglure who was then carrying fieldwork in the community (Saladin d'Anglure, 1961). Upon arriving at the quarry, Saladin d'Anglure noticed that it had been exploited for some years as evidenced by extraction scars scattered throughout the soapstone outcrops:

> "Arrivons à une carrière de stéatite ancienne, qui servait autrefois pour les lampes à l'huile. Il y a une soixantaine de gravures inexplicables {...} les Esquimaux n'en connaissent pas l'origine, ils découpent la pierre pour leurs sculptures, sans grand ménagement pour les gravures ..." (Saladin d'Anglure, 1961: 34)

However, the exploitation had ceased for sometimes when he visited the location:

> "La carrière de Qajartalik ne semble pas avoir été utilisée récemnent{...} Un de nos informateurs Ningioruvikmasiu nous a dit qu'autrefois on y venait tailler des lampes à l'huile mais que la pierre avait été épuisée et qu'on n'y trouvait plus de blocs suffisamment grands et résistants pour en faire des lampes." (Saladin d'Anglure, 1961: 38)

At that time, Saladin d'Anglure counted some 60 engravings, and noticed that some were damaged. He did some sketches of a few of the 'faces', and took some photographs, and recommended that the exploitation of the location be stopped to protect this unique feature of inuit culture.

Saladin d'Anglure returned to the site in 1965 with a mandate from the National Museum of Man to further document the petroglyphs (Saladin d'Anglure, 1965). He made an exhaustive count and added several other 'faces' to his initial count, totalling 95 engravings at this time. He photographed most of them, did 2 transfer by rubbing, and retrieved with the help of his guides one ornamented fragment[1]. He went back in 1966 to prepare a dozen casts of the petroglyphs, which were also brought back to the Museum. Bernard Saladin d'Anglure went to the site a last time in 1968 with Serge Pageau of the Department of Indian Affairs and the North. They photographed the site and noticed that portions of it had been vandalised.

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[1]. This petroglyph was exhibited at the Museum for a number of years. The Kangiqsujuamiut had been reclaiming this fragment for many years after this event. In January 1995, the fragment was finally transferred back to the Municipality where it is now stored awaiting its final storing place.

In 1972, Fred Bruemmer visited the site to take some photographs (Bruemmer, 1973: 33-35). He abnd his guide, Jaaka Amaamak, used black chalk to accentuate some of the petroglyphs, not knowing that this action would damage the engravings.

In 1977, Patrick Plumet, accompanied by members of the Tuvaaluk Programme, did a helicopter survey of Whitley and Joy Bays, sampling 5 soapstone quarry sites along their way, including the Qajartalik site. This latest visit had a negative impact on the practice of archaeology in the area. After their visit, some Kangiqsujuamiut accused them of retrieving a second ornamented block, and when Plumet's team came back to initiate a salvage project in 1978, the Municipality had passed a moratorium interdicting all archaeological projects in the region (Camil Guy, 1978). This part of the history of the site is rather obscure, but the fact remain that there has been an unauthorized visit of the location that year. Whether or not a soapstone block was removed at that time is unsure, but a photograph labeled to the Laboratoire d'archéologie de l'UQAM might begin to explain what really happened. This photograph clearly shows a person about to extract something from an outcrop. We compared this photograph with the outcrops at Qajartalik, and we were able to identify the exact location, confirming that this event took place at the petroglyph site. It appears likely that this photograph may document the extraction of a soapstone sample from the Qajartalik site as related by the Tuvaaluk Programme (Archambault, 1981). However, we may question the logic of this gesture, knowing that the soapstone quarry is a fragile material, and that some of the engravings were already damaged. Moreover, numerous soapstone blocks were and are still scattered throughout the site. For somebody who wanted to salvage the site, this gesture is unexplainable[2].

During the 1980s and early 1990s, touristic cruises were organised by a German company, which included visits of the Qajartalik site. It is worth noting that the Inuit were never told officially of these visits, and they raised suspicion amongst the population. These cruises were done under the supervision of archaeologists, so it was expected that they would alleviate any form of disturbances to the petroglyphs, which unfortunately was not the case. Some photographs made available to us (R. Auger, 1996, pers. comm.), clearly indicate that the tourists were walking on the petroglyphs, and quite a few of them made some rubbings as souvenirs. In recent years, no report of touristic cruises have been mentioned.

In 1994, the Fédération des coopératives du Nouveau-Québec (FCNQ) sent a professionnal photograph to the site. Their objective is to develop their own tourism programme around the petroglyphs. The Institute has been made aware of this project, and follows closely its

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[2]. A second attempt to rescue the site originated from the same source in 1994, but didn't succeed and was replaced by the current project. See the upcoming issue of Inuit Studies for a brief account of both sides of the story.

development. Negotiations are underway with various organisations to make sure this type of project will be done according to the rules. Following, the results of the current long-term research project, it may even be decided that opening this site for tourism might be impossible.

Lastly, and to complete this brief history of events, 2 recent incidents are cause for alarm. In 1995, a group of students visiting the site left their marks on the soapstone outcrops. However localised, these graffiti are an indication that the site is not safe from vandalism. Moreover, iconoclasts visited the location in recent times. It seems that these visitors consider the site as the mark of the devil, so they made sure people visiting it would know. Some soapstone blocks with recently carved crosses and messages were disposed at key locations. Also, some of the engravings were partly defaced by these last visitors. The Municipality is aware of the dangers, and is helping in anyway they can to prevent further destructions.

The first implementation of the salvage programme came along after these latest incidents occurred. Although not extensive, the damage caused by the visitors along with the natural erosion of the site, make it imperative that the salvage project and protection programme be carried out as quickly as possible.

At least 2 other petroglyph sites were mentioned by Saladin d'Anglure (1961). These sites do not appear later in the litterature for a number of reasons. First, one the site was actually never seen by the Anthropologist, and the location he relates is innacurate; the other site, located at Upirngivik, has been also mislocated in the early 60s. No researchers have been able to revisit them since their first mention. They appear also to be of lesser importance, each containing only a few visible engravings. We were unable to relocate both sites in 1996, although we did have a few alternative locations to verify. After the field work, we met with Mr. Nalaak and Lucassie Nappaaluk, and they pointed the exact location of both sites. They indicated also 2 other sites that might contain more petroglyphs. One was apparently entirely eroded over the last 10 years; the other was discovered last summer on Ukiivik by Daniel Nappaaluk, grandchild of Nalaak. The latter might prove interesting because it would not be engraved in soapstone. Finally, other informants pointed at least one more location where soapstone engravings were observed in the past, but none of our informants remembered the exact location, just the general area. We visited it, but without success.

To complete this section, we would like to clarify a number of false information that were published in a synthesis study (Aménatech Inc., 1984), about 2 other 'sites' bearing petroglyphs, thus preventing its further use in the future. After verification, both 'sites' were found to be pure invention. The identification of petroglyphs at the first, which was identified in this study as JhEv-1 and was attibuted to Saladin d'Anglure, and was later revisited by Plumet in 1977, is actually the

description of JhEv-2 (Qajartalik) mixed with the description of JhEv-1 done by Plumet. And its original identification was attributed to an unexisting 1963 Saladin d'Anglure document. Moreover, the coordinate for that 'site' were off by at least 1 kilometre from the actual location of JhEv-1. The second 'site' with the Borden Code JjEv-5 was supposedly located at the centre of Ukiivik island. This other 'petroglyph site', which is also attributed to the unexisting 1963 document, actually repeated the description of the pseudo JhEv-1. Moreover, Mr. Saladin d'Anglure never spent more than a few hours on this island, and never ventured to explore it (Saladin d'Anglure, 1961).

The Qajartalik Site (JhEv-2)

Site Description

The JhEv-2 site (also known as Qajartalik) is located at the southeastern extremity of a small island named Qajartalik, which means "the place where there is a qajaq" (Figures 2 and 4). This island is itself situated in Whitley Bay, roughly 40 km southeast of Kangiqsujuaq. Qajartalik is linked also by a natural bridge to Qikertaluk, the larger island to the south. This natural bridge is accessible at low tide, as well as high tide.

The site itself is located at 500 m from the eastern limit of Qajartalik. It occupies a large crevasse at 25 m.a.s.l. The crevasse is delimited to the north by a 5 to 6 metres high granite escarpment, and to the south by another escarpment. The latter is sloping gradually toward the bay. A soapstone vein occupies the crevasse (Figure 3). The vein is oriented East-West (105°), but does not appear to be continuous. Two large outcrops are located at the eastern extremity of the crevasse; a third one is located farther to the west. The eastern outcrops are surrounded by ponds of stagnant water. Granite and soapstone blocks of various sizes are scattered throughout the area.

Originally, the JhEv-2 site was composed only of sectors 'A' and 'B' (Figure 3). However, visual observation extended these limits to the east, and to the west. To the east, the granite escarpment curves toward the south. At this location, an opening in the escarpment attracted our attention. Upon close inspection, we realised it had been used as a rockshelter. It's dimensions are 2.4 m in length and 2.1 m in width. The entrance is composed of a well built pavement. Its located 30 m east of sector 'A'. The shelter was not tested at this time, so its relation to the petroglyphs, although likely, can only be presumed.

Toward the west, the site extends much farther than was initally thought. During an examination of the surroundings, a third soapstone block was identified. Its located 120 m west of the rockshelter. This third block is much smaller (i.e., less than 2 m in diametre, 1.1 m high) than the other 2, and does not appear to have been used as heavily. The outcrop in sector 'A' measures approximately 15 x 10 m, and its 3.3 m at its highest. The outcrop in sector 'B' measures 12 x 10 m and reaches 3.5 m at its highest point.

