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Perhaps the biggest story that came out of Egypt during this past month was the final resolution of the mystery of how Ramesses III died. Previous studies of the documents involving an assassination attempt on the king left the main question still unresolved, did the King die of the assassination attempts, did he die during the trial, did he survive the assassins. Over the years there have been many exciting versions of his attempted assassination, and several books have appeared in the last number of years trying to review this very interesting record of the attempt on a Kings life.

Now we know the answer. Recent CAT scan studies of Ramses provided absolute proof that his throat was cut. And it was not just cut, it was cut from front to back through all of the soft tissues with the cut ending against the bones. Because of all of the blood vessels that would have been cut, Ramses probably only survived a few seconds or a few minutes. Further proof of the timing of his death was provided when an amulet was discovered inside the actual cut itself, place there before the mummy was wrapped.

Numerous versions of the story appeared, and they were all rather graphic. They attempted to

resolve another great mystery. The screaming mummy...called Unknown Man E. The mummy of unknown man E is contorted in such a way that he appeared to die in agony, screaming as he perished.

How was he related to the assassination attempt? Several of the articles that appeared report on genetic evidence taken from the mummy of Ramses and from unknown man E, which demonstrated that they were closely related. Was this the mummy of a prince called Pentawere, the crown prince and son of one of the queens who was implicated in the assassination attempt? The ancient court records say that Pentawere was one of the assassins, that he was found guilty, and that he took his own life. If this was his mummy, it is a very strange one.

Because all of the articles listed below are very interesting, the CyberScribe will only present two of them here and then give you the references for the other major ones that the CyberScribe found.

The article below, condensed somewhat, is the original paper that was presented by the British Medical Journal. It gives the actual data used in the various reports that were cited otherwise. Numerous writers found things in this major report, which they presented with their own twists and interpretations. This report can be found at: tinyurl.com/bcv5m4m.

‘Revisiting the harem conspiracy and death of Ramesses III: anthropological, forensic, radiological, and genetic study

BMJ 2012; 345 doi: <http://dx.doi.org/10.1136/bmj.e8268> (Published 17 December 2012)

‘Zahi Hawass, *egyptologist*¹, Somaia Ismail, *professor of molecular biology*^{2,3}, Ashraf Selim, *professor of radiology*⁴, Sahar N Saleem, *professor of radiology*⁴, Dina Fathalla, *molecular biologist*³, Sally Wasef, *molecular biologist*⁵, Ahmed Z Gad, *molecular biologist*³, Rama Saad, *molecular biologist*³, Suzan Fares, *molecular biologist*³, Hany Amer, *assistant*

*professor of pharmacology*⁶, Paul Gostner, *radiologist*⁷, Yehia Z Gad, *professor of molecular genetics*², Carsten M Pusch, *molecular biologist*⁸, Albert R Zink, *paleopathologist*⁹

‘Abstract

Objective To investigate the true character of the harem conspiracy described in the Judicial Papyrus of Turin and determine whether Ramesses III was indeed killed.

Design Anthropological, forensic, radiological, and genetic study of the mummies of Ramesses III and unknown man E, found together and taken from the 20th dynasty of ancient Egypt (circa 1190-1070 BC).

Results Computed tomography scans revealed a deep cut in Ramesses III’s throat, probably made by a sharp knife. During the mummification process, a Horus eye amulet was inserted in the wound for healing purposes, and the neck was covered by a collar of thick linen layers. Forensic examination of unknown man E showed compressed skin folds around his neck and a thoracic inflation. Unknown man E also had an unusual mummification procedure. According to genetic analyses, both mummies had identical haplotypes of the Y chromosome and a common male lineage.

‘Conclusions This study suggests that Ramesses III was murdered during the harem conspiracy by the cutting of his throat. Unknown man E is a possible candidate as Ramesses III’s son Pentawere.

‘Introduction

The end of Ramesses III’s life has long been debated among Egyptologists. A series of historical documents, of which the most important is the Judicial Papyrus of Turin,^{1 2} clearly state that in the year 1155 BC, members of his harem made an attempt on his life as part of a palace coup. According to the documents, the coup failed, but it is unclear whether the assassination was successful. The Judicial Papyrus recounts four separate trials and lists the punishments meted out to those involved in the conspiracy. Chief conspirators

included a secondary queen Tiy, and her son Prince Pentawere.¹

‘The ancient documents refer to Ramesses III as “the Great God,” and imply that he had died before or during the trials. However, the texts also imply that the court received direct instructions from the king, who must therefore have survived the original attack.¹ The only line specifically interpreted by Egyptologists as a possible metaphor for an assassination is the “overturning of the royal bark.”² Such circumlocution regarding the cause of a king’s death has long been considered to be part of the protocol of ancient Egyptian literature.

‘Owing to the inconclusive nature of this textual evidence, and the lack of any obvious cause of death found in previous forensic studies of the king’s mummy,³ scholars have argued a variety of possibilities: the king was injured as part of the plot and later died from his wounds, the plot was foiled entirely, or the attempt was successful.⁴ Moreover, the mummy of Prince Pentawere has not been definitively identified. However, scholars have considered the mummy of unknown man E as a possible candidate, who was found, like Ramesses III, in the royal cache at Deir el Bahari. Unknown man E’s contorted expression, unusual mummification process, and goat skin were noted during the unwrapping of the mummy in 1886.⁵ There has also been much speculation about the cause of his death, with poison or burial alive mentioned as possibilities, but no conclusive evidence for either.³

‘Methods

The two mummies underwent a detailed morphological inspection to evaluate preservation and record any signs of injuries or postmortem damage. We combined this information with computed tomography (CT) scans, and did an anthropological and forensic analysis to determine the mummies’ ages and possible causes of death.

