

# INSCRIPTIONS

*The Newsletter of the Friends of the Egypt Centre, Swansea*

## Issue 38

August 2014

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## *A six-year old boy and the Egypt Centre*

When my six-year old son, Morgan, told me about six months ago he doesn't "know quite enough about ancient Egypt", I signed him up for the first available Egypt Centre workshop "Fantastical Creatures" – though with some trepidation. You never know in advance with kids, do you, whether they will enjoy something or not?



When Morgan doesn't like something, he *really* doesn't like it, and won't hesitate to make his opinion and feeling known. The day of the workshop, he told me he was a bit nervous... but we needn't have worried. When I collected him, he was full of enthusiasm: it was clear the volunteers had organised a creative and engaging programme, because he now wanted to become an Egyptologist when he's older (a nice change from 'baddie cop', his previous choice...).

*/ ... continued overleaf*

## *In brief:*

The Egypt Centre is open for an **extra hour until 5pm** during the month of August.

The Egypt Centre is looking for **adult volunteers** for a variety of roles! All welcome! Contact Syd Howells, Volunteer Manager, for more information.

Welsh Museums Festival week is 4th October to 11th October: Costume activity and eye make-up will be available for children and adults! **Come and be transformed into an ancient Egyptian!**





## A six-year old boy and the Egypt Centre (continued)

Since his first workshop, Morgan has attended another one ('Gods and Goddesses') with one of his friends, and both of them again came out inspired and wanting to find out more.



I also took him and his friend to the Night at the Museum (though quite early in the evening) on the 15th May... I now saw the volunteers in action myself, and the way they make the collection come to life for such a young age group is really inspiring. The boys loved the Egyptian game, couldn't get enough of the object handling, the torches they were using to explore the collection upstairs made them feel like real explorers... and of course pulling the organs out of the mummy's body and dressing up like priests was the coolest thing ever. The volunteers patiently answered all their questions and let them explore at their leisure. We were in the museum for almost two hours – and in the end, I had to drag them out. We bought a ruler with hieroglyphs and over dinner, the boys were writing their names in hieroglyphs, and both of them insisted we should come to the Egypt Centre every Thursday!



I have signed Morgan up for the Summer Workshop on the pyramids, and he can't wait. He loves the ancient Greeks and medieval castles, but there is a mystery about the Egyptians that surpasses his other interests. A big thank you to the entire Egypt Centre team for the smooth organisation and wonderfully engaging events!

*by Evelien Bracke*

## Ianto the Tidy: A Welsh Pharaoh?



A common question asked is, **Why is the Egypt Centre based in Swansea?** There are myriad reasons for this, not least the sterling work carried out by Gwyn and Kate Bosse Griffiths in bringing the collection to Swan Z in the early 1970's. However there are other perhaps more compelling reasons. Now, many of you are students of Egyptology and, as you will know, there is a lot of variation

between the various forms of evidence detailing the royal timeline in Egypt, for example the Kings Lists.

Obviously as new evidence emerges the 'facts' mutate and take on new forms. Imagine my surprise when after undertaking some research into the connections between Wales and Egypt, I discovered evidence of the existence of the hitherto unheralded Egyptian Welsh Pharaoh, Ianto. Ianto the Tidy. Now you may scoff at this, but honestly it's true. Dating to the New Kingdom, positioned precariously between the reigns of Tutankhamun and Ay, lurks a shadowy figure. During a time of great intrigue we find Ianto. Ianto the Tidy. A man for his times, Ianto was an occasionally fair ruler who signified his approval through frequent use of the word "tidy"\*. Details however remain sketchy. Though we do know (through a discarded ostraca found in a bag of gravel that a local man bought at a builder's merchants in Swansea to create the footings for a house extension) that Ianto was not buried within sight of ancient Thebes.

Not wishing to be interred in the Valley of the Kings (as Maat at the time was not 'tidy'), Ianto instead chose to be buried in the Tidy Valley, which research has determined was (and indeed still is) the Swansea Valley. This summer will see an expedition to the Tidy Valley to determine whether the undiscovered tomb of Ianto remains intact. Tales tell of him being buried with all his worldly goods, which it is thought included items he would have used in daily life, such as his Max Boyce LP's, Sky remote control and his Wenglish-English-Hieroglyphs dictionary.

For further news of the expedition and more on the exploits of Ianto, tune in to the next issue...

