CyberScribe 179 – July 2010

Part of the pleasure of being the CyberScribe is that I get to decide which of the recent Egyptian news items is important, and also which is most important. This time I chose the news that Zahi Hawass and his minions have finally reached the termination of that mysterious tunnel leading downward from the burial chamber in the Valley of the Kings tomb of Seti I.

The CyberScribe has had the privilege of peering through the grate at the half collapsed tunnel as it existed before Hawass decided to answer the question of the tunnel once and for all, by properly excavating it to its end...and to find out why it was built in the first place. There were a number of possible answers: was it the REAL burial chamber of Seti I stacked full of yummy treasures, as believed by the locals and reason for a failed attempt by Sheikh Ali Abdel Rassoul's workmen, who were allowed to dig here in 1960. Other's thought it might be an attempt to reach water table, where there would be a chamber containing one of those enigmatic 'tombs of Osiris...with an island burial surrounded by a moat. But, the truth was that no one knew why the tunnel existed.

In 2007 Hawass's team started down the very dangerous tunnel, but were forced to slow down, reinforce the roof, and the operation turned into a mining adventure. The discovered much, especially the bungled attempts by Sheikh Ali Abdel Rassoul's workmen who lost the trace of the real tunnel and burrowed off in the wrong direction...causing huge damage.

Slowly and carefully the work proceeded until now, at last, there are answers...and still more questions. We still do not know why it was built, but we now how it has achieved. The items below are extracts from some of the announcements just made to the press. The first is a summary from an announcement by the Supreme Council on Antiquities, and it reads:

"Dr. Hawass, Secretary General of the SCA, and the head of the mission, finally succeeded in completely excavating the 174m long tunnel after several seasons of work that began in November 2007. The tunnel was cut into the bedrock near the end of the beautifully decorated tomb of Seti I. During their work, the mission uncovered many shabtis and pottery fragments that dated to the Eighteenth Dynasty (1569-1315 BC). Several limestone ostraca fragments, as well as a small boat model made of faience were also found. During their excavation of the staircase, the team found that three of the steps were decorated with red graffiti.

“Upon reaching the end of the 136 meter section, which had been partially excavated by Sheikh Ali Abdel Rassoul's workmen [in 1960], Dr. Hawass's team were shocked to uncover a descending passage which measures 25.60m in length and 2.6m wide. The mission eventually uncovered a fifty-four step, descending staircase. After the first descending passage, a second staircase measuring 6 meters long was cut into the rock.

“At the beginning of this passage the team found a false door decorated with hieratic text that reads: "Move the door jamb up and make the passage wider." These written instructions must have been left from the architect to the workmen who were carving out the tunnel. It appears that the last step was never finished and the tunnel ends abruptly after the second staircase."

Having mentioned that there were still questions to be solved, several of the news items suggested that new explorations will be begun (http://snipurl.com/yg4ra), and here it states:

“Hawass speculated that the tunnel and the secret tomb were not finished because of the pharaoh's death, but may have inspired a similar structure in Ramses II's tomb.”

Another (http://snipurl.com/yg50d) suggested:

“Dr Hawass earlier speculated that the tunnel could have been symbolic - a path to the hidden cave of the god Sokar - or that it would take archaeologists to the real burial chamber of the king. Yet, taking the sudden ending of the tunnel into account, he now believes that Seti I was trying to construct a secret tomb inside a tomb.

“According to Dr. Hawass, the workmen and artists first finished the original tomb of Seti I (KV17) during the pharaoh's twelve-year reign and then began to construct the tunnel. When the Pharaoh died, his son Ramesses II stopped the work on the tunnel and buried his father.

“Dr. Hawass says it is likely Ramesses II continued where his father left off and constructed his own hidden tunnel within his tomb in the Valley of the Kings. An Egyptian mission is currently working in the tomb of Ramesses II to preserve the wall paintings, and to look for a similar tunnel to the one in the tomb of Seti I.”

This latter story included some excellent photos:

