Artifact

By E. S. Strout MD

Scientific innovations continually provides us with new methods of analyzing the finds.

Richard Leakey

NASA Communication Center, Cape Canaveral Florida, Monday, 13 October 2014. 0430 hours:

USAF Tech Sergeant Joe Ellis roused himself from a doze of boredom, adjusted his headset and punched computer keys. A spiky green rendition of the sound assaulting his tympanic membranes marched across the screen. "What the hell?"

The Duty Officer stared. "What is it, Sergeant?"

"Unknown, sir. No pattern I'm familiar with. Its source is in Italy, near Mount Vesuvius."

"Can you pinpoint a destination for the transmission?"

"Not enough information, sir. I'm working on it."

"What's the time difference?"

"Seven hours."

"I'll ask General Trudeau to contact the Italians."

1.

Pompeii archaeological dig, Monday, 13 October 2014. 1130 hours:

"You gotta see this, Professor Blakemore," tall, green-eyed and tanned graduate student Sandra Mathison shouted over the cacophony of the dig. "Buried in Vesuvius's last lava flow."

"Something good, Sandy?" 65 year-old bespectacled archaeologist Elliott Blakemore asked.

She swept away ancient pumice and ash from the black object with a soft brush. "It's cylindrical, with convex ends. Symmetrical."

Sandy applied a plastic ruler. "Three inches in diameter, an inch thick. Too light to be a rock.

There is some surface etching."

Blakemore took a pick, chipped debris from a convex surface. "Encrusted lava from the 79 A.D. eruption. This wasn't planted."

"Wow. Look here, Sandy."

She pushed her sun visor up and squinted. "It's an inscription, Professor. Possibly a religious symbol. It's not natural erosion."

It's vibrating."

Blakemore turned the artifact in his fingers. "Hmm. I feel it too. Let's get it to Lisa."

"This is incredible, sir," technician Lisa Harrison said later. "Impenetrable to x-rays and diamond drill. I lasered off some small chips. Here's surface x-ray diffraction and fluorescence scans." She handed him another printout. "Mass spectrometer results."

"Hmm. These diffraction spikes show a crystalline structure I don't recognize. Let's save what's left for CT scans, MRI and radiocarbon dating when we get home."

2.

Archaeology Lab, Stanford University. Tuesday 28 October. 1633 hours:

Technician Harrison handed Professor Blakemore printout pages, mopped perspiration from her face with a sleeve. "Sorry it took so long. There was a problem."

Elliott scanned the report. "CT and MRI results: "Opaque to all attempts. Another problem?"

"The next page, sir."

A blink of puzzlement. "Radiocarbon dating results unobtainable? This can't be right, Lisa. Did they repeat the procedure?"

"Three times, sir. Zero point zero."

"Impossible."

"Any explanation?" Sandra asked.

"They said the test is good to about fifty thousand years, but even then there should be minute traces."

Professor Blakemore grabbed a textbook from a sagging shelf behind his desk, flipped pages. "That far back Carbon-14 has expended nine half-lives. Yes, there should be a trace."

"We've never seen anything like it, Professor," Lisa said. "I checked with Cal Tech and MIT. They haven't, either."

"Weird. More than a hundred centuries."

There was sudden dimming of the overhead fluorescent lighting, followed by a regular flickering pattern and a faint low register humming tone. "Did you see that, Lisa, Sandy?"

"Fluorescent tubes getting ready to burn out?" Lisa wondered.

Blakemore walked to his office door, looked inside. "They are blinking in here too."

"It's from our artifact," Sandy said. "I'll record this sound."

3.

Wednesday 29 October. 1123 hours:

Sandra handed Dr. Blakemore a page of hand scribbled notes. "I showed it to the ancient languages guys, Professor. These are their best guesses."

"Similar to Cuneiform, Sanskrit and Egyptian hieroglyphics, but different," Elliott read. "Hmpf. They wonder if it's a clever hoax."

"We've proved it's not a fake, Professor."

"Let's do our own search."

Two hours and several cups of coffee later after with Dr. Blakemore's archaeological texts, they were stumped. "We've got symbols, but not representative of any language I'm familiar with," Elliott said.

Sandy loaded translation software. "Let's try this."

It ran for ten minutes. NO KNOWN LANGUAGE blinked to the screen.

4.

Tuesday, 11 November. 0945 hours:

The artifact rested on a smooth Formica-topped lab bench. "Do you notice anything different, Sandy?" Professor Blakemore asked as he flipped the overhead fluorescent lighting on.

"Oh wow." Sandra shielded her eyes from their intense blinking. "Marked increase since last week."

She clasped both hands to her ears as a sudden high-pitched screech expanded the room. Professor Blakemore managed to switch his recorder on before collapsing to the deck.