*by Syd Howells*

*(Looking forward to hearing more about the Welsh pharaoh – Ed)*

\* "Wenglish: The Dialect of the South Wales Valleys" - Lewis, R. (2008), Talybont, p. 210.





## Editorial

Welcome to Issue 38 of *Inscriptions*, the last in the 2013-2014 Academic Year. Our special thanks go to Bev Rogers who has used her considerable energy and influence to gather up a good crop of articles for our summer issue.

We are all looking forward to an interesting and eventful academic year 2014-2015. The first lecture of the new term will take place on Wednesday 24<sup>th</sup> September at 7 pm, preceded by the Friends' AGM at 6.30 pm. We hope as many members as possible will be there.

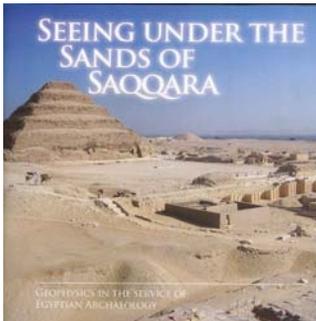
Only two days later, the annual conference of the British Association of Friends of Museums opens in Swansea, hosted by the Friends' associations of Swansea Museum, the Glyn Vivian Art Gallery, the National Waterfront Museum and the Egypt Centre. See *Inscriptions* 37 for more details, or contact Malcolm Hill, email: [m.hill23@ntlworld.com](mailto:m.hill23@ntlworld.com), phone 01639 794480.

Another issue of *Inscriptions* is planned to the autumn, so we will be grateful for more contributions, whether chatty or scholarly! You can send it in hard copy or electronic form. Please address it to the Egypt Centre and mark it for my attention.

*Mike Mac Donagh*

## Book Review

### Seeing under the Sands of Saqqara



This book is written to acknowledge the work of Ian Mathieson, a Scottish geophysicist, who worked for over 20 years in Egypt. In 15 short chapters (each being between 1 and 6 pages) colleagues and friends report how they got in touch with Ian Mathieson, his work and how it was to work with him. Among his colleagues were scholars like Barry Kemp

(Professor of Egyptology at the University of Cambridge), Anthony Leahy (Senior Lecturer in Egyptology at Birmingham University), Dr Campbell Price (Curator of Egypt and the Sudan at Manchester Museum) and a lot more. You also get a very short, but interesting introduction as to how archaeologists can use geophysical methods to enlarge the possibilities for gaining more information about structures hidden under metres of desert sand. Beside the many inspiring facts about Mathieson's work in Amarna and mainly Saqqara, you will also read some funny anecdotes.

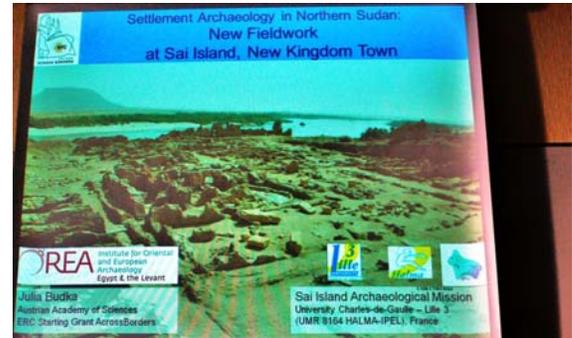
*by Valina Tschernig*

Copies are available for £5 & £2 postage (UK) from Scottish Egyptian Archaeological Trust, 36 Hallhead Road, Edinburgh EH16 5QJ

## Settlement Archaeology in Northern Sudan

### New Fieldwork at Sai Island, New Kingdom Town

Review of Dr Julia Budka's talk to the Friends, 21<sup>st</sup> May 2014



North Sudan and Nubia are known to be rich in archaeological monuments although the building of the Aswan High Dam and the subsequent creation of Lake Nasser submerged much of these. However the UNESCO campaign recorded and saved much information and some sections such as the area between the 2<sup>nd</sup> and 3<sup>rd</sup> Nile cataracts are well preserved. Dr Budka stated that without settlements there would be a very restricted knowledge of life and society in ancient Egypt.

Many archaeological sites are experiencing problems caused by modern agricultural techniques, rising water tables and population increase. However, the Sudanese sites contain great potential to increase our learning as they are relatively unaffected by such things. This of course makes them a rare and valuable resource which ties in with the current state of research and its changing views of the earliest and latest occupation upon various sites and adopting new approaches to social stratification, new survey techniques, material culture etc.