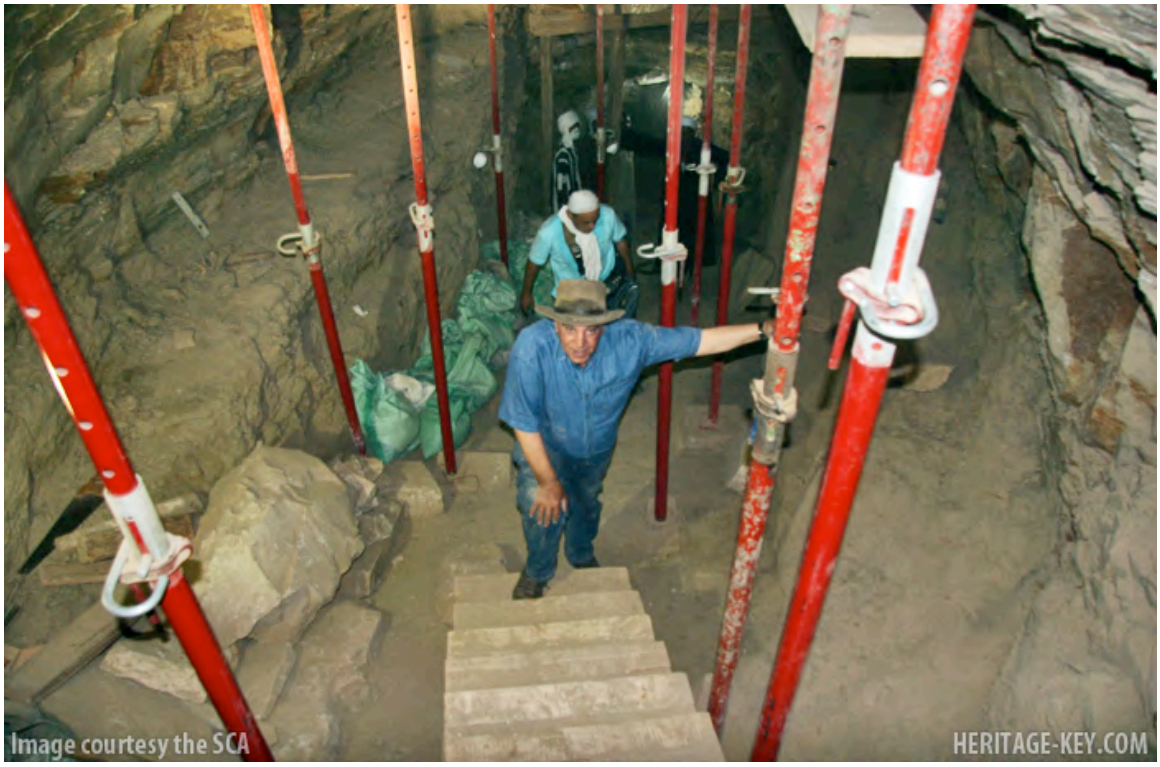
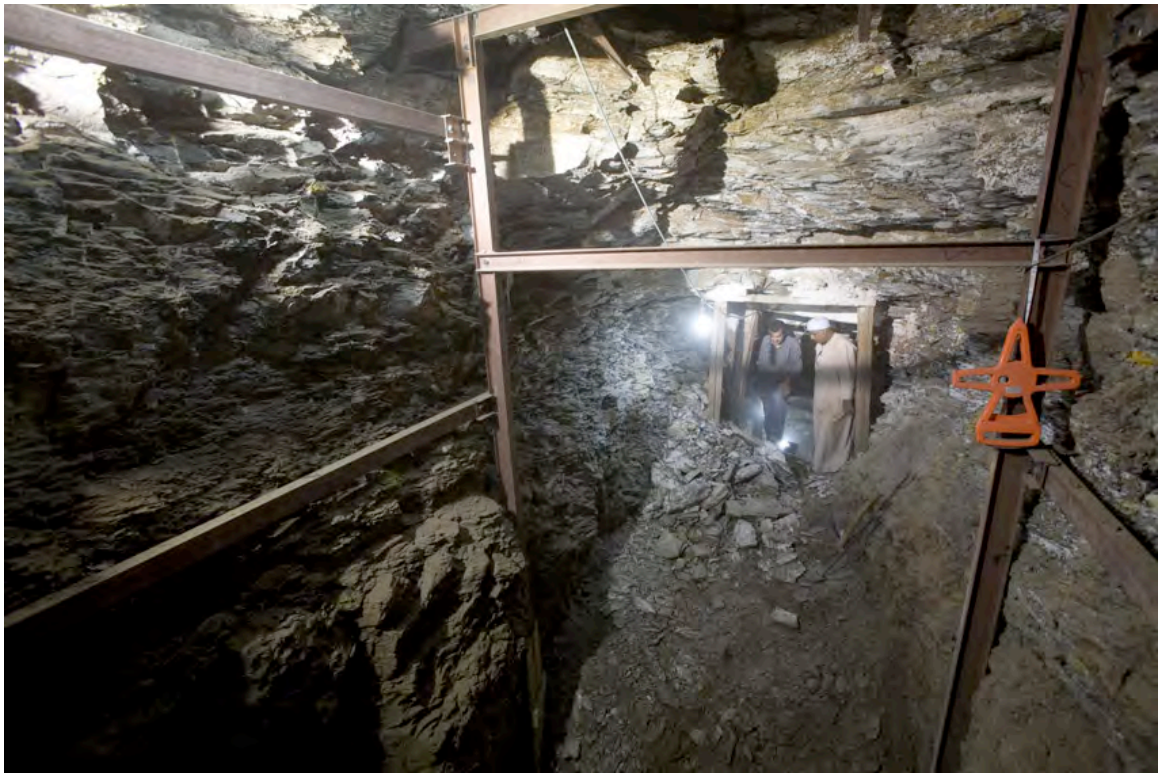
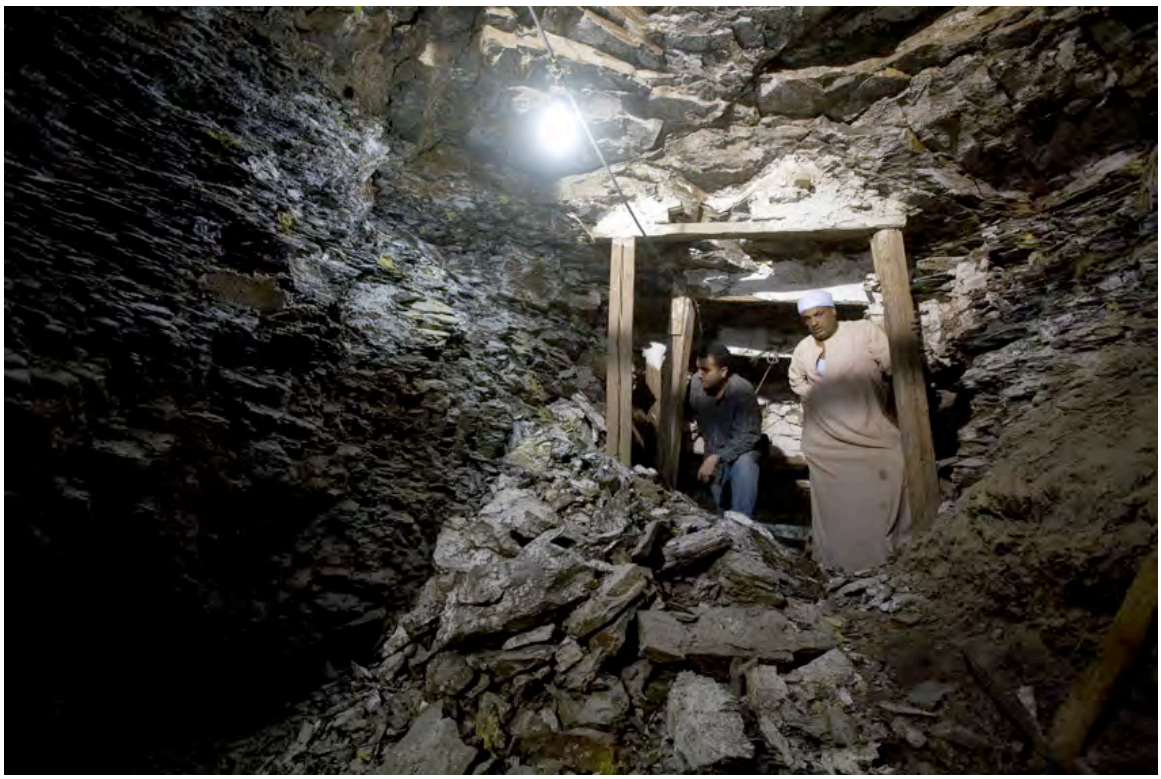


