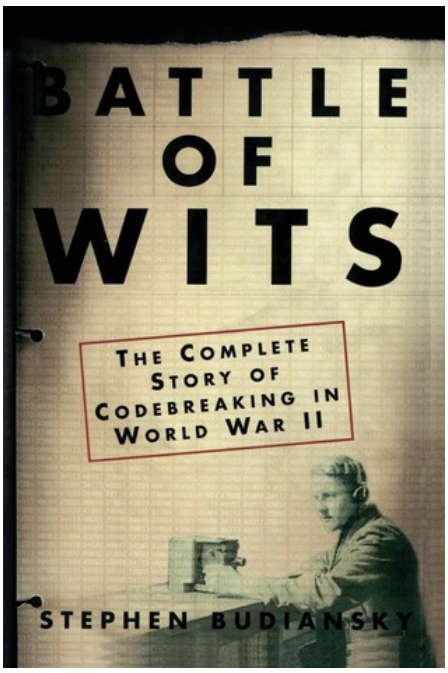

Battle of Wits: The Complete Story of Codebreaking in World War II

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A million pages of new World War II codebreaking records have been released by the U.S. Army and Navy and the British government over the last five years. Now, *Battle of Wits* presents the history of the war that these documents reveal. From the battle of Midway until the last German code was broken in January 1945, this is an astonishing epic of a war that was won not simply by brute strength but also by reading the enemy's intentions.
The revelations of Stephen Budiansky's dramatic history include how Britain tried to manipulate the American codebreakers and monopolize German Enigma code communications; the first detailed published explanations of how the Japanese codes were broken; and how the American codebreaking machines worked to crack the Japanese, the German, and even the Russian diplomatic codes. The compelling narrative shows the crucial effect codebreaking had on the battlefields by explaining the urgency of stopping the wolf pack U-boat attacks in the North Atlantic, the importance of halting Rommel's tanks in North Africa, and the necessity of ensuring that the Germans believed the Allies' audacious deception and cover plans for D-Day. Unveiled for the first time, the complete story of codebreaking in World War II has now been told.

Battle of Wits: The Complete Story of Codebreaking in World War II Details

Date	:	Published April 9th 2002 by Free Press (first published 2000)
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From Reader Review Battle of Wits: The Complete Story of Codebreaking in World War II for online ebook

Valerie says

I learned an amazing amount of history and science by reading this book. I also interested some students in the subject of codebreaking.

Ushan says

This is a story of Polish, British and American cryptanalysis during World War II. Most of the book is dedicated to the celebrated breaking of the Enigma code, achieving a fair balance between the technical description of the codebreaking and the concurrent human drama. What this book tells, and the recent biopic of Alan Turing doesn't, is just how massive the decryption effort was. The film shows one cryptanalytic machine, restored by the museum at Bletchley Park; in fact, there were 142 machines of this model built, about 125 machines of an American model with an electronic stop sensor, and dozens of machines of other models that attacked different variants of the Enigma code used by different branches of the German armed forces. One of them contained 3,500 vacuum tubes; for comparison, ENIAC, the first semi-modern computer, contained 17,000 vacuum tubes. Allied cryptanalysts also made extensive use of IBM punched-card proto-computers, and built computing devices that attacked codes other than Enigma; though the book does not mention it, one of them used DRAM before it was a word!

The big problem with military codebreaking is using the operational intelligence obtained by breaking codes without revealing to the enemy that his codes have been broken. Surely, if a German attack submarine meets a German supply submarine at a prearranged place in North Atlantic at a prearranged time, it is highly suspicious if an American attack submarine is already waiting for them there. The Germans of course considered the possibility that their codes had been broken, but they also considered other possibilities: that the Americans tracked down the submarines by their radar signatures, or by their infrared emissions, or that there was a spy in the German Navy; they couldn't decide one way or the other. Of course, unlike in the film, it wasn't the cryptographers themselves who made the decision, which intelligence to share with soldiers in the field.

There is a popular conception that Bletchley Park won World War II or shortened it by a few years. Its proponents, says this book, ignore the atomic bomb, which was being developed with a view to be used against Germany. It certainly helped win the Battle of the Atlantic, but so did the development of radar, Leigh light, the Hedgehog mortar and other antisubmarine weapons; you can't easily isolate the value of Bletchley Park decrypts from everything else.

