AN URGENT PROBLEM IN ARCHAEOLGY

The financing of the High Aswan Dam in the United Arab Republic caused considerable stir between the United States and the Soviet Union, but no less important than the financing of the dam is the salvage of the priceless antiquities which will be destroyed by its rising waters.

In the United States, with its widespread dam-building programs, the problem of salvage archaeology is hardly a new one. There is a race against time and lack of funds to salvage the archaeological sites from permanent destruction. In Egypt, the problem is vastly greater, more expensive, and more urgent.

The new High Aswan Dam is under construction. In 1965 it will be completed. When the job is done, its backwaters will extend across Nubia and the Sudan for a distance of 292 miles. The waters will be over 200 feet deep in places, and they will cover nearly all of one of the most important areas in Egyptian or world archaeology.

Nubia is remote and inaccessible. There are no trains, no roads, no air service, no hotel accommodations. The only access is by specially chartered riverboats up the Nile. Even boat travel is restricted by seasonal water flow in the upper reaches of the area.

Three thousand years ago and earlier, Nubia saw the development of one of the earth's great civilizations. The area is liberally sprinkled with the tombs and temples of vanished Egyptian gods and kings. While most of the larger and grander sites are well-known, it would be difficult to estimate the number of sites pertaining to the earlier history of Egypt that have not yet been discovered. It is certain that thousands of sites must lie undiscovered in the remote, forbidding area.

Nubia has 300 known necropoleis, some of which have been sampled, some of which are untouched. The Sudan has at least 100 known important sites, only ten of which have ever been worked. Many archaeologists are certain that the area contains sites of great importance in the study of the transition from Mesolithic cultures to the Neolithic and on to the metal ages. One such site had been carbon dated at 9400 years old.

The Low Aswan dam already has flooded, or partially flooded, a number of important sites in Nubia. The new High Aswan Dam, slightly upstream, will add 200 feet of water to the high water level of the Low Dam. As one travels upstream from the Low Dam, temple after temple may be seen. The island of Philae with the Pavilion of Trajan and the marching colonnades of its great temples, will be forever flooded unless it is salvaged. Philae is sometimes called the 'Pearl of Egypt'. There are three main temples and a number of lesser ones. They easily rival the Parthenon in beauty and grandeur.

Probably the simplest solution to the salvage of Philae is the construction of a relatively low dike around the entire area. The cost would be about four million dollars. Chances are that the cost could be recovered from a vast tourist trade that will visit the area in years to come when the transportation facilities are available.

Ten miles upstream from Philae is the temple of Debod. This is a small temple, and its removal would be simple but for one thing. The site is at present under water so much of the time that only about sixty days of work can be counted on between now and the completion date.

It is quite obvious that action cannot be deferred.
Farther up the Nile at Amana lies an ancient temple begun 3400 years ago by Thutmosis III. Its walls are covered with colored carvings as bright as the day they were made. Amana is a free-standing temple of stone, and could be disassembled and moved to a new location for about $30,000. Such free-standing temples, where little time is available, present only a small problem, relatively speaking.

Many of the temples and tombs of the upper Nile are not free-standing however. They are carved from the solid rock of the canyon walls. Eight of these, experts say, can be salvaged by using cable saws to cut the rocks loose from the canyon walls and then cutting them into smaller pieces for moving. But then there is Abu Simbel.

Abu Simbel stands alone as a work of architecture. Nothing like it has ever existed elsewhere. This magnificent structure was begun about 3400 years ago by Rameses II. In one of the great sandstone cliffs was created a memorial to his wife Nefertari (Beautiful Companion). A short distance away stand four colossal, 67-foot statues of Rameses himself. These were made by smoothing the sandstone cliffs to height of 108 feet and then carving away the rock to leave the four giant figures in place.

The builders of Abu Simbel did not stop with these imposing statues. They tunnel 200 feet into the cliff and then hollowed out a tremendous palace. Long halls are flanked by statues 30 feet tall. Room after vast room is decorated with carvings of the most exquisite beauty. The builders took advantage of every opportunity to create an imposing temple. When the morning sun first beams over the mountains to the east, its rays strike the facade, containing the figure of the sun god, and he seems to spring to life. The halls are so designed that on certain days of the year, the sun streams into the heart of the mountain, illuminating the colored carvings with an unmatched beauty.