Dr Budka explained that the project was assessing the New Kingdom site of Sai Island on a micro level – examining the lives of ancient occupants whether Nubian or Egyptian and also understanding the role of Sai within the macrocosm of the New Kingdom, such as its existence as a colonial site and whether it played an important part in the “so-called reconquest of Nubia”. Dr Budka also discussed the excavations carried out on the island and spoke of some of the finds unearthed on the island, such as schist statues and pavements.

In conclusion it was refreshing to hear about a formerly unheralded area of Egyptological work.

For further information please visit <http://acrossborders.oeaw.ac.at/two-months-at-the-archaeological-site-of-sai-island/>

*by L. S. J. Howells*





# Tomb Security in Ancient Egypt

## from the Predynastic to the Pyramid Age



When I began my research I found that most Egyptological discussions on tomb security in Egypt tended to be brief and usually included only as part of a larger work. Furthermore, I could find no specific in-depth study of tomb security as a topic in its own right. Therefore, in my thesis I trace some of the main developments in the architecture of tomb security from the Predynastic Period up until the end of the reign of Sneferu.

Within that framework I examine both the detail of the security precautions taken and consider whether many of the architectural elements that are incorporated in Egyptian tombs were in fact the result of the need to protect the tomb, rather than the consequence of monumental or religious considerations.

I trained initially as a graphic designer at the West Surrey College of Art & Design and since then have been involved in graphic design, public relations and furniture design. Always interested in Egyptology, I then studied for a Certificate in Archaeology at Bristol University and then went on to read Egyptian Archaeology at Swansea University, where in addition to volunteering at the Egypt Centre, I undertook the single honours Egyptology course and was finally awarded a First Class degree in 2008.

I then decided to stay on at Swansea to research for a PhD, supervised by Drs Martina Minas-Nerpel and Troy Sagrillo, and have now finally been awarded my degree in April 2014. My future plans are uncertain at the moment. I have just redecorated my flat which was in desperate need of repainting and I'm enjoying the luxury of having free time away from research to catch up with my badly neglected friends. I would like to publish my thesis, but how precisely that is going to happen and in what format remains as yet undecided. Watch this space...

*by Reg Clark*

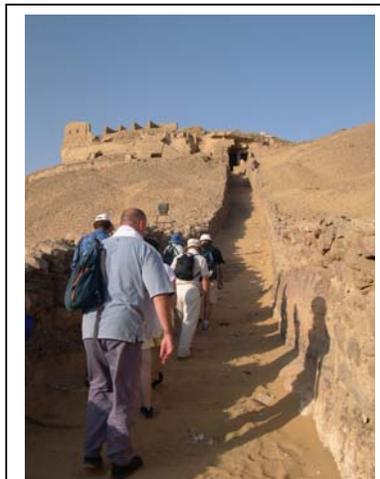
## June's lecture: Brief Lives

June's lecture was given by Dr Tony Leahy, Senior Lecturer in Egyptology in the Classics, Ancient History and Archaeology Department of the University of Birmingham. His talk, *Brief Lives*, examined a range of 'autographical' texts from the Old Kingdom to the Ptolemaic Period.

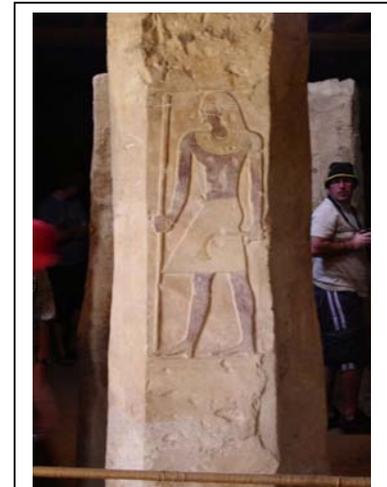
The aspects considered were:

- **context**, whether in tombs or tomb chapels
- **authorship**, whether original or using standard texts
- **audience**, who could see them and who was able to read them
- **content**, whether about links with the King or links with the Gods

In the case of Harwa, 700 BCE, who became the Grand Steward of the Divine Adoratrice at Thebes, the text in his tomb gives only his titles and no personal detail. For Ahmose, 16th century BCE, the inscription in the tomb gives a lot of detail about his military career. In this case, this was arranged by his grandson who benefited than from the association.



