



CODE BREAKING

I. THE STORY OF BLETCHLEY PARK

In 1938, before the Second World War was officially declared, a group of people moved into a big house called the Mansion at Bletchley Park. Although they looked as if they were having a weekend away (and even brought a chef from the Savoy Hotel!), they were in fact members of MI6 (Secret Intelligence Service) and a secret team of code-breakers, there to run intelligence activity.



The Mansion at Bletchley Park © Crown Copyright

After war was declared in September 1939, Bletchley Park became the secret centre for codebreaking, starting with around 150 people working there. Soon there were too many people to be accommodated in the Mansion and large wooden huts were built around the Park, known only by their Hut number.

Codebreakers needed to break codes the Germans had created to keep all their battle plans secret. These included messages sent in a variety of ways. The most famous way in which they sent messages was through a machine called the Enigma.





Once the government realised how important cracking these codes was to help win the war, Prime Minister Winston Churchill allocated more resources to the project:

'Make sure they have all they want extreme priority and report to me that this has been done.'

New buildings were built to accommodate the workforce which grew to around 10,000 people. New machines called 'Bombes' were built to help break the codes. Most of these were operated by WRENS – Women's Royal Navy Service.

2. CRACKING THE CODES AT BLETCHLEY PARK

The work carried out at Bletchley Park was extremely helpful to the war and helped the Allies to end it more quickly. Of the 10,000 or so people who worked at the Code and Cypher School at Bletchley Park, around two thirds (over 6,000) were female. Their role was to decrypt or uncover German messages.



Hut at Bletchley Park © Crown Copyright





The work was so complicated, that even with thousands of people working on the codes, it could take 159 days to be successful. By that time the code would already be out of date.

Codebreaker Alan Turing designed the Bombe – an electromechanical machine to help decipher the Enigma. The Enigma machine let an operator type a message and then ‘scramble’ it – move all the letters around using rotors or wheels and an electric circuit. To uncode the message, you had to know the exact setting of the wheels. But as it consisted of a series of rotors or wheels which could be moved around in 60 ways, wheels which could be set in 15,567 ways and a plugboard which could go through 150 million, million circuit changes, that was not easy! In fact, it meant that there were 158 million, million, million possible settings for EVERY message!

As well as trying to break the Enigma, there were also around 2,000 – 6,000 messages sent in lots of other ways (radio messages, weather messages, etc.) every day, from the Germans, Italians and Japanese.

All the codes changed every 24 hours so everyone was kept very busy!