Image courtesy the SCA
HERITAGE-KEY.COM

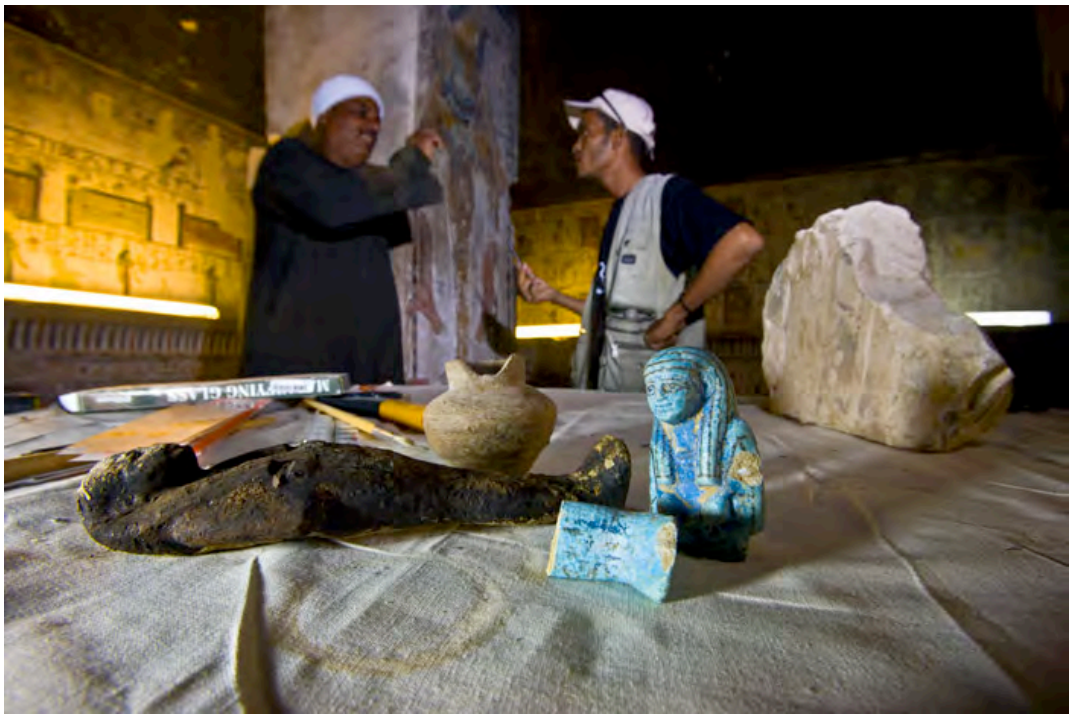
Other dramatic photos have appeared in various items written by Hawass:



A steel reinforcement structure supporting the ceiling of the tunnel.



Dr. Tarek El-Awady and a member of the archaeological team inspecting wooden beams installed by Sheikh Ali to support the ceiling of his tunnel. The original tunnel is visible below. (Photo by Sandro Vannini)



Items discovered in the abandoned tunnel

Another potentially important news story has broken...a new way to absolutely date parts of the Old Kingdom's earliest Dynasties. The articles appeared in 'Science" magazine, and the authors used short lived plants, fruits and other items that must have been contemporaneous with the sites where they were recovered. These underwent a new form of carbon-14 analysis and interpretation to yield the new dates. The most important part of the main article (Science 18 June 2010 328: 1554-1557) read:

"The historical chronologies for dynastic Egypt are based on reign lengths inferred from written and archaeological evidence. We used 211 radiocarbon measurements made on samples from short-lived plants, together with a Bayesian model incorporating historical information on reign lengths, to produce a chronology for dynastic Egypt. A small offset (19 radiocarbon years older) in radiocarbon levels in the Nile Valley is probably a growing-season effect. Our radiocarbon data indicate that the New Kingdom started between 1570 and 1544 B.C.E., and the reign of Djoser in the Old Kingdom started between 2691 and 2625 B.C.E.; both cases are earlier than some previous historical estimates.

“Egyptian historical chronologies have been underpinned by relative dating derived from a variety of sources. Building on the surviving evidence from Manetho’s Aegyptiaca (written in the third century B.C.E.) and the king lists dating from the pharaonic era, generations of scholars have used written and archaeological information to check, and in some instances revise, the sequence of kings and the lengths of their reigns.

“The placement of this relative chronology on the absolute-calendar time scale, however, has been principally based on the interpretation of a small number of ancient astronomical observations in the Middle and New Kingdoms (MK and NK, respectively) and is therefore considerably less certain. In addition, much work has been done to synchronize the chronology of Egypt to that of neighboring civilizations, particularly with Mesopotamia, which also has a rich and detailed historical record and astronomically based datums; however, precise absolute-age synchronisms between them are only possible in the late NK .

“Radiocarbon dating, which is a two-stage process involving isotope measurements and then calibration against similar measurements made on dendrochronologically dated wood, usually gives age ranges of 100 to 200 years for this period (95% probability range) and has previously been too imprecise to resolve these questions.

