

The Nature of Secrets—The Secrets of Nature

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The entrance and inner courtyard of the Central Intelligence Agency headquarters in Langley, Virginia, feature components of Jim Sanborn's work *Kryptos* (1988–90). One section of the installation, at the entrance, is anchored by a large petrified tree trunk. Petrification is a mysterious process, and despite many attempts, scientists have been unable to produce petrified wood (or bone) in a lab. In essence, Sanborn parked a big question mark on the CIA's lawn as an antidote to hubris. As CIA employees stream into the office at Langley, *Kryptos* exhorts them to remember human limitations and to devise their plans accordingly.

Another part of the work, in the courtyard, underscores Sanborn's provocative intent. A large S-shaped copper screen is perforated with letters of the English alphabet lined up as a strange text (fig. 20). The inscription is a cipher. Sanborn reportedly refused to reveal the message and chided the CIA for failing to break the code. He stood his ground until the dedication of the work and then handed over a partial decipherment to William Webster, then director of the CIA. The message has still not been fully deciphered, and thus the work remains a challenge and an enigma.

Sanborn's venture into the shadowy realm of secrecy continues in a work about the atomic bomb. *Critical Assembly* (1998–2003) depicts many features formerly stamped "Top Secret." The artist

20. *Kryptos*, 1988–90

Copper, quartz, slate, petrified tree, myscanthus grasses, encoded text, and water
11 x 20 x 10'

View of inner courtyard

Collection of Central Intelligence Agency, Langley, Va.



argues that his version of the bomb does not reveal classified information, and he further insists that there are no atomic secrets. He supports this assertion with two massive books published in the 1980s, one by Richard Rhodes and the other by Howard Morland.¹ They describe in detail the technology of the early versions of atomic and hydrogen bombs, respectively. In 1979 the U.S. government tried to block publication of an earlier essay by Morland that led to his book-length study, but the courts ruled that the relevant information had appeared previously in journals and thus was in the public domain.

The government's penchant for secrecy has often been the subject of Sanborn's work. He regards secrecy as a tool that certain people in positions of power sometimes use to enhance their authority. Those in charge of producing and safeguarding atomic weapons gain influence by building a wall of secrecy around their operations. Sanborn claims that the focus on atomic secrecy is counterproductive, because it deflects attention from the only significant barrier to fabricating the bomb. Access to fissionable material and processing equipment is all that stands in the way of building atomic weapons.

Current events seem to bear out Sanborn's contention. The how-to of making the bomb is widespread, and antiproliferation efforts are now directed toward gathering up and eliminating radioactive feedstock. However, more than a recipe and the right ingredients enter into the fabrication of the bomb. Before the task begins, there must be an incentive to undertake the effort. Harnessing the power of an atomic bomb may entail obscure personal dynamics.

Sanborn tells the little-known tale of an American teenager who assembled a large quantity of intensely radioactive material. The youngster bought up old clocks with luminous radium dials and amassed a radioactive cache one scrap at a time. The story is typically American, suitable for a Norman Rockwell painting updated as a video. The youngster, a high school student in a small midwestern town, is seated on a cot in a simply furnished bedroom. He buttons his striped pajamas, switches off the lights, and opens the drawer of a night table. An eerie green light from a glowing vial of radium illuminates the young scientist's face. He gazes upon his treasure with the innocent anticipation of a toddler looking at presents under a Christmas tree. He reluctantly shuts the drawer and rolls into bed. A sigh expresses the contentment of this regular American kid as he leaves behind his real-life fantasy and passes into the dream realm where fantasies abound.

The structure where Sanborn built his installation is a single-story nondescript warehouse in an industrial section of Washington, D.C., far from prying eyes. To a visitor, the studio is disorienting. Metal tables with bizarre appendages, walls of white paraffin bricks, and paraphernalia suspended by chains hint at arcane experiments. Tall racks of blinking electronic gear provide a familiar laboratory backdrop to the clutter. When Sanborn picks up a Geiger counter wand, and its clicks detecting background radiation begin, the setting takes on an aura of quintessential mystery. The flat, unexceptional clicks are chilling, as if atoms were conveying the coded message that nature's most dreadful secrets are banal. The metal guts of Sanborn's version of the Trinity bomb seem benign. The shiny nested spheres have no apparent connection to the destructive power of an atomic bomb. Only the reprise of Geiger counter clicks sounds a warning that something peculiar is afoot.