*Our group making its way up the long climb to the tomb of Harwa, Aswan*



*Tomb of Ankhtifi (Ken in background)*

Even more detail is given at the tomb of Harkhuf, a governor of Upper Egypt in the 23rd century BCE. The texts inside and outside his tomb start by describing his personal piety and goodness. There is detail of the expeditions he led into Nubia. The highlight is the reproduction of a letter from the Pharaoh (Pepi II), acknowledging what he has achieved and accepting the offer of a Pigmy which he had brought back from Nubia. We saw this tomb ourselves on a trip guided by our Chairman Ken Griffin in 2004.

Dr Leahy outlined six other texts, too many to cover here, in his interesting talk. But I must mention that one was Ankhtifi, whose tomb at El Moalla we visited on another Ken-guided trip in 2008.

*by Tony and Sheila Nowell (photos by Tony Nowell)*





# Egyptological Society News

The Egyptological Society of Swansea has just completed their first academic year as a society and it has been full of events! In September we held our first ever Freshers' stall and recruited many new members - 20 academic paid members - although our casual membership has been much higher for events etc.

Our Welcome Evening was held in the Egypt Centre, where we introduced the new members to the staff and did evening tours. The gift shop opened exclusively for the members.

In November we held our first official elections as a committee, to include our new members. We formed our committee for the year, which included individuals from all undergraduate years.

We then held our first official events, at the Egypt Centre. Wendy and Carolyn took us around the storerooms and we had a very special religion-based handling session-including one on the Amarna necklaces!

In December we joined an academic trip to London, when we visited the British Museum and Petrie Museum, a first for many of our members. We looked around the galleries in groups, some of the more experienced members talking through the objects with the first years. One of our third year students even translated Nebamun's tomb there and then for us, with no aids!

Throughout the first term we also ran weekly language support sessions for all levels, particularly for the first years, as the pace of the language classes has been identified as an issue for many. We wanted to help as much as possible and keep as many single honours Egyptology students in language classes as we could! We also ran weekly study sessions, where students could come and chat through their essays and readings with committee members and other third years, or bring along work for proof reading and assistance.

After Christmas, our hoodies arrived! Our logo was printed onto the back and ibises on the front. We will be ordering more (with new designs!) next year if anyone is interested.

We ran a student led conference in February, where some of us presented our thesis ideas and interests to other members. This meant that participants could learn from each other as well as gain practice at public speaking and presentation skills.

We then ran a trip to the Egyptology Symposium at Birmingham University! We had a very long day but it was worth it and we managed to listen to a lot of interesting talks and learn about topics not covered in our modules, such as Predynastic art.

Some members of the society were also able to join the Demonology trip to the British Museum in March, where

we got to see the basement and storerooms. It was very interesting to see storerooms on such a large scale, and to be able to view items not on display! Some of us also joined the Ancient Studies Society trip to the Roman Baths.

Through the year we have also arranged numerous social events, such as evenings out and society meals. We had a joint Christmas social with the Ancient Studies society and also took them on at Lazerquest! All in all we have had a very successful year, have helped support people through their studies and also created a wide group of friends with similar interests.

If anyone would like more information about membership (£2.50/year) or hoodies (£16), please email [egyptological@swansea-union.co.uk](mailto:egyptological@swansea-union.co.uk)

*by Charlotte Morgan*

## Congratulations to all our graduates!



*Pictured at their graduation this summer: Anna Lawrence, Charlotte Morgan, Henry Bohun, Vikki Greenwood, Olivia Church and Lottie Watts, with staff members Syd Howells and Peter Jones, and Dr Carolyn Graves-Brown, Curator of the Egypt Centre*

*A new look for  
Inscriptions?*

We're thinking about giving Inscriptions a facelift. (Maybe. If we have time.)

So tell us what you like about it, and what you don't like, and any ideas you've got to improve it for the future.

All comments, please, to Mike Mac Donagh  
c/o The Egypt Centre, Swansea.





## Ancient Egyptian Girl Power

Around 1350 BC, on a virgin site on the banks of the Nile, the so-called 'heretic pharaoh' Akhenaten built a city to worship his favourite god, the Aten, the sun's disk. The site was called 'Akhetaten' (the horizon of the Aten), though today it is called 'Amarna'. Swansea University's Egypt Centre has over 200 artefacts from Amarna. Among them are several ring bezels made out of faience, a bright blue glass-like substance. The bezels have decorative or religious designs upon them.



Three are of particular interest as these were donated to the Egypt Centre by the British Museum in 1978 and because the three were published (briefly) in an excavation report of 1933. A recent exploration of the parallel iconography revealed that they also attest to the importance of the feminine in the religious worship at Amarna.