The rock of Abu Simbel is very brittle and fragile, and in many places is badly cracked. It would be impossible to remove the halls and chambers even if this were not so. The best alternative seems to be to construct a dam around the area to protect it from the rising waters. The dam would have to be as high as Aswan itself, and would cost an estimated 50 million dollars. This is only a small fraction of the money spent on trivial luxuries in this country in a year's time.

The technical problems are great. The financial problems are tremendous for a science like archaeology. The time is vanishingly small.

Never has such an urgent problem confronted the science of archaeology. Egypt has modified her once strict views on letting archaeological finds out of the country. The government has attacked everything discovered within her boundaries, she now makes a three-part offer to encourage outside help: (1) Any foreign expedition which helps with salvage work in Nubia may keep half its finds except for any rare or unusual items needed to complete Egyptian museum collections. (2) An expedition which does valuable salvage work may have permission to dig later in such ruins as Saucara, the royal necropolis near Cairo, and keep half the findings. (3) Depending on the amount of foreign help, five temples are offered, with permission to take them anywhere in the world. As an alternative, the helping group may select from some of the antiquities gathering dust in the basement of the Cairo Museum. Some of these have not been opened for half a century. The only stipulation is that all the materials be placed in museums and not go to private collections.
The United Nations has put forth an urgent call for at least a hundred million dollars to carry out this urgent program. If the money can be raised, the world’s foremost Egyptologists will be sent to the area to guide the program. Unless the money is forthcoming, these magnificent and crucially important sites have about a thousand days to live, starting right now.

All the work must be completed by 1968, some of it by 1964. High temperatures will mean difficult working conditions. Labor will have to be imported, since the area is short on manpower. New sites will have to be discovered, excavated, and perhaps removed in a very short time. A vast area will have to be completely studied and salvaged.

Adding to the possible concern is the thought that in the rush to preserve these priceless treasures, the many undiscovered sites in the area may not receive the proper attention. The available funds and personnel for the work will hardly be adequate for the salvage of the known sites. Yet, these sites are well known and studied and could all be re-created if desirable, but the information of undiscovered sites may be lost forever without even a suggestion of its presence if their importance is not recognized now.

The French National Geographic Institute has made aerial photographs of the entire region to be inundated, and these are being studied in the hopes of revealing new sites, but an extensive ground survey is essential, however, to the discovery of sites bearing new primitive cultures whose construction was not yet undertaken. These early sites, while not so spectacular, are at least as important as the art treasures of later Egypt.

It could well be that the simplest solution to the salvage of some of the more complicated structures, such as Abu Sinbel, is to recreate them in another place, leaving the originals to their fate.

The problem is undeniably complex, and it is every man’s problem, for here in the valley of the Nile man progressed from a stone culture to an advanced civilization, and the steps by which he did it are important to all of modern civilization.

Those wishing to make contributions to the salvage program may make their checks payable to the University of Chicago and send them to the Executive Secretary, U. S. Committee for the Preservation of the Nubian Monuments, Oriental Institute, University of Chicago, 1155 E. 58 Street, Chicago 37, Illinois.

WORK COMPLETED AT 48 JO 301 and 303

The work begun at the Swen-Taylor and Grey-Taylor rock-shelters last summer was completed between July 15 and July 19. Considerable depredation by pothunters had occurred at the Swen-Taylor site since last season. The pothunters had moved several yards of dirt, scattering the screenings into the area excavated by the society last summer. They had also added a drawing of their own to the pictographs on the ceiling.

The crew members had a chance to do a little detective work in addition to the archaeological research. It seems that the pothunters had a Polaroid camera and had taken several pictures during their
operations. One of the capsules had ruptured and had stuck the film together, so the film had been discarded. The pictures were picked up and carefully treated to separate them. A picture of two gentlemen in the foreground and some young ladies in the background appeared. One of the men was a rather portly figure in a loud flower-print shirt with a Texas crush in his straw hat. We hope they aren't too surprised.

The additional work at the Sween-Taylor site consisted in deepening an area where the floor seemed to drop off rather steeply. It was hoped that at additional depth some Meserve materials might appear as was the case at the Grey-Taylor site. A five-foot square was dug nine feet to bedrock in the deep area, but no cultural materials were obtained at depths greater than excavated last year.

A stone circle near the rockshelter was excavated. The soil was removed to the level on which the stones had been laid and the structure was photographed and mapped. A central hearth yielded enough charcoal for a radiocarbon date. At the level of the original floor, the earth was discolored in several places by bits of ash and charcoal. No artifacts were found which could be definitely related to the structure. Two artifacts were found in the accumulated overburden, but they were not diagnostic. No post-molds or cache pits were found.

