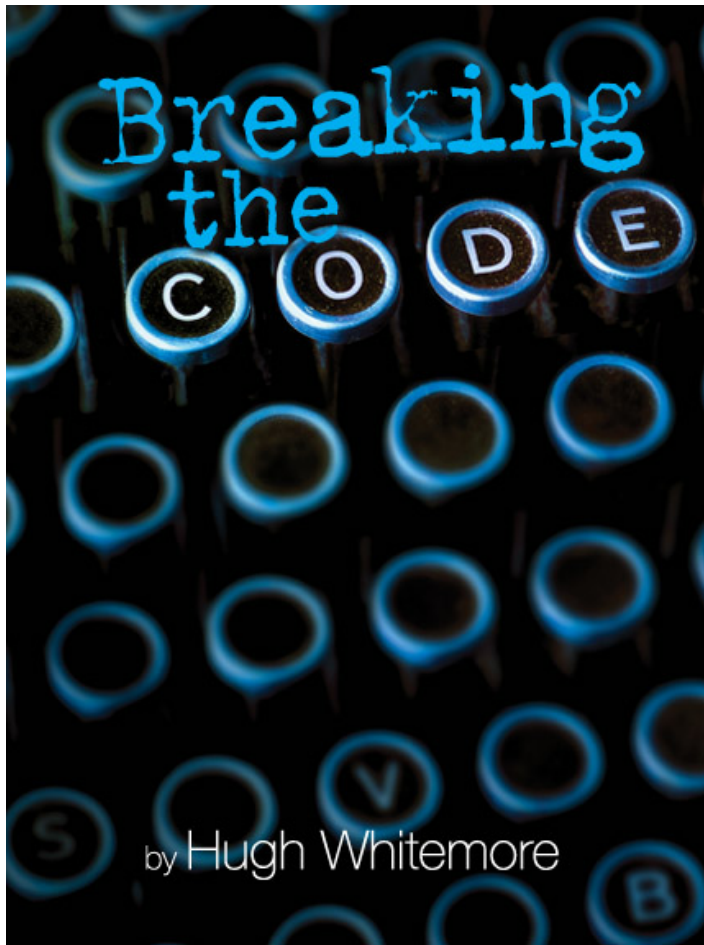


Jewel Theatre Audience Guide

Addendum: Dillwyn Knox Biography



directed by Kirsten Brandt
by Susan Myer Siltan, Dramaturg
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DILLWYN KNOX

Alfred Dillwyn "Dilly" Knox (July 23, 1884 – February 27, 1943), CMG (Companion, Order of St. Michael and St. George) was a British classics scholar and papyrologist at King's College, Cambridge and a codebreaker. As a member of the World War I Room 40 codebreaking unit, he helped decrypt the Zimmermann Telegram which brought the USA into the war.



Alfred Dillwyn "Dilly" Knox

He joined the British Government Code and Cypher School (GC&CS) at the end of WWI. As Chief Cryptographer, Knox played an important role in the Polish-French-British meetings on the eve of World War II which disclosed Polish cryptanalysis of the Axis Enigma to the Allies. At Bletchley Park he worked on the cryptanalysis of Enigma ciphers until his death in 1943. He built the team and discovered the method that broke the Italian Naval Enigma, producing the intelligence credited with Allied victory at the Battle of Cape Matapan. In 1941, Knox broke the Abwehr Enigma. By the end of the war, the Intelligence Service under Knox had disseminated 140,800 Abwehr decrypts, including intelligence

important for the success of D-Day.

The fourth of six children, Knox was the son of Edmund Arbuthnott Knox, tutor at Merton College and later Bishop of Manchester; he was the brother of Wilfred Knox, Ronald Knox, and Edmund V. Knox, father of the writer Penelope Fitzgerald, whose 1977 book, *The Knox Brothers*, detailed their lives.

Dilly Knox was educated at Summer Fields School, Oxford, and then Eton College. He studied classics at King's College, Cambridge, from 1903. In 1909, he was elected a Fellow following the death of Walter George Headlam, from whom he inherited extensive research into the works of Herodas. While an undergraduate, he was friends with the English writer and critic Lytton Strachey and leading British economist John Maynard Keynes. Knox privately coached Harold Macmillan, the future Prime Minister, at King's for a few weeks in 1910, but Macmillan found him "austere and uncongenial".