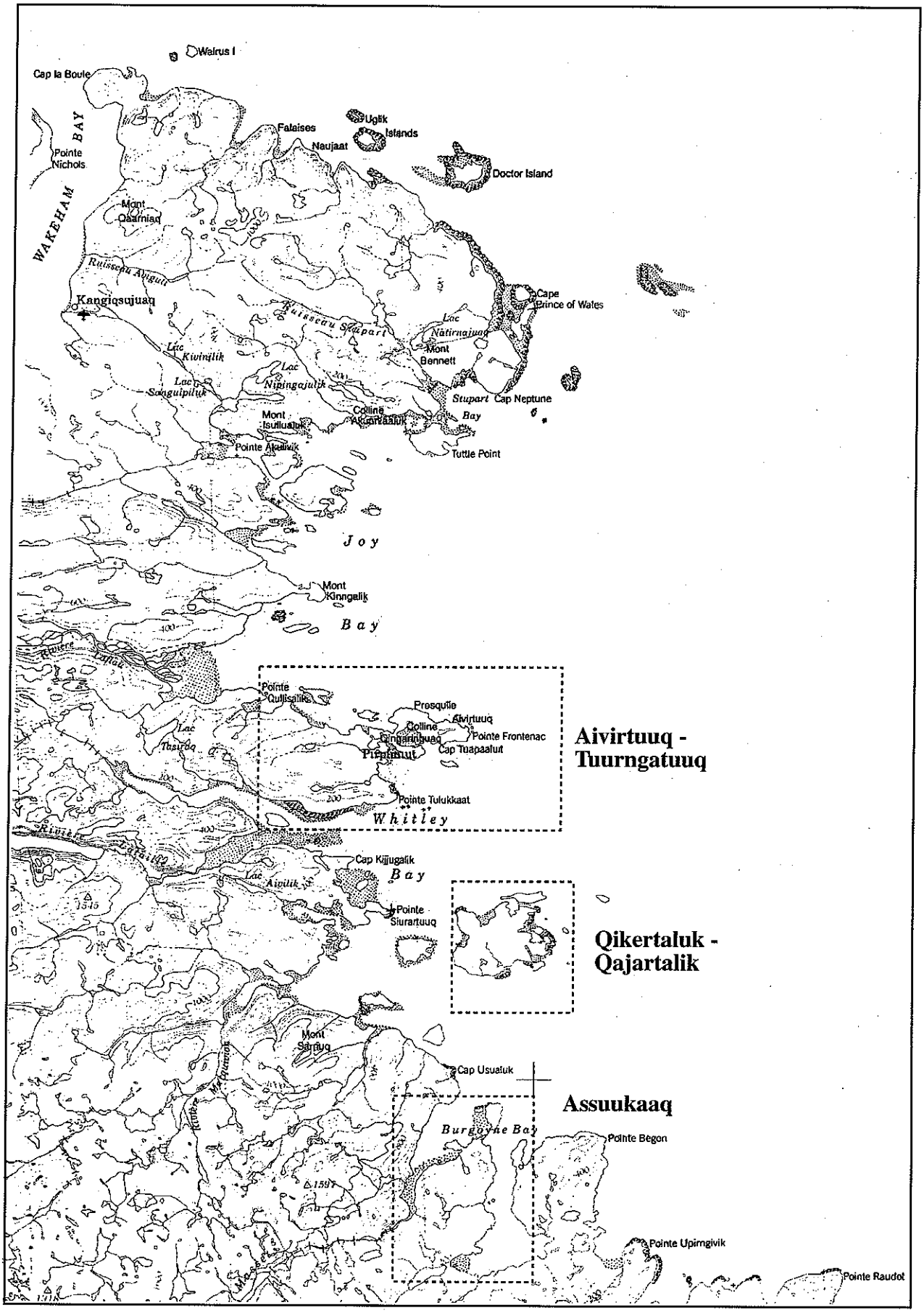

Figure 2. Location of Study Areas.

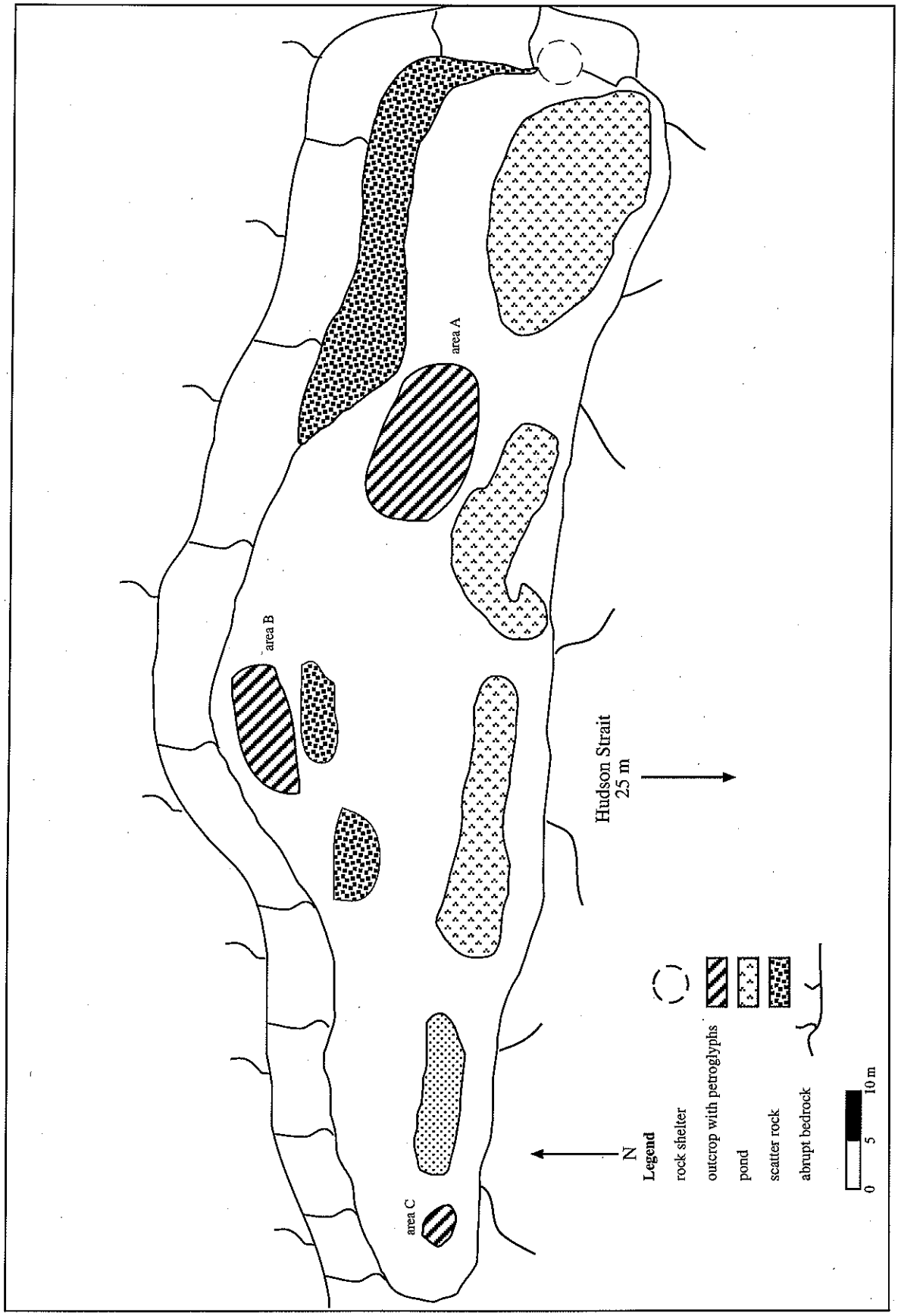

Figure 3. Plan of the Qajartalik Site (JhEv-2).

Preliminary Results

The objective of this first visit was to gather as much information as possible on the state of preservation of the petroglyphs, including a preliminary count of the engravings identifying which ones were more eroded, and exhaustive photographing of the 3 sectors. These tasks were more difficult than initially expected, partly because most of the engravings have lost their integrity. Moreover, there appears to be no discernible patterns in the engravings. It is also important to note that the number and location of the engravings varied greatly according to lighting. So throughout a day's work, new engravings became visible and others disappeared. So it was difficult to keep track of all 'faces'. The first step to circumvent these difficulties was to produce a preliminary plan of the site. Once completed, each sector was treated individually, then each portion exhibiting engravings were sketched out, and photographed sequentially. This exercise was repeated at regular intervals to ensure an exhaustive coverage. A total of 400 hundred slides were thus taken covering mostly sectors 'A' and 'B' (at the time we identified sector 'C', a single engraving was identified; later, during an examination of the slides, a second engraving came out; more may be singled out in the future). This task ended up taking most of the site spent on the site. However, it was essential to prepare this first exhaustive inventory to measure the extent of erosion on the petroglyphs, and to inventory as much as possible the petroglyphs that are still visible to this day. It will also be useful to compare these latest photographs with the ones taken in the 1960s, the 1970s, and 1990s to evaluate the rate of degradation, whether it has accelerated over the last few years with the reoccurring visits of the site.

To complement the photographs, we have experimented with rubbing techniques using 3 varieties of acid-free papers and a graphite stick (type: General's ©, #6B). We have limited its use to 3 sectors on block 'A'. This technique was tested sparingly this first time around, essentially to verify if any details unnoticable on the photographs would come out using this technique. The results were satisfying, and the rubbings do show details that aren't readily identifiable on the photographs, and on the outcrops themselves, notably, work scars, and other faint engravings indicating that there have been overlapping through time. This transfer technique will be used more extensively in phase II of the project.