‘Bone samples were taken from different body areas of the mummies (left and right humerus, tibia and femur, iliac bone) using sterilized biopsy needles (HS Trapsystem), and immediately transferred into sterile tubes. Bone

sampling was done under sterile conditions in a dedicated room of the Egyptian Museum in Cairo. All staff involved in the sampling wore protective clothing, sterile gloves, and facemasks to prevent exogenous contamination. DNA extraction and purification were performed according to our previously published protocols in a dedicated laboratory in the Egyptian Museum, and replicated in a second laboratory at the Faculty of Medicine in Cairo University.⁶ Both laboratories performed DNA typing under strict precautions, following previously published criteria for ancient DNA authentication.^{6 7 8}

‘Results

The CT investigation revealed a serious wound in the throat of Ramesses III’s mummy, directly under the larynx (fig 1↓). The injury was roughly 70 mm wide and extended to the bones (fifth to seventh cervical vertebra), severing all soft tissue areas in the anterior side of the neck (fig 2↓). The trachea was clearly cut and its proximal and distal ends were retracted and separated by about 30 mm. A small, focal cortical interruption at the anterior surface of vertebral body was visible, at the seventh cervical vertebra (fig 2). Accordingly, all organs in this region (such as the trachea, esophagus, and large blood vessels) were severed. The extent and depth of the wound indicated that it could have caused the immediate death of Ramesses III.

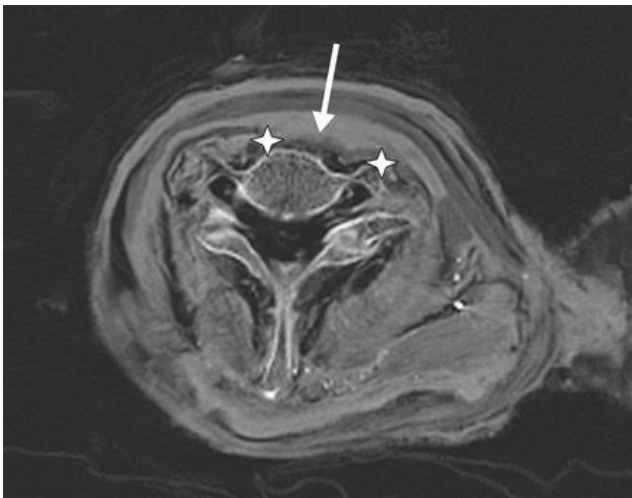


Fig 1 Axial CT section image of the neck of Ramesses III. Stars=wound margins. Arrow=homogenous embalming material seeping into wound and bone



Fig 2 Sagittal CT section image of the neck of Ramesses III. Arrow=foreign object. Stars=wound margins; embalming material has seeped into wound and bone. Triangles=skin above and below the wound.

‘A flat, irregular foreign object was lodged in the right lower rim of the wound; it was roughly 15 mm in diameter with a high CT density (2200 HU), similar to a semiprecious stone (fig 2). Reconstruction of this foreign object showed a wedjet (or Horus eye) amulet (fig 3↓). The eye of Horus is a magical amulet that served as a metaphor of royal power, protection, and good health in ancient Egypt.¹⁰

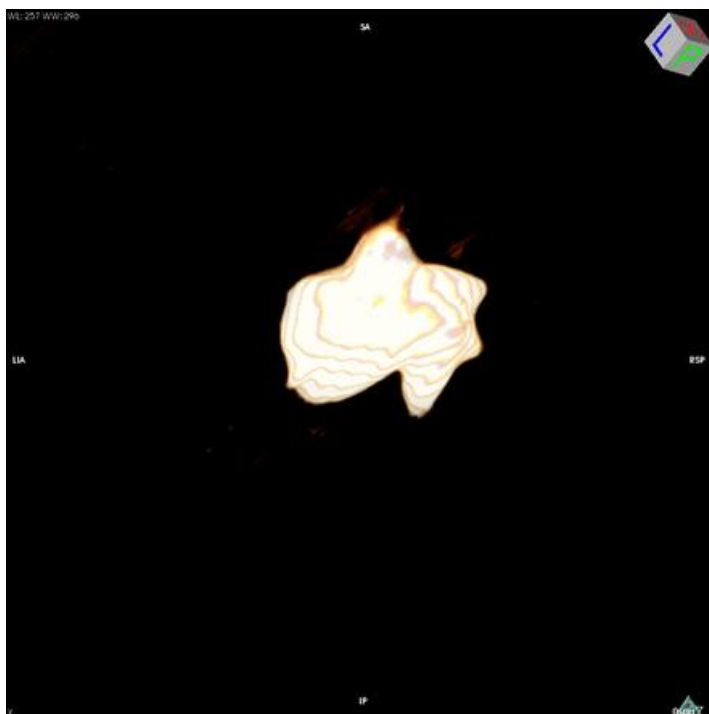


Fig 3 Three-dimensional reconstruction of Horus eye amulet

'We estimated unknown man E to be about 18-20 years old, based on the incomplete fusion of epiphyseal lines in the long bones, as seen in CT scans. Unknown man E underwent an unusual process of mummification for the 20th dynasty of ancient Egypt (1186-1070 BC), because there was no evidence of removal of the inner organs or brain.¹¹ The skin has a reddish color and the body was covered by a goatskin. Use of goat or sheep skins in dynastic burials was rare because these materials were regarded ritually impure.^{12 13} The red coloration of the mummy's skin could have been caused by a mixture of natron, crushed resin, and lime, which had been detected under a layer of bandages during the unwrapping in 1886.⁵