He married Olive Rodman in 1920 and was the father of Oliver Arbuthnot Knox and Christopher Maynard Knox.

The dry biographical information above comes directly from Wikipedia and Geni.com, a genealogy site, both of which omit mention of Knox's colorful personality. Edward Rothstein touches on it in his Nov. 28, 2014 *New York Times* article, "Turing's Spirit Hovers at a Restored Estate," calling Knox an "eccentric genius," a rather tame moniker compared to how Knox is characterized in an article written for the *Birmingham Mail* by Roz Laws, "How a forgotten Brummie hero cracked Enigma code before Alan Turing," dated October 28, 2017. (In this context, and without getting long-winded, a "Brummie" is an inhabitant of the city of Birmingham, England).

Laws quotes a letter written by Dilly's boss, Alastair Denniston, penned as an apology after Dilly "let loose in an angry, swearsy rant in a taxi" following a meeting with Polish codebreakers in Paris in July 1939. "Apparently," Laws reports, "he had been pipped at the post by the young Polish mathematicians, who had cracked a code and kept it to themselves". "Pipped at the post" is a British idiomatic term for being beaten by a very narrow margin at the crucial last moment.

Denniston wrote an apology to Gustave Bertrand, the French representative at the meeting the men attended, who shared the taxi with Denniston and Knox

during Knox's mad rave. The letter said:

You may have guessed what is my greatest problem: it's Knox. He is really clever, but has no idea how to work with other people. You will have noticed that when he is not at work, he is such a kind person, everyone adores him. But at work, he is impossible! He wants to do everything himself. He cannot explain anything simply, and he will never admit that anyone knows more than him.

However I can't manage without him. He knows the [Enigma] machine better than anyone.

Most accounts of the meeting do not depict Dilly's rant; but report him as gracious and grateful to the young Poles. Laws' article reveals that author Hugh Sebag-Montefiore has included the letter with other declassified documents in an updated anniversary edition of his book *Enigma: The Battle for the Code*. Sebag-Montefiore writes: "The new papers include additional details of [Knox's] humiliation which at times make for excruciatingly painful reading. That such a great man should have lost all sense of proportion in front of colleagues whom he had always tried to impress represented the ultimate indignity".

Sebag-Montefiore continues, "He was a classical scholar and felt he was being overtaken by these young whizzkids who were showing him up. He never got over that humiliation. He died in 1943 before his codes were used to invade Europe".

The article paints Knox "as very absent-minded," saying that when he married Olivia Rodman in 1920, "he forgot to invite two of his three brothers to his wedding". It seems that every article I've read about him mentions this. I don't understand why, after knowing what the guy was like all their lives, they didn't just come anyway.

"Work in his section ground to a halt at least once a day when his pipe went missing," Sebag-Montefiore writes, "On one occasion, he spent such an inordinate amount of time in the bathroom, the concerned young man waiting outside finally pushed open the door, only to find that Knox was neither having a bath [his thing—see the World War II Database biography below] nor committing suicide, but was standing up lost in thought, with the taps running and the plug out."

In Act II, Scene 5, the characters of Alan Turing and Pat Green discuss his avowed atheism, which people generally kept to themselves in those days. He'd have extra reason to, coming from a distinguished clerical family, as described by his niece, Penelope Fitzgerald in her book. Only Dilly and her father, Edmund, were secular. The other two brothers were Monsignor Ronald Knox, who authored the Knox Bible, and Wilford Knox, an Anglo-Catholic priest. Their father was Edmund Knox, an Anglican cleric and future bishop of Manchester. Fitzgerald writes how Dilly's disavowal of religion was "especially heartfelt and intense. His skepticism was not logical; it came to him in the form of blazing indignation, a vision of Christianity as a two-thousand-year-old swindle [repeated in the play], inducing human beings to fear where there is nothing to fear, and hope when there is nothing to hope for. If this window could be proved, that would 'save his reason,' and Dilly always hoped that it might be. Yet his attitude was always to define God for what He had done or reprove Him for not existing, rather than ignore Him because He didn't."

There's more. In the aforementioned scene, much to Alan's astonishment, Pat reveals that Dilly, who has recently died, was a homosexual, or "homosexually inclined anyway". She mentions that he had "some sort of romance with Maynard Keynes ... Lytton Strachey, too. But that was at Cambridge, not Eton ... And it was all a thing of the past; he was devoted to his wife".