It is commonly stated that Akhenaten suppressed the worship of Egypt's traditional gods to the exclusion of his and his family's worship of the Aten. The common people worshipped the king and his family. However, artefacts from Amarna show that actually the people also invoked other deities, such as the goddess Hathor, and the daemons Bes and Taweret. It has been pointed out that several of these deities concerned childbirth

and fertility, which is perhaps unsurprising.

Research into the three Egypt Centre ring bezels from Amarna suggest that these three are also connected with the feminine, and perhaps daughterhood and solar aspects of ancient religion. One of the bezels shows a gazelle. Parallel iconography shows that the gazelle was a solar and feminine symbol. At Amarna it is connected with the royal daughters. Another bezel depicts the daemon Bes, who again was associated with the solar and



also with music and the protection of women in childbirth. Finally, the third bezel, depicts a nude, or semi-nude female lute player with a monkey, and as such is a rare design for Amarna jewellery. Previously, it had been suggested that this lute player design was simply inspired by a 'universal Amarna joie de vivre', and inevitably the undressed nature of the woman, together with music making and playful monkey, invoked a fertile or erotic element.

While this is not disputed, parallel iconography and text from c. 1550-1180 BC also suggests that the lute player was a symbol of the solar and of daughterhood. Lute players are commonly depicted in drinking party scenes on tomb walls. The Swansea lute player, like those at the drinking parties, wears a cone on her head (debatably a perfume cone), a symbol strongly connected with divine offering and with daughterhood.

On Amarna reliefs music too was used as an offering to the gods and the king, and at drinking party scenes music is offered to the deceased. Her state of undress may well have indicated that this was an unmarried daughter, like those depicted at drinking party scenes.

The growing importance of the feminine and of the daughter is a general factor of the religion of the period. Prior to this, creation was seen as largely a male initiative, though with the female as the vessel. Daughters, as aids to



revitalisation, are given more importance in royal iconography and, in the tombs of private people, are used as aids of rebirth. It is perhaps significant too, that during this period we begin to see evidence for female deities as creative individuals in their own right.

All three bezels, and other artefacts from ancient Egypt, can be seen at the Centre, which has free admission and is open Tuesday to Saturday 10am to 4pm.

### References

For artefacts from Amarna in the Egypt Centre:

<http://www.egypt.swansea.ac.uk/index.php/collection/21-amarna-200-objects>

The three ring bezels are published in Graves-Brown, C. 2014. 'A Gazelle, a Lute Player and Bes: three ring bezels from Amarna' in A. Dodson, J. J. Johnston and W. Monkhouse (eds), *A Good Scribe and an Exceedingly Wise Man: studies in honour of W. J. Tait* (London: Golden House), 113-126.

*by Carolyn Graves-Brown*





# Peering beneath the layers

## ...or, the day we took 'Rover' for a walk

As Carolyn, Wendy and myself walked into the Faraday Building on the morning of 30 April, the students and staff, noticing that Carolyn carrying a big box in her arms, kindly opened the doors to allow us to pass. They had absolutely no idea what we were carefully guarding as we carried on through to the Engineering Department in time for our appointment with Dr. Richard Johnston. They may have been more than a little surprised had they known- for inside the rectangular box, delicately protected in tissue, was 'Rover' the Egypt Centre's mummified dog (EC438).



The three of us had come to meet with Richard to discuss the results of an exciting collaboration which has risen between The Egypt Centre and two of the colleges from Swansea University. The Institute of Life Science and the Engineering Department, together with the Egypt Centre, are helping to bring Egyptian antiquities 'back to life' by allowing mummified remains to be unwrapped without evasive procedures. As part of this project, we had brought 'Rover' along to see if he was a suitable candidate.

Richard, Senior Lecturer in Material Science in the College of Engineering, greeted us in his laboratory, which houses an impressive x-ray machine and a 3D scanner. Digital imaging is key to this collaboration, for several of the mummified objects held in the Egypt Centre's collection have undergone 2D, 3D scans and CAT scans over the last few months to determine what is inside their mummified wrappings. The results have been truly astonishing.

It should be said that it is not the first time that Richard has worked on projects with a historical theme. Richard has worked with the Mary Rose Trust, where human remains from the Mary Rose have been x-rayed. He has also previously assisted Egyptology at Swansea by working with Dr. Kasia Szpakowska in her research on clay cobra figurines and their

ritual breakages, by analyzing the experimental fractures of modern made objects. The idea to apply digital technology to objects from the Egypt Centre came to him last year. "It is very rare to have such an important resource on campus" Richard told us. "We wanted to take advantage of that". After pitching his idea to curators Carolyn and Wendy, a selection of mummified animals were chosen for the first scans. Both Carolyn and Wendy had warned Richard that often a 'cat mummy' or 'bird mummy' may in fact turn out to be something completely different—a bag of dislocated bones perhaps, or twigs and debris wrapped up to resemble the supposed animal. The results when they came through however were more than could have been hoped for.

