1939. It was said that no man could resist the charm and appeal of secret agent Betty Pack, and that no secret was safe when unsuspecting lovers whispered in her ear, lying helpless in her embrace. Born in Minneapolis, Betty was introduced by her parents to the Washington social scene. Immersed in the world of diplomatic intrigue as a teenager, she married Arthur Pack in 1930, a British diplomat twice her age, but their marriage quickly began to crumble. With fascism on the rise and Nazi appeasement gaining steam on both sides of the pond, Betty’s insatiable desire and fierce intellect would lead her into a series of secret encounters around the globe, and ultimately involve her in a relentless war against the Nazis—one lover at a time. An epic tale of the glamorous Betty Pack, the British spy mistress Vera Atkins, American code breaker Elizabeth Friedman, celebrated performer Josephine Baker and an army of Mutual Friends, all working in the shadows to resist the rising threat of the fifth column of the Third Reich and change the course of WWII. A passionate new musical that is filled with intrigue, deception and intelligence not to be missed.
Laurie Flanigan Hegge, playwright and lyricist of *Dirty Business*, has carefully interwoven the stories of four incredible and courageous women who were spies, codebreakers, and heroes during World War II. Flanigan Hegge is a playwright and actor in the Twin Cities, whose previous work at History Theatre includes *Sweet Land the Musical*, *20 Days to Find a Wife*, *Hormel Girls*, and *Tales Along the Minnesota Trail*.

**What drew you to this story and material?**

The first character I met when I dove into this project was Minneapolis born Betty Pack. Sometimes referred to as the “Mata Hari of Minnesota,” Betty’s story was interesting enough in its own right. Who doesn’t love sex and spies? But as I dug into Betty’s story as she became a conscious asset for British Intelligence, I found myself drawn into the context of the world in which she was operating—a world in which fascism and antisemitism were on the rise both at home and abroad. I decided that I wanted to tell Betty’s story in the context of that world, and that I didn’t want the world of the play to only be populated by men. And so I set about to intersect Betty’s story with three other women, all equally fascinating.

**These women are so inspiring. What are the qualities that you admire about them?**

They are all brilliant, real, complicated people whose contributions were largely buried until fairly recently (with the exception of Josephine Baker, whose service to the French Resistance was celebrated after WWII.) It brings me joy to lift up stories of women who have been in the shadows for so long. And it’s very fun to write about women who defy gender norms. The truth is, I chose four fascinating women to include in this story, but at every turn in my research I found another brilliant woman that I would have loved to include. They were all incredibly effective at their jobs, at a time when what they were doing wasn’t considered “respectable” for a woman. Even through our modern lens, an audience might find some of their behavior shocking, and as a writer, it’s really fun to let them tell their story without worrying about that.

**Could you explain how History Theatre has helped you develop this work? Has this been a typical process?**

The History Theatre commissioned this musical in the Fall of 2017. In January 2018, we presented the first act at History Theatre’s Raw Stages, after which we were offered a slot for production in Spring of 2019. Because we were on such a fast track (a more typical timeline would be five to seven years for a project of this scale and scope), we spent countless hours in meetings with the development team at HT, and had extra table readings in addition to the Next Stages process at History Theatre, which afforded us development time with a whole bunch of smart actors in the room. Our director, Ron Peluso, continues to be hugely important in
helping us shape the work and giving me the confidence to take on such an epic story. And as we roared toward full production, Nautilus Music-Theater presented several new songs as part of their Rough Cuts Series, which was immensely helpful in helping to shape the score.

**You’ve collaborated with Robert Elhai on this production, when did you begin working together?**

Robert and I first worked together on *Sweet Land, the Musical*, for which he served as orchestrator, but we have many colleagues in common and a shared vocabulary from our mutual work with Nautilus Music Theater. Robert is one of the fastest, most versatile composers out there. He has an incredibly busy life as a film orchestrator in Los Angeles, London, and New York. Look at his IMDB profile and it will knock your socks off!

From Robert Elhai, the composer: “It has been an honor to work with Laurie and Ron and I am so thankful for the amazing amount of support that the History Theater provided to shepherd this musical from its inception. All the readings, workshops, rehearsals, etc. were so incredibly helpful in shaping the piece.”