“Here, we combine several classes of data to overcome these limitations in precision: measurements on archaeological samples that accurately reflect past fluctuations in radiocarbon activity, specific information on radiocarbon activity in the region of the Nile Valley, direct linkages between the dated samples and the historical chronology, and relative dating information from the historical chronology. Together, these enable us to match the patterns present in the radiocarbon dates with the details of the radiocarbon calibration record and, thus, to synchronize the scientific and historical dating methods. We obtained short-lived plant remains from museum collections (e.g., seeds, basketry, plant-based textiles, plant stems, fruits) that were directly associated with particular reigns or short sections of the historical chronology.”

The new approach seems destined to be of great import. Nonetheless, there are worriers and detractors. An item in (http://snipurl.com/yg7qa) protests:

“Yet the new study does not resolve all of the outstanding issues. In a Perspective accompanying the paper, archaeologist Hendrik Bruins of Ben-Gurion University of the Negev in Israel points out that one major

controversy remains unresolved: the timing of the massive eruption of the volcanic island of Thera in the Aegean Sea, which transformed the history of the eastern Mediterranean and has important implications for understanding the relationship between Egypt and the Minoans, another powerful culture of the time. Previous radiocarbon dating suggests that the eruption took place at least 100 years before the New Kingdom began, which the new dating puts at no earlier than 1570 B.C.E."

The items in "Science" are not generally available. If someone needs the entire article, please contact the CyberScribe.

Thunderclouds have arisen over Hawass, et al's recent publication on the DNA samples of Tutankhamun and his various illustrious ancestors. From the beginning there have been issues: weak or nonexistent support information, odd sampling techniques, insufficient published details, etc.

At this time, the CyberScribe does not have access to the full text of the six recent protests published in JAMA (Journal of the American Medical Association), but the abstracts speak loudly. First of the protests:

"In their study, Dr Hawass and colleagues reported ancient DNA data from 11 royal Egyptian mummies and used microsatellites to ascertain kinship among specimens. We question the reliability of the genetic data presented in this study and therefore the validity of the authors' conclusions. Furthermore, we urge a more critical assessment of the ancient DNA data in the context of DNA degradation and contamination.

"The long-term survival of DNA is determined by the environmental history of the samples, and Gilbert et al argued in reference to mitochondrial DNA that "in most, if not all, ancient Egyptian remains, [ancient DNA] does not survive to a level that is currently retrievable." The age of the mummies (more than 3300 years before the present) coupled with their preservation history suggests that DNA survival is highly unlikely. Long-term survival of nuclear DNA sequences, as accessed by Hawass et al, is even less likely" (Eline D. Lorenzen, PhD, Eske Willerslev, DSc., Center for GeoGenetics, Natural History Museum of Denmark, Copenhagen, Denmark"

Second protest states:

“Based on my review of the radiographic images in the study by Dr Hawass and colleagues, I disagree with the authors' conclusion that Tutankhamun had a left clubfoot. In talipes equinovarus, or clubfoot, the hindfoot is in equinus, and the navicular is medially displaced on the talus. The images in Figure 4 of the article show the left foot to have a normal hindfoot and a normal talonavicular relationship. Thus, Tutankhamun's left foot is not in equinus and not in varus, and is not a clubfoot.

“However, the relationship of the calcaneus to the cuboid is consistent with a habitually supinated foot. The images in Figure 5 show chronic pathology of the second and third metatarsal heads, so it is reasonable to assume that Tutankhamun walked with a stick and with his left foot in supination to relieve pressure on the diseased metatarsal heads.” (James G. Gamble, MD, PhD, Department of Orthopaedic Surgery, Stanford University Medical Center)

Thirdly...

“Dr Hawass and colleagues assessed the relationship between Tutankhamun, Akhenaten, and several other members of Egypt's 18th dynasty. However, some of their claims regarding possible inherited disorders among the 11 royal mummies they examined appear to be inconsistent. The Abstract reported that "[n]o signs of gynecomastia and craniosynostoses . . . were found," but the text stated that "putative breasts in Tutankhamun and his father Akhenaten (KV55) cannot be determined, because KV55 is a mummified skeleton and Tutankhamun lacks the frontal part of the chest wall."

“In their Results section, the authors stated that "Akhenaten has [a cephalic] index of 81.0 and Tutankhamun an index of 83.9, indicating brachycephaly. . . . Thutmose II . . . show[s] dolichocephaly, with [a cephalic index] of 73.4." Nevertheless, these skulls are visibly abnormally elongated, having the "family head" of the 18th dynasty. (Irwin M. Braverman, MD, Department of Dermatology, Yale Medical School, New Haven, Connecticut, and Philip A. Mackowiak, MD, MBA, Veterans Affairs Medical Center, Baltimore, Maryland)

And finally...