### 2D Imaging

Four objects have undergone 2D imaging so far—two cat's heads, a bird mummy and a further body of a cat. Results show that the scan of one of the cat heads seems to be no more than a bag of bones, however the bandages with its layers and fibres have come up so well that the individual strands of the weave can be seen. This in itself is exciting! The second cat head is an actual skull and clear cracks can be seen indicating damage. The bird mummy was revealed to have a perfectly intact skeleton and the imaging is so detailed that it could easily be identified as to what type of bird it is by the right kind of specialist.



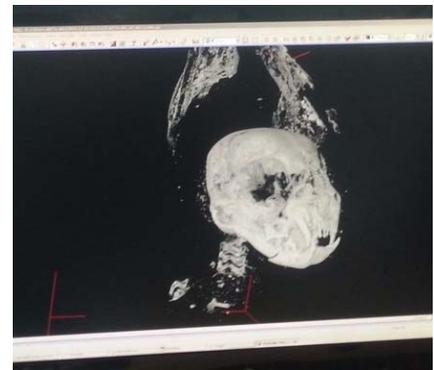
*Richard showing us the cat's head before digital 'unwrapping'*

Scans of the other cat—originally from the Aberystwyth collection—literally blew the three of us away. It is perfect in its detail, and the ability to rotate the image on the screen allowed viewing from all angles. The high resolution of the scanning showed remarkable clarity.

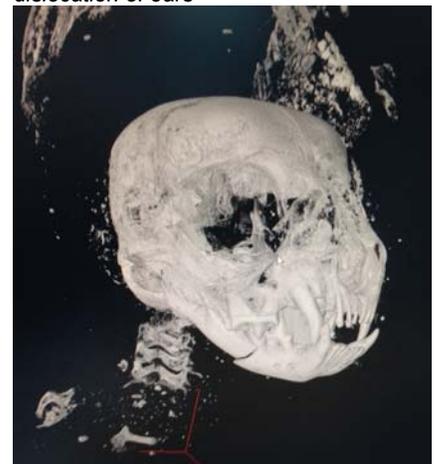


*Scans of the cat's head from different perspectives*

The cat's ears are situated above its head and are shown separated from it. You can also see that there has been a lot of damage to the skull in the region of the right eye socket. The cat also seems to have a full set of teeth which suggests that it was not old when it died. These scans are so clear that further research could be undertaken to look at age of cat and type of cat by a feline specialist. The manner of death could also be a source of further investigation.



*Aberystwyth cat mummy showing dislocation of ears*



*Close up of the Aberystwyth cat showing damage to skull by the right eye socket*

*This article is reproduced with permission from the Egypt Centre blog, accessible at <http://egyptcentre.blogspot.com>. Look there to see the pictures full size - Ed*





*Detail of the teeth of the cat mummy*

All images are to be given to the Egypt Centre for their future display within the galleries and outside foyer. A huge thanks must be given to Jack Christie, 3rd year graduate student in the College of Engineering, for the use of his research images.

**3D Imaging**

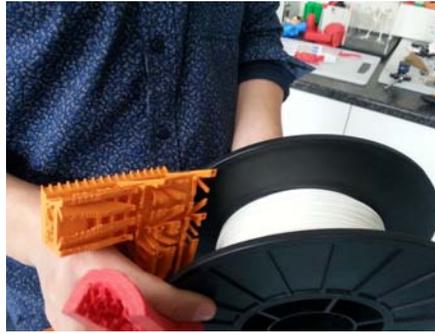
3D imaging is, I must admit, completely new to me. Richard's lab is kitted out with both a 3D scanner and printer, and I was keen to learn how it works. I will attempt to explain in layperson's terms. Once an object is scanned, a 3D model of the object is printed using plastic. The raw material, which is fed into the printer from above, looks exactly like strimmer cord, which you see used in garden mowers. It is relatively inexpensive and lightweight to use and produces very realistic and intricate detail. An example shown to us that day was a model of the Eiffel tower (see opposite), created recently by Richard's team. It was made up of the most exquisitely complex struts and layers.