Two minutes later he and Mathison arose in a groggy stupor as the sound suddenly quit. Sandra stared. "It broke."

The artifact lay open in halves, each containing several small, flat translucent segments connected in a complex pattern by dozens of filamentous shiny strands. There was a faint trace of acrid vapor. "These could be data chips," Sandy said.

The Senior Electronics Resident agreed. "Advanced technology, unknown manufacturer, just some weird symbols. I'm guessing it had transmission capability."

5.

Space Corps/NASA COMPLEX, Cape Canaveral, Florida. Doctor Susan Grant's office. Friday 14 November. 0820 hours:

Susan greeted young physicist Russell Faust with a smile and a handshake. "I've been expecting you, Russ."

A shy smile from the tall, dark haired and freckled physicist. "Your husband, I mean, Professor Maas asked me to stop by."

She retrieved Professor Adrian Maas's medical records from a secure file. CONFIDENTIAL was stamped on the cover. "He wants you to see this."

Dr. Faust read, blinked, then handed it back. "Wow, that's a mouthful. His sensitivity to external sensory stimuli has been increased by acquired means. What means?"

A warning headshake. "Adrian believes you have a natural genetic mutation in your left temporal lobe that's similar to his. That's one of the reasons he chose you for the Fellowship."

"Is this why I can do cryptograms and sudoku in my head?"

She touched his hand. "Ask Adrian."

6.

Subatomic Particle Physics lab, 1123 hours:

Dr. Faust listened to the disc playback, engrossed. "From Italy?"

"Yes, sir. October 13," General Trudeau said.

"It's two months old. Why now?"

Trudeau stifled a cough of embarrassment. "It was a single source, very faint. We thought it was a glitch. The Italians investigated, found nothing. Now it's gotten hot."

"In what way?"

"There were more transmissions. Over a hundred. And the sources were from multiple locations around the world. No distinct pattern, just everywhere."

"You say were, General. Past tense."

"They gave a loud simultaneous burst, then quit. No explanation."

1544 hours:

"The recordings make no sense, Professor Maas," Dr. Faust said. "Multiple transmissions and sources. Unusual pattern."

Maas poured more coffee. "Unusual in what way, Russ?"

"They are very sophisticated. Way beyond any decryption technology we or our allies have."

Mozart arpeggios rose from the desktop. Russell grabbed his cell phone. "You have more, General? Go ahead. You're on speaker."

"One hundred forty-one sources. We tried a retrograde trace and triangulation. No luck and no responses to the transmissions from their destination. Our crypto folks drew a blank also. Discs are on their way."

Adrian drained his coffee cup, refilled it. "You've got the brain, Russ. Get that modified transverse temporal gyrus of yours in gear."

7.

Saturday 15 November. 1316 hours Professor Adrian Maas's physics office:

"I googled for unusual electronic phenomena and got a hit," Dr. Maas said. "An archaeologist at Stanford U. Professor Ellis Blakemore has an ancient artifact that was producing odd lighting and sound problems. I called him, He says It gave a single loud shriek, then came apart. There are weird electronic components inside." He gave Russ a wink. "His artifact came from a dig at Pompeii."

Faust grabbed his jacket. "I'll call you from Palo Alto."

8.

Stanford U. Archaeology Department. Sunday, 16 November. 0925 hours:

Professor Ellis Blakemore gave Russ an exuberant handshake. "Dr. Faust, I'm so pleased you're here. Dr. Maas called, says you're well qualified."

Russ removed a CD in a plastic sleeve from his attaché case. "Let's compare our recordings, Professor."

Blakemore produced two digital chips from his office safe. "The sounds pulsate in time with the light phenomenon I described."

"I'll have Sandra work with you," Ellis said. "Miss Mathison is my postgraduate Fellow. Sandy recovered the artifact at the Pompeii dig."

Russell smiled. "Hi Sandy."

"I'm ready, Dr. Faust." She handed him a steaming cup of coffee.

"Good. That'll jump start my brain."

"Do you have access to a high-end sound lab, Dr. Blakemore?"

"Sandy has a minor in sound technology. Will that be helpful?"

"Very much so."

Mathison's neck reddened in a faint blush. "I can get the key card for the Performing Arts recording studio first thing in the morning, Dr. Faust."

"Perfect. Let's listen to your sounds, Dr. Blakemore."

"I'll get more coffee," Sandra said.

Ninety minutes and a bladder-busting intake of coffee passed. Blakemore's digital recordings confirmed the piercing sounds and fluctuations in intensity. "Mean anything to you, Russ?" he asked.

"Could be a code, Professor Blakemore. The sound lab will help."

With a shy smile, Mathison handed Dr. Faust a slip of note paper. "Directions to the faculty cafeteria. I'll be there about seven-thirty."