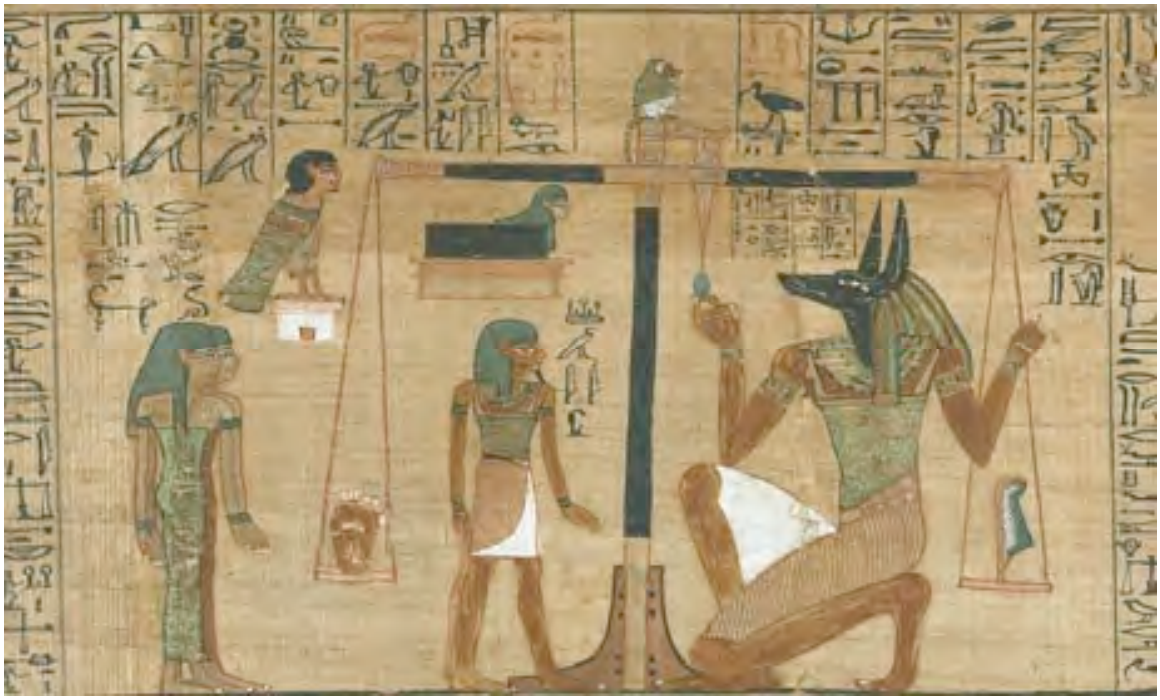
“Dr Hawass and colleagues1 suggested Plasmodium falciparum malaria in conjunction with Köhler disease II as a possible cause of death for Tutankhamun. Falciparum malaria was endemic in ancient Egypt. Although detection of plasmodial MSP1, STEVOR, and AMA1 gene fragments in the

mummy may prove presence of P falciparum, we are not convinced that the disease pattern suggested by the authors was the primary cause of Tutankhamun's early death. In endemic areas, malaria is a life-threatening disease commonly affecting children until the age of 6 to 9 years, not semi-immune adults of 18 to 19 years,2 the age that Tutankhamun apparently reached." (Christian Timmann, MD, Christian G. Meyer, MD, Department of Molecular Medicine, Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany)

To date, Hawass and his colleagues have either not responded, or have made weak protests. The battle is most assuredly NOT over. This fascinating set of data and approaches will yet lead to much new information.

In the category of non-confrontational news, the British Museum has announced the greatest ever travelling display of 'Books of the Dead', or more properly, "Books of the Coming Forth By Day". Some of the great ones that will be shown have never been displayed before, and may never be displayed again. The most informative article on this exhibition appeared in the 'Guardian' (http://snipurl.com/ygal1), and is presented here (abbreviated):

"Announced today, the museum's showpiece autumn exhibition will draw on its "unparalleled" collection of Egyptian books of the dead, collections of spells provided to help the departed find their way. The exhibition, Journey Through the Afterlife, which is supported by BP, will include pieces from museums in France and the US in what its curator said was the first international exhibition of such manuscripts.



Egyptian afterlife exhibition to be staged at British Museum The heart of the scribe Ani is weighed by Anubis, the jackal-headed god of embalming, c 1275 BC, one of the challenges that a person's spirit faced on the journey to the afterlife in ancient Egypt and featured in the British Museum's main exhibition this autumn. Photograph: British Museum/PA

“The collection, including items used for more than 1,500 years between 1600BC and AD100, has never been exhibited in its entirety before, despite the British Museum having owned it for more than 100 years. Some of the papyrus scrolls may never be shown at the museum again, Dr John Taylor warned today.

“"In recent years, we've learnt a lot about Egyptian pigments and how sensitive they are," the curator said. "It used to be thought that they were pretty indestructible, but we've been carrying out tests now and what we find is that some of them are very, very subject to fading, so we really have to consider the long-term future of these objects – our first duty is to protect these things for the future.

“"If that means that, for the moment, we don't display them, then we might hope that at some future date, a solution to this issue might be found, but we have to make sure that we do not expose them to unnecessary light."

“A highlight of the exhibition will be the opportunity to follow the journey taken by an Egyptian after death. They will be guided by the longest book of the dead in the world – a full 37 meters (121ft) of papyrus – believed to

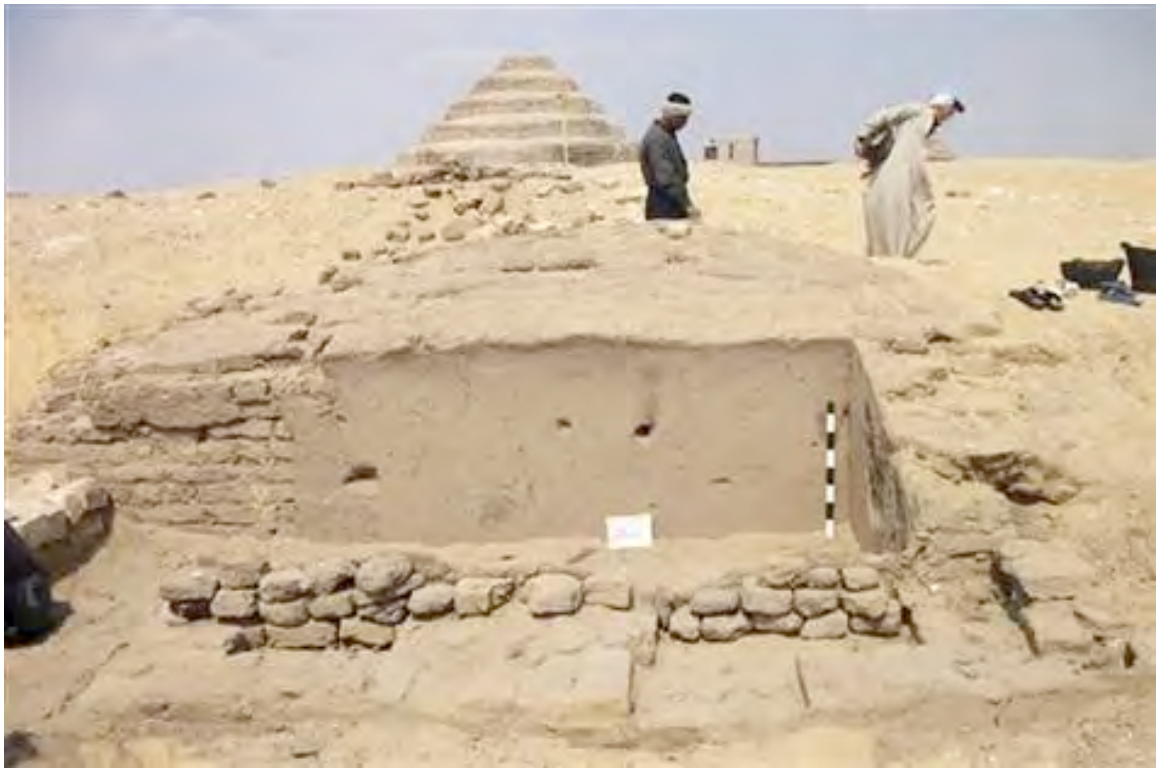
have been written to accompany the daughter of a high priest on her journey to the afterlife.