**What have you learned during this process, and what has it meant to you?**

I have immersed myself in research about espionage, codebreaking, the rise of fascism in pre-War Europe, World War II, and so much more—and I’m still learning with every breath. The subject matter is bottomless. What has been most stunning to me is coming to understand how England’s appeasement policy and the America First movement in the US enabled Hitler’s rise to power and necessitated the rise of covert resistance movements in both Great Britain and the United States. When one is so steeped in the research about the rise of fascism in pre-WWII Europe and the United States, it’s impossible to ignore the antisemitic rhetoric that is so prevalent in today’s culture, which gives me a sense of urgency about telling this story.
ROBERT ELHAI is an award winning composer, orchestrator, and arranger. As a composer his projects include *Twisted Apples*, a music theater trilogy based on stories from Sherwood Anderson's "Winesburg, Ohio" presented by Nautilus Music Theater in 2017, *The Lady with a Lapdog*, a music theater adaptation of the Anton Chekhov short story, *C.*, a music theatre adaption of Cyrano de Bergerac presented in the spring of 2016 by Theater Latté Da; *Persephone's Sister*, the final piece in Nautilus' Ivey-Award-winning Sister Stories, and many other pieces with Nautilus and others.

As an orchestrator, he is the recipient of Tony and Drama Desk nomination for his work for the Broadway production of The Lion King. He also arranged the music for *Glen sheen* at The History Theater and *A Night In Olympus* at The Illusion Theater, both by Jeff Hatcher and Chan Poling, as well as The History Theater's spring 2017 production of *Sweet Land The Musical*.

He has also contributed orchestrations to over 150 film scores including the Oscar-winning score for *Frida*, *The Avengers: Age of Ultron*, *Iron Man 3*, *Thor 2*, five Fast and Furious movies, three Alien movies, two Batman movies, and the first Pirates of the Caribbean. Other arranging work includes the arrangement for Metallica’s Grammy Award-winning "The Call of Ktulu" from their album “S&M” as well as orchestral arrangements for The New Standards with the Minnesota Orchestra and The Who with the Julliard Symphony. He has often collaborated with film composers Elliot Goldenthal, Brian Tyler, Michael Kamen, Klaus Badelt, Ilan Eshkeri, Edward Shearmur, James Newton Howard, as well as many others, and has been involved in projects that have won Academy, Emmy, Grammy, and Tony Awards as well as many other honors.

He holds a doctorate from Yale University where he studied with composers Martin Bresnick and Jacob Druckman, as well as a master’s degree from the College-Conservatory of Music in Cincinnati and a bachelor's degree from Carleton College. He currently lives in Minneapolis with his wife and two sons.

For more information:

http://www.robertelhai.com/
Betty Pack, the American with British citizenship became an Allied spy during WWII. Dubbed “Mata Hari from Minnesota” she was an agent for Britain’s MI6 and then America’s OSS during World War II.

Amy Elizabeth “Betty” Thorpe was born in Minneapolis, Minnesota on November 22, 1910. She was an uncommonly restless child. “Always in me, even when I was a child, were two great passions—one to be alone, the other for excitement,” Betty told her fellow spy and lover Harford Montgomery Hyde, according to the biography, *The Last Goodnight*. “Any kind of excitement—even fear.” Her father was a U.S. Marine Corps officer. As her father rose through the ranks in the military, the family moved to Cuba and then to Washington, D.C., where they hobnobbed with the political elite. Betty, sent to the best boarding schools, well-versed in high-society decorum, disliked the phoniness of it all. “Life is a game where one plays one’s role—where one always hides their true emotions,” she wrote in her diary at 13.

When in 1930 she suddenly fell pregnant at 19, she didn’t know who the father was. She escaped scandal by marrying Arthur Pack, a strong-jawed but stuffy British diplomat who was more than twice her age. Their marriage was doomed from the start, particularly after he convinced her to have her son, Tony, given to foster parents after he was born while they were in London.

The Packs moved to the British embassy in Madrid just as the Spanish Civil War was breaking out. Endlessly resourceful and brave, Betty coordinated the evacuation by destroyer of embassy staff from the port of San Sebastian. MI6 chiefs were particularly impressed when, searching for a Spanish lover who had been jailed in Madrid by the Republican government, Betty charmed her way into the war-torn city and persuaded the Spanish foreign secretary to let her see him.