'Unusual compressed skin folds and wrinkles were seen directly under the right mandible and at the right and left neck regions (fig 4). CT scans confirmed residue in the brain and inner organs, and the absence of embalming material inside body cavities (fig 5). The scans also revealed taphonomical changes in the mummy, as shown by gas formation in the abdominal cavity, urinary bladder, hip, and lower neck (figs 5 and 6). The thorax also seemed to be strongly inflated with air,

together with widened intercostal spaces and a lateral shifting of the scapulae (fig 6). This effect could be due to postmortem processes of degradation in the mummy, but other reasons for the thorax widening should be considered. In modern cases, diseases such as emphysema or death by suffocation can lead to overinflation of the lungs.¹⁴



Fig 4 Neck region of unknown man E. Arrows=skin folds and wrinkles under right mandible and neck region

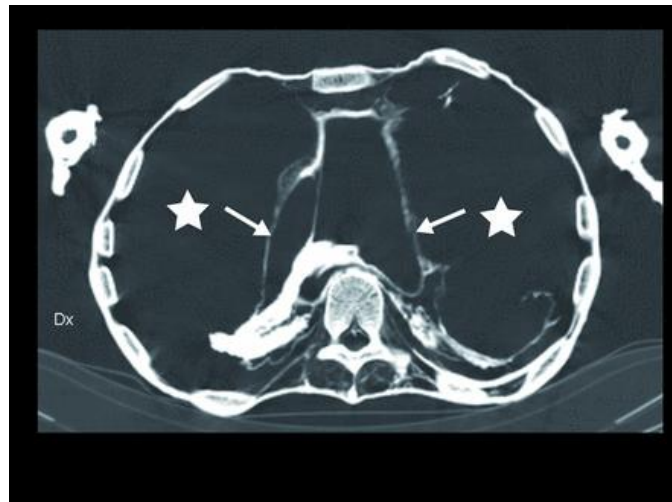


Fig 5 Axial CT image of the lower thoracic region of unknown man E. Thorax is filled with air (stars) and appears to be inflated. Residue in the diaphragm and organs (arrows) are present at the dorsal site

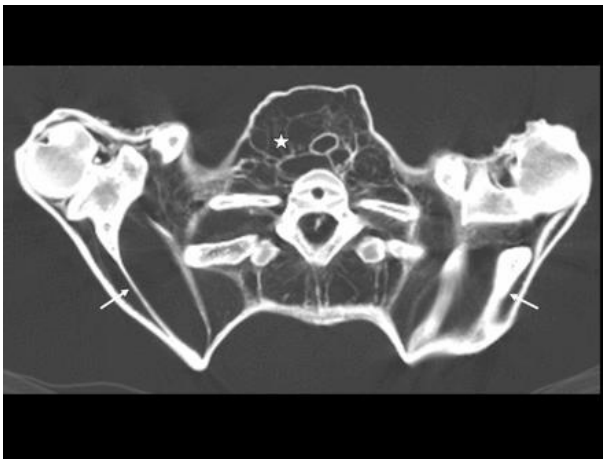


Fig 6 Axial CT image of the lower neck region and shoulder joints of unknown man E. Scapulae are shifted to the lateral side (arrows), and soft tissues are inflated because of gas formation (star)

Table 1
Genetic kinship analysis

Genetic kinship analyses revealed identical haplotypes in both mummies (table 1↓); using the Whit Athey's haplogroup predictor, we determined the Y chromosomal haplogroup E1b1a. The testing of polymorphic autosomal microsatellite loci provided similar results in at least one allele of each marker (table 2↓). Although the mummy of Ramesses III's wife Tiy was not available for testing, the identical Y chromosomal DNA and autosomal half allele sharing of the two male mummies strongly suggest a father-son relationship.

Table 1 Genetic kinship analysis

Sample	Y chromosomal data									
	DYS 448	DYS 438	DYS 437	YGATAH4	DYS 392	DYS 635	DYS 439	DYS 391	DYS 393	DYS 385
Ramesses III	20	10	14	13	17	—	—	8	8	—
Unknown man E	20	10	14	13	17	—	—	8	8	—
Controls*										
Control DNA 007	19	12	15	13	13	24	12	11	13	—
Staff 1	19	12	15	12	13	23	12	11	12	—
Staff 2	19	11	14	11	11	25	12	10	12	—
Staff 3	19	12	15	12	13	23	12	11	12	—

DYS=DNA Y chromosome short tandem repeats (repeating DNA sequences of 4-5 base pairs). Data are number of repetitions of each short sequence; overall, they represent a Y chromosomal genetic fingerprint that can be used to test the paternal relation of Ramesses III and unknown man E and moreover predict the Y chromosomal haplogroup.

*Data from control DNA (provided with chemicals for DNA analysis; refers to an unknown European sample) and male staff members also supplied for comparison.

'Table 2
Autosomal microsatellite data analysis

Sample	Autosomal marker						
	D13S317	D7S820	D2S1338	D21S11	D16S539	D18S51	CS
Ramesses III	9*; 12	6*; 15	15; 28*	28; 35*	8*; 11	8; 12*	7
Unknown man E	9*; 13	6*; 13	19; 28*	29.2; 35*	8*; 12	12*; 26	7

Data are number of repetitions of each short DNA sequence at autosomal marker, per chromosome; overall, they represent genetic fingerprints of Ramesses III and unknown man E. The markers can be used to test a possible family relationship between the two mummies.

*Matching number of repeats at each autosomal marker, between Ramesses III and unknown man E.

