

### CT scans unlock ancient Egyptian secrets

#### SOMATOM Emotion sheds new light on 2,500 year old mummy

A team of radiographers from City University London recently examined a 2,500 year old Egyptian mummy named Tahemaa. A SOMATOM® Emotion CT scanner from Siemens Healthcare was used to learn more about how Tahemaa died without damaging the corpse.

Tahemaa underwent a whole body scan as if a live human patient. The cross sectional images obtained were then reconstructed into high quality 3D images. This allowed the team to discover several new facts about Tahemaa. Scans revealed a left femur fracture that had happened post mortem and that the brain had not been removed.

“The Emotion is very user friendly and acquires high quality axial images in a short time,” said Jayne Morgan, Senior Lecturer at City University London. “We were also able to produce on the spot multiple axial, sagittal and coronal reconstructions using both soft tissue and bone algorithms. This provided the researchers with an extensive set of images to take away with them on the day so that they can be used to publish the results immediately.”

“This exciting project demonstrates the varied uses for advanced scanning technology beyond the clinical environment,” said Russell Lodge, CT Product Manager at Siemens Healthcare. “The Emotion supports a wide range of clinical applications and is a cost-effective, powerful CT solution.”

When not in use for teaching or training purposes the Emotion has been a part of other research projects. These include the scanning of historical artefacts such as medieval daggers embedded in centuries of River Thames mud, a Roman cremation urn too fragile to open and recently the scanning

of over 700 human bones from a Victorian cemetery where a study of medical operations, injuries and sickness was being carried out.

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### **About Siemens Healthcare**

The **Siemens Healthcare Sector** is one of the world's largest suppliers to the healthcare industry and a trendsetter in medical imaging, laboratory diagnostics, medical information technology and hearing aids. Siemens is the only company to offer customers products and solutions for the entire range of patient care from a single source – from prevention and early detection to diagnosis and on to treatment and aftercare. By optimising clinical workflows for the most common diseases, Siemens also makes healthcare faster, better and more cost-effective. Siemens Healthcare employs some 49,000 employees worldwide and operates in over 130 countries. In fiscal year 2008 (to September 30), the Sector posted revenue of 11.2 billion euros and profit of 1.2 billion euros. For further information please visit: [www.siemens.com/healthcare](http://www.siemens.com/healthcare).

### **About City University London**

City University London is a principal provider of undergraduate, postgraduate, professional and vocational education in the United Kingdom. The University is committed to leading London in education, research and knowledge transfer for businesses and the professions and is renowned for its international focus and the employability of its graduates.

The University teaches across a range of subjects in: arts, including journalism and music; informatics; social sciences; engineering and mathematical sciences; business; law; community and health sciences.

The University attracts over 23,000 students from 156 countries, while teaching staff are drawn from nearly 50 international locations, ensuring that the University has a truly international outlook.

City University London was founded in 1894 as the Northampton Institute and was awarded full university status in 1966. Please see the following link for more information [www.city.ac.uk](http://www.city.ac.uk)

Approximately 297 words

**24 September 2009**

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**Picture caption:** The SOMATOM® Emotion from Siemens Healthcare was used to scan ancient Egyptian mummy Tahemaa at City University London.