In 1938, the Packs were moved to Poland just as it became a target for Hitler’s machinations. The posting had been secretly engineered by MI6 to give Betty a chance to “honey trap” handsome Count Michal Lubienski, chief aide to Poland’s foreign minister, Josef Beck. After meeting at a society party, they soon became lovers. During this time, Betty would empathetically listen to his worries and then go home and type up meticulous reports. During her time with Lubienski, she copied reports that filled his suitcase, and eventually learned that the Poles had cracked Germany’s fabled Enigma Machine, whose codes had stumped Europe for decades. Armed with Betty’s information, the British convinced Poland to share the findings. Alan Turing could not have built his famous computer to crack a later, more complicated version of the Enigma cipher without the assistance of the Polish mathematicians. After that, MI6 sent her on to Prague where she and a fellow agent broke into the HQ of a local pro-Nazi leader and stole papers showing German plans to take over central Europe. Betty smuggled them back to Warsaw hidden among her negligees.
By the time war broke out, the Packs had left Warsaw, hounded out by embassy colleagues and their wives, who were outraged by her promiscuity — unaware she was a spy. Lubienski was devastated, but Betty shrugged off his distress. Fearing her marriage of convenience had run its course and that she soon wouldn’t be able to hide behind her cover as a diplomat’s wife, MI6 had her and her husband posted to Chile while it worked on a new identity for her. MI6’s next destination for Betty was Washington DC, where she went in late 1940, without her husband but with a new cover as a journalist.

Now using the codename ‘Cynthia’, her boudoir espionage continued with renewed urgency now Britain was at war — though America remained neutral. She became mistress to a string of married foreign diplomats. The closer they were to Britain’s enemies, the better. Anti-British Americans weren’t safe either. After meeting Betty at a cocktail party, a powerful Republican senator curiously transformed from being stridently opposed to helping the British war effort to being an enthusiastic supporter.

It helped that Betty’s next target was a man who had been her ardent admirer when she was a teenager. Alberto Lais, a former Italian intelligence chief, was now an admiral and naval attaché at the Italian embassy. He also happened to possess a copy of his navy’s ciphers, or code books, which Britain desperately wanted. Lais was a professional spy himself but he, too, was rapidly drawn into Betty’s web. After a particularly romantic evening, she asked straight out for the ciphers, claiming they were for a friend in US Naval Intelligence. Lais would reveal only the name of the clerk in the cipher office. Discovering this clerk was the strait-laced type who would be hard to seduce, Betty bribed him with money instead, getting the ciphers that way. The Royal Navy subsequently inflicted a crushing defeat on the Italians at the Battle of Cape Matapan.

It was another Nazi ally, Vichy France, that provided Betty’s most dramatic coup. Under orders from Churchill to penetrate the Vichy embassy in Washington, she got to know its press attaché, Charles Brousse, by posing as a journalist. Brousse proved unique among all her many victims in that Betty genuinely fell in love with him. She was soon able to ‘turn’ him, persuading the besotted married man to hand over a treasure trove of Vichy secrets. They revealed, among other things, that the Vichy government was looking for details of British battleships in U.S. ports that it could pass on to the Nazis so U-boats could ambush them in the Atlantic.

Betty went to London, asking to be sent into Nazi-occupied Europe as an assassin — an idea that was given serious consideration until it became clear that her cover had been permanently blown in Washington. After her estranged husband died in 1945, Betty married Brousse and they settled down in a medieval castle in France. Complaining bitterly to friends how much she hated the quiet life, she died of throat cancer on December 1, 1963.

atlasobscura.com/articles/the-brilliant-m16-spy-who-perfected-the-art-of-the-honey-trap
On June 16, 1908, Vera Maria Rosenborn was born to German-Jewish Max Rosenberg and British-Jewish Zeffro Hilda, in Galați, Romania. Vera later took on her mother’s maiden name of Atkins. Atkins studied modern languages in Paris along with a finishing school in Switzerland. She moved to Britain in 1937 due to the political extremism and antisemitism in Romania. While working in Bucharest, she met the dashing Canadian William Stephenson, later known as Intrepid, the supposed inspiration for James Bond. Charmed by Vera, he introduced her to the German Ambassador in order to get information from him. Soon, Vera began gathering intelligence for the British while outwardly working as a translator for Stephenson’s steel business. In the years leading up to the war, she smuggled information to Churchill.