In addition to the exhaustive inventory of the engravings, we have sampled extensively the lichens occurring on block 'C'. In all, 13 visible species of lichens were collected for further analysis by the Department of Phytology, Laval University. Two more were retrieved from block 'A'. The lichen samples were collected to determine their effects on the soapstone outcrops, and by extension on the engravings (Childers, 1994). We are still waiting for the analysis results.

Samples of the soapstone were collected also for further characterization. Both samples were retrieved from the block 'C' area. We have been able to connect both samples to the latter block by locating their original extraction zone. It appeared also that both pieces had been extracted a while ago[3].

Lastly, 2 small soapstone samples (2 x 2 cm) were retrieved from block 'A' in an attempt to obtain datable material. Since this procedure is destructive, we selected an area on block 'A' that was already damaged, but where engravings were still visible. The selected area is located at the top east corner of the outcrop. It was selected because it exhibited advance erosion and weathering, as well as being one of the most extensively used portion of this outcrop in the past. In order to extract a sample that could be used for radiometric datation, and that would result in a significant date for the petroglyphs, it was necessary to get the sample from within the engraving. Organic matter often settles in depression, and through time is covered by silicious material, thus emprisoning it. This procedure, developed by Dr. Alan Watchman, has been used successfully on various petroglyph and pictogram sites throughout the world (ref.). The small size of the samples should prove sufficient for dating purposes, and are not likely to accelerate erosion in this area of the outcrop. After the field work, both samples were forwarded to Dr. Alan Watchman for analysis.

Preliminary Observations

Although a final count has not yet been completed, we have established the presence of at least 115 engravings, the majority of which are located on block 'A'. The previous count was 95 engravings (Saladin d'Anglure, 1965). The total number of 'faces' could easily increase in the future. It is estimated that only 25% of the engravings are still easy to identify, while the remaining 75% are only visible through careful examination, and their visibility often depends on the lighting at the time of observation. The more detailed the coverage will be, the more likely other engravings will appear. We also have to consider the fact that significant portions of blocks 'A' and 'B' are actually covered with sand deposit or small ponds. Careful cleaning of these areas might uncover more petroglyphs. It was observed also that one of the large soapstone blocks that fell from the outcrop 'A' exhibited engravings on its side, which would have been the summit before it came down. These engravings are located at the lowest edge of the block. Its bigger portion is currently facing downward. It is presumed that this hidden face might contain more petroglyphs. In addition, a second fallen block, located immediately to the east of the previous one, had at least one engraving

[3]. Other soapstone samples were collected from 2 more quarries (see map) for the purpose of identification of rare elements. This sampling should continue in phase II. A previous project (Archambault, 1981) presented results from samples taken from 5 quarries in the Kangiqsujuaq area. Although interesting, the results are useless since they do not discuss their exact location.

on what was once its inner surface, indicating that it was ornamented after it fell. Further examination of these 2 blocks will present a real problem. Both are quite large and heavy, and, needless to say, fragile.

Preliminary examination of the engravings suggests a wide stylistic variability (i.e., in representations and techniques) that will need to be studied in details. These stylistic differences might indicate the individual marks of the different carvers, and again they might translate the use of the location through many generations. It is worth noting also that more than one technique appear to have been used for the engravings. For example, some engravings are very deep and exhibiting fine details, while others are merely scratches on the surface of the outcrop. At least one is carved in relief, while several lumps of soapstone, observed mostly on block 'A', could represent failed attempt at relief carving. The general shape of these lumps might suggests such a treatment, but no facial details are readily apparent. Apart from this interpretation, it is difficult at this time to identify the purpose or intended function of these lumps.

The general style of the engravings is very reminiscent of the Late Dorset art form, and on that basis it is suggested that the petroglyphs date from that period (see also Taçon, 1993). Also, considering the fact that soapstone is a very soft and delicate rock, and that the engravings are rapidly eroding, an earlier date appears unlikely at this time. Future development will clarify this question.

The state of preservation of the Qajartalik is precarious. As was already stated, only 25% of the engravings are still relatively intact. Thus, it was important that we concentrated our efforts in identifying all the elements that might have a negative impact on the petroglyphs in the short, middle and long-term. Damage to the site have come in 2 ways: natural causes, and anthropic interventions.

The major problem at Qajartalik is erosion. It is also a complex process, and many aspects have to be considered. First, the weathering of the soapstone outcrops is by far the most obvious effect of erosion, and there is no way to stop it, short of building a permanent shelter. For the time being, it is necessary to examine and record exhaustively each portion of the 3 outcrops to ensure that at least a complete record of the site will exist for the future generation. Erosion is also being caused by the yearly build-up of small ponds of stagnant water especially on top of outcrop 'A'. These ponds in conjunction with the fissures that were observed throughout the outcrop, and freezing and thawing action are increasing the stress on the rock and are jeopardizing in the long-term the integrity of the outcrop. Counter measures will have to be implemented in the short term to reduce their impact, if not to completely eliminate them from further damaging the site. For example, the

formation of these small ponds should be prevented or at least drained as often as possible. The fissures should be closely monitored, and their progress measured regularly. It will also be necessary to evaluate the possibility of building a permanent shelter over portions of the site.

Also of immediate concern, is the human impact on the integrity of the site. Of all dangers awaiting the Qajartalik site in the future, the human factor is probably our first concern. It has been documented elsewhere that human use of the site has started well before its 'official' discovery in the 1960s. Even at that time, Saladin d'Anglure reported that the Inuit were using this quarry to extract soapstone blocks for manufacturing lamps and carvings. However, this type of exploitation was over by the early 1960s. The quality of the remaining soapstone was considered no longer adequate for manufacturing purposes. There exist a possibility that carvers from other regions have continued using this quarry from time to time, but this has not been documented yet. Stories of block removal have been discussed previously, and although the 1965 removal was done for salvage purposes, it was, in retrospect, a bad decision that irremediably affected a portion of the site. Not to mention the photograph that highlighted the petroglyphs with black chalk. In more recent times, increased tourism activities have had also a highly negative impact on the integrity of the site. Visitors were seen walking freely on both outcrops, and some of the visitors were even doing some rubbings. In 1995, a group of young Inuit students badly supervised used a small portion of outcrop 'A' to do their own engraving. Close examination of that portion of outcrop 'A' indicated that no engravings had been damaged, but the graffiti are located right next to a group of petroglyphs. Recently, a group of people with a strong religious belief have attempted and successfully disfigured a small number of the engravings. Religious warnings have been engraved on soapstone blocks and scattered around outcrops 'A' and 'B', and crosses were superimposed on some of the petroglyphs. Lastly, a number of petroglyphs have been recently gouged to increase their visibility. As his readily apparent with this brief overview of human activities at the site, it is clear that here lies the immediate and short-term danger to the site's integrity.

Recommendations

The following recommendations have been formulated to ensure the long-term preservation of the Qajartalik site. They address a number of important issues that need to be dealt with in the near future. They concern public awareness and education, short, middle, and long-term conservation issues, and the continuation of the petroglyph research project.

1. **Public Awareness and Education**: An educational programme stressing the uniqueness and historical value of the Petroglyphs site needs to be implemented. This programme should focus first on the local population. Presentations for the Kangiqsujuamiut are already planned and should

take place prior to the continuation of the project. It is important also to mention that the Community members will be encouraged to participate fully in the realisation of the project. Phase I of the Petroglyph research had already seen many Community members involved at various levels. We intend on intensifying this participation by inviting again students and elders to join our research. However, our commitments will not stop at this level. It is necessary that all of Nunavik be made aware of this important manifestation. Thus, we have already been issuing research updates to various inuit magazines that are widely distributed throughout Nunavik (i.e., Makivik News, Tumivut, etc.). Currently, we are planning also a tour of the schools, and of all Municipalities, and are considering the production of a poster for general distribution. This poster would focus on the petroglyphs as an integral part of the archaeological heritage of Nunavik.

The Public awareness and Education programme will also target the various Inuit agencies, the general public, and the scientific community. It is important that all Inuit agencies be involved in the realisation of the project, and in the implementation of the protection programme, both morally and financially. Their support is essential for the success of the Petroglyph project. It is important also that the general public and the scientific community be made aware of its existence and its uniqueness.

2. **Site Monitoring**

Considering the precarious state of the Qajartalik site, it is essential that measures be taken to ensure its short and middle-term protection and preservation. Site monitoring in itself would not prevent the continued deterioration of the site, but it would be a means to measure the progression of the deterioration, and help in reducing its impact. As stated earlier, site monitoring would allow the control at regular intervals of the progression of the fissures, the impact of freezing and thawing on their progression, as well as give an opportunity to drain the occasional ponds building up on top of the outcrops. In addition to these tasks, having the site monitored at regular intervals will be beneficial in preventing unauthorized access of the site or damage caused by human intervention. Obviously, site monitoring won't solve all the problems, but it will reduced their impacts on the integrity of the site.

3. **Conservation Issues**

In conjunction with the site monitoring, a series of measures will be implemented to protect the Qajartalik site. These measures concern both the long-term preservation and the continued research programme at the site. A necessary step will be to evaluate the possibility of installing a permanent shelter over the petroglyphs site. This measure would ensure the long-term preservation of the locality. However, until such an issue is resolved, a number of steps need to be undertaken in order to prevent further deterioration. These steps are also a necessary prelude to the site monitoring.

