

## HIDDEN GEMS AND FORGOTTEN PEOPLE



### **JOHN HERIVEL (1918-2011): Mathematician, Science Historian and German Enigma machine codebreaker**

John Herivel was born in Belfast on 22 August 1918. He was educated in Methodist College, both primary and secondary education. He graduated in 1936 and in the following year entered Sidney Sussex College of the University of Cambridge having won a Kitchener Scholarship to study mathematics. While there he was recruited in 1940 by his former supervisor Gordon Welchman, head of the newly formed Hut 6 team which was set up to crack German army and air force Enigma ciphers.

At the time, Hut 6 was having limited success in cracking the Luftwaffe's Enigma code, used to liaise between the German air force and ground forces, John was determined to find a solution. He spent many days and evenings wrestling with the problem and one night in February 1940 he made his breakthrough. He identified potential slack practice by German operators when using Enigma. This led to his being able to break the Enigma ciphers by hand, a system which became known as the *Herivel Tip*, or *herivelismus*. Welchman later said that without Herivel, Bletchley might have been unable to break the Luftwaffe cipher - with disastrous results for Britain.

Historians agree that the role played by the team at Bletchley Park and the use of the Herivel Tip helped to shorten the war. In recognition of the contribution he had made to the war effort, John was introduced to Winston Churchill during a visit to Bletchley Park.

After the war, he worked initially as a teacher but struggled to control the boys. Instead he took a post as a lecturer in the History and Philosophy of Science at Queen's University, Belfast. He retired to Oxford, where he was a Fellow of All Souls, in 1978.

John Herivel published several books, including *Joseph Fourier: The Man and the Physicist* (1975); *The Background to Newton's Principia, a Study of Newton's Dynamical Researches in the Years 1664-84* (1965). In addition, he wrote about the decoding work at Bletchley Park in *Herivelismus and the German Military Enigma* (2008).

John Herivel died suddenly on 18 January 2011, at his home in Oxford.