This book also deals with the breaking of the German Lorenz cipher, which Adolf Hitler used to communicate with his generals, the Japanese naval code and the Soviet diplomatic code. The first helped prepare for the Normandy landings; the second helped assassinate Admiral Isoroku Yamamoto; the third revealed the extent of Soviet espionage against the American atomic bomb program.

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amapola says

Come un romanzo

Non ho un particolare interesse per la Matematica e non ho studi scientifici alle spalle, ma da sempre sono affascinata da tutto ciò che riguarda la Seconda Guerra Mondiale. Ecco perché questo libro è finito tra i miei scaffali. Si tratta di una ricostruzione delle attività dei servizi di spionaggio e di controspionaggio nel corso della Seconda Guerra Mondiale, da cui emerge un quadro completo di uno degli aspetti più affascinanti e misteriosi del conflitto.
Molto interessante la parte dedicata a Enigma, la complessa macchina messa a punto dai tedeschi per criptare le proprie comunicazioni. Gli Alleati riuscirono faticosamente a decrittare i messaggi tedeschi, grazie a un po' di fortuna e molta applicazione, ma anche grazie al genio di Alan Turing (il matematico inglese che nell'occasione costruì i primi computer) e a Ian Fleming, che con alcune trovate degne di un romanzo di James Bond riuscì a recuperare preziosi documenti dei nazisti.
Sul fronte del Pacifico, invece, l'oscuro eroe fu un ufficiale della marina americana, Joseph J. Rochefort: da una buia cantina a Pearl Harbor diresse l'operazione che portò ad intercettare e decifrare una serie di messaggi giapponesi, che si rivelarono decisivi nella vittoria della Battaglia delle Midway.
Numerosi sono gli episodi raccontati da Budiansky in questa ricostruzione (con tanto di diagrammi, immagini, mappe), che si legge davvero come un romanzo ed è accessibile anche da chi non ha specifiche preparazioni tecniche, come me.
Bellissimo!

"Per essere un crittoanalista non è necessario essere pazzi. Ma aiuta"
(Joseph Rochefort)

Aggiungo un breve video che spiega a grandi linee come funziona la macchina Enigma:

https://youtu.be/QmJHXPDj_ZI

Elizabeth S says

Absolutely amazing, and absolutely readable, description of codebreaking in World War II. Covers the Bletchley Park story and breaking Enigma, and fixes some previously incorrect beliefs of the general public. Also covers, but in less detail, the breaking of Japanese codes, the Germans breaking Allied codes, etc. It was fun to read about the codebreaking, and how the intelligence was used in the field.

Jamie Collins says

4.5 stars. This is fascinating. Dense, but quite readable. The sections which earnestly try to explain exactly how the Enigma machine works, complete with wiring diagrams, did not *completely* succeed for me - nor did all of the explanations of code breaking techniques. (There are appendices with even more detailed information.) But I get the basic idea, which is more than sufficient for me to be impressed with the extraordinary efforts of these men and women.

The organization is perhaps a little weak. The book is not strictly chronological, and it bounces between the American and European (mostly British) efforts. The stories sometime seem like random anecdotes. It’s all so interesting, though, that it’s not too bothersome.

I like the title “Battle of Wits”, but the subtitle is a bit silly, since a 400 page book, no matter how densely written, certainly can’t be the "complete" story of codebreaking in WWII.

Sallyavena says

While the details and descriptions of the actual machines and sometimes the code breaking process were a little difficult to plow through at times, I found the human stories fascinating. I also appreciated the different perspective of WWII and even learned some new things about what went on far away from the main theaters of action.

Sara G says

This book was a little bit intimidating to me at first, but I'm so glad I took the time to read and understand it. As the title indicates, it's all about the Allied codebreaking and cryptography operations during WWII. There is some background WWI information, as well as a little bit of touching on what happened to these organizations after WWII (the NSA!). It's a very well written book, and the author does a great job of explaining how these codes and machines worked to a layperson like myself. Two things really stood out to me, though. One was that he commented on how eccentric and potentially physically incapable some of the Bletchley Park codebreakers were, and commented that they likely wouldn't have been able to work on government things in Nazi Germany, and maybe wouldn't have even been allowed to live. I spent some time thinking about how many great minds have probably been lost throughout history because they were "different" than others. Also, the interesting tidbit that some of the "Red Scare" affiliated spies were found out with info obtained by these codebreakers, but that the government didn't want to release the evidence because it was all so secretive. It appeared to a lot of Americans that there really was no evidence and it was a conspiracy, so it has been hard for us to be honest about that period in history. It's a really, really good book and I have to highly recommend this one to anyone who likes both math and history.