Several plaster molds were made of petroglyphs at the site. Positive casts will be made soon and placed on display.

Additional work at the Grey-Taylor site consisted of digging two exploratory trenches and expanding the former excavation. The floor proved to be quite shallow elsewhere in the site, and no additional artifacts were recovered.

**THE SCHULZ-TAYLOR SITE**

Last year Charles Schulz joined our society and reported a group of rockshelters near the head of Beaver Creek. Glenn Sween and a small crew did some work at the site, but little was found. Pot hunters had severely disturbed a large area in the shelters since last year.

Excavation at the site consisted of sinking two five-foot squares to bedrock to sample the stratigraphy, and excavating three additional squares to sterile levels. Artifact production was small, and only three diagnostic items were produced. These consisted of one corner-notched point and two points which may be McKeen variants and are discussed below. They are illustrated on the cover. A few seeds, some of them burned, were recovered but have not yet been identified.

**A THIRD MCKEEN POINT VARIANT?**

The points recovered from the Schulz-Taylor site are a possible variant of the McKeen point commonly found in this country. Their contemporaneity with the McKeen Complex is strongly indicated in several sites, including the Lo Daiska site, the Sween-Taylor and Grey-Taylor
sites. Similar points were found at Signal butte also.

While the number recovered from the Schulz-Taylor site is probably inadequate to set a pattern, the fact that only the one variant is found seems to indicate that it is a distinct type preferred by some group of people. The point resembles the basic McGeean in almost every way except that it is relatively wider. Its absolute length may be somewhat longer than the average McGeean, although too few specimens have been averaged to establish this fact.

THE TURK TIPI RING SITE

While exploring in the vicinity of the Schulz-Taylor site, the crew was fortunate in meeting a Mr. E. B. Turk of Sussex. Mr. Turk knew that section of the mountain intimately and knew of many sites in the area. Mr. Turk is interested in archaeology, and is rather well self-educated in the subject. Through his invaluable aid several interesting and important sites were added to the society’s files.

Among the sites which Mr. Turk showed the crew was a tipi ring site near his camp on the head of Blue Creek. He reported that when he first found the site, most of the tipi poles were present and there were still fragments of rutted buffalo hide under some of the stones. When the crew visited the site, there were still some poles present, and some of these had the ends worn off at an angle, indicating use as travois poles. Travois poles for both horse and dog were found. Some of these poles were collected and preserved from further decay. They will form a part of a future museum display.

The tipi ring site lies near the top of a high mountain in a cirque in the limestone. The ground is sloping and the site faces southeast toward the Blue Creek drainage. There is no water near the site at the present time. It seems at first glance to be a poor choice as a camp site. While the cirque is protected from the prevailing winds, the sloping ground and lack of water make it an improbably site. It is not hidden from view from the southeast, so concealment is ruled out as a motive.

During the surface inspection of the site, no evidence of hearths could be found, although quantities of bison bone indicated that much butchering and/or cooking had probably taken place there. Mr. Turk said he had noted a large firepit above the rings in the cirque when he had first known the site. It is possible that this may have been a communal cooking area used during the hot summer when individual fires would have created too much heat. Wood is plentiful just over the ridge northwest of the cirque. Except for the few pieces of poles, there was little to distinguish the site from thousands of other groups of stone circles that abound in the area.

Among the surface artifacts found was an odd rubbing stone picked up by Dr. Bentzen. The stone was dihedral convex on one surface and had a concavity in the other surface. It was of tan sandstone.

Many professional archaeologists have expressed the opinion that stone circle sites do not, in many cases, represent tipi rings at all, but serve some other function, perhaps "ceremonial." They cite as evidence
the fact that the rings are often of greatly varying sizes, from four feet up to 30 feet in diameter. Some of the structures have a double row of rocks and some consist of wide bands of rock. Some are not circular at all, and may have many shapes. In addition, those circles found on top of high ridges seldom have any artifacts in association, and almost never have hearths in or near them.

Mr. Turk expresses the opinion that most of the stone circles are indeed tipi rings. The lack of firepits in or near the rings could be explained by communal firepits removed some distance from the rings. The lack of artifacts might also be explained by the fact that the rings are obvious site indicators and that shepherders and souvenir hunters could find and exploit them easily. We are often prone to overlook the fact that any such obvious sites must have been visited many times before the advent of the archaeologist. The fact that few artifacts are found upon excavation would argue for a recent date for the sites under these conditions.