“The book of the dead would act as more of a manual than a complete text, complete with diagrams of the potential foes the deceased could come across and the spells that could defeat them.

“The critical point in the journey would come with the ritual of the "weighing of the heart", in which the organ would be measured against the principle of truth and justice. This process was known as maat. If the heart weighed in favorably, the deceased would be allowed into the afterlife – an Egyptian idyll with flowing rivers, bright sun, and several helpers, called shabtis, to attend to each arrival. If the heart's mass was deemed to be substandard, the individual's soul was condemned to destruction at the hands of the monstrous "devourer".”

Another nice new discovery was that of the tomb of Ptah-Mes, once mayor of Memphis, also served as army chief, overseer of the treasury and royal scribe under Seti I and his son and successor, Ramses II, in the 13th century B.C. This tomb was once known, and partially plundered of its decorations, and then again lost. The best coverage appeared in NPR (http://snipurl.com/ygb93), and (abbreviated) tells us:

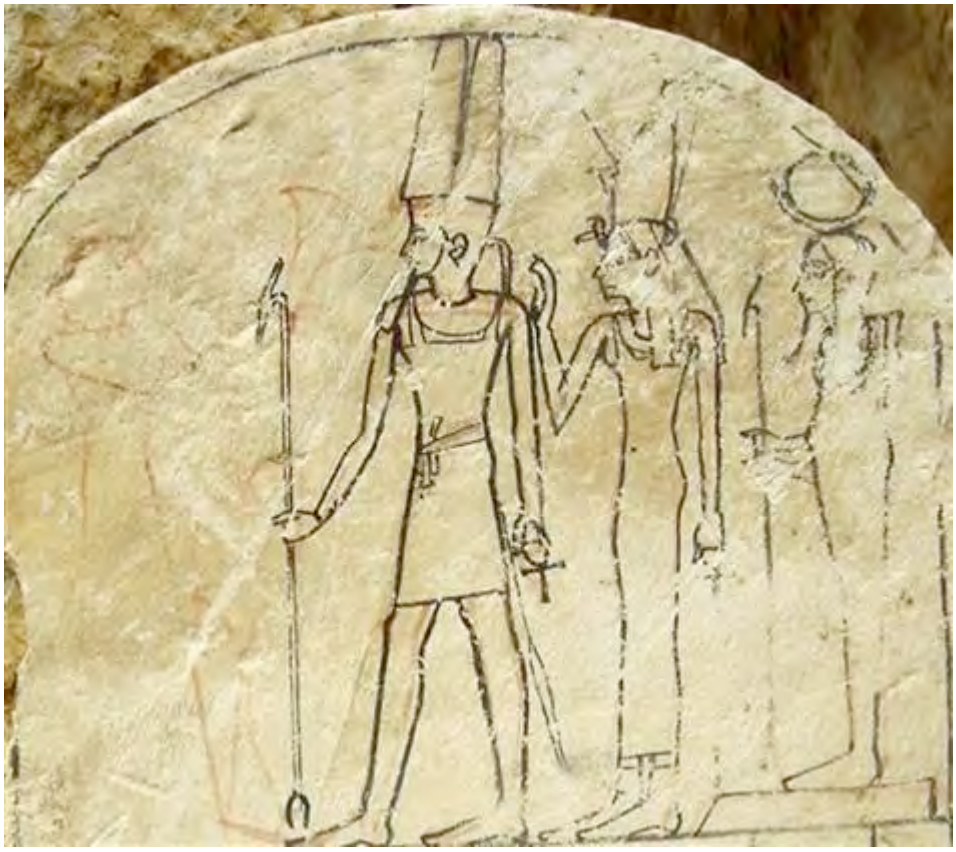
“Archaeologists have discovered the 3,300-year-old tomb of the ancient Egyptian capital's mayor, whose resting place had been lost under the desert sand since 19th century treasure hunters first carted off some of its decorative wall panels, officials announced Sunday. The discovery of his tomb earlier this year in a New Kingdom necropolis at Saqqara, south of Cairo, solves a riddle dating back to 1885, when foreign expeditions made off with pieces of the tomb, whose location was soon after forgotten.