Shortly before she joined the Special Operations Executive (SOE), Atkins visited the Low Countries trying to provide money for a bribe she made with Hans Fillie, an Abwehr officer, to get her cousin a passport to escape Romania. This incident was a secret Atkins kept for her entire life. When Churchill was brought back to power to steel England against imminent German invasion, Vera was assigned to a high-ranking position in the SOE as a secretary in the French section. She, not long after, became the head assistant to Colonel Maurice Buckmaster and was therefore, a de facto intelligence officer. Up until August 1944, she served as a civilian. Atkins was then commissioned in the Women’s Auxiliary Air Force (WAAF) as a Flight Officer. Earlier that February, she was appointed as an intelligence officer in the F Section.

The main role Atkins played for the SOE was recruiting and employing British agents in France along with being responsible for the 37 women who were SOE agents working as couriers and wireless operators. On top of that, Atkins would regularly go to the airfields with her agents as they left for France and made sure everything was secure beforehand. At one point, the Germans penetrated one of the F-Section’s primary spy networks, but nobody seemed to notice the clues. Instead of pulling out agents who were now at risk due to the situation, her and Buckmaster sent in more.

Once the war ended, Atkins found out that in 1943, the Germans had been almost completely successful in destroying the SOE networks that were in the Low Countries. The circuits collapsed completely in the Netherlands and Belgium, and neither Atkins nor Buckmaster knew about it. Atkins also made sure to trace down nearly all of her missing agents when the war ended. The SOE began to shut down by the end of 1945, so Atkins was funded by the newly established Secret Intelligence Service (M16) and travelled on to Germany as a Women’s Auxiliary Air Force’s Squadron Officer. There, she started searching for the missing agents, fourteen of which were the women she looked over. In the end, Atkins found 117 out of 118 missing agents from the F Section. She was also able to figure out how all fourteen of the women had died.

In 1947, Atkins was demobilized. She was also nominated for an MBE (Most Excellent Order of the British Empire), but did not receive it. From 1948 to 1952, she worked for the Central Bureau for Educational Visits and Exchanges of UNESCO as an office manager until becoming director in 1952. In 1961, she retired early to Winchelsea, East Sussex. On June 24, 2000, ninety-two year old Vera Atkins died in Hastings after living at a nursing home recovering from a skin complaint due to falling and breaking her hip earlier.
Josephine Baker was an African-American dancer, singer and actress who skyrocketed to fame in the 1920s. Born in St. Louis, Missouri, on June 3, 1906, with the name Freda Josephine McDonald, Baker spent most of her childhood in poverty. If she was unable to find work, she would dance in the streets collecting money from onlookers. At the age of 15, Baker ran away and began to perform with Vaudeville groups. She also married during this time, taking her husband’s last name and dropping her first name, becoming Josephine Baker. Through her dancing and singing Baker eventually made a small name for herself in New York City. Yet it wasn’t until she traveled outside the U.S., to Paris, where her career took a major turn.

Men threw themselves at Baker constantly, but nothing could prepare her for the unlikely fan she’d earn in Jacques Abtey, the 33-year-old head of the French military intelligence service Le Deuxième Bureau. Abtey was looking for undercover agents willing to work without pay for the French war effort. Over glasses of champagne served by a white-coated butler, Abtey explained his mission. Baker’s reply stunned him: “France made me what I am,” she said seriously. “I will be grateful forever. The people of Paris have given me everything. They have given me their hearts, and I have given them mine. I am ready, Captain, to give them my life. You can use me as you wish.” Impressed with her sincerity and enthusiasm, Abtey hired her on the spot. Now a secret agent Baker began training with the same energy she exuded in any part she played. She learned karate and practiced with a pistol; within just a few weeks, she could shoot out the flame of a candle at 20 yards. She moved back to Paris to be closer to the action, splitting her time between music halls and the Red Cross shelter where she aided Belgian refugees. Baker kept an ear out for relevant information, and wrote notes on her arms and on the palms of her hands. Baker also attended parties and receptions all over Europe, where she would listen carefully for intel on German troop movements.

The performer’s international popularity turned out to be an invaluable resource. High-ranking officials of the Axis powers adored her, including Italy’s ruler Benito Mussolini. It took only a week for Baker to gather important statistics and possibly a code book from the Italian embassy, which she passed along to Abtey.