John Maynard Keynes (1883 – 1946) was a British economist whose school of thought, known as Keynesian economics, made him one of the most influential economists of the 20th century. Widely considered the founder of modern macroeconomics, his ideas essentially changed the theory and practice of macroeconomics and the economic policies of governments.

Giles Lytton Strachey (1880 –1932) was an English biographer, critic and one of the luminaries of the Bloomsbury Group, an assemblage of associated English writers, intellectuals, philosophers and artists in the first half of the 20th century. Also known as the Bloomsbury Set, it included, among others, Virginia Woolf, John Maynard Keynes, and E. M. Forster. Strachey's aim was to write about the lives of famous people with "a brevity which excludes everything that is redundant and nothing that is significant." Strachey is often called the founder of the modern "debunking" school of biography.

Keynes, Strachey and Knox were friends when they were undergraduates at King's College, Cambridge, where Dilly was studying classics. The three were

also lovers. According to Paul Levy, who edited *The Letters of Lytton Strachey* (2005), "Strachey regarded Keynes, a Cambridge contemporary and fellow homosexual, as a close friend, although they often vied for the favours of the same men". All three men married women, with Strachey and Keynes continuing to have lovers of both sexes throughout their lives.

Revolv.com's biography of Dilly relays that he and Maynard Keynes were lovers when they were students at Eton College, a renown English public boarding school for boys. Michael Holroyd, in his book, *Lytton Strachey: The New Biography* (2005), confirms this: "Maynard Keynes listed [Dilly] as a sexual partner at Eton". Keynes listed his affairs "boy by boy" according to his biographer Donald Moggridge in his book *Maynard Keynes: An Economist's Biography* (1992). Moggridge writes:

In her book about her father and uncles, Penelope Fitzgerald mentions that during Dillwyn's last half [of his time at Eton]:

Dilly and Maynard Keynes had calmly undertaken experiments, intellectual and sexual, to resolve the questions of what things are necessary to life.

Maynard reminded Knox of the affair in 1905, when he remarked that "since the curious incidents that marked our last two years of Eton, there has been a kind of affection between us".

Holroyd describes the relationship between "the shy and fantastic Dilly Knox" and Lytton Strachey at Cambridge, which was, according to Fitzgerald, "still diffused with the golden glow of homosexuality". Strachey first rejected Dilly sexually but found himself infatuated when he came to see that Dilly's "beauty was transcendent and his feelings seemed to me superb". However, Dilly was sometimes ambiguous: "His method was to lure you on with his beauty, until at last, just as you step forward to seize a kiss, or whatever else you may want to seize, he lets out a veil and you simply fall back, disgusted. Isn't it a horrid trick? And then of course when you begin to wonder what you could have found in him, he removes the veil".

I've reprinted the biography from the World War II Database, written by Alan Chanter, below. It contains even more anecdotes about this idiosyncratic but charming and intriguing character whom Sebag-Montefiore calls, "a father figure

in the Enigma story [who]came up with the techniques," adding, "but that's not the way it's remembered. It's tragic because he didn't get the final accolade of breaking Enigma."

Biography of Dilly Knox

WWII Database

Contributor: Alan Chanter

Last Major Revision: Mar 2016

Surname Knox
Given Name Alfred
Born 23 Jul 1884
Died 27 Feb 1943
Country United Kingdom
Category Science-Engineering
Gender Male

The archetypal eccentric British boffin [the closest US equivalent is "nerd"], Alfred Dillwyn "Dilly" Knox was educated at Summer Fields School, Eton College and King's College, Cambridge where he studied the classics. Knox was appointed a master at Cambridge in 1909 where he became an expert on ancient papyri, and during the Great War he was recruited as a codebreaker in Whitehall's Room 40 where he famously helped decrypt the Zimmermann Telegram that brought the United States into the war. Very often inspiration would come in a bath that he had found in an office at the end of a corridor; he thought best in hot water. On one occasion worried colleagues had to force open the door to check that he hadn't drowned. He was found to be engrossed in calculations. He also managed to conduct a romance with a fellow worker, Olive Roddam, a classicist from King College, Cambridge while employed at Room 40.

During the inter-war years Knox worked for the Government Code and Cypher School (55 Broadway, St. James' Park, London) partly on Soviet encryptions, but also on devising ways of defeating the early versions of Enigma, which had been brought into use by Germany and Spain. Knox was 55 years old at the outbreak of World War Two and, during that summer, had been one of the hand-picked number of brilliant intellectuals, expert linguists, retired classics masters, crossword inclined W.R.N.S. [Women's Royal Naval Service, called "wrens"], and other young soldiers of high intellect recruited to work at the newly acquired

top secret codebreaking establishment at Bletchley Park.