'Discussion

This study gives clues to the authenticity of the historically described harem conspiracy surrounding Ramesses III, and finally reveals its tragic outcome. Our CT analysis provides evidence that conspirators killed Ramesses III by cutting his throat. The large and deep cut wound in his neck must have been caused by a sharp knife or other blade. Damage to the throat after death appears to be unlikely, because the collar around the mummy's neck was intact and undamaged at the unwrapping in 1886, where a thick layer of bitumen was removed with a hammer from the mummy.¹⁵ It is a possibility that the throat was cut during the mummification process. Embalmers often restored damages during mummification, by inserting wooden sticks or replacing missing body parts;¹⁶ however, a treatment in which the throat was cut by the embalmers has not been described in any other Egyptian mummy.

wound. The presence of the amulet deep in the soft tissue of the wound together with the homogeneous material that penetrated the wound up to the bone substantiate the supposition that the wound was already present at the time of embalming. Most probably, the ancient Egyptian embalmers tried to restore the wound during mummification by inserting the amulet (generally used for healing purposes) and by covering the neck with a collar of thick linen layers (fig 7↓).

'Further evidence of an assassination comes from the presence of a Horus eye amulet in the



Fig 7 Mummy of Ramesses III

‘Our analysis showed that Ramesses III and unknown man E shared the same paternal lineage and had identical alleles at autosomal markers, strongly suggesting that they were father and son. However, based on the genetic testing, any differentiation among the several sons of Ramesses III was not possible. Historically, Pentawere was the only son who revolted against his father in contrast to all his brothers. According to the Judicial Papyrus of Turin, Pentawere was involved in the harem conspiracy, was found guilty at trial, and then took his own life.

‘The unusual mummification process of unknown man E, including the ritually impure use of a goat skin to cover the body, could be interpreted as evidence for a punishment in the form of a non-royal burial procedure. Together with the genetically proven family relationship with Ramesses III, we therefore believe that unknown man E is a good candidate for Pentawere. Unknown man E’s cause of death has to remain a matter of speculation. His inflated thorax and the skinfolds around his neck may point to violent actions that led to

death, such as strangulation. However, the lack of further evidence for strangulation (such as fractures in the laryngeal skeleton)¹⁷ and the gas formation in the body caused by decomposition processes does not allow any clear conclusions regarding the cause of death of unknown man E.’

References: the references accompanying this article are extensive and complicated. They can be found at the URL presented above. Small numbers that appear in the text above refer to individual reference items.

Other versions of the story can be read at the following websites. Each of them present something a little different from the main article, and all are worth reading: tinyurl.com/b4n597g; tinyurl.com/aa82v86; tinyurl.com/auzkv4q.

Those of us who have had the pleasure of visiting Saqqara, and the step pyramid, have been appalled at the things that are being done to the pyramid in the name of restoration. Anyone who has read much about this wonderful structure knows that the east side exposed the history of the pyramid. This face of the pyramid clearly shows how it was generated as a result of enlarging a set of mastaba tomb structures that were part of the original plan.

For some years now, restoration work has been done on the interior of the pyramid with the hope of presenting its possible collapse. There is a large roughly excavated chamber in the center of the pyramid, making it unstable.

For reasons unknown, the outside of the pyramid is in the process of being covered with smooth cut stone, in an attempt, apparently, to make it look like it may have appeared at the time of Zoser. This “restoration” process has taken place partially on the south, the east, and the north sides. Whether or not this process is something useful can be debated, but they

have covered up the evidence for the evolutionary process of the construction of this, the first pyramid. This is a tragedy.

Not only are they damaging the pyramid's appearance, they are using a stone and a mortar which are clearly demonstrably damaging the pyramid chemically and physically.

What may perhaps be the best discussion of this potentially damaging process can be read in the following report that appeared in the Egyptian "Daily News" (tinyurl.com/aryv5bm) (somewhat condensed):

'For the last six months the pyramid of Djoser has witnessed much controversy over its renovation. Fears that the oldest pyramid may soon fall have been spread by Egyptian archaeologists, professors and antiquities enthusiasts. The six-stepped layered structure stands 62 meters high and was built under the reign of Pharaoh Djoser in 2611 BCE, as his final resting place.



Scaffolding covers large portions of the pyramid side

'The renovations started late 2006 after a report was filed by Hassan Fahmy, professor of architecture at Cairo University and the Antiquities Authority's representative currently overseeing the renovations. "The Antiquities Authority hired me to write a report on the conditions of the pyramid after the 1992 earthquake," he said. "I filed a report recommending immediate intervention to be

followed by a renovation process because I saw severe damage; what I'd call critical equilibrium. In 1998 the report was finally given due attention."

'In 2002 the projects sector approved the project and started looking for a company to implement it. Fahmy stipulated that the company should have experience with subterranean structures as the actual structure starts nearly 32 meters underground.

'A bid was offered and different companies applied and were filtered until the tender was between two companies; the Arab Contractors and El-Shorbagi. The latter won the bid. "Our offer was EGP 7 million less than the Arab Contractors," said Michelle Fareed, El-Shorbagi's project director. "And we had done seven previous projects with the Antiquities Authority."

'A major criticism of El-Shorbagi by the archaeological community was their lack of renovation experience. "Djoser was their first project," said Monica Hanna, archaeologist and researcher at University of Humboldt in Berlin. "All other projects were given to them later on.



Masonry lies at the foot of the main pyramid at Saqqara Monica Hanna

'Concerns regarding the new renovations surfaced this year after a report, contracted by UNESCO and filed by Professor Giorgio Croci in 2011, noted that the new structure did not "absorb any load" and thus did not help with the "general stability" of the pyramid.