Things became riskier after the Germans invaded France and headed towards Paris. Baker returned to Milandes, where she took to hiding war refugees in their huge home. She worried constantly that one of her stowaways might be a secret Nazi sympathizer, but she kept calm and carried on until the day five German officers showed up at her front door and demanded to search the château for weapons. Baker was not safe anywhere in France as the Nazi occupation spread across the country. The chance to escape occupied France came when French Resistance leader Charles de Gaulle asked Baker and Abtey to head to the neutral city of Lisbon, Portugal, so they could send reports to his station in London. She and Abtey had to transport 52 pieces of classified information, a prospect that seemed daunting until they had the brilliant idea to transfer the data to Baker’s sheet music using invisible ink. The top-secret information became hidden on the pages of Baker’s theme song, “Two Loves Have I.”

When the pair made it to Portugal, Baker was welcomed with open arms to parties held by the British, Belgian, and French embassies. After each night of dancing, flirting, and gathering information from chatty ambassadors, she returned to her hotel room, made careful notes on slips of paper, and pinned them to her bra and panties.
Baker’s work came to a screeching halt in 1941, when she suffered a miscarriage and had to undergo an emergency hysterectomy. Complications from the surgery landed Baker in the hospital for the next 19 months. Resistance members gathered in Baker’s private hospital room to discuss German strategies and troop operations at her bedside.

America’s military involvement sealed the Allies’ victory in 1945, and Baker couldn’t help but feel proud of the nation where she was born. After World War II ended, Baker became an activist for the American civil rights movement. She wore her Free French uniform when she spoke alongside Martin Luther King, Jr. at the 1963 March on Washington.

Baker’s last years were plagued by financial hardships, but even after she lost her château at Milandes, she maintained the same resilience that made her both a compelling performer and effective freedom fighter. Just four days before she died of a cerebral hemorrhage at the age of 68, she starred in an eponymous revue based on her life in show business and earned rave reviews. On April 15, 1975, Joséphine Baker received a full military funeral in Paris. Some 20,000 mourners came to pay their respects to a woman who had certainly changed the world—and quite possibly helped save it, too.

mcpl.us/catalogs/books/reviews/many-faces-josephine-baker-dancer-singer-activist-spy
https://historynewsnetwork.org/article/170603

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CODE GIRLS: THE UNTOLD STORY OF THE AMERICAN WOMEN CODE BREAKERS OF WORLD WAR II

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RECRUITED BY THE U.S. ARMY AND NAVY FROM SMALL TOWNS AND ELITE COLLEGES, MORE THAN TEN THOUSAND WOMEN SERVED AS CODEBREAKERS DURING WORLD WAR II. THEIR EFFORTS SHORTENED THE WAR, SAVED COUNTLESS LIVES, AND GAVE THEM ACCESS TO CAREERS PREVIOUSLY DENIED TO THEM. A STRICT VOW OF SECRECY NEARLY ERASED THEIR EFFORTS FROM HISTORY; NOW, THROUGH DAZZLING RESEARCH AND INTERVIEWS WITH SURVIVING CODE GIRLS, BESTSELLING AUTHOR LIZA MUNDY BRINGS TO LIFE THIS RIVETING AND VITAL STORY OF AMERICAN COURAGE, SERVICE, AND SCIENTIFIC ACCOMPLISHMENT.
Elizabeth was born August 26, 1892 the youngest of nine children in a Quaker farm family in Huntington, Indiana. Elizabeth was energetic, impatient, and at best strongly opinionated with a disdain for stupidity. She graduated from Hillsdale College in Michigan with a major in English literature. Having exhibited her interest in languages, she also studied Latin, Greek and German.

Friedman began working at Riverbank Laboratories in 1916, in one of the first facilities in the U.S, founded to study cryptography. She was hired to help to prove that Sir Francis Bacon was the true author of Shakespearean plays. At the time, Riverbank was the only facility in the U.S. capable of solving enciphered messages. Among the staff of fifteen at Riverbank was the man Elizabeth would marry in May 1917, William Friedman.