A Sanborn guided tour of the bomb is exhaustive. He does not withhold information, yet he seems reticent. A visitor's enthusiastic interest elicits more information, but the discussion appears to increase Sanborn's discomfort. Surely, the release of nonsecrets about the bomb cannot be the source of his malaise. He has battled government secrecy. Moreover, the Trinity bomb is many decades old, and no bomb-maker today would use the ancient technology.

The discoveries Sanborn made in researching the bomb now weigh on him. Not only does he know the theory behind making an atomic bomb, he knows how to go about doing it. Sanborn fears and feeds on the urge that led him to find out more than he is comfortable with knowing. He recognizes in himself the insatiable curiosity that impels scientists and artists to see what's over the next hill.

Artists and scientists often court danger in pursuing their ambitions. Leonardo was vilified for raiding cemeteries to get cadavers for his anatomical sketches. Although the science of anatomy, and medicine in general, has developed in astounding ways since the days of Leonardo, experimentation on the human body remains a taboo. Today genetic engineering, cloning, and stem cells are proscribed areas of medical research. Modern biological research arouses passions reminiscent of the zealous efforts in Leonardo's time to block grave robbing and the dissection of corpses.

Humans seek knowledge, yet they are chary of the power knowledge entails. This ambivalence is as old as the story of Adam and Eve snacking on an apple. At the very beginning of history, man and woman were warned of dire consequences if they acquired knowledge of good and evil. The wily serpent induced them to eat of the tree of knowledge, and thereby humankind lost the bliss that unawareness bestows. The narrative teaches that man and woman sought knowledge rather than heed a higher authority, and consequently they have to live by their wits, for better or for worse.

A museum setting provides an appropriate context for *Critical Assembly*. The installation is clean and focused, without emotional cues or other artistic intrusions that distract from a central theme—the minimalism of the bomb. The device belies the scientific genius that went into its development and the dread it engenders. Its innocuous appearance is chilling, yet the very nakedness of the bomb sends the mind spinning to basic questions about life and nature. *Critical Assembly* serves to strip away historical baggage and encourage a rethinking of entrenched attitudes about the atomic age.

The term *atomic age* is no longer in fashion. From the end of World War II until the 1980s, great debates raged over the use of atomic energy. The image of a mushroom cloud was seared into human consciousness. The landscape of Hiroshima flattened by the bomb was widely recognized, and photos of domed reactor chambers for generating electricity were common. Missing from the picture was a reasoned plan for a future where atomic energy and society could coexist harmoniously.

The history of atomic energy chronicles a colossal failure of the human enterprise. Einstein's early-twentieth-century discovery of the relation between mass and energy promised an era of free energy that would fuel a paradisiacal earth. The media in the early 1950s assured a world dispirited by the devastation of war that better days were coming. Plastic and the atom would build a future where human wants were fully satisfied.

Regrettably, military and commercial interests gained control of atomic development, and the lofty vision collapsed. The creative potential disappeared amid calculations of profit and loss and plans for defense and destruction. Rational dialogue degenerated into an ongoing confrontation that pitted antinuclear activists against vested interests. Thorny issues such as how to handle nuclear waste received a good deal of media attention but limited scientific research. The troubling consequences of Einstein's discovery have yet to be resolved.

Sanborn offers a novel way of perceiving the bomb. He puts the viewer in direct contact with the naked device and the womb that gave it existence. A viewer contemplating *Critical Assembly* does not see an instrument of terrible destruction, but instead encounters a mystery of creation manifested in the nested metal spheres attended by cables, irregular lights, and staccato sounds. The installation encourages a reexamination of atomic energy from its inception.

Critical Assembly serves as an advisory in much the same way that Sanborn's sculpture at CIA headquarters does. *Kryptos* challenges the employees at Langley, exhorting them to mull over the fundamental premise of their work—the nature of secrets. *Critical Assembly* reaches out to a wider public, to anyone who contemplates the secrets of nature. The work is bound to invigorate the thinking of people who wonder where the current age of discovery is heading.

NOTE

1. Richard Rhodes, *The Making of the Atomic Bomb* (New York: Simon & Schuster, 1986); and Howard Morland, *The Secret that Exploded* (New York: Random House, 1981).