'He also stated, "there is no detailed [report on] the interventions and their work in progress is carried out as 'extraordinary measures' replacing ancient [with] non-original stones in order to reproduce the original shape."

'Fahmy accepted that new stones were introduced to the pyramid but said " around 80-90 per cent of the stones are original." He said they analyzed the original stone and mortar at Cairo University and tried to get similar material.

'The new stones were made of lime and the mortar was made of lime, sand and the "best kind of clay, which is the same mortar originally used in building the pyramid. When all three react together they bond becoming an adhesive."

'Archaeologists view clay as a problematic adhesive, "as it naturally absorbs and loses water which happens repeatedly causing it to lose its main role to act as an adhesive," explained Ibrahim Badr, a renovations expert.

"It simply dries up and becomes [brittle]. Besides some of us took a sample from the stones that already fell and compared the old and new stones and the mortar used." They found the stones to be completely different from the original ones and that the mortar was made of clay, bicarbonate calcium and VAC which contains sulfur.

"Humidity when mixed with sulfur causes sulphuric acid, which erodes the [stones] and bicarbonate calcium becomes like a dried up lemon when it loses water, losing its adhesive role." Badr said clay should not be used as an adhesive but only as a filler. "Clay was used in Islamic Cairo renovations and that has turned out to be a disaster."

'Hannah also is concerned that the structure is losing its authenticity, "replacing 10-20 per cent of the original stone can cause it to lose its original glamour and authenticity which is a requirement from UNESCO to keep world heritage status."



The main pyramid at Saqqara photographed in 1993 Sara Abou Bakr

'The other problem is the chemical reaction that will ensue when it rains. "The sulfur and the carbonated calcium will react and become acidic and will erode the stone."

'The new stones have really large pores allowing it to absorb a huge amount of water. This adds significantly to their weight and when they become heavier they use the old stones for leverage, leading to parts of the pyramid falling down."

'Archaeologists criticize the changes of the general outlook of the pyramid. Comparing the way the pyramid looks now with a black and white photo from it taken in the past, the change it underwent in the last six years of renovations is apparent. An accusation denied by Fahmy who states that the only changes may have been a result of natural forces. "The only change I can say happened is that we had to fill the gap created by the falling of the sixth step."

'He also insists that they could not find any specific architectural plans of the structure. "We were surprised by how deep and wide the pyramid is. We had to use 'elastic restoration' to be able to change the renovations plan if need be. We checked with archaeologists and historians and nothing provided us with engineering data that we can use."

"The pyramid starts almost 32 meters underground where the granite burial chamber

is located and contains a maze of tunnels leading up to the chamber. It is an architectural gem,” he said. “But there were no plans to follow. We only used ones by the late French professor Jean Phillippe Lauer.”

“No one is allowed to relocate stones unless inevitable and in a very limited way,” said El-Zeiny. “These conditions do not apply with current renovations. They did not keep the original general structure, color coordination or even material used.” Hannah adds that there is a current “casing” of the pyramid with more stones making it a “new pyramid” which adds to the weight of an already overborne structure.



A historical image of the main pyramid at the Saqqara heritage site Archival

‘The demand for an “objective” committee, that neither belongs to the Egyptian government nor to the contracting company, to head this investigation is gaining momentum in archaeological circles. UNESCO has assured Véronique Dauge, the World Heritage Centre specialist on Egypt during a phone call that a “new mission will visit Egypt soon” and will quite possibly check out Djoser pyramid.

‘Garnering media attention, the Djoser pyramid was hounded by reporters causing current Antiquities Minister Mohamed Ibrahim to give several interviews in which he guaranteed the stability of the pyramid and the soundness of the current renovations. “We were forbidden from talking to the media due to all the conflicting reports,” explained Fareed.

“Meanwhile concerned archaeologists remain worried. “What we saw was only on the outside, we do not know what is happening on the inside,” explained Badr. “The old stone is strong, but how much can it take, we do not know.’

The CyberScribe presents the article below was certain trepidation. The site is associated with odd people involving crystal freaks, but it does have a lot of basic information concerning an important discovery and ancient Egypt history. Readers of this column and members of the North Texas chapter of ARCE will remember that Fred Wendorf, a longtime member and supporter of our chapter, and his associates found an amazing stone circle in the desert of Egypt. It appears to be the first astronomical Observatory built by man and discovered to date.

The article below is important because it gives you an understanding of what the site look like at the time of its discovery. Unfortunately shortly after its announcement, it was visited by vandals who disturbed the site, changed the orientation of some of the stones, and it was reported that several of the longer stones had actually been stolen.

As a result of this damage, and the problem caused by the isolated and unprotected site, the stones have recently been picked up and moved to the Nubian Museum at Aswan. There they have been re-erected, exactly as Fred Wendorf and his team found them, and of course now they are protected within the museum walls.

Please read the article below (much abbreviated) to get a feeling for what the Nabta Playa Circle looked like and how it was found. This was published as “Nabta Playa Stone Circle Sacred Cosmology’ (tinyurl.com/b2rd4zw).

Please understand that the CyberScribe does not support all of the statements made in this

paper. Just use it mainly for a general overall view of the playa discovery.



'Nabta Playa was once a large basin in the Nubian Desert, located approximately 800 kilometers south of modern day Cairo. Although at present the western Egyptian desert is totally dry, this was not the case in the past. There is good evidence that there were several humid periods in the past (when up to 500 mm of rain would fall per year) the most recent one during the last interglacial and early last glacial periods which stretched between 130 000 and 70 000 years ago. During this time, the area was a savanna and supported numerous animals such as extinct buffalo and large giraffes, varieties of antelope and gazelle. Beginning around the 10th millennium BC, this region of the Nubian Desert began to receive more rainfall, filling a lake. Early people may have been attracted to the region due to the source of water.

