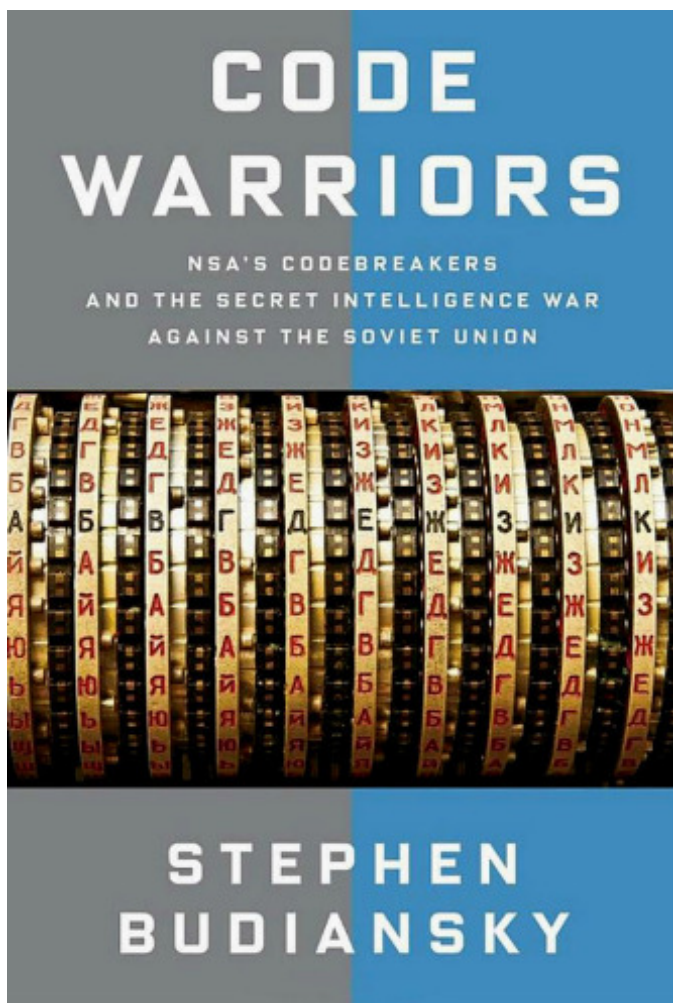


Codebreakers are unsung heroes

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“Code Warriors: NSA’s Codebreakers and the Secret Intelligence War Against the Soviet Union”
by Stephen Budiansky. New York, NY: Alfred A. Knopf, 2016, 416 pages, \$30.00.



“In May 2013, a 29-year-old computer security expert who had worked for three months as a \$200,000-a-year contractor for the National Security Agency in Hawaii told his employer he needed to take a leave of absence for ‘a couple of weeks’ to receive treatment for the epileptic condition he had recently been diagnosed with,” Stephen Budiansky explains near the beginning of *“Code Warriors: NSA’s Codebreakers and the Secret Intelligence War Against the Soviet Union,”* his new exploration of a pivotal era in our nation’s history. “On May 20, Edward J. Snowden boarded a flight to Hong Kong, carrying with him computer drives to which he had surreptitiously copied thousands of classified intelligence documents. Their contents, revealing copious details about NSA’s domestic surveillance of telephone and email communications, would begin appearing two weeks later in a series of sensational articles in the Guardian and The Washington Post.”

If you have seen “Snowden,” the Oliver Stone movie depicting the events leading up to and following the disclosure that begins Budiansky’s latest best-seller, you will

understand why he uses this episode to introduce readers to the subject matter at hand. In order to fully understand and appreciate how we reached this crossroads, however, it is essential to go back and trace the events that got us to the present juncture. In a nutshell, this is precisely what *“Code Warriors”* does in a seamless, lucid and exceptionally interesting storytelling format.

“Code Warriors” is extensively researched, with 28 pages of source notes and a 14-page bibliography at the conclusion of the prologue, 10 chapters and epilogue that comprise the main narrative. The author also includes five appendices to help the reader to get a more cogent understanding of the historical significance of the subject matter he covers in such meticulous detail. If you are looking for a relatively concise but fairly comprehensive primer on the basic principles underlying modern encryption, “Bayesian Probability, Turing, and the Deciban,” the fourth appendix, would be a good place to start.

As is usually the case with these kinds of volumes, I was captivated by two primary themes. The first revolves around the cryptographic process itself. Learning how the military – and later the

government in general – seeks to communicate in secrecy has always been fascinating to me. When I was in high school, for example, I was invited to the Tennessee Junior Academy of Science to present a paper on a system I developed for embedding messages in geometric shapes. So I naturally found Budiansky’s descriptions of the mechanisms we employed to keep information secure particularly intriguing, especially at the dawn of the digital era – which took cryptography to the next level.

The other aspect of these kinds of accounts that always piques my interest involves the lives of the principal players who are essential to understanding the evolution of an organization like the NSA. “An Old Mule Skinner,” the sixth chapter detailing the life of Ralph J. Canine, certainly falls into this category. Canine was the NSA’s first director; he was appointed by President Harry Truman to head the organization in 1952. He had been chief of staff for the XII Corps, which was a part of Gen. George Patton’s Third Army during World War II. Described as a “reasonable dictator,” he navigated the agency through its early years, overseeing the move from Washington, D.C. to Fort Meade, which was completed in 1963. Learning about his leadership style was very revealing; he definitely set the stage for what came later.

A former editor at U.S. News and World Report and The Atlantic as well as the Washington Editor for Nature, Budiansky has a B.S. degree in chemistry from Yale and a M.S. degree in applied mathematics from Harvard. He is a member of the editorial board of *Cryptologia*, a scholarly journal devoted to cryptology and intelligence history. His previous books include “Battle of Wits: The Complete Story of Codebreaking in World War II,” “If A Lion Could Talk: Animal Intelligence and the Evolution of Consciousness” and “Blackett’s War: The Men Who Defeated the Nazi U-boats and Brought Science to the Art of Warfare.”

In the final analysis, Budiansky is unapologetic in his admiration of the cast of characters who populate this enthralling chronicle of the tremendously important work of a group of dedicated individuals who can best be described as unsung heroes.

“No one contemplating the crimes of the Communist regimes against their own peoples, the repression of the human spirit that sacrificed generations to an abstract ideological belief, could doubt the worth of the victory gained,” Budiansky notes in “The Collapse of the Wall, and a Verdict,” the epilogue. “In the shadowy four-decade struggle, the Cold War offered little opportunity for moments of glory or exultation that World War II abounded with: the greatest victory was not getting the world blown up along the way so that it was possible for the peaceful end to come when it at last did. The cryptologic struggle that took place in the shadows behind the shadows was as morally ambiguous as everything else about the Cold War, and if the breaking of the Russian one-time-pad systems in the 1940s was an echo of the soaring intellectual triumphs of the World War II codebreakers, most of what followed was a far more subdued achievement of quotidian and collective persistence rather than individual inspiration.”

“But the American cryptologists of the Cold War deserve as much credit as anyone for the fact that Americans, Russians and the rest of the world were never vaporized in a cloud of radioactive ash,” he adds emphatically. “Without them it is hard to see that containment would have lasted long enough to matter.”

After reading their exploits, and the tireless commitment and perseverance they demonstrated in carrying out what they saw as absolutely essential to maintaining the security of our country during perilous times, I have to admit that I tend to agree with him.

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