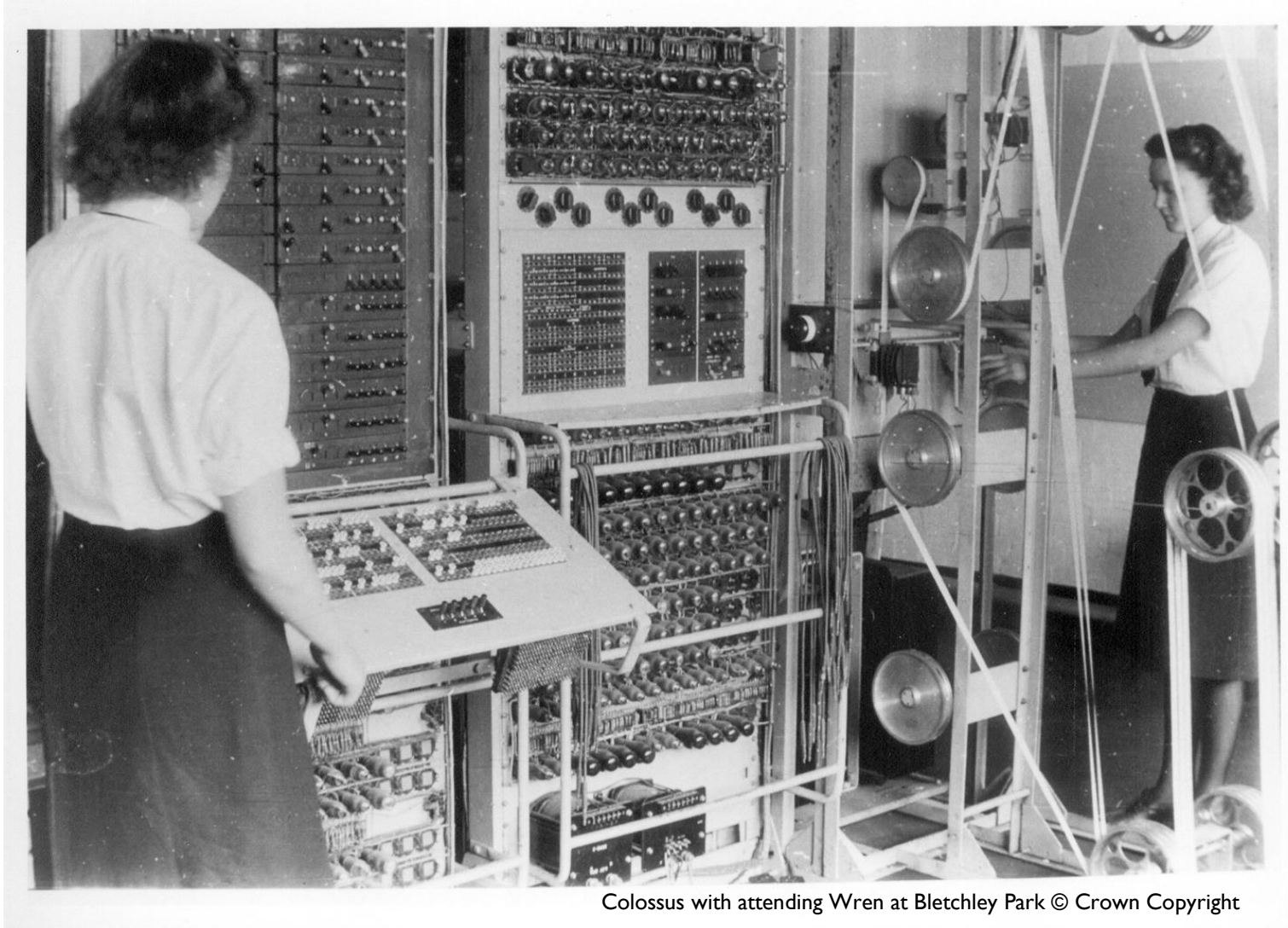


Decoding Room at Bletchley Park © Crown Copyright





The first large-scale electronic digital computer was created at Bletchley Park. It was called Colossus. This is a Greek word referring to a giant statue.



Leading up to D-Day, there were even more 1000s of messages. The code breakers at Bletchley Park made a very important contribution to the success of D-Day.





3. GWEN WATKINS

Gwen Henry (as she was called before she married), came to Bletchley Park from the Royal Air Force when she was 18. “I was ignorant, innocent and knew very little”.

At first, she found the change from the RAF difficult to get used to. “Most RAF camps were terribly disciplined. You had to salute, you had to keep to a timetable, you had to make your bed. Hundreds of things like that. And then suddenly at Bletchley you didn't even have to wear uniform. You didn't know if the people you were working with were Wing Commanders or anybody, so you had to get used to this whole new world.”

The conditions were harsh – the huts weren't properly heated, the chairs were uncomfortable and you sat at old metal tables. In the winter there was never enough coal “so you'd wear gloves with holes cut in them and your RAF greatcoat over your clothes.”



Gwen Watkins Courtesy Cracking the Luftwaffe Codes Pub Greenhill & Green Bean Books

The people working there were allocated places to live in the nearby villages. Most of the time they were looked after by nice landladies but they were never allowed to let anyone know what they were doing. Even Gwen's family was told she was doing ordinary clerical or office work. You were not even allowed to share any details of your work with other people working in your section. “You were aware people were doing something really important but you had no idea what it was”.

In fact, the work at Bletchley Park was not made public until 30 years after the war, in the 1970s. If you divulged any secrets and let people know about your work you could be charged with treason. Treason means betraying your country, and at that time, the punishment was prison or even death!





Gwen was told never to let her Pass (the paper giving her entry to Bletchley Park), 'leave her person'. "I had a mental picture of myself in the bath, with the pass between my teeth."

She worked in a hut with 30 girls. The Bombe operators worked in teams. They worked an 8 hour shift in pairs and had half an hour for lunch in which they had to run to the Canteen to grab a meal and then run back to relieve the Checker who had been operating the machine while they were absent. They worked 8am – 4pm for one week, 4pm – midnight the next week and midnight to 8am the following week. Gwen also worked with deciphering code books called 'Dirty Books'. Often they were received in a bad condition such as having been burnt, soaked or even blood stained.

There was some 'recreation' or activities in their free time such as gramophone recitals and debates or sports such as tennis or hockey, played with a rolled up sock. Every month they had a medical inspection to check they were FFI (free from infection) and to check for things like tooth decay or lice.

Gwen met her husband Vernon Watkins at Bletchley Park. They were married in October 1944 and she later had 5 children. He became a poet and they were both friends with the famous Welsh poet, Dylan Thomas.

In her book, *Cracking the Luftwaffe Codes*, Gwen expresses thanks to everyone who participated "not just the code breakers but also the wireless officers and the unsung heroes like the despatch riders who delivered messages driving in all weathers and the landladies."



A group of Wrens courtesy of Bletchley Park Trust