Despite our intention of being minimally 'interventionist', there is a number of tasks that have to be done in order to reduce as much as possible the deterioration of the petroglyphs. The removal of all extranuous materials that destabilize the 3 outcrops is one such task. Organic matters (lichens and other) have grown extensively on the 3 outcrops. Lichens in particular may contribute greatly to the deterioration of the petroglyphs, since part of the lichen growing process involves the secretion of organic acid, which dissolves the underlying rock in order to feed itself with the mineral contents (Childers, 1994). Part of Phase I was to collect samples of all types of lichens that grow on the outcrops to determine their effect on soapstone. The analysis results should indicate which ones are more damageable, what are their rate of reproduction, and will help in devising a procedure to counteract their effect. It is important to stress that at this time not all lichen growth will be necessarily removed. Instead, we will concentrate on the plants that grow immediately in the vicinity of the engravings. This task will necessitate delicate work, and will be a long process.

The formation of small ponds of stagnant water, which indicate a slightly acid pH level when tested, need to be addressed in the short term. We already mentioned the negative impacts they had along with freezing and thawing on the fissures observed in the outcrops. While the latter is difficult to control, the negative effects of the ponds can eliminated by draining them. Until the issue of a permanent shelter is resolved, this exercise would have to be done regularly during the site monitoring.

There has been through time formation of sand deposits on top of the outcrops. While not exactly damageable, removal of these deposits will certainly help in stabilizing the deterioration of the outcrops. Again, the progression of these deposits could be measured during site monitoring.

In addition, these 3 measures along with reducing the deterioration of the petroglyphs might help uncover more engravings that are hidden at the moment. The expertise developed through these exercises will be applicable also at the other 2 petroglyph sites.

Phase II of the project will also focus on the research aspect of the petroglyphs. Exhaustive documentation should be continued as early as possible. The first step will be to produce a detailed plan of the JhEv-2 site, and a more accurate distribution of the petroglyphs. In this respect, careful examination of the photographic coverage of phase I should help in refining the identification procedures, as well as identifying portions of the outcrops that might contain engravings that weren't observed in the field due to lichen coverage or strong weathering. The photographic coverage will also be extended to the portions currently occupied by lichen concentration, the ponds, and the sand deposits once they are removed. We are considering also using photogrammetry as an alternative way to photograph the 3 outcrops, and the use of artificial lighting to circumvent the lighting problems we had during phase I. However, these 2 options represent a logistical problem that will have to be solved prior to the beginning of phase II.

Phase II will also see the beginning of sampling procedures and excavation. In the event that the first attempt at dating the petroglyphs fails, we are considering testing the immediate surroundings to uncover traces of activities, and possible datable material. Excavation of the rock shelter is also planned. It is presumed that this feature is linked to the petroglyphs, and it might contain useful information has to whom created the engravings.

It is important also that we continue to document the previous interventions. Currently, we are in contact with Mr. Saladin d'Anglure and other individuals that have been involved with Qajartalik at some point in time. There is some questions that need to be addressed before we carry on with phase II, notably the stories behind the removal of the first block in the 1960s, and the rumours concerning the possible removal of a second block in the 1970s.

Lastly, a number of parallel projects are being discussed and should be implemented in the near future. One of these has been confirmed, and its the reinstatement of the Nuna-Top place names project that will focus on the Kangiqsujuaq region. It has been suggested also that we put together an oral history project that would deal primarily with the Inuit perceptions of the petroglyphs. Along these lines, it will be interesting to document the history of the Aivirtuumiut (Whitley Bay area) and the Ukiiviimiut (Joy Bay area).

Archaeological Survey

Previous Research

Bernard Saladin d'Anglure is the first to have reported the existence of archaeological sites in the Kangiqsujuaq region (Saladin d'Anglure, 1961). Along with the Qajartalik site, 2 other petroglyph sites had been observed or mentioned, as well as several archaeological sites on Ukiivik and at Aivirtuuq. In the late 1960s, Georges Barré did extensive work in the area and registered archaeological sites, and sampled several of them (Barré, 1970). During the 1970s, the Tuvaaluk Programme did a helicopter survey of the area and registered several new archaeological sites and revisited a number of them, including the Qajartalik site. From 1985 to 1990, Mr. Yves Labrèche did extensive work in the Kangiqsujuaq area, mostly surveys on the mainland, and excavations on Ukiivik (Labrèche, 1986; 1987a; 1987b; 1989, 1990).

1996 Survey Results

The 1996 preliminary survey work was implemented to determine the archaeological potential of the region surrounding the Qajartalik site (JhEv-2). Previous archaeological work had been concentrated on the northern section of the area (Ukiivik to Aivirtuuq), while the area south of Aivirtuuq had been seldom visited. In fact, only 2 sites were known prior to last summer's work on Qajartalik and Qikertaluk (JhEv-1 and 2), and 4 on the coastline south of these islands (JgEu-1, JhEu-2, JhEv-3, and JhEw-1). Considering the limited amount of time alloted to the survey, the primary objective was to register as many sites as possible to establish the research potential of the area. No sampling took place for phase I of the project, and not all the sites were mapped at this time. However, 2 sites were surface-collected (see Appendix 2), and 3 soapstone samples were collected in 3 different quarries.

The 1996 survey resulted in the identification of 42 new archaeological sites, 31 of which are located on Qikertaluk and Qajartalik (Figure 4). Three are situated on Tuurngatuuq, 5 on Aivirtuuq (Figure 5), and 3 on Assuukaaq in Burgoyne Bay (Figure 6) (See Table in Appendix 1). In addition, 7 archaeological sites previously known were revisited, including the Qajartalik site (JhEv-2), Upirngivik (JgEu-1, which corresponds to the second petroglyph site observed by Saladin d'Anglure; unfortunately we weren't able to relocate this site last summer. The registered coordinates are wrong. Mr. Nalaak Nappaaluk who accompanied Saladin d'Anglure in 1961 indi-

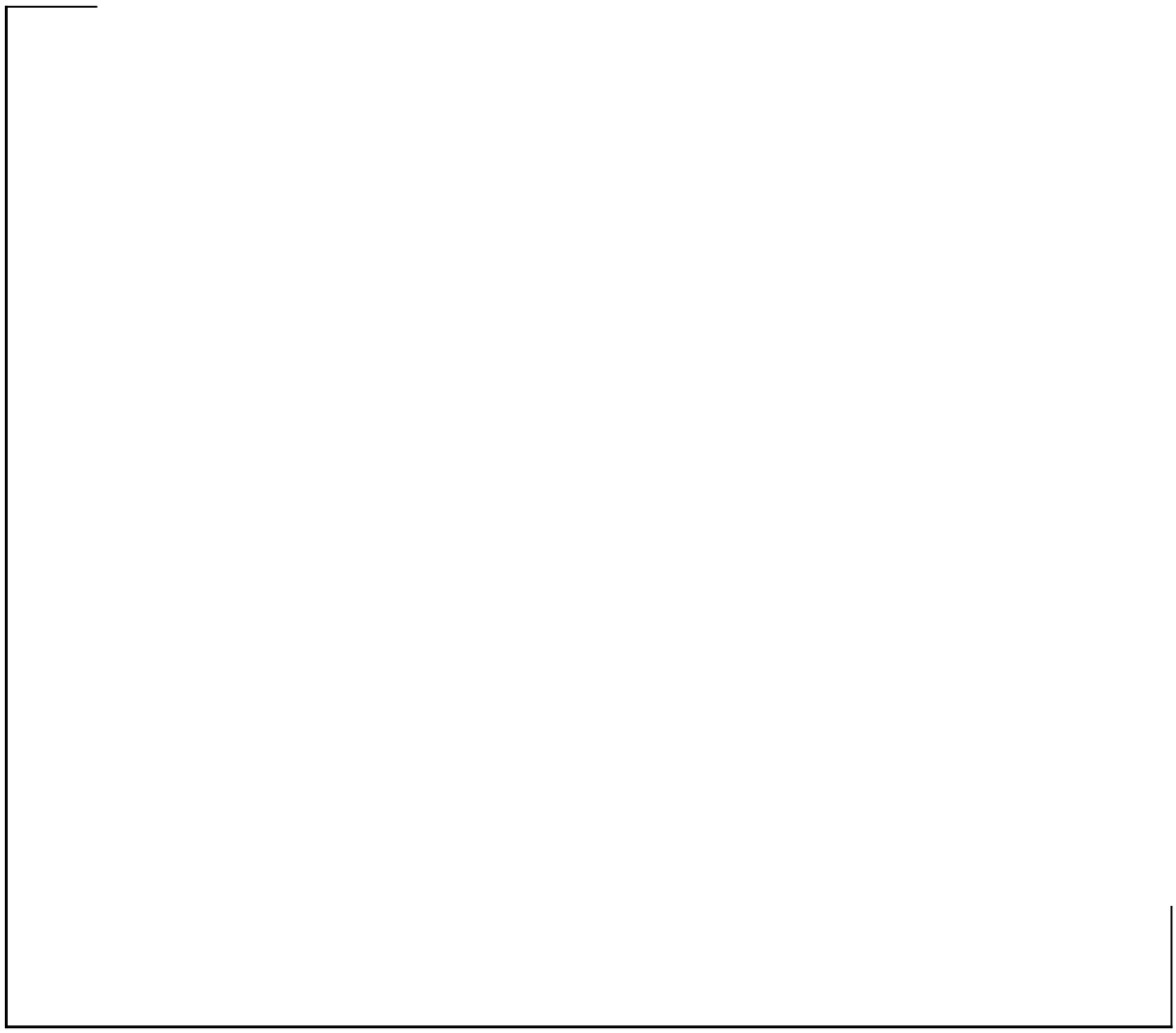

Figure 4. Qikertaluk and Qajartalik, site locations.

Figure 5. Aivirtuuq and Tuurngatuuq, site locations.

