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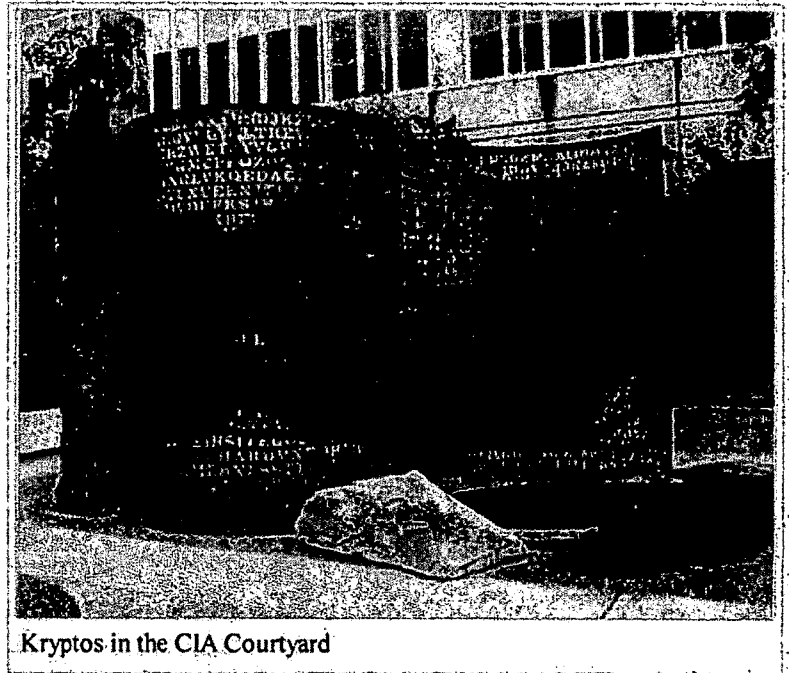
Kryptos Sculpture

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From Intellipedia

You have new messages (last change).

Kryptos is the name of the sculpture by James Sanborn in the inner Cafeteria courtyard of the CIA headquarters building in Langley, Virginia. It was dedicated on November 3, 1990. Its most prominent feature is an eight-foot-high S-shaped screen with characters as shown in the graphics (below) which make up four encrypted messages which posed a challenge to many analysts for several years.



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References to Kryptos are included on the front and back covers of Dan Brown's book, *The Da Vinci Code*. There is speculation a forthcoming book may feature the mystery surrounding the Kryptos Sculpture.

Kryptos in the CIA Courtyard

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In November of 2010, in order to speed up the process of getting the puzzle solved, Sanborn provided The New York Times with the answers to six letters in the sculpture's final passage. The characters that are the 64th through 69th in the final series on the sculpture read NYPVTT. When deciphered, they read BERLIN. [1]

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“Kryptos” Story

Before the New Headquarters Building (NHB) was finished in 1991, thought was given to enhancing the new structure with artwork that was not only pleasing to the eye, but indicative of the Central Intelligence Agency's work. Under Federal construction guidelines, a small portion of the cost of the new building was set aside to commission original art for the structure.

To achieve the goal of acquiring fitting artwork for NHB, the CIA Fine Arts Commission recommended that the Agency utilize the services of the Art-in-Architecture program of the General Services Administration (GSA). This is a Federal program which has managed the creation of contemporary art for Government buildings for more than 25 years and which has resulted in highly acclaimed works. GSA formed a team composed of experts led by the National Endowment for the Arts and members of the CIA Fine Arts Commission and other Agency employees.

Before starting the task, the Agency side of the joint team developed a Statement of Principles:

“People are the principal resource of the Central Intelligence Agency. It is their intellectual and physical energies that ultimately provide the national policymakers with superior information and analyses---the basis to formulate policies necessary to maintain this country's position in the world. An esthetically pleasing work environment at its Headquarters is an important stimulus to the efforts of those officers assigned here.”

They also listed these key thoughts:

- Art at the CIA should reflect life in all its positive aspects.
- It should engender feelings of well-being, hope.
- It should be forceful in style and manner.
- It should be worldly yet have identifiable American roots in concept, materials, representation, and so forth.

These principles were the guidelines that artists followed as they competed for the \$250,000 commission to design artwork for the New Headquarters Building. The combined NEA and CIA panel evaluated each entry and, in November 1988, chose local artist James Sanborn's conception of “Kryptos” (Greek for “hidden”), a two-part sculpture located at the main entrance to NHB and in the courtyard between NHB and the Original Headquarters Building (OHB) cafeteria.