'Archaeological findings indicate human occupation in the region dating to somewhere between the 10th and 8th millennia BC. Fred Wendorf and Christopher Ehret have suggested that the people who occupied this region at that time were early pastoralists, although this is disputed by other sources because the cattle remains found at Nabta have been shown to be morphologically wild in

several studies, and nearby Saharan sites such as Uan Afada in Libya were penning wild Barbary sheep, an animal that was never domesticated. The people of that time consumed and stored wild sorghum, and used ceramics adorned by complicated painted patterns created perhaps by using combs made from fish bone.

'Archaeological discoveries reveal that these prehistoric peoples led livelihoods seemingly at a higher level of organization than their contemporaries who lived closer to the Nile Valley. The people of Nabta Playa had above-ground and below-ground stone construction, villages designed in pre-planned arrangements, and deep wells that held water throughout the year.

'By the 6th millennium BC, evidence of a prehistoric religion or cult appears, with a number of sacrificed cattle buried in stone-roofed chambers lined with clay. It has been suggested that the associated cattle cult indicated in Nabta Playa marks an early evolution of Ancient Egypt's Hathor cult.



'By the 5th millennium BC these peoples had fashioned one of the world's earliest known archaeoastronomical devices (roughly contemporary to the Goseck circle in Germany and the Mnajdra megalithic temple complex in Malta), about 1000 years older than but comparable to Stonehenge. Research suggests that it may have been a prehistoric calendar which accurately marks the summer solstice.



'In 1972 a team of archaeologists made such a discovery while traveling through a remote region in southern Egypt. They were navigating by compass through a trackless waste known as the Nabta Playa and had halted for a water break, when they noticed potsherds at their feet. Fragments of old pottery frequently are an indicator of archaeological potential, and the team returned later to investigate. After several seasons of digging they eventually realized that Nabta Playa was not just another Neolithic site. The breakthrough came when they discovered that what had looked like rock outcroppings were in fact standing megalithic stones.'

Wendorf announced that they had found the megalithic site. The site consists of a stone circle, a series of flat, stone structures and five lines of standing and toppled megaliths. Fred Wendorf, one of the discoverers and a much traveled archaeologist, turned up an abundance of cultural artifacts, which were radiocarbon dated. The ages ranged from 10,000 B.C. to 3,000 B.C., with most of the dates clustered around 6,000 B.C., when the climate was much wetter than now. The Nabta Playa is a basin and during this epoch it filled with seasonal lakes.

Excavations through the 8-12 feet of sediments laid down during this period showed that some of the megaliths had been buried intentionally. The team also found strange carvings in the bedrock under the sediments evidence of great antiquity. The archaeologists mapped the area and used global positioning technology (GPS) to plot the locations of 25 individual megaliths. Many others remain to be plotted. Fortunately, the site's remoteness protected it from most human disturbance. Though the mapping data hinted at astronomical significance, Wendorf's team searched in vain for the key to unlock the site.'



'In March 1998, a team led by Southern University Methodist Anthropology Prof. Fred

(Note from the CyberScribe: Please note that a great part of this article has been removed because it mainly is involved in nonsensical discussions of how this arrangement does many astrophysical things, plus even locating the center of the galaxy.)

Stan Hendrickx, a contributor to one of the discussion groups followed by the CyberScribe, recently sent in a series of pictures showing the new orientation at the Nubian Museum. The Cyberscribe wishes to apologize for losing the reference to the pictures, and hopes that Mr. Hendrickx will not be offended that their appearance here in the column.



Salima Ikram, a frequent visitor to the North Texas chapter of ARCE, has recently figured prominently in the discovery of an immense burial of dogs. The report makes a statement that there may be 8 million partially mummified and unmummified dogs in this discovery of a new catacomb at Saqqara.

Perhaps the most informative article on this new discovery appeared in a publication from the American University at Cairo (tinyurl.com/bj29ctp) (Somewhat abbreviated):

'In the first full excavation of the dog catacombs at Saqqara, Salima Ikram, AUC professor of Egyptology, along with an international team of researchers led by Paul Nicholson of Cardiff University, has estimated that approximately 8 million animal mummies are present at the burial site and is working to establish whether different breeds are represented there.



“We are recording the animal bones and the mummification techniques used to prepare the animals,” said Ikram. “In doing so, we hope to identify the dog breeds present at the site. Thus far, our bone measurements indicate that there are different breeds that were mummified there.”

‘The dog catacombs research at Saqqara, funded by *National Geographic*, is one of several archaeological field projects in which Ikram is involved. In addition, in Project Djehuty, directed by Jose Galan and which focuses on the excavation and restoration of tombs T11 and T12 in the Dra’ Abu el-Naga necropolis in Thebes, Ikram sees great potential for her work with animal mummies, combined with the efforts of other specialists, to yield revelations about ancient Egyptian life. “This project is the first time that an area like this has been examined so holistically,” she said. “While I study the animal mummies, there are others in the group studying the texts written on the walls by the same people who embalmed them. By studying everything from textiles to text to animal remains, we can elucidate quite a bit about what these people thought, their religion and the economic effects of mummifying hundreds of thousands of animals.”