The couple worked together for the next four years in the only cryptographic facility in the country. Although Friedman worked closely with her husband as part of a team, many of her contributions to cryptology were unique. She and her team deciphered many encoded messages throughout the Prohibition years and solved many notable cases, including some codes which were written in Chinese. Most notable was the notorious spy Valvalee Dickinson, who married the head of a brokerage firm that had Japanese-American clients. At some point, the couple became spies for Japan. Valvalee would use a doll shop as her cover for espionage. Her downfall came when Elizabeth decoded material addressing naval vessel movement in Pearl Harbor.

In 1921, the Friedmans went to work for the War Department in Washington, D.C. In 1923, Friedman was hired as a cryptanalyst for the U.S. Navy. This led to a position with the U.S. Treasury Department's Bureau of Prohibition and of Customs, which in 1927 established a joint effort with the Coast Guard Intelligence Division to monitor international smuggling, drug-running, and criminal activity domestically and internationally.

While working for the U.S. Coast Guard, the Bureau of Narcotics, the Bureau of Internal Revenue, the Bureau of Prohibition and Customs, and the Department of Justice, she solved over 12,000 rum-runners' messages in three years. Friedman also saw the need for a more dedicated effort against suspected communications. By 1931 she was among people who convinced Congress of the need to create a headquartered, seven-person cryptanalytic section for this purpose. As her cryptanalytic responsibilities began to mount, Friedman sensed the need to teach other analysts cryptanalytic fundamentals, including deciphering techniques.

During the war, Friedman's Coast Guard unit was transferred to the Navy where they solved the Enigma machine code used by German Naval Intelligence. The work of Friedman's Cryptanalytic Unit was often in support of the Federal Bureau of Investigation and J. Edgar Hoover, and was not always credited.

After World War II, Friedman became a consultant to, and created communications security systems for, the International Monetary Fund. She died on October 31, 1980 in Plainfield, New Jersey.

nsa.gov/About-Us/Current-Leadership/Article-View/Article/1623028/elizabeth-s-friedman/
WILLIAM STEPHENSON

- Known as INTREPID a spymaster
- Employed Betty Pack (Code name: Cynthia)
- Hired to organize and run the British Security Coordination out of New York, before the U.S. entered WWII. The goal was to spy on enemies and organize American opinion in favor of helping Britain. His mission was to create a secret British intelligence network.
- A real life inspiration for James Bond

COUNT VON DER SCHULENBERG

- German Ambassador to Romania and later Moscow
- Served as the last German ambassador to the Soviet Union before Operation Barbarossa, the German attack on the Soviet Union in 1941. He began his diplomatic career before World War I, serving as consul and ambassador in several countries. He turned against the main Nazi Party and joined the conspiracy against Hitler.
- After the failed 20 July plot in 1944 to assassinate Hitler, Schulenburg was accused of being a co-conspirator and eventually executed.

NEVILLE CHAMBERLAIN

- British Prime Minister
- Rather than challenge acts of aggression by Nazi Germany, Chamberlain sought ways to pacify Adolf Hitler.
- Signed the Munich Pact in 1938, which gave parts of Czechoslovakia to Germany. Some have speculated that his desire to keep the peace was somewhat driven by Britain being outmatched by Germany's military at the time.
- Resigned in May of 1940, died of cancer in November of 1940

LORD HALIFAX

- Tried to negotiate with the Nazis and was shot down by Churchill
- Churchill then sent Halifax to the United States as an Ambassador
- Considered a Nazi appeaser
WINSTON CHURCHILL

- British Prime Minister
- Created the Special Operations Executive (SOE), the covert WWII espionage agency
- Chief architect of the Allied Victory of WWII

SIR JOSEPH BALL

- Nazi appeaser
- Worked to undermine Churchill
- From the mid-30s into the early 40s, Ball played a key role in secret direction and control of the newspaper Truth a pro-fascist publication

MIECZYSŁAW SŁOIWKOWSKI (code name RYGOR)

- Polish resistance
- He set up "Agency Africa," one of World War II's most successful intelligence organizations. The information gathered by the Agency was used by the Americans and British in planning the amphibious November 1942 Operation Torch landings in North Africa. These were the first large-scale Allied landings of the war, and their success in turn paved the way for the Allies' Italian campaign.