About the Artist

James Sanborn is a Washington, D.C., born artist with a Bachelor of Arts degree from Randolph-Macon College and a Master of Fine Arts from Pratt Institute. Mr. Sanborn is noted for his work with American stone and related materials that evoke a sense of mystery and the forces of nature.

To give shape to “Kryptos,” Sanborn chose polished red granite, quartz, copperplate, lodestone, and petrified wood. After reading extensively on the subject of intelligence and cryptography, Mr. Sanborn decided to interpret the subject in terms of how information is accrued throughout the ages. In the case of the two-part sculpture, information is symbolized in the chemical and physical effects that produced the



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materials and in other more literal ways.

To produce the code for "Kryptos," Mr. Sanborn worked for four months with a retired CIA cryptographer, [redacted] to devise the codes used in the sculpture. Mr. Sanborn wrote the text to be coded in collaboration with a prominent fiction writer. (b)(3)

The Sculpture

At the entrance to the New Headquarters building, the sculpture begins with two red granite and copperplate constructions which flank the walkway from the parking deck. These stones appear as pages jutting from the earth with copperplate "between the pages" on which there are three phrases in International Morse code (*virtually invisible*, *shadow forces*, and *lucid memory*) and ancient ciphers. There is also a lodestone (a naturally magnetized rock) co-located with a navigational compass rose engraved in a stone slab. The engraved compass needle points at the lodestone, not at magnetic north. In the courtyard, a calm, reflective pool of water lies between two layered slabs of granite and tall grasses. Directly across from this is the centerpiece of "Kryptos," a piece of petrified wood supporting an S-shaped copper screen surrounding a bubbling pool of water.

- The petrified tree symbolizes the trees that once stood on the site of the sculpture and that were the source of materials on which written language has been recorded.
- The bubbling pool symbolizes information being disseminated with the destination being unknown.
- The copperplate screen has approximately 2,000 alphabetic letters cut into it.

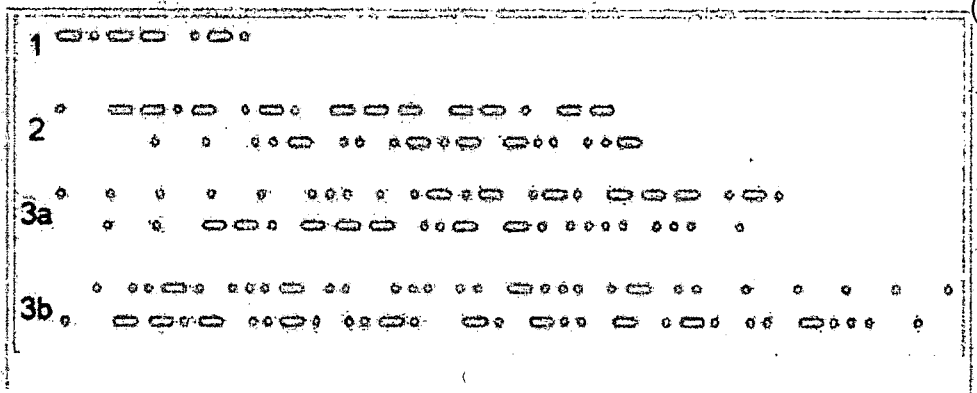
The sculpture is like a history of cryptography. The left side of the copper screen, the first two sections, is a table for deciphering and enciphering code, a method developed by the 16th century French cryptographer Blaise de Vigenere. The Vigenere method substitutes letters throughout the message by shifting from one alphabet order to another with each letter of the key. Part of the right side of the sculpture uses the table from the left side, and another portion uses the cryptographic method of transposing letters or changing their position in a message according to whatever method the writer devised.

James Sanborn once said "They will be able to read what I wrote, but what I wrote is a mystery itself." Only time will tell if the final message to this multi-layered puzzle is ever revealed.

Cracking the Code

[redacted] During the tenure of DCI William Webster, artist James Sanborn gave Judge Webster a sealed envelope with the decryption inside, challenging all visitors to solve the puzzle^[2].

When the agency



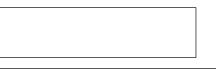
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released the enciphered text, and a frenzy erupted in the crypto

Morse Code on Kryptos--by



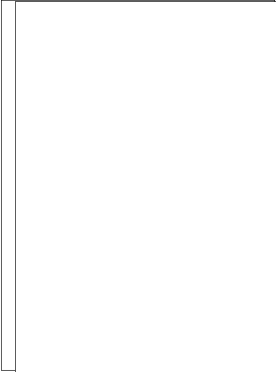
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world as some of the best--and wackiest--cryptanalytic talent set to work. But it took them more than seven years, not the few months Sanborn had expected, to crack sections K1, K2, and K3.

