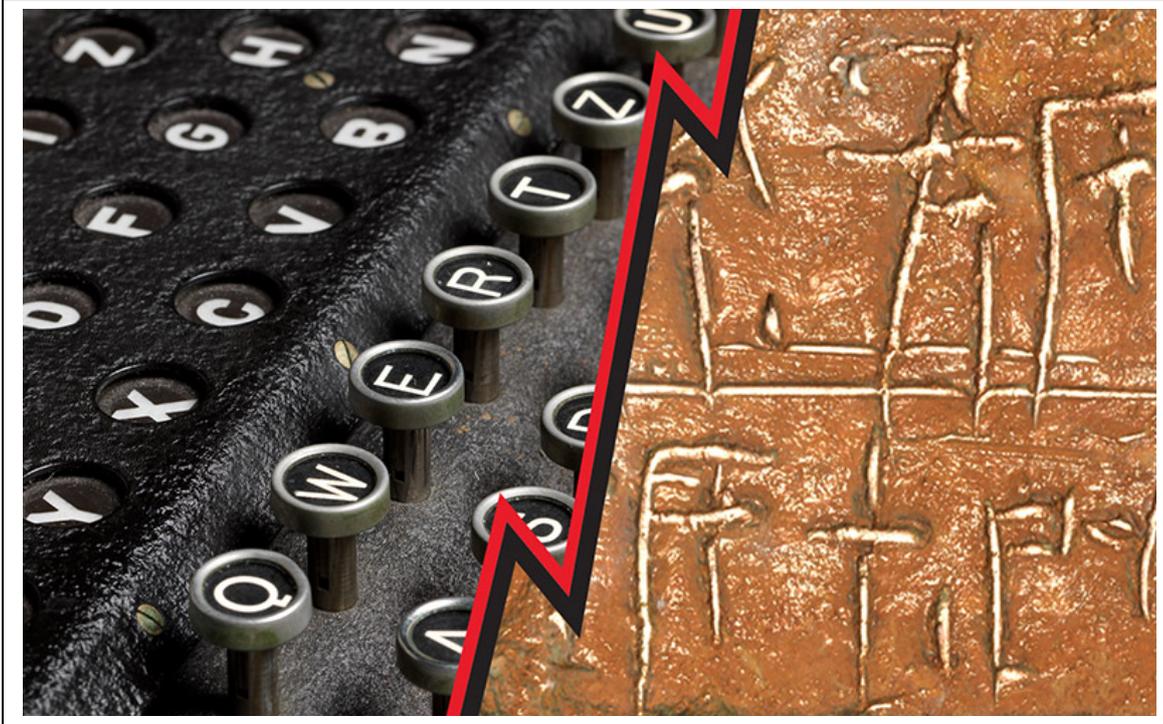August 2017

Codebreakers and Groundbreakers:

From breaking the Enigma Codes to the Decipherment of Linear B

24 October 2017 – 4 February 2018 | Fitzwilliam Museum, Cambridge

A pioneering new interdisciplinary exhibition, Codebreakers and Groundbreakers will explore the world of codebreaking, cryptography and deciphering ancient script from 1500 BC to the present day through the lives of those who broke the codes.

The remarkable achievements of two groups of 'codebreakers' will be presented together for the first time; the figures involved in breaking the World War II codes - Alan Turing and Bill Tutte, alongside Michael Ventris and John Chadwick - who deciphered the Linear B script, Europe's earliest comprehensible writing system.

The exhibition illustrates for the first time the interdisciplinary landscape that was crucial in deciphering both codes and ancient languages, encompassing the areas of classics, ancient history, archaeology, mathematics, computer science and linguistics. It is organised in collaboration with the Faculty of Classics and the Museum of Classical Archaeology, University of Cambridge.

Trumpington Street, Cambridge, CB2 1RB
www.fitzmuseum.cam.ac.uk
Press Office: press@fitzmuseum.cam.ac.uk | 01223 332941

The impact and intellectual influence that Cambridge University had with both groups of Cambridge 'codebreakers' and their work was ground breaking in every respect. On the one hand, the breaking of the World War II codes helped end the war and saved lives, but also led to the birth of artificial intelligence and the emergence of modern computers. The decipherment of Linear B, on the other hand, was one of the most remarkable linguistic achievements of post - war Europe, which added 600 years to our knowledge of ancient Greek language and society.

The academic homes of the Cambridge Codebreakers, King's College and Trinity College Cambridge, have given the Fitzwilliam Museum unique access to their archives, shedding light on the lives and discoveries of the Cambridge Codebreakers, Alan Turing and Bill Tutte among others. The content of the archives have never been widely accessible to the public before and were, until recently, only available to specialised researchers on request. Personal letters and objects will be on display – some of which have not been seen in public before.