It is quite apparent that much work needs to be done to add some concrete evidence to the puzzle of stone circle structures, and to settle the question of their age, and of their function. Mr. Turk's observations, based on 40 years of acquaintance with these sites, are a valuable contribution to the study.

THE TURK BURIAL SITE, 48 WA 301

Mr. Turk reported that his son and another boy had located a burial in a fissure atop a mountain near his camp about three years ago. On July 26, Glenn Swen and Don Gray visited the site and excavated the burial.

In describing the findings at the site, Mr. Turk reported that the boys had uncovered five skulls, and that two projectile points had been recovered from the bones. One of these points, he reported, had been stuck in the eye socket of one of the skulls. The other was, he thought, stuck in a long bone. Mr. Turk had saved one of the skulls and the remaining four had been returned to the fissure.

During the investigation, the replaced dirt was removed and the four skulls and a fragment of a fifth were recovered. A few of the long bones were still present and were removed. Among these were some small bone fragments which may have been those of a child. The epiphyses were missing. The dirt was screened as removed, and among the findings were two bone beads, a crude quartzite scraper, and two corner-notched projectile points. The points were of the same type described by Mr. Turk as having been recovered by the two boys.

The four skulls recovered were cleaned and briefly studied. Much additional work needs to be done in order to classify the skulls as to racial type, and to determine a possible age for the burial.

Some general observations and a summary of the brief study made to date follows. The two projectile points are illustrated on the cover. Skull A appears to be that of a female about 20 years or somewhat less in age. The first and second molars are present and somewhat worn, while the third molar is about at the level of the gum line, and
may not have erupted yet. None of the cranial sutures have yet been obliterated. The skull shows considerable damage. The right temporal bone and petrous portion are missing. The temporal portions of both zygomatic arches are absent. The incisors and cuspids appear to have been removed pre-nupt. The labial portions of the tooth sockets are missing, as if the teeth had been knocked out by an inward blow. The edges of the bones are healed, but the sockets have not filled. The left parietal bone shows a set of radiating fractures which may have resulted from a blow. The right orbit, near the lower temporal border of the lachrymal bone, and at the medial inferior border of the orbit itself, shows what appears to be a puncture wound from a blade-like instrument. It is possible that this may be the place of origin of one of the projectile points found by the two boys. The right lateral supra-orbital border shows some damage. Immediately below the left infra-orbital foramen are two perforations which may have been caused by an abscess. Skull A is shaped rather differently from the others, as will be discussed under General Observations.

Skull B consists of only the calvarium. The zygomatic bones are missing, as are all the facial and palatine bones. It appears to be the skull of a 25 year-old male. The only unusual conditions are two: First, the condyles have been partly broken off, apparently near the time of death. Second, there are two perforations of the skull to the right and rear of the foramen magnum. Both holes are oval in shape, about ½ to 5/8 inch in length and ½ inch in width. These appear to have been made near the time of death as the result of a blow or blows with a pointed instrument. The blows could conceivably have been delivered while the victim was lying face down.

Skull C resembles Skull B generally, although the relative height of the vault is less, and the bone is thicker. This skull appears to be that of a male about 30 years of age. It is represented only by the calvarium, and this is somewhat damaged. The basilar portion of the skull is missing, including the occipital condyles and most of the foramen magnum. Only the opisthion is present. The petrous portions of the temporal bones are intact, as is the vomer. The left squamous suture is somewhat spread, but this may be due to drying before interment. The terminus of the right mastoid bone is missing.

Skull D is nearly complete, lacking only the left zygomatic process of the temporal bone and most of the dentition. The first two molars on both sides are present, as is the second premolar on the left. Small sockets for the third molars indicate a rather young age, as does the complete lack of synostosis of the cranial sutures. An age of 20 years or somewhat less is indicated. Those teeth that are present show marked wear, the dentine being exposed on both first molars. The skull is evidently that of a female. About one inch to the left of the center of the sagittal crest is a small callus about ¼ inch in diameter, which indicates a healed wound of some sort. Extending backward from the right supra-orbital region is a shallow groove about ½ inches long, which may be the natural enlargement of a circulatory impression. To the rear of the right mastoid process, very near the masto-occipital suture, the inferior member of a pair of foramina is greatly enlarged, but as yet no pathological condition has been diagnosed. Both lachrymal bones are depressed, but this probably occurred after interment.
Some small ribs and portions of long bones, possibly humeri, may be those of a child. The bones show no epiphyseal union.