‘Discoveries have shown that there are four main reasons ancient Egyptians mummified animals. “They were mummified as sacred creatures that were representative of the gods, as beloved pets, as gifts to the gods and as food for the afterlife,” said Ikram, explaining that these varying motives reveal much about the behavioral patterns of the ancient Egyptians. She added, “Using DNA testing of mummified ibis remains found in geographically different locations, we hope to establish isolated breeding groups. An abundance of recessive genes showing, for example, would indicate interbreeding of animals in captivity. This also signifies something of an economy of breeding animals for mummification.”

‘For Egyptologists, mummies reflect everything, from the sacred to the suspicious. “Animal mummies were a very visceral and

organic way for people to communicate with the gods,” Ikram said. “At the same time, they were also a business, and many of the mummies I’ve studied are ancient false mummies — a fragment of an animal wrapped as if it were a whole one, or an interior containing nothing but mud. Maybe the Egyptians thought that the intention was sufficient for divine communication.”

Given the recent mania among modern people for tattoos, it is perhaps worth reporting that at least a large number of ancient Egyptians also underwent the process to get tattoos. Tools for tattooing are preserved in some museums, such as the Petrie Museum of Egyptology, mummies are known with physical tattoos, and tattoos appear on figurines occasionally.

A nice short article on tattooing in ancient Egypt, authored by Gemma Angel, gives a good overview of tattooing in ancient Egypt (tinyurl.com/aokz519):

‘Of all the objects on display in the Petrie Museum of Egyptology, there are two particular groups of items that immediately jumped out at me when I first began to look closely at the collections. These objects are grouped closely together in one of the densely packed cabinets towards the back of the gallery, near the sarcophagi – but no connection is explicitly made between them in the displays. This is not surprising, given that the first collection of objects – a series of tapered and sharpened metal implements – are described in the museum catalogue as “prick points” of indeterminate use:

Tool set identified as a “stock of seven prick points” for removing thorns, bronze; three bound together with thread, a fourth with thread round; three separate; cleaned and treated. No information on findplace within Madinat al-Ghurab; purpose and date uncertain.



Seven “prick points” on display in the Petrie Museum, possibly used for tattooing. Image © UCL Museums & Collections

‘The prick points were excavated by Petrie at Gurob in 1880, alongside cosmetic items and fine pottery ware, which is suggestive of a cosmetic use. When I first saw these objects, they brought to mind an article that I had read by Charlotte Booth, titled *Possible Tattooing Instruments in the Petrie Museum*. Booth carried out a close material analysis of the prick points, and found that they were made by folding the corners of a flat rectangle of bronze inwards at one end, and then beaten into a smooth finish. Each of the 7 prick points were manufactured in this fashion. Interestingly, 3 of them are bound together with thread, which has become permanently fused to the surface by corrosion (pictured left: 3rd from right). Petrie believed that these objects were in fact tweezer points used for removing thorns:

‘Slips of bronze were made with long sharp points, and kept sometimes in a bunch of half a dozen; but they were not fastened to the tweezers.

‘However, as Booth points out, although the

points are very sharp, they do not appear to be fine enough for removing thorns from the skin. If they had served such an everyday purpose as Petrie suggested, then surely similar instruments would be more commonly found amongst toiletry objects in ancient tomb excavations? Could they perhaps have served a different, more specialized purpose?



‘A modern tattoo needle bundle, showing a large number of fine needles in a round arrangement, used for shading. Needles may also be arranged in ‘flat’ or ‘magum’ formations.

‘To the eye of a tattooist, it is easy to see a resemblance between these ancient bronze points and modern tattoo needles, as they share a number of similarities: Tattoo needles are not hollow like hypodermic needles, as some people assume, but are actually solid. Groupings of very fine needles are bound together in a bundle, much like the Egyptian prick points, except that modern needles are soldered in place onto a stainless steel needle bar, rather than bound together with thread. Modern tattoo needles may be grouped in bundles of anything between 3 and 7 individual needles for line work, and as many as 14, 16 or 18 for shading and coloring. The needles operate by drawing ink up into the narrow spaces between them via capillary action as they’re repeatedly dipped into a small inkwell. This remarkably simple yet effective technology hasn’t changed in hundreds –

perhaps thousands – of years. Writing on tattooing in Upper Egypt in the 1920's, Winifred Blackman describes tattoo instruments consisting of 7 needles fixed to the end of a stick used by the Fellahin; if these needles were indeed similar to those in the Petrie collection, this would suggest that the practice dates back at least 4,000 years in Egypt.



Blue faience figurine, decorated to show hair, jewelry and tattoos. Image © UCL Museums & Collections

'Material evidence of ancient tattooing is extremely rare in the archaeological record, not least because of the difficulty in identifying artifacts and determining their original purpose. So what evidence is there that the ancient Egyptians practiced tattooing at all? The second group of objects which caught my attention at the Petrie museum provide some clues: two small blue faience figurines. Both of these objects depict nude female figures with

black glazed decoration – one is broken at the waist, with only the lower portion of the torso preserved (object no. UC16724). The second figure is intact, with black detail indicating hair and what are assumed to be beads around her neck (object no. UC16725, pictured left).

'Both figures are also decorated with a series of dotted lines across the abdomen, which are thought to represent tattoo markings. These markings bear striking similarity to tattoos found on ancient female mummies'

The next short article gives an excellent overview about how forensic archaeology can make great strides with apparently humble artifacts. A brief notice was given in a publication called "egyptcentre.blogspot" (tinyurl.com/b5pf2a7) telling about how they reunited two broken fragments of what must've been an absolutely magnificent glass vessel when it was intact. Read on:



'A piece of ancient glass over 3000 years old, displayed in Swansea University's Egypt Centre, has been identified as being part of an Egyptian vase which is currently in the Cairo Museum. It is on loan from Swansea Museum. Gareth el-Tawab, Curator of Swansea Museum said: " The loan of this very rare piece of ancient glass by the Museum to our colleagues in the Egypt Centre is a marvelous example of partnership working in international research". I thought that was a good quote, better than I could have thought up myself.