9.

Monday 17 November, 0745 hours. Faculty cafeteria:

Dr. Faust found Sandra engrossed in a newspaper page when he came in for breakfast. He got coffee, an apple and toast, then joined her.

"What's so interesting, Sandy?"

A scowl of frustration. "Diabolical Sudoku, Dr. Faust. I'm stopped cold. Look here. I've erased these squares twice already."

Russell scanned the page, nodded. "The seven goes in column one, row five, box four. That should get you going."

Sandy placed the seven, then filled in the remaining squares. "Finished. How did you do that?"

"I see them in my mind, like 3-D. At twelve I could do a Rubik's Cube in ten seconds. It's a gift, some kind of genetic mutation in Heschl's gyrus."

"Say what?"

"Sorry, Sandy. Left transverse gyrus, temporal lobe of the brain. Dr. Maas has it, too. He says it's a curse he's acquired.

Enough about me. How did you get interested in archaeology?" Russ asked. He handed Sandy a wedge of his apple.

She took a bite. "I grew up in Canberra, New South Wales. Left for college at Arizona State U. Signed up for a field trip to South America. I was fascinated by Olmec, Toltec and Mayan ruins. It's never worn off. This Fellowship became available and I grabbed it."

"Aha. I thought I detected a trace of Down Under accent."

"What about you, Dr. Faust?"

"Major nerd in high school. I was good at math and foreign languages. Boring. Went to Penn State U. Discovered subatomic particle physics, aced every course. Postgraduate studies at MIT and here at Stanford."

A sudden burst of Mozart's Serenade in G interrupted them. "My cell phone. It's Dr. Maas."

"What is it, Russ?" Sandy asked when he concluded the call.

"He says I have the mechanism in place."

"That sounds cryptic. What does it mean?"

"I'm not sure. Professor Maas insists I figure things out for myself."

She smiled. "I believe you can, Dr. Faust."

"Let's get those discs to the sound lab."

10.

Thirty minutes later:

Sandra pressed computer keys. "This is top of the line software."

She handed him a headset and pressed a computer key. "I'm ready, Dr. Faust."

He smiled. "Please call me Russ, Sandy. My surname has been my albatross since junior high. Faust sold his soul to Mephistopheles. I've loaned mine to science."

Sandy radiated a blush. "I like Russ better."

"Those high range blips are static. Can you screen them out, please?"

She pressed more keys. Clear alternating green spikes of variable height and intensity appeared on the monitor. "What's this?"

"Systematized transmissions according to NASA's electronics folks. I agree."

"Wow. There are a hundred forty-one sources, including mine."

"Can we look at each one individually?"

"Sure." She pressed another key. "Here's Pompeii."

Faust listened, brow creased in concentration. "It's a repeating pattern of very short segments. Run the next one, please."

She did. "Same repetitive pattern."

"They are different, Sandy. Very subtle."

"Do you think it's an ancient language?"

"Your transmitting artifact is more than fifty thousand years old. I don't think Neanderthals had a language, much less advanced technology."

Sandy's chin rested in her hand, eyes closed in concentration. "An older advanced civilization from somewhere else?"

11.

Russ nodded. "That's a very astute thought, Miss Mathison."

Another blush. "I'll call Professor Blakemore?"

"Let's keep going. These segments each last milliseconds before they repeat. Let's try decompressing them."

Her fingers were a blur as they flew over the keyboard. "I'm on it. Pompeii artifact coming up. Oh wow."

The spikes on the screen spread out into a repetitive pattern over six and a half minutes. "Good, Sandy. Now the sound."

"A language! It's got some sharp glottals," she said. "Like some African tribal dialects."

"Yes, Sandy. There's syntax. Sentences and paragraph structure. Let me try."

Faust sat at the computer, pressed fingers to his temples, then pounced on the keyboard. A series of odd symbols raced across the screen. "What do you think?"

She rested a hand on his shoulder. "Some languages have no written equivalent. Like the inscriptions on Egyptian tombs."

He reached back and gripped her hand, "It's hieroglyphics, Sandy. Sentences, paragraphs, whole ideas. Simple but complex. Let's try one of the other transmissions."

"Here goes. Oh, wow."

"Variations. Subtly different meanings."

"What are they saying?"

Faust's voice brimmed with excitement. "Climactic conditions, temperature variations, descriptions of an evolving biped simian species. I've got it, Sandy. But what does it mean?"

Sandra took his hand. "I love mysteries."

12.

Paleontology Lab, Tuesday, 18 November. 0935 hours:

Mozart once again. "Faust here." He listened for a minute. "You agree? What now?"

"Okay, Dr. Maas. I'm on it."

"Something?" Sandy asked.