**General Observations.**

Skulls A and D are quite thin, while skull C is very thick. B is intermediate in thickness. It is interesting to note that B and C have larger weights than A and D even though the former are represented only by the calvarium. This is an indication of the generally heavier structure of the skulls adjudged to be male. B and C have pronounced supra-orbital ridges, large mastoid processes, and heavy nuchal ridges. The occipital condyles of A are larger and have a greater articular area than B. The zygomatic bones of A are less flared than those of B and the general facial appearance is more delicate. A has a pronounced occipital bulge as contrasted with the smoother profile contours of the other three. A has almost no supra-orbital ridges and the forehead is high and prominent. In contrast with the other three, A has no sagittal ridge and is smoothly rounded in lateral section.

Although the cranial index of A is comparable to the two males, the smaller size and different contours make it appear quite different, and it is possible that A may have been captured in a raid on another tribe.

It is quite possible that the presence of two males, two females, and possibly a child are indicative of catastrophe. For it would appear that all were probably interred simultaneously. If the presence of an arrow or projectile point in one of the skulls can be assumed, then it is probable that a massacre took place nearby.

The style of the points recovered would soon to indicate that the burial dates back to the early part of the Late Period. The points are classical triangular corner-notched.

A few of the basic measurements are tabulated below. These are not the results of precise measurements, and were made with improvised equipment, but are sufficiently close to be indicative.

<table>
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<th>Skull</th>
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<th>W</th>
<th>CI</th>
<th>Cap</th>
<th>CI</th>
<th>BMI</th>
<th>H/L</th>
<th>FH</th>
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<td>B</td>
<td>189</td>
<td>146</td>
<td>.77</td>
<td>1529</td>
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<td>625</td>
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<td>C</td>
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<td>.76</td>
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<td>625</td>
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<td>D</td>
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<td>.94</td>
<td>.58</td>
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Measurements indicated are, in order: Length in mm, Width in mm, Cranial Index, Capacity in cc, Orbital Index (ratio of height to width), Foramen Magnum Index (ratio of width to length), Height from the Frankfort Plane to the highest point divided by Length, Upper Facial Height from Nasion to Pterion, the Bizygomatic width across the widest part of the arches, and the weight of the skull in grams.
GALLOWAY FINDS AGATE BASIN SITE

A letter from Dr. George Agogino confirmed a news report that Eugene Galloway of Buffalo has discovered a site yielding Agate Basin cultural materials. Dr. Agogino visited the site accompanied by Geologist C. V. Haynes, and states that the site is part of a larger site that has partly eroded. Dr. Haynes' study indicates that the site is probably the oldest Agate Basin site yet discovered, and thinks it may even be possible that the site rests on the Two Creeks erosional surface, which would make the site perhaps 11,000 years old.

The cultural material lies about 13 feet below the present surface, and extends about 35 feet along an arroyo wall. The overburden is apparently devoid of cultural material.

Dr. Agogino has invited the Wyoming Archaeological Society to help in the excavation and study of the site.

OVER THE CAMPFIRE

Thanks to Albert Kester of Buffalo for the new survey stakes. The Society now has enough stakes to finish the summer and probably next summer, too, due to Mr. Kester's kindness.

Since the earthquakes in Chile occurred, several people have concerned themselves about Bill Mulloy on Easter Island. The tsunami initiated by the earthquake reached all the way to Japan with destructive force, and Easter Island is right in the road. We hope Bill was on a mountain top when they went by. It would be a bitter thought indeed if the choice of names for the William Mulloy Memorial Scholarship Fund should prove prophetic.

Dr. Agogino informs us that Eugene Galloway is rather ill and is sticking pretty close to home lately. We hope that Eugene is feeling better before this goes to press.

The members of the Sheridan and Cody chapters will participate in a joint dig on two weekends in August. The first will begin on August 18 and the second on August 26. Those interested in participating should contact their chapter officers. The site is a combination campsites, petroglyph display and rock structure feature.

Additional contributions to the William Mulloy Memorial Scholarship Fund are always welcome.

Thanks to Margaret Fevers, Margaret Logan, Mr. and Mrs. Jim Goodwin, Dr. Ray Bentzen, Glenn Swenon and Don Grey for their efforts at the sites this summer.

EMBERS OUT