*Wendy and Carolyn with 3D scanner in background*



*Richard demonstrating the 3D scanner*



*Richard shows us the plastic cord used to create 3D models*



*3D model of the Eiffel Tower*

The ways in which this type of printing can be used is becoming more and more numerous and this type of printing will certainly become more popular as time goes on. One use that has recently hit the headlines at the time of writing this article is in the production of casts for limb breakages. The design allows ultrasonic treatment to be transmitted through the cast and can be hooked up to an ultrasound machine that promises to reduce the time it takes for a broken bone to mend. The cast is lighter, better for the environment and more comfortable than bulky plaster ones.



*3D Plastercast*

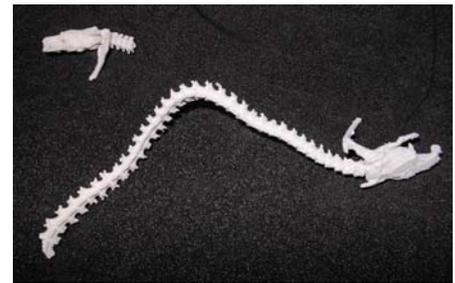
In terms of how this technique can be used in Egyptology research, well Richard was able to show us a first hand example. Some months ago, the Egypt Centre had agreed to lend artifact number EC308—labelled in the archive records as a mummified snake—to the College of

Engineering to see if there was an animal within the bundle of linen.



*Bundle containing a mummified snake*

When scanned, and a 3D model of the contents produced, it did indeed reveal that there was a complete snake within the bandages. The 3D model took 10 hours to print due to the complexity of its shape; the mass of ribs on the snake meant that the scanner had to print a scaffolding structure to support the printed object so it can build up the shape. The scanner cannot print in mid-air but instead has to be supported by a structure. It can be a real nightmare to remove the supports, hence the 10 hours taken to complete the model. On the plus side however, what was then left was an accurate representation of the ancient snake without there being any harm done to the linen in any way.



*3D printout of the snake mummy scan*

Richard also showed us high resolution images of the snake on screen. This allowed us to travel virtually through the snake, from its head to its tail. It was a strange experience but one that was mesmerising. There appear from the scans to be some anomalies in the snake, specifically a number of strange protrusions coming off the body—to the untrained eye





they were almost like thin pipe-cleaners! Part of the jaw and head are also missing.

The snake has featured recently on the BBC One programme 'Rhys to the Rescue,' presented by Dr Rhys Jones, a wildlife adventurer and Cardiff University lecturer. Both he and Richard Johnston examined the scans and Rhys identified the snake as a young cobra. Two objects were noted as being lodged in the mouth but identification is difficult. The objects appear dense in matter and Carolyn has suggested that it may have been food placed in mouth.

The copy of the video is to be given to the Egypt Centre for showing on the display screen in the foyer and research is continuing: Carolyn is going to send the images to animal mummy specialist Salima Ikram to analyse further. For those of you that are interested in seeing the snake model, it is now displayed in the Egypt Centre next to actual mummified snake on display in the House of Life.

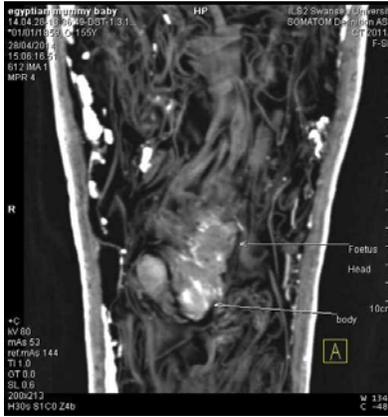
The collaboration with the Institute of Life Science (ILS) has also been the inspiration of Richard who put the Egypt Centre in touch with their CT scanning department. They have the capacity to carry out scans of some of the larger objects in two dimensional data. ILS have recently CT scanned the mummy of a baby which is enclosed within its cartonnage cover.



*The cartonnage coffin of the baby foetus*

This object has been the subject of much speculation over the years, most notably because the hieroglyphs on the front of the cartonnage are confusing and unreadable. It has often been speculated that that the mummy may in fact have been a fake so when the Egypt Centre were given the opportunity to put this mystery to bed, they seized upon it. It wasn't just the Egypt Centre staff who were excited at learning the truth, however. The scan created a lot of interest in the medical department as well; all the department staff were eager to take a look at their new 'patient'.