Figure 6. Assuukaaq (Burgoyne Bay), site locations.

cated the exact location after the field work)[4], JhEv-3 (a Thule site with 6 dwellings located on Assuukaaq in Burgoyne Bay observed by Plumet in 1977), JiEv-2 and 6 at Aivirtuuq (both Thule occupations; these sites were sampled by Barré in 1969), and the historic Inuit site JhEv-1 on Qikertaluk also observed by Plumet in 1977. The last one is a soapstone quarry (JiEw-5), and is located at Qullisalik. With the exception of JhEv-2, none of these sites were the object of field work. They were included in the survey to confirm their location and description.

The new archaeological sites range from Pre-Dorset times, with one possibly relating to Independence I (JhEv-32), to early 1900s camps. Sixteen sites are of Palaeoeskimo origin: 4 are Pre-Dorset (JhEv-5, 6, 7, and 32. The latter, as mentioned previously, could possibly be Independence I). Three are located on Qikertaluk, and one on Qajartalik. They occupy boulder fields at altitudes ranging between 25 and 40 m.a.s.l., with the exception of the possible Independence I component which occupies a cobble beach. The latter is composed of a well-defined bilobate tent ring with an associated mid-passage. All other Pre-Dorset components are represented by tent rings, some with possible mid-passages; a number of caches were observed on JhEv-5 and 7. This last one revealed also one kayak cache pit and a cache pit. Nine Dorset sites were identified during the survey, 6 on Qikertaluk (JhEv-9 to 13, and 20), 2 at Assuukaaq in Burgoyne Bay (JhEv-35 and 37), and one on Tuurngatuuq (JiEw-2). All Dorset sites are at the 20 m.a.s.l. mark, with the exception of JhEv-20 (18 m), and JhEv-37 (25 m). Most sites are composed of uncharacteristic tent rings with scattered lithics. A few caches have been identified on JhEv-20 and 37. One shallow semi-subterranean dwelling was observed on JhEv-12. Finally, the JhEv-11 site is composed of a single feature of a rather unique shape (Figure 7). It is composed of a 60 m long rock alignment with 2 huge circles of rock near both extremities. Its function remains unknown. However, scattered lithics were collected 25 m to the east of the terrace edge suggesting that the feature is of Dorset origin. The artefacts collected comprise one scraper, an end blade, and several flakes all in milky quartz, and one microblade in chert. lastly, 3 sites attributed to the Palaeoeskimo period, but with uncertain affiliation. Two were registered on Qikertaluk (JhEv-8 and 28), and one at Assuukaaq (JhEv-36). The first is at 20 m.a.s.l., the second is at 45 m.a.s.l, and the third is at 50 m.a.s.l. The first 2 are composed of tent rings (accompanied by a cache and a cache pit on JhEv-28), while JhEv-36 is comprised of secondary features only (i.e., 14 cache pits, 3 kayak cache pits, and 1 fox trap).

[4]. We tried also to locate the third petroglyph site without success. Saladin d'Anglure mentioned it, but he actually never saw it. Several informants indicated a soapstone quarry (JiEv-12) just south of Aivirtuuq, but no petroglyph were observed at this location. Finally, Mr. Nappaaluk later pointed to us the exact location on the mainland.

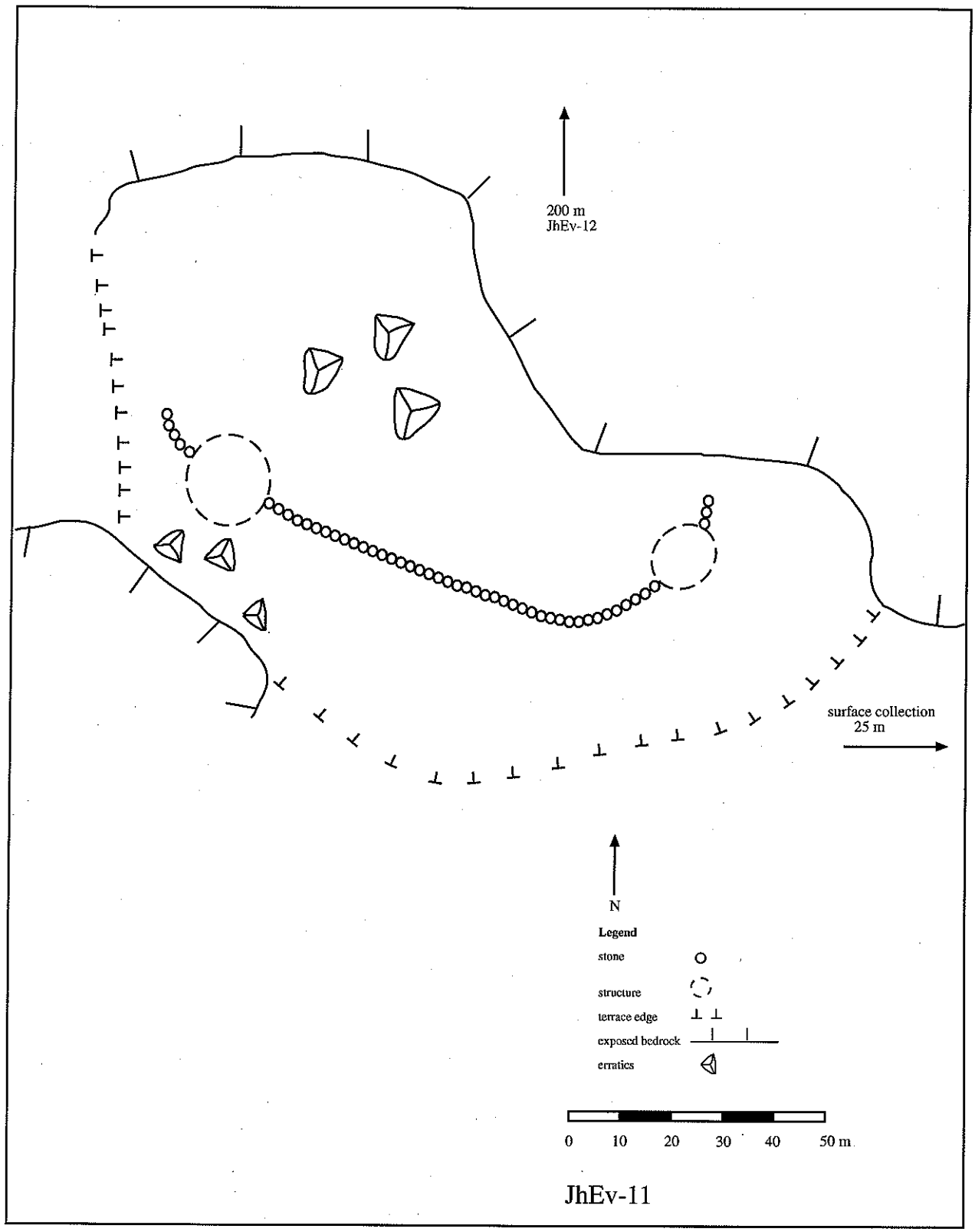

Figure 7. The JhEv-11 site.

In all, 21 Neoeskimo sites were inventoried. Two are of Thule origin (JhEv-22 and JiEv-11). The JhEv-22 site is situated in a narrow valley bordered to the north and south by 2 hills, and to the east by a swamp, portions of which are extending on the site (Figure 8). Five dwellings were registered. Structures 1 and 2 appear to share the same entrance passage. Structure 3 has 2 main rooms, while Structure 5 has an appended store room. At the time of the survey, 3 of the structures were submerged by water. The JiEv-11 site is located at the eastern extremity of Aivirtuuq. The location of this site places it close to the JiEv-2 site, which was sampled by Barré (1970). However, we have not been able to relocate Barré's site. JiEv-11 does not correspond to the description he gives of JiEv-2, thus, for the time being, we assume that they are 2 different sites. Only 2 semi-subterranean dwellings were identified on JiEv-11. Structure 1 is huge ( ), and Structure 2, built along an escarpment, is difficult to distinguish because of the heavy vegetation growth. In addition, 7 tent rings were observed several metres southeast of the winter dwellings. A number of 'depressions' are also visible between Structures 1 and 2. These depressions are generally of small dimension and of irregular shape. They are definitely not habitations. Their presence could explain the Barré site, if he'd mistaken them for dwellings. Further research should clarify this question.

Fifteen sites are identified as Neoeskimo, but with no clear time period affiliation. The majority are located on Qikertaluk-Qajartalik (n: 12), one at Aivirtuuq (JiEv-10), and 2 on Tuurngatuuq (JiEw-3 and 4). They all occur between 10 and 20 m.a.s.l. The Qikertaluk Neoeskimo sites are generally small comprising between one and 8 tent rings, along with several caches. The JhEv-29 site is an exception, since it contain 44 caches and 1 cache pit. One of the Neoeskimo site (JhEv-17) is composed of 7 heavy tent rings. This type of structure is present also on JhEv-30 (n: 3). Two sites (JhEv-16 and 30) comprised a kayak support. The Neoeskimo sites on Aivirtuuq and Tuurngatuuq are also small (3 to 4 tent rings with several caches). One of these sites (JiEv-10) includes a grave.