SIR COLIN GUBBINS (GUBBY)

- Prime mover in British Special Operations Executive
- Coordinated resistance worldwide
- Head of SOE

SEN. TOM CONNALLY

- Texas Democrat US Senator
- Chairman of Senate Foreign Relations Committee 1941-1947
- Helped establish NATO
DIRTY BUSINESS TERMINOLOGY

**Bombe**: Polish electro-magnetic device created to help decipher Enigma cipher machine settings; early precursor to the modern computer

**Cipher**: A rule for altering the letters in a message. Usually, it involves a 1 to 1 exchange; one letter gets replaced with one other letter or a digit. For instance: if A=B, B=C, and so on. SMASH becomes TNBTI

**Code**: A system for disguising a message by replacing its words with groups of letters or numbers. And a fixed relationship between one set of symbols or ideas and another. It can be a very ordinary and everyday thing. Slang is a code. Emojis are code. Paul Revere hanging lamps in the Boston steeple to signal the route of the British invasion: 1 if by land, 2 if by sea. That’s a code.

**Codebook**: A list of plain language words opposite their codeword or code number

**Colossus**: An electronic device that helped solve German cryptograms; the world’s first electronic computer

**Compromised**: When an operation, asset, or agent is uncovered and cannot remain secret

**Controller**: Officer in charge of agents (a handler)

**Counterintelligence**: The business of thwarting the efforts of foreign intelligence agencies; includes but is not limited to spy-catching

**Cover**: The purported occupation or purpose of an agent; it must be consistent with the agent’s background and presence in the target area

**Cryptanalyst/Code Breaker**: Breaks codes and ciphers without knowing the rules first

**Cryptogram**: A catchall term for a string of garbled text, solution unknown. It can be generated by code or cipher.

**Cryptographer**: Maker of codes/ciphers

**Cryptology**: The science of secret writing in all its forms

**Enigma**: A cipher machine used by the Germans to encode messages during WWII

**Honey Trap**: Slang for use of men or women in sexual situations to intimidate or snare others

**Jedburghs**: OSS and SOE term for teams dropped into Europe before D-Day to help resistance groups

**MI5**: The British domestic counterintelligence service; officially known as the Security Service

**MI6**: The British foreign intelligence service; officially known as the Secret Intelligence Service

**Mole**: An agent of one organization sent to penetrate a specific intelligence agency by gaining employment
Music Box: Slang for a clandestine radio

Musician: Slang for a clandestine radio operator

OSS: Office of Strategic Services: U.S.'s WWII intelligence, sabotage, and subversion organization; "Oh So Secret," "Oh Such Snobs," "Oh So Social"

Plaintext: The original message before encryption

Purple: American name for the Japanese diplomatic cipher machine used from 1939-1945

Raven: A male agent employed to seduce people for intelligence purposes

Red: American name for an early Japanese diplomatic cipher machine

SIS: Secret Intelligence Service; the official name of Britain's MI6

SOE: Special Operations Executive; Britain's WWII sabotage and subversion organization

Swallow: A female agent employed to seduce people for intelligence purposes

Ultra: Codename for intelligence derived from decryption of messages encrypted by the German Enigma cipher machine during WWII

Uncle: Headquarters of any espionage service

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In WWII, wireless radio communication was very important for directing military forces spread all over the world. But radio messages could be intercepted, so secret information -- plans and orders -- had to be transmitted in secret codes.

The Allies were able to read German messages very early in the war thanks to brilliant work by Polish and British mathematicians. In the 1930s, Polish cryptanalysts copied the German Enigma machine with the help of a German traitor, and solved its letter-scrambling patterns. They later shared this knowledge with France and Britain. Intelligence from decrypted Enigma messages, code-named "ULTRA," was extremely secret, and very few people knew about it. While the Germans never found out the Allies could solve their codes, they suspected it as their ability to sink Allied shipping slipped dramatically in 1942. This led the German Navy to add an additional rotor to their Enigma machines, and the submarine "wolf packs" once again started taking their toll on shipping.

Substitution tables, matrix ciphers and some versions of the One-Time Pad (OTP) can also be seen as manual cipher methods. Over the years, a wide variety of hand methods have been used, with varying degrees of success. Some are really sophisticated, but most are relatively simple and can be broken easily with pencil-and-paper methods or computers. Below are some examples used in the play *Dirty Business*.