From the start of the work at Bletchley there was a sense that his rigorous time-consuming methods were being superseded by developing technology. Nevertheless, he was a force to be reckoned with, on and off duty. Building on earlier research by Hugh Foss, another of Bletchley Park's great minds and an expert on Japanese encryption, Dilly Knox developed a system known as "rodding", a linguistic as opposed to mathematical way of breaking Enigma codes. This technique worked particularly well on the Enigma system used by the Italian Navy.

He had a marked preference for working with young, attractive and tall women. The obvious reasons aside, there has been some suggestion that this was because he found that women like Mavis Lever had exactly the right mental approach towards the exhausting work. In 1941, aged 20, using Knox's "rodding" method, Miss Lever was responsible for cracking the Italian Enigma codes which led to the British naval victory at the Battle of Cape Matapan. Knox was fond of testing his female recruits to Bletchley with lateral teasers. "Which way round do the hands of a clock go?" was one. The answer it depends whether one is observing the clock or whether one is the clock itself. Such posers were intended as mental exercises to help when confronting intractable coding difficulties; to inculcate the habit of approaching insoluble problems from wholly unexpected angles.



The women Dilly Knox surrounded himself with at Bletchley Park, called "Dilly's Girls"

His eccentric behaviour would show itself in other ways. He was noted for his endless capacity for writing rude memos about his superiors and his apparent ability to subsist entirely on chocolate and coffee. He was also a terrifying driver, especially along country lanes; given to reciting Milton, and gesticulating along with the verse, his hands off the steering wheel. At Bletchley Park, when deep in thought, he would occasionally try to refill his pipe with sandwiches, and was also, reputedly, incapable of finding the right door out of the room at the first attempt; seemingly heading at full tilt into store cupboards.

Knox's important war work was cut short, however, when he fell ill with Lymphoma. When he became unable to travel to Bletchley Park, he continued his cryptographic work from his home in Hughenden, Buckinghamshire. He died on 27 February 1943. His team at Bletchley Park, nevertheless, continued to provide valuable intelligence and by the end of the war they had disseminated some 140,800 Abwehr decrypts including important intelligence vital for the D-Day operation.

From Geni.com, more on his meetings with international cryptographers, related to the incident involving the young Polish cryptographers in Paris in July 1939,:

Polish-French-British meetings

GC&CS began to discuss Enigma with France's Deuxième Bureau in 1938, obtaining from the Bureau details of Wehrmacht Enigma supplied by Asché and signal intercepts, some of which must have been made in Eastern Europe. This led the French to disclose their links with Polish cryptographers.

As GS&CS chief cryptographer Dilly, together with Hugh Foss and Alastair Denniston, represented GC&CS at the first Polish-French-British meeting at Paris in January 1939. The Poles were ordered to disclose nothing of importance at this time, and the British codebreakers left disappointed. Dilly described his system of rodding, and he left the Polish codebreakers sufficiently impressed for his presence to be requested at a second meeting.

Knox grasped everything very quickly, almost quick as lightning. It was evident that the British had been really working on Enigma ... So they didn't require explanations. They were specialists of a different kind, of a different class.

— Marian Rejewski

Knox attended the second Polish-French-British conference which was held on 25–26 July 1939 at the Polish Cipher Bureau facility (at Pyry, south of Warsaw, Poland). Here, the Poles began to disclose to their French and British allies their achievements in solving Enigma decryption.

Though Marian Rejewski, the Polish cryptographer and mathematician who solved the plugboard-equipped Enigma used by Nazi Germany, approached the problem through permutation theory (whereas Knox applied linguistics) a good personal relationship was quickly established at the conference. The good impression made by Rejewski on Knox played an important role in increasing recruitment of mathematicians to Bletchley Park.

Knox was chagrined — but grateful — to learn how simple was the solution of the Enigma's entry ring (standard alphabetical order).

It was such an obvious thing to do, really a silly thing to do, that nobody, not Dilly Knox or Tony Kendrick or Alan Turing, ever thought it worthwhile trying it.