The Government Communications Headquarters (GCHQ) have given permission for the Fitzwilliam to display two coding devices: a rare 1944 U-Boat Enigma M4, made exclusively for the U-boat division of the Kriegsmarine, used by the German Navy to disseminate secret communications to and from German Atlantic U-boats and a British equivalent, Typex Mk 22, a device used by the United Kingdom for exchanging secret messages at the highest level. A machine the Germans never managed to decipher.

GCHQ said, 'We are pleased to be loaning two World War II coding devices rarely made available for public viewing. GCHQ has a strong interest in both cryptography and languages, and it is fascinating to compare the wartime codebreaking exploits of Alan Turing and Bill Tutte with the deciphering of the Linear B script. Both demonstrate the leaps forward that are possible when diverse, multidisciplinary teams are brought together and allowed to use their talents to the full.'

Unique Linear B clay tablets from the palace at Knossos, Crete, lent by the Ashmolean Museum, University of Oxford will explain the parallel story of Linear B and be on loan alongside objects from the Cambridge Faculty of Classics' Mycenaean Epigraphy Archive – the single most important collection for Linear B studies in the world. Highlights of these exhibits include two complete clay tablets inscribed in the Linear B script from the palace, at Knossos, one recording the transfer of a substantial quantity of coriander, an ingredient used in the Aegean Bronze Age perfume industry and another rare example recording the allocation of rations to a group of Knossian women associated with the palace's textile industry, offering us a rare glimpse of the ancient world.

Codebreakers and Groundbreakers brings to life the complex and beneficial interaction between arts and science, told through the evolution of cryptography. The achievements of both groups changed the course of history. These astounding achievements apply to the linguist deciphering ancient text, or to the mathematician decoding encrypted messages and stealing the enemy's secrets.

Throughout history the problem of codebreaking has transferred from linguists to mathematicians and computer scientists. Codebreakers and Groundbreakers explores not just the history of cryptography but addresses crucial questions about the future of secret communications and their pioneers. Who will be the next codebreakers? Or will we one day finally achieve perfect secrecy?

-Ends-

'Codebreakers and Groundbreakers: From breaking the Enigma Codes to the Decipherment of Linear B' edited by A. Christophilopoulou, I. Galanakis and J. Grime, the exhibition curators, will be available from October 24, for £20.

Notes to editors:

For all enquires please contact the Fitzwilliam Museum Press Office: +44 (0) 1223 332941 | press@fitzmuseum.cam.ac.uk

About the Fitzwilliam Museum
Founded in 1816 the Fitzwilliam Museum is the principal museum of the University of Cambridge and lead partner for the University of Cambridge Museums (UCM) Major Partner Museum programme, funded by The Arts Council. The Fitzwilliam's collections explore world history and art from antiquity to the present day. It houses over half a million objects from ancient Egyptian, Greek and Roman artefacts, to medieval illuminated manuscripts, masterpiece paintings from the Renaissance to the 21st century, world class prints and drawings, and outstanding collections of coins, Asian arts, ceramics and other applied arts. The Fitzwilliam presents a wide ranging public programme of major exhibitions, events and education activities, and is an internationally recognised institute of learning, research and conservation.
www.fitzmuseum.cam.ac.uk

The Fitzwilliam Museum, Trumpington Street, Cambridge CB2 1RB | Free admission
OPEN: Tuesday – Saturday: 10.00 - 17.00, Sundays and Bank Holiday Mondays: 12.00 – 17.00
CLOSED: 24-26 & 31 December, 1 January, Good Friday

A complementary display will also be running over this same period at the Museum of Classical Archaeology. For more information visit: www.classics.cam.ac.uk/museum

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Faculty of Classics

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Government Communications Headquarters (GCHQ) is one of the three UK intelligence and security agencies. GCHQ works to protect the UK and its citizens from a range of threats to national security, including from terrorism, serious and organised crime and cyber-attack. It also works to protect UK forces wherever they are deployed. The National Cyber Security Centre, as part of GCHQ, is the UK's authority on cyber security. Further information about GCHQ can be found at www.gchq.gov.uk.

Business Partners
The Museum is supported by our Business Partners during 2017; TTP Group plc, ACE Cultural Tours, Hewitsons LLP, and Sotheby's. The Fitzwilliam Museum's Marlay Group has also supported this exhibition.

Microsoft Research Cambridge was founded in 1997 with a team of three researchers. Today, more than 150 researchers and engineers work at the lab, collaborating on cross-disciplinary projects to create real-world technologies through deep research. Microsoft Research Cambridge is focused on three principle research objectives: to apply artificial intelligence to improve people's lives; to invent intelligent infrastructure for the cloud; to transform how we work by bringing humans and machines together in partnership. Underlying these objectives, Microsoft Research Cambridge pursues a range of research disciplines including machine learning, computer vision, biological computing, natural language processing and human-computer interaction.

The Art Fund Jonathan Ruffer Curatorial Grants Programme supported Dr Anastasia Christophilopoulou in her research for the exhibition with a grant.

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