'The fragment, originally belonging to pharaoh Amenhotep II (1498-1387 BC), is 4cm long piece and displays two names of the king in cartouches picked out in red and yellow on a background of brilliant blue. The names are surmounted by red sun-disks and yellow feathers.

'The glass fragment was given to Swansea Museum in 1959. Circumstantial evidence suggested it came from the tomb of queen Tiye (wife of king Amenhotep III). Kate Bosse-Griffiths wrote an article about this and other items from the tomb (see references below). It had been given to Swansea Museum by Miss Annie Sprake Jones of Abergwili who received it from her brother Harold Jones. Harold Jones had been employed as an artist in the tombs of the Valley of the Kings in the early 20th century.

'German Egyptologist, Birgit Schlick-Nolte contacted the Egypt Centre and Swansea Museum as she was interested in the manufacture of early Egyptian glass. She discovered that the Swansea fragment is part of the vessel in the Cairo Museum which comes from the tomb of Amenhotep II. The

complete vessel measures around 40cm in height and consists of a white amphora decorated with brown and light blue decoration.

'Glass of this date is extremely rare in Egypt and was often given as diplomatic gifts between the kings of the region. Vessels and other artifacts from the reign of Amenhotep II are part of an extraordinary array of sophisticated techniques from an innovative period of glass production. Large vessels such as that in the Cairo Museum, from which our fragment originated were not even attempted in later years. At this date the manufacture of glass was a royal monopoly and valuable like gold and silver.

'The Swansea piece with the king's name would have been prefabricated and placed upon the body of the vessel while it was still in a molten state. Interestingly, one of the names for glass in ancient Egyptian was 'the stone that flows'."

As his readers know, the CyberScribe generally closes this column with something a little ridiculous, or at least humorous. The last article this time involves a rather unusual set of "artifacts". An ongoing excavation turned up newspapers and miscellaneous garbage that was apparently placed in the exclamation 82 years ago when it was originally done.

The actual article was published in German, and the report that follows is the CyberScribe's translation. It was published as "snipurl.com/263dop7".



the scientists found scraps of paper at 1.20 meters of depth. They lay in the rubble of a previous excavation, along with old sardine cans and cigarette boxes.

'Lurson: "After we put together the pieces of paper like a puzzle, they could be deciphered as the BZ-site. It said: Tasmania must stay' and bears the date 16 February 1931. "

'How did a newspaper 82 years old get to the eastern bank of the Nile in Upper Egypt? Lurson explains: "We know that the German archaeologist Hans Steckeweh worked in Luxor in February 1931. Sometimes colleagues leave newspapers at the excavation site, as an indication for future generations. "

'The work in Luxor, which are funded by the Fritz Thyssen Foundation, are still far from complete. Lurson: "We have not opened twelve grave shafts yet." The old BZ has been registered and is now carefully preserved. Such a find is like all research results and are published in the scientific literature.'

(Notes the CyberScribe, the 'BZ am Mittag' Whose original name was the "Berliner



Dr. Benoît Lurson in Luxor with its Egyptian excavation workers. He found the BZ of 1931

'The archaeologist Dr. Benoît Lurson made Egypt a startling revelation. He was searching in Luxor for mummies - and found a BZ. More precisely: the sports section of the "BZ am Mittag" of 16 February 1931!

'The Berlin-based French Egyptologist digs with five colleagues FU since 2010 on "Ramesseum", a more than 3200 year old mortuary temple of Pharaoh Ramses II. Lurson: "We found antique pieces, fragments of statues, but also modern material from Berlin." Inside the so-called "Temple of Tuja"

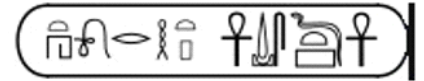
Zeitung” was the first tabloid newspaper, and this version is to be translated as “BZ published at noon”

result of a partnership between NASA, the National Oceanic and Atmospheric Administration, and the Department of Defense.)

See you here again next month!

As a final object in this month's column, CyberScribe presents an amazing view of most of the Egypt taken at night from the space station. The ribbon of light represents human occupation in this portion of the Middle East, and wonderfully outlines the isolation of ancient Egypt and displays the Delta wonderfully.

The story accompanying this wonderful images was:



['nile_vir_2012287.jpg](#)

'The Nile River Valley and Delta comprise less than 5 percent of Egypt's land area, but provide a home to roughly 97 percent of the country's population. Nothing makes the location of human population clearer than the lights illuminating the valley and delta at night.

'On October 13, 2012, the Visible Infrared Imaging Radiometer Suite (VIIRS) on the Suomi NPP satellite captured this nighttime view of the Nile River Valley and Delta. This image is from the VIIRS "day-night band," which detects light in a range of wavelengths from green to near-infrared and uses filtering techniques to observe signals such as gas flares, auroras, wildfires, city lights, and reflected moonlight.

The city lights resemble a giant calla lily, just one with a kink in its stem near the city of Luxor. Some of the brightest lights occur around Cairo, but lights are abundant along the length of the river. Bright city lights also occur along the Suez Canal and around Tel Aviv.

Away from the lights, however, land and water appear uniformly black. This image was acquired near the time of the new Moon, and little moonlight was available to brighten land and water surfaces.'

(NASA Earth Observatory image by Jesse Allen and Robert Simmon, using VIIRS Day-Night Band data from the Suomi National Polar-orbiting Partnership. Suomi NPP is the