— Peter Twinn

After the meeting, he sent the Polish cryptologists a very gracious note in Polish, on official British government stationery, thanking them for their assistance and sending “sincere thanks for your cooperation and patience”. Enclosed were a beautiful scarf featuring a picture of a Derby winner and a set of paper 'batons'. These 'batons' were known as rods to the British and had been used to solve the Spanish Enigma. Knox's rodding method was later used to break the Italian Naval Enigma.

I don't know how Knox's method was supposed to work, most likely he had hoped to vanquish Enigma with the batons. Unfortunately we beat him to it.

— Marian Rejewski

These 'batons' were known as rods [see more about “rodding” on pages 7, 8 and 10 of this document] to the British and had been used to solve the Spanish Enigma. Knox's rodding method was later used to break the Italian Naval Enigma.

Turing's Bombe

Alan Turing worked on Enigma during the months leading to the outbreak of World War II in September 1939, and occasionally visited GC&CS's London HQ to discuss this problem with Knox. By November 1939, Turing had completed the design of the bombe — a radical improvement of the Polish bomba.

World War II

Knox's rodding method

To break non-steckered Enigma machines (those without a plugboard), Knox (building on earlier research by Hugh Foss) developed a system known as 'rodding', a linguistic as opposed to mathematical way of breaking codes. This technique worked on the Enigma used by the Italian Navy and the German Abwehr. Knox worked in 'the Cottage', next door to the Bletchley Park mansion, as head of a research section, which contributed significantly to cryptanalysis of the Enigma.

Knox's team at The Cottage used rodding to decrypt intercepted Italian naval signals describing the sailing of an Italian battle fleet, leading to The Battle of Cape Matapan. Admiral John Godfrey, Director of Naval Intelligence credited the Allied victory at Matapan to this intelligence.

Intelligence Services Knox

In October 1941, Dilly solved the Abwehr Enigma. Intelligence Services Knox (ISK) was established to decrypt Abwehr communications. In early 1942, with Knox seriously ill, Peter Twinn took change of running ISK and was appointed head after Knox's death. By the end of the war, ISK had decrypted and disseminated 140,800 messages.

Intelligence gained from these Abwehr decrypts played an important part in ensuring the success of Double-Cross operations by MI5 and M16, and in Operation Fortitude, the Allied campaign to deceive the Germans about D-Day.

Death

Knox's work was cut short when he fell ill with lymph cancer. When he became

unable to travel to Bletchley Park, he continued his cryptographic work from his home in Hughenden, Buckinghamshire, where he received the CMG. He died on 27 February 1943. A biography of Knox, written by Mavis Batey, one of 'Dilly's girls', the female codebreakers who worked with him, was published in September 2009.

Classified poetry

"These have knelled your fall and ruin, but your ears were far away English lassies rustling papers through the sodden Bletchley day."

—Dilly Knox, Epitaph on Matapan to Mussolini

Knox celebrated the victory at Battle of Cape Matapan with poetry, which remained classified until 1978.

Biographies

Batey, Mavis (2009). *Dilly: The Man Who Broke Enigmas*. Dialogue. ISBN 978-1-906447-01-4.

Fitzgerald, Penelope (2002). *The Knox Brothers*. Flamingo. ISBN 978-0-00-711830-4.

In fiction

Knox is shown recruiting Alan Turing to Bletchley Park in Hugh Whitemore's play, *Breaking the Code* (1986). In the 1996 television film, he is portrayed by Richard Johnson.

https://en.wikipedia.org/wiki/Dilly_Knox

Alfred Dillwyn "Dilly" Knox, CMG (23 July 1884 – 27 February 1943) was a British classics scholar and papyrologist at King's College, Cambridge and a codebreaker. As a member of the World War I Room 40 codebreaking unit, he helped decrypt the Zimmermann Telegram which brought the USA into World War I. He joined the GC&CS at the war's end.

As Chief Cryptographer, Knox played an important role in the Polish-French-British meetings on the eve of World War II which disclosed Polish

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At Bletchley Park he worked on the cryptanalysis of Enigma ciphers until his death in 1943. He built the team and discovered the method that broke the Italian Naval Enigma, producing the intelligence credited with Allied victory at the Battle of Cape Matapan. In 1941, Knox broke the Abwehr Enigma.[4] By the end of the war, Intelligence Service Knox had disseminated 140,800 Abwehr decrypts, including intelligence important for D-Day.

RESOURCES

Please see separate resources document provided as an addendum to this Guide.