Jenny says

The fascinating story of cryptography including its history leading up to WWII and the endeavors on both sides of the Atlantic to decipher the enemy's codes. At times the book is a bit technical and intellectual during discussions of the machines and mathematics used to break codes. The technical aspects arebalanced by the detail of the people involved in the efforts.

Jane says

Excellent. I actually understood details of decoding the Enigma messages while I was reading it, though I couldn't explain it now. Also recommended for readers of Sayers' _Have His Carcase_ who want to

understand more than the Playfair explanation there.

Kay says

I've read several books about code-breaking during World War II, and I even make a trek up to Bletchley Park while visiting London a few years ago. So I guess you could say I've got an abiding interest in this subject. This is a wonderfully readable and impressive book, encompassing all the major Allied efforts to decode German and Japanese codes. Interestingly, some of this information would probably still be secret had not British Government lifted the Official Secrets Act regarding WWII decoding efforts in 1974 -- they did so only after Americans revealed *their* part in the effort.

Some books on codebreaking are quite technical, while others focus on the human drama. Budiansky strikes a nice balance between the two, with plenty of fascinating detail on how codebreaking was done, while still making it clear that it was the effort of amazingly dedicated (and often brilliant) men and women. There's a real sense of suspense, too, as the Allied codebreakers had to play a cat-and-mouse game, using the intelligence they'd gathered without revealing their hand. Intelligence gathered by codebreakers was crucial at several key battles, such as the Battle of the Midway.

Another aspect of the book that interested me was how military and political leaders chose to use (or not use) the intelligence that was gathered. There is still great controversy and debate, for example, on how much Allied leaders knew about the extermination of the Jews in Germany, not to mention the claim that Roosevelt knew in advance about the attack on Pearl Harbor. (Budiansky presents a well reasoned case that the U.S. command knew of an attack, but not *where* the attack would be.)

Another book I'd recommend on this subject, though of a narrower focus is *Enigma: The Battle for the Code* by Hugh Sebag-Montefiore.

Julie says

I really enjoyed this book, especially the author's descriptions of how human personalities and national characteristics affected codebreaking during the war. The technical descriptions of the machines and code breaking methods used during World War II were a little over my head, however. On recruitment of codebreakers in Great Britain, Budiansky remarks: "An almost infinite tolerance for drudgery and repetitive detail was a requirement for almost every position, but in some cases it seemed that what was required was to combine those qualities with their exact opposites, with a capacity for imaginative, even mad leaps of insight. The ideal cryptanalyst was Beethoven with the soul of an accountant, or vice versa." (p. 135) The Allies were wise in knowing that their own codes might be at risk from Axis codebreakers, but most of the German leadership clung stubbornly to the belief that the Enigma codes were unbreakable, which was untrue. As Budiansky puts it, "In the end, totalitarian nations on the offensive tend to believe their own propaganda of invincibility and national superiority." The NSA, formed by merging the American WWII Army and Navy intelligence services after the war, has been much in the news of late, for spying both on foreign governments and on American citizens. It seems that the American government is now at great risk itself of believing its own "propaganda of invincibility," and would do well to study the lessons of the past. It would be interesting to get Budiansky's view of these recent events, given his expertise in this area.

Anas Abu Samhan says

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Sarah says

This book clearly supposes that the reader has some familiarity with Word War 2, somewhat familiar with currently obsolete tech , and despite it's claims, it's not really complete. It mostly focuses on the US and England's technological efforts to break the radio (or telelgram) transmitted Axis code. It also cuts off right before the Cold War which would be fine, except he spends a chapter teasing the reader about it.

More technological than I would like (You really need physical copies of the machines on both sides to get what he's talking about) and not as complete as I would like, it's still a good read.

Melanie says

I loved the history, the details and I learned a lot about myself reading it. I also developed a stronger appreciation for those who fought the Axis in WWII. Although a little tech-y and hard to fully comprehend at times, it was a phenomenal book.

Igor Ljubuncic says

Excellent work, and once again, the author does not disappoint. Stephen does a marvelous job of turning history into a thriller. Instead of just focusing on dry facts, he tells a tale about the people involved, about the little details, the little vices, the funny personality flaws, the ugly and weird background stories, all of which add color to what is essentially a lesson in WWII. Plus, you do learn a bunch about cryptography, mathematics, the birth of the modern computer, and more cool and sometimes unbelivable stuff. Alan Turing is there, too. Really awesome.