**Rail Fence Cipher**

In the rail fence cipher, the plain text is written downwards and diagonally on successive "rails" of an imaginary fence, then moving up when the bottom rail is reached. When the top rail is reached, the message is written downwards again until the whole plaintext is written out. The message is then read off in rows. For example, if 3 "rails" and the message 'WE ARE DISCOVERED. FLEE AT ONCE' is used, the cipherer writes out:

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....A........I........V........D........E........N....
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**Mono-Alphabetic/Substitution/Caesar Cipher**

A monoalphabetic substitution cipher, also known as a simple substitution cipher, relies on a fixed replacement structure. That is, the substitution is fixed for each letter of the alphabet. One example of a substitution cipher (1 for 1 letter substitution):

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| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
```
Instructions:
1. Cut each circle out along the outside.

2. Place the small circle on top of the larger circle.

3. Carefully make a hole in the center of both circles and use a metal brad to attach together.

4. Rotate the inside wheel so that the letter “A” on the outside wheel corresponds to another letter on the inside wheel. This is the Key.

5. Now start to code your message! Every time a letter appears in your message, find the letter on the outside wheel and write the letter that appears on the inside.

For example: If the outside wheel reads “A” then the inside wheel might read “C.” A=C, B=D, C=E, etc.

So, if you wanted to code the word HISTORY, it would be written: JKUVQTA
WAR TIMELINE—EUROPEAN CONTINENT

1936

January: Edward VIII becomes the King of the United Kingdom

July: The failed Spanish coup by Nationalist forces marks the beginning of the Spanish Civil War

August: Germany hosts the summer Olympics in Berlin

December: Hitler makes it mandatory for all males between the ages 10-18 to join the Hitler Youth. Edward VIII abdicates. George VI becomes King of the United Kingdom.

1937

January: FDR begins second term as the President of the United States

1938

March: Austria is annexed by Germany

September: President Roosevelt sends letter to German Führer Adolf Hitler seeking peace.

The Munich Agreement is signed by Germany, France, the United Kingdom, and Italy. The agreement allows Germany to annex the Czechoslovak Sudetenland area in exchange for peace in an attempt to appease Hitler.

November: Kristallnacht begins in Germany

1939

March: Germany violates the Munich Agreement

April: The Spanish Civil War ends in Nationalist victory. Spain becomes a dictatorship with Francisco Franco as the head of the new government.

September: Germany invades Poland, World War II begins.

October: An estimated 158,000 British troops are now in France. Adolf Eichmann starts deporting Jews from Austria and Czechoslovakia into Poland.

November: Polish Jews are ordered to wear Star of David armbands.

1940

May: Chamberlain resigns and Churchill becomes Prime Minister of the United Kingdom

June: Italy declares war on the United Kingdom and France

September: Germany's Jews are ordered to wear yellow stars for identification
1941

**March:** Worst bombing of London so far

**June:** Hitler attacks Russia—Operation Barbarossa

**December:** The Japanese attack Pearl Harbor; Britain and United States declare war on Japan

1943

**April:** The Warsaw Uprising begins

**May:** Axis Surrenders in North Africa

**November:** The Tehran Conference—the first time Roosevelt, Stalin, and Churchill met. This set the direction for the rest of the war in Europe.

1944

**June:** D-Day, the Allies land at Normandy to attack German forces

**August:** Paris is liberated from German forces

**December:** Battle of the Bulge, Germany’s final defensive

1945

**April:** FDR dies, and is succeeded by Harry Truman. Mussolini is captured and executed. Hitler commits suicide.

**May 7:** Germany surrenders. **Victory in Europe.**

**September 2:** Japan surrenders. **Victory Over the Pacific** (VJ Day) which signals the official end of WWII.


Helpful Hints for Theater Audiences

As an audience member at the theater, you are part of the show! Just as you see and hear the actors onstage, they can see and hear you in the audience. To help the performers do their best, please remember the following:

- Arrive at least 15 minutes early
- Visit the restroom before the show starts
- Sit in the exact seat on your ticket. Ask the usher for help finding it
- Before the show begins, turn off your phone and any other electronic devices. If anything rings by accident, turn it off immediately
  - Do not use your phone for texts, calls or games
  - You cannot make recordings in the theater
- Do not talk, whisper, sing or hum, unless invited by the performers to do so
- Avoid getting up during the show. If you must leave, wait for a scene change and exit quietly and quickly