

# The Mysterious Rosetta Stone

*Historian speaks at National Security Agency, telling the back-channel story on what happened during the 23 years it took to crack the code to hieroglyphics and so unlock the secrets of ancient Egypt. The epic tale of the Rosetta Stone is an inspiration to anyone interested in breaking codes and solving problems.—National Cryptologic Museum Foundation*

“The Mysterious Rosetta Stone: A Code-Cracking International Treasure,” was the topic of a talk by Dr. Joel Freeman on July 21, at the National Security Agency’s office in Maryland.

Seating was limited; registration required, along with a small fee to benefit the National Cryptologic Museum Foundation (NCMF), the sponsor of the event. The presentation was educational, delightfully visual, and entertaining. A full-size 3-D Rosetta Stone replica was on display. Also exhibited were some genuine artifacts and documents, many from the early 1800s.

Found in 1799 on the west bank of the Nile by French soldiers, the Rosetta Stone, a 1,700 pound fragment of an ancient slab, gave up the clues, after 23 years, which ultimately cracked the code to Egyptian hieroglyphs.

Freeman, an entrepreneur and a student of history, has travelled to well over 50 countries, including the exact site where the original Rosetta Stone was discovered. After more than five years he spent researching, he developed (with a lot of help) the world’s first full-size, museum-quality, 3-D replica of the famous Rosetta Stone (45” tall x 30” wide x 11” thick, 95 lbs) which is



now available for viewing by the general public.

The replica is based on a first-generation reproduction in 2005 of the face of the Rosetta Stone. Freeman had the face laser scanned, then the back and side were sculpted, and a mold was made. He then commissioned the creation of the full-size model and built the pedestal base (30” tall x 30” wide) that mimics the way the stone was exhibited at the British Museum in London, U.K., in the late 1800s.

[[www.RosettaStoneReplicas.com](http://www.RosettaStoneReplicas.com) or [freemanistitute.com/rosettastone.htm](http://freemanistitute.com/rosettastone.htm)]

## Revolutionizing architecture

—by Robert Peel

Hi-tech 3D modelling software is being employed by University College of London (UCL) to create 3D computer visualizations of stunning environmental installations. Researchers at the Bartlett School of Architecture are using the Pointools software to process millions of laser scanned measure-

ments into highly detailed 3D models. These are then used to complete environmental analysis of potential sites and create a digital landscape in which installation prototypes could be formed, honed, and tested.

The projects making the most of this high tech surveying and modelling solu-

tion included a “rainbow maker” and “55/02” on the shores of Kielder Water in Northumberland.

Using a Faro Photon 120 3D laser scanner the researchers took detailed measurements of potential sites and their surrounding environments. These were fed into the Pointools software to create accurate representation of the site and were used to forecast climatic conditions in which the installation would operate.

Subsequent measurements from the model were fed into the manufacturing and design processes, providing a mesh onto which bespoke parts could be mapped. Later scans recreated in Pointools were also used to further explore the potential of the installation, giving evidence of range of the current location.

“Slow becoming delightful” was an installation in a small pocket of space within Kielder Park cleared by a storm. Designed to draw attention to the magical properties of weather events, the installation consisted of a series of passively activated pressure vessels linked to an array of humidity tanks. Over time, energy and water was collected and stored and when the “ideal” circumstances were in place, a fine mist was dispersed creating a rainbow.

Visitors to Kielder Park will come across “55/02”, an experimental building in a stand of trees at Cock Stoor on the north shore of Kielder Water. Named after the latitude and longitude of its location, this brightly painted steel structure highlights the importance of location to design, as the key site lines contribute to the structure’s unusual layout.