This undated photo shows the tomb of Ptahmes, the mayor of the ancient Egyptian capital Memphis, in Saqqara, south of Cairo, Egypt. (AP Photo/Supreme Council of Antiquities)

“A team from Cairo University's archaeology department found the tomb during new excavations of the area that started in 2005, el-Aguizy said. The inner chambers of the large, temple-style tomb and Ptahmes' mummy remain undiscovered. In the side sanctuaries and other chambers they uncovered, archaeologists found a vivid wall engraving of people fishing from boats made of bundles of papyrus reeds. There were also amulets and fragments of statues.:

Ptah Mes' and the phrases: ‘Nobleman’, ‘True of Voice’ (Justified), ‘Lord’ (Master), and ‘venerated’ (both columns are the same)



The tomb of Ptahmes includes this unfinished funeral painting.

The source of much of Egypt's vast consumption of aromatic tars, resins and spices has been subject of much debate. This short offering below suggests one source. It appeared in 'Science' Vol 328 28 May 2010', and read (abbreviated):

Precious resin. Incense was made from the frankincense tree and burned as early as 2200 B.C.E.

“Frankincense was the ancient world’s most lucrative product, essential in temple rituals throughout the Mediterranean and Southwest Asia, prescribed by doctors for digestive problems, and turned to ash for eyeliner among Egyptian gentry. Yet the origin of its trade remains only dimly understood, in part because the mostly nomadic inhabitants here closely guarded their secret and left few artifacts and no texts behind.

“Researchers long assumed that the frankincense trade did not flourish until 1000 B.C.E. or later. The data suggest that the trade sprang up far earlier, says archaeologist Juris Zarins, who lives in Dhofar’s sleepy provincial capital, Salalah. According to Zarins, long-distance trade itself—in seashells—began here as early as the 5th or 6th millennium B.C.E. Then, far to the northeast at R’as al Jinz, Italian excavators found what appears to be a frankincense burner dating to about 2200 B.C.E. Resins from Egyptian tombs date to about this time and may signal maritime connections across the Red Sea. And Mesopotamian texts from this same era mention a trade in “aromatics,” likely frankincense.

“By the end of the 3rd millennium B.C.E., when Indus goods were arriving in Arabia and Omani copper was being shipped to Mesopotamia, distant Dhofar and its frankincense seem to have been part of the first international trade system. “There’s abundant evidence of goods exchange,” says Joy McCorriston of Ohio State University in Columbus. She and her colleagues are

mapping thousands of uncataloged tombs in the region to gather data on population and trade routes. Both teams are finding evidence that Dhofar's frankincense made it a player in the early economic network."

This next item has nothing to do with Egypt, really, but is too odd to leave unnoticed. We are finding loads of German nobles who were deliberately mummified. When they died, Germany noble families of the 18th century did what the Egyptians had done before them: They had themselves mummified. As an increasing number of such well-preserved corpses are found, scientists are trying to find out why. A rather rambling article in 'Der Spiegel' (http://snipurl.com/ygfi1) talks about quite a few aspects of this rather unknown number of mummies. Greatly shortened, the story reads:

"The warrior was then laid out in a kind of luxury crypt under the castle of Sommersdorf near Ansbach, in modern-day Bavaria. In those vaults von Holz's corpse was privileged with an honor previously reserved primarily for Egyptian pharaohs: His body did not decompose. More than 370 years after his untimely death, the nobleman still lies in his casket, well preserved. Von Holz was a giant of a man, standing 1.80 meters (around 5'10"), at a time when most humans were far shorter. To this day, his feet are still shod in those smart leather boots that his clan had made for him almost four centuries ago.

"The corpse recently left its burial place in the castle cellar for the very first time so that archeologists from the Reiss Engelhorn Museums in Mannheim could take a close look at the mummy. Every few months, a baron, or a priest, turns up at archeologist Wilfried Rosendahl's door to report that he has found a corpse under his castle or in his parish church.

"Confronted with the ever-increasing number of new discoveries, Rosendahl concedes that: "We are more familiar with the history of the Egyptian mummies than with the bodies slumbering in our tombs." Only a few weeks ago, the researcher discovered the superbly preserved bodies of 12 members of an aristocratic family in the district of Illereichen in southern Germany.

“Rosendahl's colleague Andreas Ströbl is currently examining the remains of an 18th-century nobleman's clan that was laid to rest in a cellar grave under the 18th century Church of St. John the Baptist in Hannover. "We've known that these aristocrats' crypts existed, but for a long time we didn't know why," Ströbl admits.

“About 1,000 mummified bodies in German noblemen's graves have been discovered and cataloged so far. The vaults contain children as well as adults, their clothes are sometimes still in remarkably good condition. Often the tombs also contain burial objects: Combs, spices, coins, and in one case, a shaving brush.

“The surprising number of tombs containing mummified remains leads researchers to the conclusion that it was not random. "For a long time, I believed that mummification was more of an accidental corollary of the way people were buried in those days," Ströbl says. New evidence suggests something different: In this early modern period did many of the rich and aristocratic deliberately have themselves buried in this way so that their remains would be preserved?