The results came back within 3 hours and confirmed that the cartonnage contains a foetus estimated to be at around 12-14 weeks old. Remarkably, the shape of a head can be seen. There could also be identified a possible fringe or string of beads contained within the wrapping (a similar example has been found in the British



Museum where a baby mummy has been shown to have a string of beads wrapped with it). The scan may also show an amulet within the wrappings but the angle is difficult to positively confirm. The images of the CT scan will be given to the Egypt Centre for display with the object. News surrounding this discovery has been phenomenal. Publications announcing the results of the research have included The Telegraph, Live Science, Discovery and the South Wales Evening Post. It even appeared on the news in Canada!

The scanning of the Egypt Centre mummified remains is a wonderful example of inter-disciplinary collaboration and it seems that the marriage of Egyptology and scanning techniques is growing even more in popularity. Some museums are going down the laser scanning route, such as the Smithsonian, who are undertaking a huge project to scan the millions of artifacts in their collection. This technique allows for the objects to be spun around on a digital database where all angles of the piece can be viewed at the click of a button. The Smithsonian are going to make this data available on-line so that anyone around the world can use it to obtain scan data and be able to print images for their research. Laser scanning, which was also used for the Mary Rose project mentioned above, shows a great deal of detail and allows for colour to be incorporated into the scan. It does have its limitations, however, as a lot less information is captured from using surface scanning. The British Museum have also used both x-rays and laser scanning for mummified objects, again with the potential for people to observe these digitally. Museums are also creating displays with which to showcase the work undertaken via imagery. Sweden has produced digital autopsy tables, which allow specimens to be 'unwrapped' by computer rather than be hand, so allowing for a great density of mummy and

unwrappings to be exposed, layer by layer. It is great interactive technology but at the moment it is very expensive.

Will this create problems for future museums in that people will not have to go to or want to see the original if they can get scans online? The general belief from our animated discussion that morning was that this wouldn't be the case. It was felt that people would still want to see the original rather than a replica, as there was something magical about observing originality. The museum also creates an environment that adds to the visitor experience, which cannot be replicated in database access.

What to the future? Well, further objects will be identified as suitable for scanning either in 2D or 3D. 'Rover', the mummified dog, was a little too big to scan in Richard's lab that day so he will shortly be off to ILS to undergo scanning and we wait to see what lies beneath the wrappings. There are also endless possibilities to which digital imaging technology could help Egyptology research. For example, when objects are drawn, there can be many different interpretations of them—the 3D printing technique would produce an accurate copy without the problem of human interpretation. Or imagine a situation where 3D scanning can allow students and visitors to 'peer' beneath outer wrappings of objects without causing damage and these models being used as a handling resource. Think of the researchers who are undertaking work on specific objects—what if they could have their very own copy of the artifact with which they could then transport around with them? The 3D technology could be used to make mounts for objects; it would avoid damaging the real object when trying to sculpt a base to achieve a close fit. Or how about being used to make copies of original amulet moulds and the replicas then being used to make amulets in the same format as they would have done thousands of years ago? Exciting isn't it? We certainly came away thinking so!



*'Rover' the mummified dog*

*by Bev Rogers*

Images courtesy of Wendy Goodridge and Beverley Rogers. Scanning images are reproduced with kind permission of the College of Engineering and remain the intellectual property of the same.





## *A prestigious visit: Dr Kara Cooney*



At the end of June, Dr Kara Cooney, Assistant Professor of Egyptian Art and Architecture at UCLA, visited the Egypt Centre to study the coffin in the House of Death for a project she is undertaking. These pictures show her examining the coffin assisted by Volunteer Lauren Hopkins.

The Egypt Centre has vacancies for **adult volunteers** for a variety of roles. All welcome! Contact Syd Howells, Volunteer Manager, for more information.



## *Annual General Meeting*

**Don't forget, the AGM of the Friends of the Egypt Centre takes place on  
Wednesday 24<sup>th</sup> September 2014  
at 6.30 pm**

**followed by the first lecture of the new academic year  
at 7.00 pm**

**Details available on a separate sheet.**

**All meetings are in Fulton House, Room 2, unless otherwise stated.**

## *Facebook and Twitter*

For those of you that use Facebook and/or Twitter, the Egypt Centre now has a presence on both! News and updates are regularly posted, so sign up to get information as it happens!

Friends of the Egypt Centre also has its own page (Friends of the Egypt Centre) where news on the Egypt Centre is posted along with news on excavation discoveries, Egyptian collections, exhibits, 'Egyptomania', conferences etc. See you on there!



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