Three Historic Inuit sites were also identified: one on Qikertaluk (JhEv-18), and 2 at Aivirtuuq (JiEv-8 and 9). JhEv-18 is composed of 6 tent rings, and 2 caches. JiEv-8 is a large historic camp comprising at least 30 tent rings, 27 caches, and 4 graves. Judging by the artefacts scattered throughout the site (mostly corroded iron and broken glass), it is assumed that this location was heavily used during the 1800 and early 1900. Moreover, numerous walrus bones were identified all over the site, quite self-explanatory when considering the name of the peninsula (Aivirtuuq). Of the 4 graves, 2 are made up of boulders covering the deceased. The 2 others are more informative: both deceased are in a coffin (a mother and her child), and a small wooden cross is lying nearby indicating that both individuals might have been baptised, thus we might be able to identify them. The last Historic Inuit site (JiEv-9) is located a few hundred metres east of JiEv-8. It is comprised

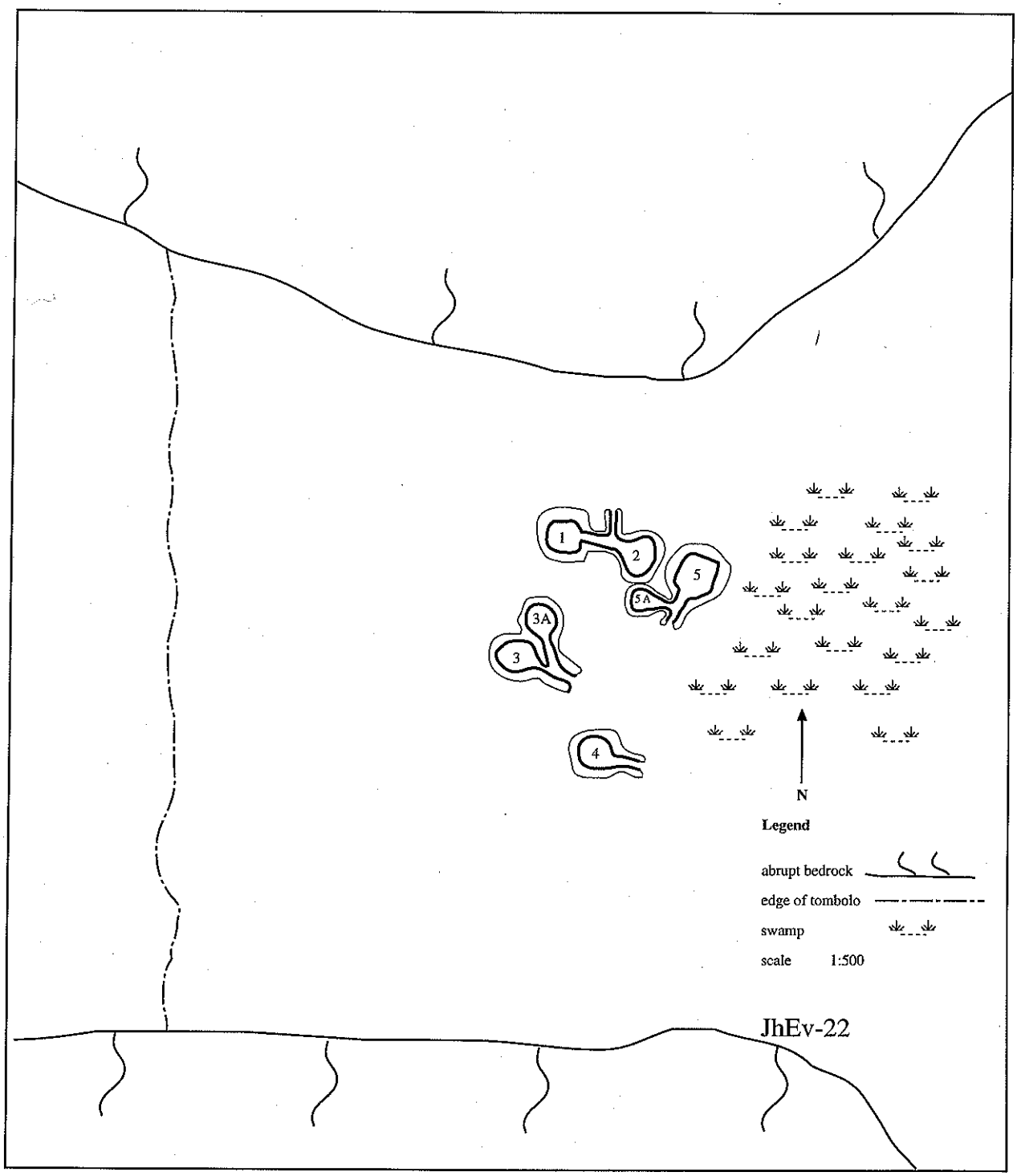

Figure 8. The JhEv-22 site.

of 3 tent rings, 27 caches, and 4 graves. The Community of Kangiqsujuaq has been notified of the presence of these graves to ensure their future safety[5].

Finally, 4 sites of undetermined origin were registered (Qikertaluk: JhEv-14, 26, 27, and 31). All these sites are characterized by secondary features (i.e., caches, hunting blind, cache pits, kayak cache pit, and fox trap), with only one tent ring visible on JhEv-27. These sites range in altitude from 15 to 45 m.a.s.l.

[5]. The small island located south of Aivirtuuq and directly facing JiEv-9 is a historical cemetary. Other graves were identified on Qikertaluk. They were located and the information was transmitted to the Community. They do not show on the maps, because they weren't link to an archaeological site.

Conclusion

Considering that the main objective of this survey was to establish the archaeological potential for a long-term research project in the Joy Bay -Whitley Bay area, the results obtained over a 6-day period are beyond all expectations. Adding the new 42 sites to the previously known sites (n: 26), we now have 62 archaeological sites, and most of the coast line, and inner river systems remain unexplored. Although the data gathered are superficial, a number of these new and old sites have an enormous research potential to further document the history of human occupations in the area. In this respect, it is important at this time for the development of archaeology in Nunavik that we start focusing on research and development rather than pursuing the impact studies and salvage projects avenues, which have been Avataq's mainstay for the first 10 years of its existence. In this perspective, the petroglyph project and its archaeology component offers an excellent opportunity to foray in this area.

Phase II of the project, along with the continuation of the petroglyphs research, will emphasize also the archaeological research. First, the survey initiated in 1996 will be continued in order to cover as much of the coastline as possible along with several smaller islands that have never been explored before. We are currently planning initial excavations on one of the Thule site (JhEv-3), and the JhEv-11 (Dorset) and 32 (Pre-Dorset) sites. We will developed the excavations to include a field school component for Inuit students. Alongside these components it has been proposed that we initiate an oral history project that would focus on the occupation of the Joy Bay - Whitley Bay area. This will be complemented also by the reinstatement of the Nuna-top project, which will focus on this area for the next year.

As previously discussed, there is some urgency in implementing these different projects in the area. First, the Qajartalik site (JhEv-2) is clearly in danger of eradication if no proper steps are taken to ensure its protection, and tourism development, regional or international, is only one of them. The precarious state of preservation of the site is a more immediate concern to Avataq and the Kangiqsujuamiut. Also, considering the uniqueness of the petroglyphs, it is essential that we start documenting the surroundings to better understand its significance in a regional context. Lastly, traditional knowledge is paramount in this understanding of past occupations in the area, and more importantly for the recent history of the Aivirtuumiut and Ukiivimiut, which inhabited this coastline until they resettled in Kangiqsujuaq in the early 1900s. No attempts have yet been made at putting together this history, and the main sources of information are disappearing rapidly.

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Photographs

Photo. 1. The JhEv-11 site, middle section of main feature, toward the west.

Photo. 2. The JhEv-11 site, west section of main feature, toward the northwest.

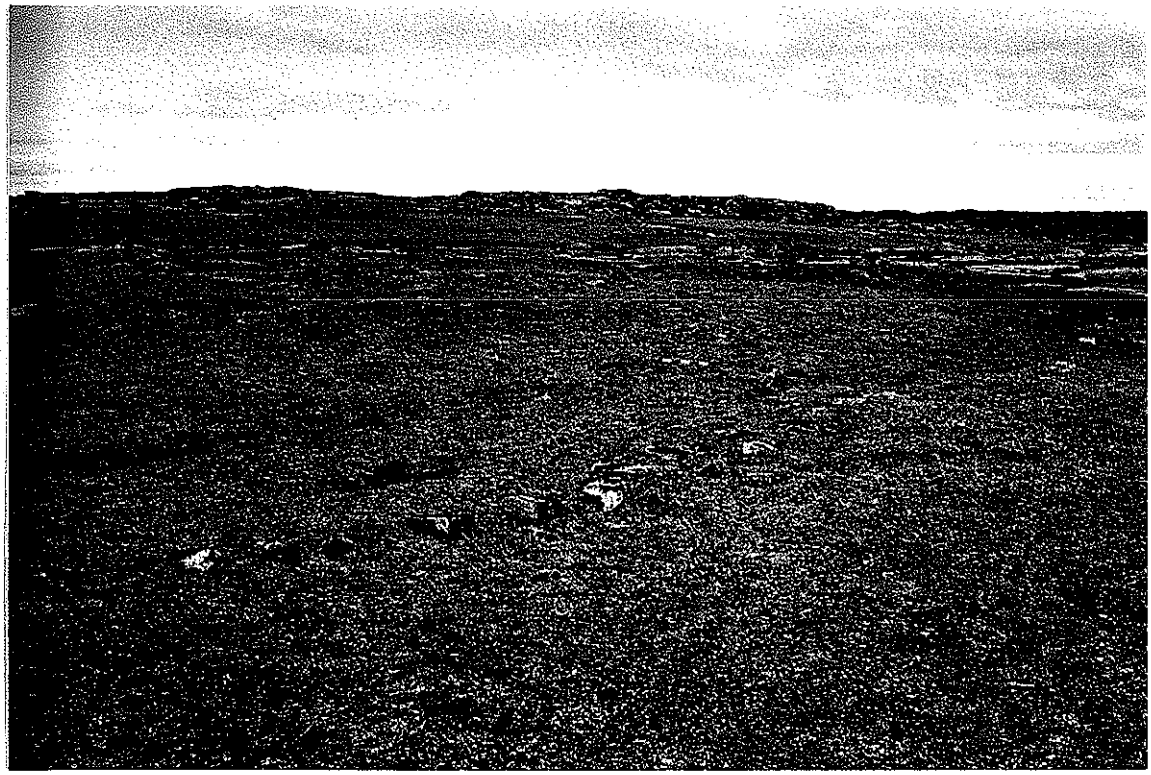

Photo. 3. The JhEv-11 site, east section of main feature, toward the northeast.