"Antarctica. Ross Island. Adrian's programmed the frequencies of your artifact and the other sources into an Earth search pattern. All transmissions intersect there."

Sandra said, "McMurdo Station is there. It's a large research community, over a thousand year-round inhabitants. It's summer there now. A balmy forty below." She grinned. "T-shirt weather."

"What can you tell me about Mt. Terror?"

"An extinct volcano, millions of years old. It was active during the mid to late Jurassic Epoch."

"All right, Sandy. That's where we look."

"I'm going with you."

"What about Professor Blakemore?"

"Cold weather aggravates his asthma. He was okay in Italy, but Antarctica's frigid. I've got his blessing."

"It could be dangerous. Please reconsider, Sandra. I'll be all right. There will be a Marine Corps detachment, Air Force squadron overhead and an Australian guided missile destroyer off shore."

"No deal, Russ. Finding a society older than the dinosaurs is an archaeology Fellow's dream."

13.

Ross Island, Antarctica. Tuesday, December 2. 0716 hours:

Dr. Faust's fur parka enclosed face viewed the frigid landscape at the base of Mt. Terror. He spread out a detail map on the hood of one of the Sno-Cats, marked a black X. "Adrian said this is the spot."

He motioned to one of the tech crew. "Set up the ground penetrating radar here."

The radar tech adjusted controls, wiped away frost and snow from the screen with a gloved fingertip. A bright screen image emerged. "You were right, sir. There's a cavern. Something odd, though. It's symmetrical. Smooth walls, like a construction."

"How big?"

"About the size of a soccer field, Dr. Faust. Smooth walls. And look here. There are solid structures inside."

"Let's dig," Sandra said.

"Wait," Russ said. "There's another transmission coming."

She gave him an odd glance. "How can you tell?

"Increased sensitivity to external stimuli, Sandy."

He stepped inside the portable cold weather operations trailer, booted up his laptop, He typed: *Arousal parameters achieved. No response to activation signal. Failure. Cancel revival program. Shut down.*

"We won't be needing your Marine detachment, Captain. Let the McMurdo Station folks come back. We can dig now, Sandy."

14.

The walls of the chamber held more than a thousand podlike structures which contained alien

humanoid skeletal remains. Each one wore a familiar symbol pendant.

"These are eons dead," Sandra said. "Desiccated from extreme heat or cold. What happened to them, Russ?"

Slow shake of his head. "Bad choice of location, Sandy?"

"Yes. Too bad for them," she said. "Antarctica was tropical during the Jurassic Epoch. Mt. Terror became active with massive lava flows. Eons later there were ice ages."

Faust nodded. "Their hibernation temp and humidity controls couldn't keep up with those extreme variations. Incredibly sturdy and resistant construction. Everything survived except the aliens."

Sandra walked to a large central fixture. "Look here. One hundred forty-one receivers interfaced with a central module. A computer."

"Yours was their wake-up call, Sandy. It initiated the transmission of eons of progression data from the rest to tell the travelers the climate was okay now."

She dabbed a tear from one eye. "And none were alive to receive those messages."

Connected to the computer was a data file. When Dr. Faust tried to access it there was a red flash from a small digital screen, followed by a succession of regularly spaced symbols.

Sandy blinked. "What's that, Russ?"

"Numbers. It's a countdown. Fifteen minutes till . . . Oh hell."

"I was wrong. We need to leave now, people," he screamed. "Captain, get some helicopters here. Cancel the return order for McMurdo Station. Tell the military units to prepare for a possible engagement."

"I'm on it." He shouted orders into his combat phone.

15.

The noiseless flash temporarily blinded all not wearing ultra-dark nuclear blast glasses. When the haze cleared, Mount Terror was replaced by a four mile wide, quarter mile deep divot in the Ross Island ice shelf.

Seismographs in New Zealand, Australia and eight South American countries recorded Richter Scale readings of 5 to 7.3 magnitude. Radiation readings were only background. The residue was composed of unidentifiable inorganic compounds when tested later.

Faust and Mathison watched from the deck of the Australian Guided Missile Destroyer Brisbane. He held her proffered hand.

"How did you know, Russ?" Sandy asked.

"The language thing. That transverse temporal gyrus is overdeveloped in polyglots, persons who have facility in multiple foreign languages. Now I know an alien language. That countdown included this directive." He handed her the translation.

Revival failure. Termination of our culture. Destroy all records and technology. Alien species must not recover.

"Were they here for coexistence or conquest?" Russ wondered aloud. "Who were they? Where did they come from? Were they escaping a dying planet, outcasts seeking a fresh start? Damn."

Sandy planted a sincere kiss on his mouth. "It's okay, Russ. We've salvaged a ton of video recordings."

When they were played back there was only snow and static.

The End