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At long last, an Agency analyst came forward with the way to crack most of the code. [redacted] a DI/OTI air-defense laser analyst, spent 400 hours working by hand on his own time. In an hour-long presentation he revealed his partial solution to a packed Headquarters Auditorium on 26 March 1998. The presentation was entitled Cracking the Courtyard Crypto. [redacted] explained the methods he used in decoding the majority of the message, reveal its content, and illustrate how cryptanalysis can foster creative problem solving. [2]



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[redacted] told What's News that during the 400 hours he devoted to the task, he discovered that the sculpture is actually a "puzzle within a puzzle"--the deciphered message provides enigmatic clues for an ultimate solution to the mystery. By recounting the story of how he first broke out the code, [redacted] hoped that his briefing would spark interest in solving the remainder of the puzzle. [redacted] recently learned that as part of a "gentleman's challenge" from the then-DCI, D/NSA put three professional NSA cryptanalysts on the case.

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They solved most, but not all, of the puzzle [2].

But not a word of the cracked code leaked to the press. In 1999, Jim Gillogly, an LA-area cryptanalyst used a Pentium II computer and some custom software to crack the same three sections. When news of Gillogly's success broke, the CIA publicized [redacted] earlier crack.

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But if anyone expected that solving the first three sections would lead to a quick resolution of the whole puzzle, their hopes were soon dashed. The partial solutions only deepened the confusion.

K1 is a passage written by Sanborn. "I tried to make it sound good and be inscrutable enough to be interesting," he says. Judge for yourself how well he did: "Between subtle shading and the absence of light lies the nuance of iqlusion." Yes, iqlusion--one of several misspellings that Sanborn says are intentional. The second section reads like a telegraph transmission. There's a reference to a magnetic field and information transmitted to a specific latitude and longitude--geo-coordinates for a location a couple of hundred feet south of the sculpture itself (a spot where nothing of apparent interest lies) [3]

K3 paraphrases a diary entry of anthropologist Howard Carter from his 1922 discovery of King Tut's tomb, ending with a question: "Can you see anything?" When Gillogly turned up that passage, he says, he had "the same excitement and exultation that Carter described. In a way, it seems that the plaintext is a metaphor for the work of the code breaker, or perhaps of the CIA itself." [4]

The 97 characters of K4 remain impenetrable. They have become, as one would-be cracker calls it, the Everest of codes. Both [redacted] and Sanborn confirm that they intended the final segment to be the biggest challenge. There are endless theories about how to solve it. Is access to the sculpture required? Is the Morse code a clue? Every aspect of the project has come under electron-microscopic scrutiny, as thousands of people--hardcore cryptographers and amateur code breakers alike--have taken a whack at it. Some have gone off the deep end: A Michigan man abandoned his computer-software business to do construction so he'd have more time to work on it. Thirteen hundred members of a fanatical Yahoo group try to move the ball forward with everything from complex math to astrology. One typical Kryptos maniac is

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Randy Thompson, a 43-year-old physicist who has devoted three years to the problem: "I think I'm onto the solution," he says. "It could happen tomorrow, or it could take the rest of my life." Meanwhile, some of the seekers are getting tired. "I just want to see it solved," says Elonka Dunin, a 50-year-old St. Louis game developer who runs a clearinghouse site for Kryptos information and gossip. "I want it off my plate."^[5]

Making the effort more complicated is the fact that the puzzle maker is alive and, in theory at least, a potential resource. For years, there has been a delicate pas de deux between the artist and the rabid Kryptos community. Every word Sanborn utters is eagerly examined for hints. But they also have to wonder whether he's trying to help them or throw them off track. [redacted] says that this process parallels the work of the CIA: "The intelligence picture includes mirrors and obfuscation."^[6]

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Though Sanborn's usual practice is to stay in the background, every so often he feels obliged to comment. In 2005, he refuted author Dan Brown's claim that the "WW" in the plaintext of K3 could be inverted to "MM," implying Mary Magdalene. (Brown included pieces of Kryptos on the book jacket of *The Da Vinci Code* and has hinted that his next novel will draw on the CIA sculpture, a prospect that deeply annoys Sanborn.)^[7]

Intentional or not, Sanborn's comments (or lack thereof) seem to generate an added layer of confusion. Even a straightforward question, like who besides him knows the solution, opens up new wormholes. The official story is that Sanborn shared the answer with only one person, the CIA director at the time, William Webster. Indeed, the decoded K3 text reads in part, "Who knows the exact location only ww." Sanborn has confirmed that these letters refer to Webster (not Mary Magdalene). And in 1999, Webster himself told *The New York Times* that the solution was "philosophical and obscure." But Sanborn also claims that the envelope he gave Webster didn't contain the complete answer. "Nobody has it all," he says. "I tricked them."^[8]