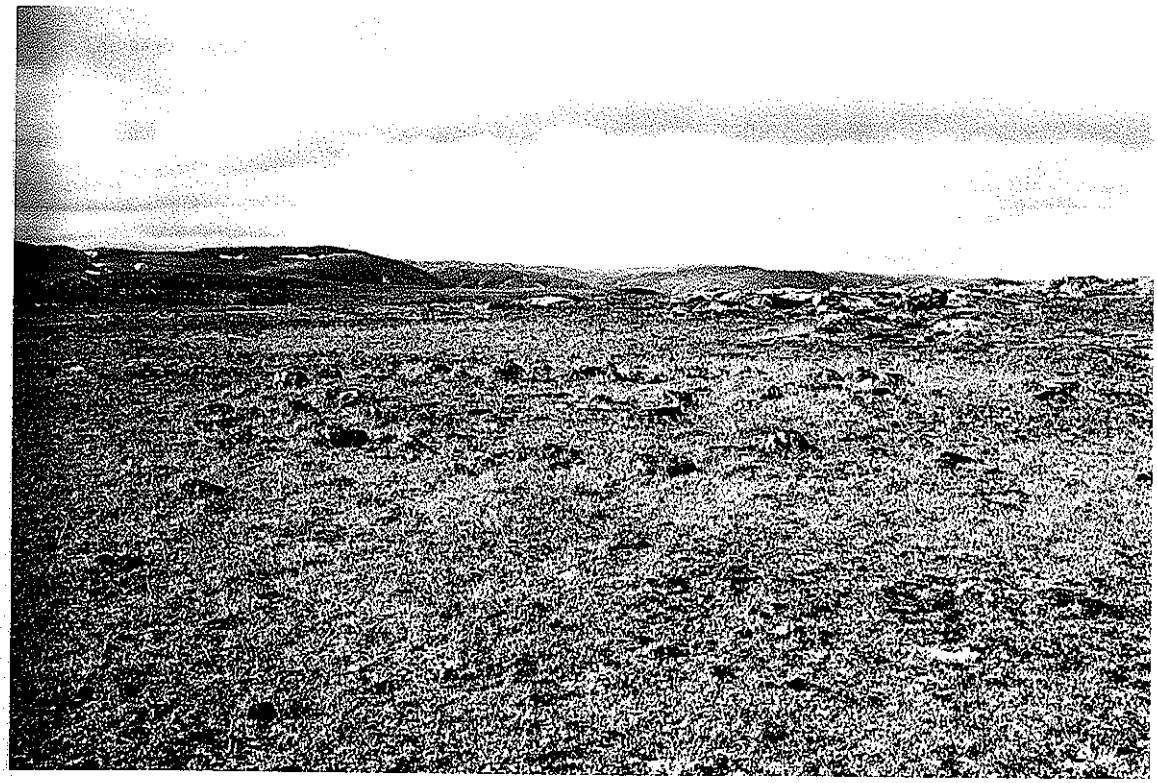

Photo. 4. The JhEv-12, shallow semi-subterranean structure, toward the west.

Photo. 5. General view of the ridge where the JhEv-8 to 12 sites are located (from south to north), toward the east.

Photo. 6. General view of the JhEv-22 site, toward the southeast.

Photo. 7. The JhEv-32 site, Pre-Dorset (Independence I ?) Structure, toward the west.

Photo. 8. General view of the JiEv-8 site, toward the northwest.

Photo. 9. The JhEv-36 site, kayak cache pit, toward the southwest.

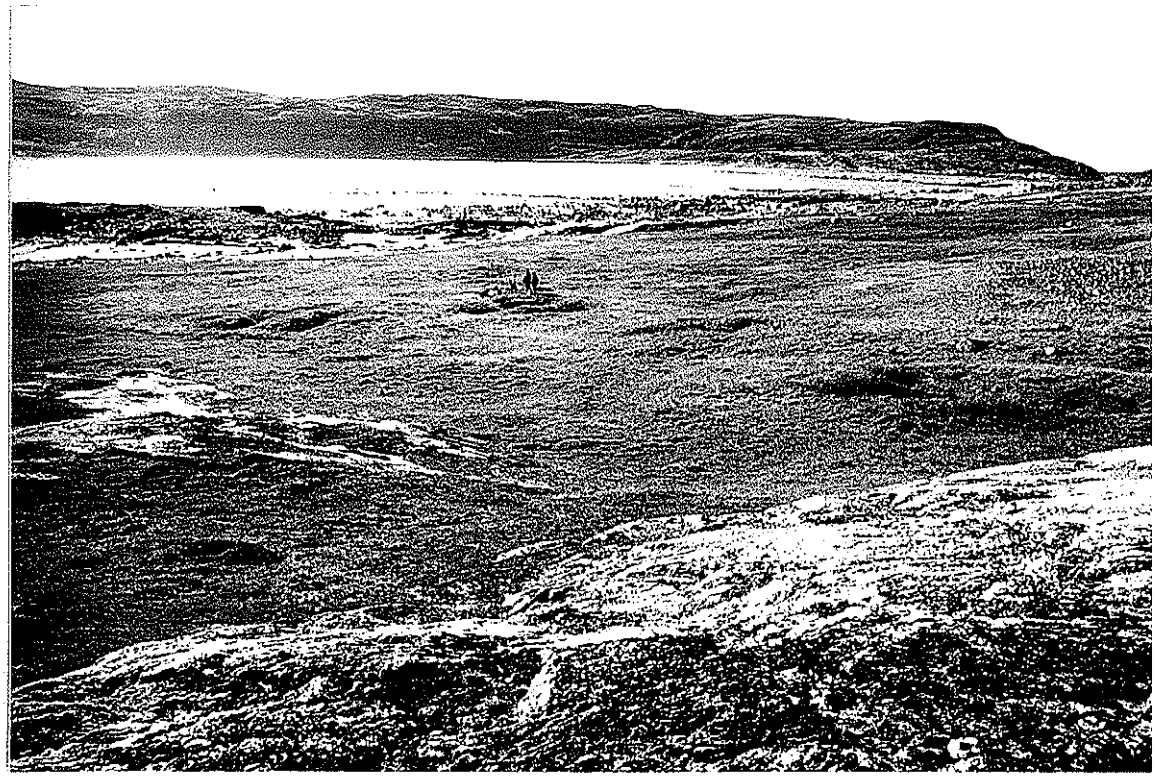

Photo. 10. General view of the JhEv-3 site, toward the northwest.

Photo. 11. The JhEv-2 site, outcrop 'A', details.

Photo. 12. The JhEv-2 site, outcrop 'A' details, fallen block.

Site	Geographic Coordinates	U.T.M.	Altitude (m.a.s.l.)	Cultural Features	Cultural Affiliation
JhEv-5			25 m	4 tent rings, 2 caches	Pre-Dorset
JhEv-6			30 m	1 tent ring	Pre-Dorset
JhEv-7			40 m	5 tent rings, 2 caches, 1 cache pit, 1 kayak cache pit	Pre-Dorset
JhEv-8			20 m	3 tent rings	Palaeoeskimo
JhEv-9			20 m	3 tent rings	Dorset
JhEv-10			20 m	3 tent rings	Dorset
JhEv-11			20 m	1 rock alignment of 60 m long	Dorset
JhEv-12			20 m	6 tent rings, 1 shallow semi-subterranean structure	Dorset
JhEv-13			15 m	5 tent rings	Dorset
JhEv-14			15 m	10 caches	Undetermined
JhEv-15			10 m	1 tent ring, 2 caches	Neoeskimo
JhEv-16			10 m	1 tent ring, 1 cache, 1 kayak support	Neoeskimo
JhEv-17			10 m	7 heavy tent rings	Neoeskimo
JhEv-18			10 m	6 tent rings, 2 caches	Historic Inuit
JhEv-19			12 m	7 tent rings, 6 caches	Neoeskimo
JhEv-20			18 m	2 tent rings, 2 caches	Dorset
JhEv-21			10 m	2 tent rings, 3 caches	Neoeskimo
JhEv-22			17 m	5 semi-subterranean structures	Thule
JhEv-23			12 m	1 tent ring	Neoeskimo

Site	Geographic Coordinates	U.T.M.	Altitude (m.a.s.l.)	Cultural Features	Cultural Affiliation
JhEv-24			10 m	8 tent rings	Neoeskimo
JhEv-25			10 m	5 tent rings, 11 caches	Neoeskimo
JhEv-26			30 m	hunting blind	Undetermined
JhEv-27			45 m	1 tent ring, 2 caches, 1 stone fox trap, 1 hunting blind	Undetermined
JhEv-28			45 m	3 tent rings, 1 cache,1 cache pit	Palaeoeskimo
JhEv-29			12 m	7 tent rings, 44 caches,1 cache pit	Neoeskimo
JhEv-30			10 m	2 tent rings, 3 heavy tent rings, 1 kayak support	Neoeskimo
JhEv-31			20 m	6 cache pits, 1 kayak cache pit	Undetermined
JhEv-32			40 m	3 tent rings	Pre-Dorset
JhEv-33			12 m	8 tent rings, 8 caches	Neoeskimo
JhEv-34			12 m	7 tent rings, caches	Neoeskimo
JhEv-35			20 m	6 tent rings, 1 caches	Dorset
JhEv-36			50 m	3 kayak cache pits, 14 cache pits, 1 stone fox trap	Palaeoeskimo
JhEv-37			25 m	4 tent rings, 14 caches	Dorset
JiEv-8			15 m	30 tent rings, 27 caches, 4 graves	Historic Inuit
JiEv-9			20 m	3 tent rings, 27 caches, 4 graves	Historic Inuit
JiEv-10			20 m	4 tent rings, 2 caches, 1 grave	Neoeskimo

Site	Geographic Coordinates	U.T.M.	Altitude (m.a.s.l.)	Cultural Features	Cultural Affiliation
JiEv-11			15m	7 tent rings, 2 semi-subterranean structures	Thule
JiEw-2			20m	**3** tent rings	Dorset
JiEw-3			10m	4 tent rings	Neoeskimo
JiEw-4			12m	**3** tent rings, **3** caches	Neoeskimo
JiEv-12				Soapstone quarry	U Undetermined
JiEw-5				Soapstone quarry	U Undetermined

Appendices

Appendix 1. List of Archaeological Sites, 1996.

