Scans model mummy

By RICARDO GILB STAFF WRITER

Ancient Egyptians dreamed that they could preserve life by preserving the dead. Thousands of years later, a collaboration between a San Jose museum, the Stanford Medical School, and the Mountainview based Silicon Graphics Company, or SGI, has helped that dream become a digital reality.

A female Egyptian mummy has just been resurrected in the form of a computerized three-dimensional model. The girl has been named Sherit, Egyptian for "little girl."

Scientists have been able to peer through her casing and understand a little bit about her life. They have learned that Sherit was about about five years old, could walk normally, and most likely died of some kind of intestinal disease.

"[This] brings to life the story of this little girl who lived at a time when Egyptians, Romans, Jews and Christians all lived side by side," said Linda Schwappach-Shirriff, curator of San Jose's Rosicrucian Museum. "This mummy is no longer just a fascinating artifact, but a lively young child who lived many ages

The three dimensional model of Sherit was made by combing 60,000 two-dimensional CT scans of a 2,000 year old mummy, all collected at Stanford. Half of these scans were traditional CT scans, while the other half were done using Stanford's new AXIOM Siemens scanner, which is one of only five CT scanners in the world that can operate at a resolution high enough to conduct the project.

Such scans produce massive amounts of raw data—this set of scans contained 92 gigabytes of information—that needs to be processed before it can be useful. SGI provided the processing power—24 processors, to be exact—needed to convert this data into the three-dimensional model.

Sherit had spent the last 75 years sitting quietly in the Rosicrucian, which houses a large collection of Egyptian artifacts. Her body was encased in "cartonnage," a type of plaster made from papyrus, but almost nothing was known about her. Workers at the Rosicrucian guessed that she was young, but



Angelica Nava/The Stanford Daily

After 60,000 CT scans, researchers have produced a three-dimensional computer model of the San Jose Rosicrucian's mummy Sherit, above.

nothing — not even her sex — was certain. The Museum deemed that further investigation was needed.

The collaboration began when the Rosicrucian approached SGI about scanning their mummy. SGI had previously collaborated with the British Museum to scan the body of an Egyptian priest, and had unveiled the scans simultaneously in Britain and in San Jose. SGI was not immediately interested, but eventual project leader Afshad Mistri saw an opportunity to collaborate with Stanford, using their new high powered scanner.

According to Caroline Japic of SGI, it was an opportunity for both SGI and Stanford to see what could be done with the medical school's new technology. Both Sherit and the SGI comput-

Both Sherit and the SGI computer model will be on display at the Rosicrucian until Sept. 5.

YOUTH

Continued from page 3

pants have spent four weeks at Stanford learning from Stanford Profs. Godfrey Mungal, Reginald Mitchell, Brigid Barron, Doug Osheroff, Chris Gerdis and others.

According to Alemayehu, the children's main project consists of being able to transform an old golf cart into a bio-diesel and solar electric car.

"Inspired by the popular TV-

show PIMP-MY-RIDE the Golf Cart Project attempts to "pimp" a beat up Golf Cart while teaching students about basic science skills and attracting them to Engineering fields," he said. "Students have been working four days a week from the planning and research stage to the simulation and implementation stage... The projects each have a detailed curriculum and are designed to encourage students to apply classroom math, science and writing skills to a rather fun project."

On Friday, Aug. 5, Nobel Laureate and Physics Prof. Doug Osheroff gave the program participants the opportunity to observe physics at its wildest. The lecture was dubbed, "Physics Phur Phun," and was designed to enable the children to exercise the creative side of science.

Osheroff demonstrated phenomena such as the transfer of electrical energy through shocks and the exposure of liquid nitrogen to make his lecture more interesting to young children.

"It is wonderful to see an idea being acted out," said Bowen Jiang, a member of TUTOR24. "There are so many summer programs offered at Stanford, but they cost money and kids from low-income families are not able to afford them. It does not mean that they are less qualified — it only means that they do not have opportunity. TUTOR24 is building a toolkit for the community and exercising project-based learning."

Jiang added that the organization has developed a sturdy relationship with each of the 13 kids and hopes to spread the idea to different colleges.

"Our organization wants to spread the basis of American learning," Jiang said. "America stresses freedom of thought and I want these children to ask: Why? How? What if? Once they become eager to learn, the world is at their fingertips."





CINÉARTS @ PALO ALTO SQUARE 3000 El Camino at Page Mill Rd. (650)493-3456 or 1-800-fandango #914

MARCH OF THE PENGUINS (G) 1:40-3:50-5:45-8-10:15 GRIZZLY MAN (R) 2:20-4:55-7:30-10:05

CENTURY CINEMAS 16 1500 N. Shoreline Blvd, at Fwy 101 (650)960-0970 or 1-800-Fandango #91

FOUR BROTHERS (R) 12:05-2:30-4:55-7:20-9:45 DEUCE BIGALOW: EUROPEAN GIGOLO (R) 11:55-1:55-3:55-5:55-8-10:05

THE SKELETON KEY (PG-13) 12:15-2:45-5:10-7:35-10 THE GREAT RAID (R) 1:10-4:05-7-9:55 THE DUKES OF HAZZARD (PG-13) 11:30-12:30-1:50-3-4:15-5:30-6:40-8:05-10:25

WEDDING CRASHERS (R) 12-2:40-5:20-7:55-9:15-10:30 CHARLIE AND THE CHOCOLATE FACTORY (PG) 11:45-2:25-5:05-7:45-10:20

SKY HIGH (PG) 12:10-2:35-4:50-7:10-9:25 MUST LOVE DOGS (PG-13) 12:55-3:15-5:35-7:50-10:15 STEALTH (PG-13) 6:55-9:35

FANTASTIC FOUR (PG-13) 11:40-2-4:30 WAR OF THE WORLDS (PG-13) 11:35-2:15-4:45-7:15-9:50 THE ISLAND (PG-13) 12:50-3:50-7:05-10:05 BATMAN BEGINS (PG-13) 12:40-3:35-6:50-9:45 STAR WARS: EPISODE III - REVENGE OF THE

SITH (PG-13) 12:20-3:45-6:45-9:40

CincArts @ Century Cinemas

MURDERBALL (R) 11:30-1:30-3:30-5:30-7:30-9:30

Times Valid For Friday, August 12, 2005 Only 20





Friday & Saturday: 5:00-1:00