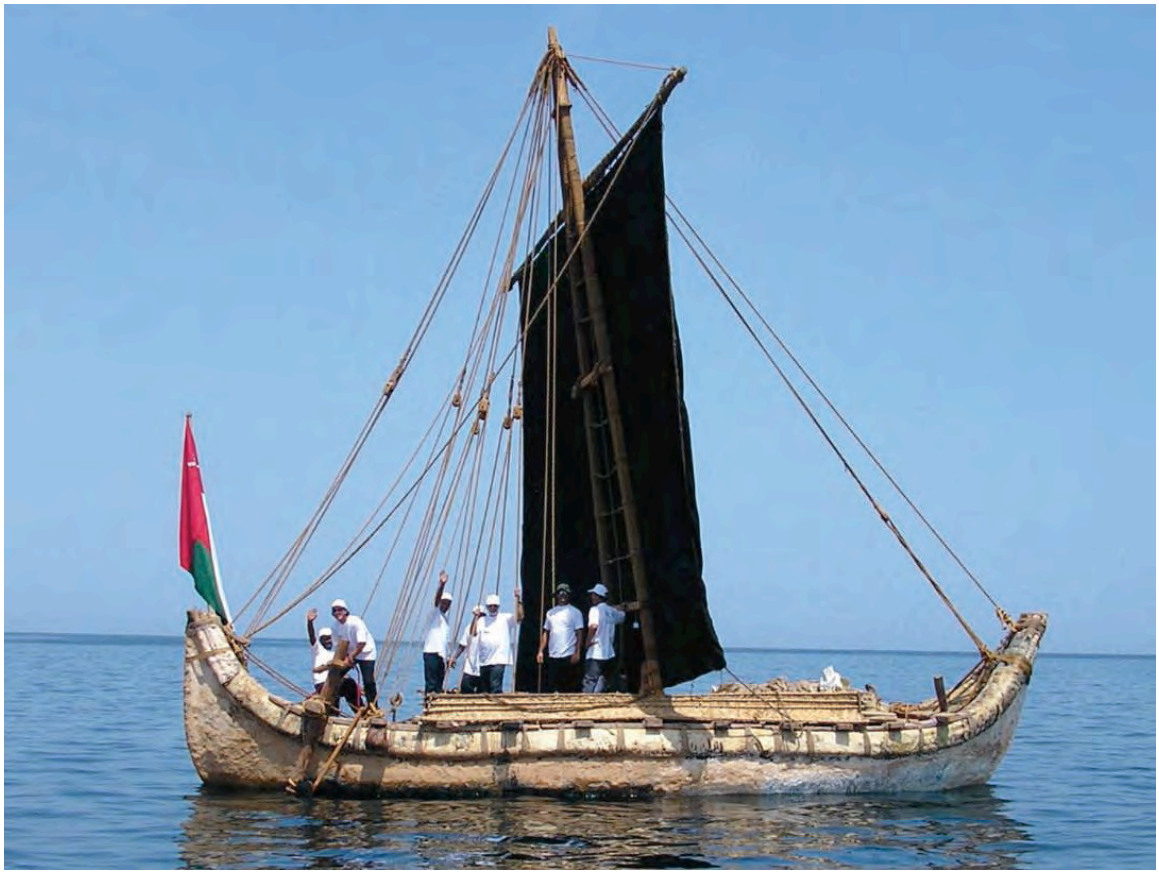
“Rosendahl and Ströbl found cleverly conceived ventilation systems in even the smallest of these basement graves. But that wasn't the only trick that promoted mummification. The undertakers lined the coffins of the departed with sawdust which then soaked up any fluids that leaked out of the body.

“Reiner Sörries, the head of the Museum of Sepulchral Culture in Kassel, is making the first attempts to explain the mystery. Sörries is one of the few archeologists in Germany who studies burial culture. He suspects that religious reformer Martin Luther may have triggered the trend for mummification in the modern age. By way of proof, Sörries cites a passage in the Book of Job that Luther translated into common German: "I know that my Redeemer lives, and that in the end he will stand upon the earth. And after my skin has been destroyed, yet in my flesh, I will see God."

“Maybe wealthy protestants chose this method of mummification out of fear that they might not rise up and go to heaven if their mortal remains rotted away? "There are still many gaps that we can't fill in," Sörries admits. "It is conceivable that people simply wanted to play it safe and preserve their bodies until Judgment Day.""

And lastly... A recent attempt to recreate a major and very early shipping ended rather ingloriously when their magnificent craft sank like a rock! This type of ship was believed to have been the source of much of the early commerce that re ached Egypt from the orient. The story, in ‘Science’ Vol 328 28 May 2010’, read (abbreviated):

“As a team of senior archaeologists watched in horror from the deck of the sultan’s yacht, the reed vessel it was accompanying began to sink. The 13-meter-long, 11-ton craft, the Magan III, had been launched from the harbor here and was aiming at the Indian port of Mandvi, 1000 kilometers away. But after just several dozen kilometers, the vessel took on water and eventually foundered. The crew was rescued, but the debacle on 7 September 2005 ended an unusual research experiment aimed at understanding how ancient mariners made the passage from the Arabian coast to the Indus River civilization more than 4000 years ago.



Trials at sea. The Magan III sank long before it reached India.

“The effort differed from Thor Heyerdahl’s Tigris reed raft, which the Norwegian sailed from Basra, Iraq, to Muscat, and then on to Pakistan in the late 1970s. Many archaeologists dismissed that effort as a stunt that did little to enhance our understanding of ancient technology, given the dearth of data on construction and sailing techniques. The Magan III was based instead on the recent finds as well as 400 models, clay seals, and drawings of the 3rd millennium B.C.E. Unlike a raft, the Magan III was made up of reed bundles shaped as planks, with a leather gunwale and a tapered bow and stern. A crew of eight was to subsist on a 2200 B.C.E. diet of dates, honey, pulses, and dried fish during the estimated 10-day voyage. Thomas Vosmer of Muscat, an American-born Australian who specializes in ancient boatbuilding, experimented with several smaller versions before settling on a design; the Omani government agreed to cover construction costs.

“Once on the rough open sea, however, the ship began to take on water in the stern, forcing sailors to abandon ship. By the next day, it had sunk completely.

“Ghidoni says that the pressure from ocean swells softened the bitumen, creating gaps in the hull. “We sank because it was too flexible,” he says. Both he and Vosmer note that the team was under intense pressure to complete

the project quickly, contributing to a failure to spot design flaws. As with any good experiment, the Magan III's failure provided new insights. Ghidoni is no longer convinced that reed boats could weather the open sea, and he adds that bitumen was far too valuable a substance to slather liberally on merchant or fishing craft. Sewn-plank boats were more likely the vessel of choice, though finding the necessary wood in either Mesopotamia or Arabia would have been challenging. More likely, he says, ships were built of timber floated down the Indus River. So far, however, no early Bronze Age shipyards there—or in Oman or Mesopotamia—have been found.

"But for now, says Possehl dryly, "there are no more plans for reed boats.""