Appendix 2. Lithic Catalogues, JhEv-11 and JiEw-2.

Appendix 3. Photographs Catalogue.

APPENDIX 1

APPENDIX 2

JhEv-11					
Cat. No.	Object	Localisation	Level	Raw Material	Remarks
1	Point	Coll. zone 1	Surface	Milky quartz	broken in two fragments
2	End scraper	Coll. zone 1	Surface	Milky quartz	
3	Microblade	Coll. zone 1	Surface	Chert	
4	8 Flakes	Coll. zone 1	Surface	Milky quartz	

JiEw-2					
Cat. No.	Object	Location	Level	Raw Material	Remarks
1	Knife	Structure 1	Surface	Diana quartzite	-
2	Biface fragment	Structure 1	Surface	Milky quartz	-

APPENDIX 3

Film	Negatif	Sujet	Orientation	Date
C9603-1	15A	JhEv-8, vue générale	N	21-08-96
	16A	JhEv-9, vue générale	NE	21-08-96
	17A	JhEv-10, vue générale	NO	21-08-96
	18A	JhEv-12, structure 1, à faible creusement	O	21-08-96
	19A	JhEv-12, structure 1, entrée	E	21-08-96
	20A	JhEv-12, vue générale, aire est	SE	21-08-96
	21A	JhEv-12, vue générale, aire ouest	SO	21-08-96
	22A	JhEv-8-9-10-11-12, vue générale	S	21-08-96
	23A	JhEv-12, structure de surface 1	SSE	21-08-96
	24A	JhEv-12, structure de surface 1	NNO	21-08-96
	25A	JhEv-11, aménagement anthropique, alignement de pierres	O	21-08-96
	26A	JhEv-11, artefacts en surface	SSO	21-08-96
	27A	JhEv-11, aménagement anthropique, section est	NE	21-08-96
	28A	JhEv-11, aménagement anthropique, section central	O	21-08-96
	29A	JhEv-11, aménagement anthropique, section ouest	NO	21-08-96
	30A	JhEv-7, vue générale	SE	21-08-96
	31A	JhEv-8-9-10-11-12, vue générale	E	21-08-96
	32A	JhEv-22, structure 1	O	21-08-96
	33A	JhEv-22, structure 2	SE	21-08-96
	34A	JhEv-22, stucture 3, partie sud	O	21-08-96
	35A	JhEv-22, structure 3, partie nord	N	21-08-96
	36A	JhEv-22, structure 4	O	21-08-96
C9603-2	1	JhEv-22, structure 5	NE	21-08-96
	2	JhEv-22, structure 5, intétieur	NNO	21-08-96
	3	JhEv-22, structures 1-2, couloir d'entrée commun	S	21-08-96
	4	JhEv-22, vue générale	SSE	21-08-96
	5	JhEv-27, structure	E	21-08-96
	6	JhEv-28, vue générale	O	21-08-96
	7	JhEv-6, vue générale	NE	21-08-96
	8	JhEv-5, vue générale	SE	21-08-96
	9	JhEv-5, structure avec passage axial	S	21-08-96
	10	JhEv-29, vue générale	ENE	22-08-96
	11	JhEv-29, vue générale	SE	22-08-96
	12	JhEv-29, ébauche de lampe	E	22-08-96
	13	JhEv-29, caches	NO	22-08-96
	14	JhEv-36, cache à kayak	SSO	22-08-96
	15	IhEv-3, structure 1	NE	22-08-96
	16	IhEv-3, structure 2	NE	22-08-96
	17	IhEv-3, structures 3-4	NNE	22-08-96
	18	IhEv-3, structure 5	N	22-08-96
	19	IhEv-3, structure 6	N	22-08-96
	20	IhEv-3, structure 7	N	22-08-96
	21	IhEv-3, vue générale	NNO	22-08-96
	22	JhEv-17, structure 1	SO	22-08-96
	23	JhEv-17, vue générale, section est	SSE	22-08-96
	24	JhEv-17, structure 5	SO	22-08-96
	25	JhEv-17, structure 6, partition interne et cache	O	22-08-96

Film	Negatif	Sujet	Orientation	Date
S9603-2	18	JhEv-30, vue générale	O	23-08-96
	19	JhEv-32, structure bilobée	O	23-08-96
	20	JhEv-32, vue générale	NNO	23-08-96
	21	JhEv-69, cache	N	23-08-96
	22	JiEv-8, vue générale	ONO	23-08-96
	23	JiEv-10, structure avec plateforme de couchage	N	23-08-96
	24	JiEv-11, vue générale	SE	23-08-96

Film	Negatif	Sujet	Orientation	Date
C9603-2	26	JhEv-17, structure 6, extrémité ouest	O	22-08-96
	27	JhEv-30, vue générale	O	23-08-96
	28	JhEv-32, structure bilobée	O	23-08-96
	29	JhEv-32, vue générale	NNO	23-08-96
	30	JhEv-33, cache	N	23-08-96
	31	JiEv-8, vue générale	ONO	23-08-96
	32	JiEv-10, structure avec plateforme de couchage	N	23-08-96
	33	JiEv-11, vue générale	SE	23-08-96

Film	Negatif	Sujet	Orientation	Date
S9603-1	7	JhEv-8, vue générale	N	21-08-96
	8	JhEv-9, vue générale	NE	21-08-96
	9	JhEv-10, vue générale	NO	21-08-96
	10	JhEv-12, structure 1à faible creusement	O	21-08-96
	11	JhEv-12, structure 1, entrée	E	21-08-96
	12	JhEv-12, vue générale, aire est	SE	21-08-96
	13	JhEv-12, vue générale, aire ouest	SO	21-08-96
	14	JhEv-8-9-10-11-12, vue générale	S	21-08-96
	15	JhEv-12, structure de surface 1	SSE	21-08-96
	16	JhEv-12, structure de surface 1	NNO	21-08-96
	17	JhEv-11, aménagement anthropique, alignement de pierres	O	21-08-96
	18	JhEv-11, artefacts en surface	SSO	21-08-96
	19	JhEv-11, aménagement anthropique, section est	NE	21-08-96
	20	JhEv-11, aménagement anthropique, section central	O	21-08-96
	21	JhEv-11, aménagement anthropique, section ouest	NO	21-08-96
	22	JhEv-7, vue générale	SE	21-08-96
	23	JhEv-8-9-10-11-12, vue générale	E	21-08-96
	24	JhEv-22, structure 1	O	21-08-96
	25	JhEv-22, structure 2	SE	21-08-96
	26	JhEv-22, stucture 3, partie sud	O	21-08-96
	27	JhEv-22, structure 3, partie nord	N	21-08-96
	28	JhEv-22, structure 4	O	21-08-96
	29	JhEv-22, structure 5	NE	21-08-96
	30	JhEv-22, structure 5, intétieur	NNO	21-08-96
	31	JhEv-22, structures 1-2, couloir d'entrée commun	S	21-08-96
	32	JhEv-22, vue générale	SSE	21-08-96
	33	JhEv-27, structure	E	21-08-96
	34	JhEv-28, vue générale	O	21-08-96
	35	JhEv-6, vue générale	NE	21-08-96
	36	JhEv-5, vue générale	S	21-08-96
S9603-2	1	JhEv-29, vue générale	ENE	22-08-96
	2	JhEv-29, vue générale	SE	22-08-96
	3	JhEv-29, ébauche de lampe	E	22-08-96
	4	JhEv-29, caches	NO	22-08-96
	5	JhEv-36, cache à kayak	SSO	22-08-96
	6	IhEv-3, structure 1	NE	22-08-96
	7	IhEv-3, structure 2	NE	22-08-96
	8	IhEv-3, structures 3-4	NNE	22-08-96
	9	IhEv-3, structure 5	N	22-08-96
	10	IhEv-3, structure 6	N	22-08-96
	11	IhEv-3, structure 7	N	22-08-96
	12	IhEv-3, vue générale	NNO	22-08-96
	13	JhEv-17, structure 1	SO	22-08-96
	14	JhEv-17, vue générale, section est	SSE	22-08-96
	15	JhEv-17, structure 5	SO	22-08-96
	16	JhEv-17, structure 6, partition interne et cache	O	22-08-96
	17	JhEv-17, structure 6, extrémité ouest	O	22-08-96