See also

Intelink

- Kryptos Virtual Tour [redacted] (see (b)(3))
- CIA Center for the Study of Intelligence, *The Puzzle at CIA Headquarters: Cracking the Courtyard Crypto* [redacted] ((b)(3))

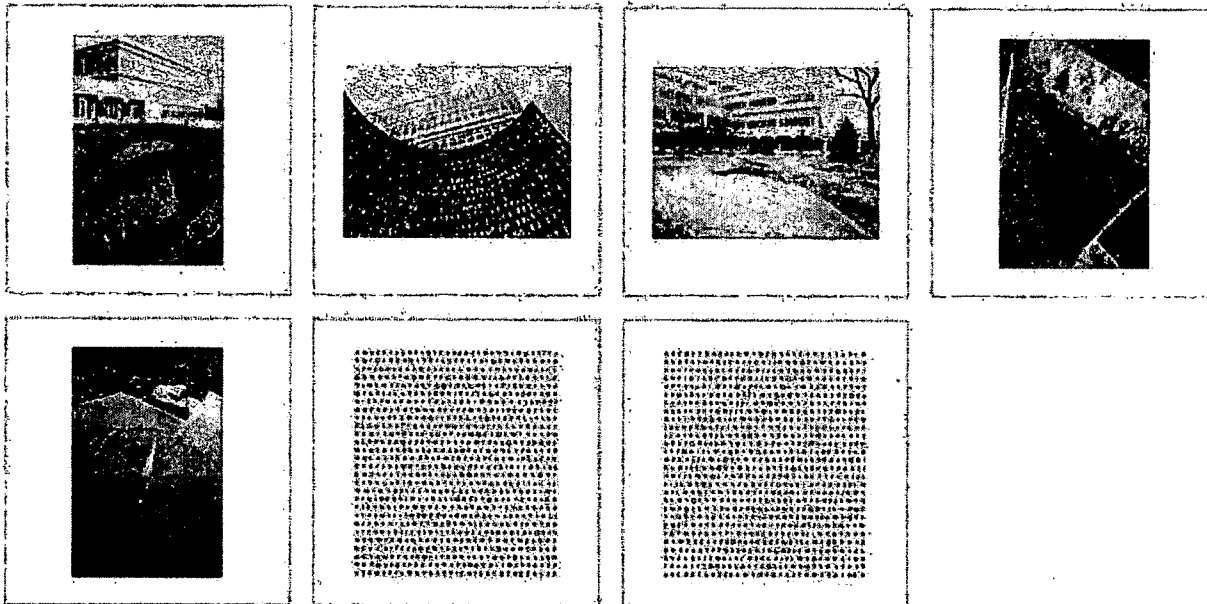
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- "Mission Impossible: The Code Even the CIA Can't Crack," Steven Levy, *WIRED*, May 2009
- Wikipedia: "Kryptos" (which provides solutions for the first three panels)
- "Solving the Enigma of Kryptos," Kim Zetter, *WIRED*, 21 Jan 2005
<http://www.wired.com/culture/lifestyle/news/2005/01/66334>
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<http://www.wired.com/science/discoveries/news/2006/04/70701>
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2. ↑ [2.0 2.1 2.2 \[redacted\] What's The Secret of the Kryptos Sculpture? Find out on March 26 \[redacted\]](#) (b)(3)
[\[redacted\]](#), What's News, March 16, 1998 (b)(3)
3. ↑ [Mission Impossible: The Code Even the CIA Can't Crack, Steven Levy, Wired.com, 20 April 2009,](#) (b)(3)
4. ↑ [Mission Impossible: The Code Even the CIA Can't Crack, Steven Levy, Wired.com, 20 April 2009,](#) (b)(3)
5. ↑ [Mission Impossible: The Code Even the CIA Can't Crack, Steven Levy, Wired.com, 20 April 2009,](#) (b)(3))
6. ↑ [Mission Impossible: The Code Even the CIA Can't Crack, Steven Levy, Wired.com, 20 April 2009,](#) (b)(3))
7. ↑ [Mission Impossible: The Code Even the CIA Can't Crack, Steven Levy, Wired.com, 20 April 2009,](#) (b)(3))
8. ↑ [Mission Impossible: The Code Even the CIA Can't Crack, Steven Levy, Wired.com, 20 April 2009,](#) (b)(3)3



Left Side Text of Kryptos

Right Side Text of Kryptos

Retrieved from [redacted]

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