

2012-04-15

Pictorial Report on the Norwich Meeting 2012

by Michael Negele

Successful Meeting in spite of British Weather

KWA General Meeting in Norwich, 13-15 April, 2012

The witty travel report of an insider

At about 5.15 am in the morning, I started from Wuppertal via Düsseldorf and Stansted towards East Anglia. Due to my business trips to Norwich there were no orientation problems, we safely arrived at the George Hotel already before 11 am, but there were no rooms available (only from 2 pm).



Travel with the Sarembas and Van de Veldes - room for five is in the smallest Astra (But the luggage: much volume, little weight)



The George

Hotel

Despite a light rain we went together with Guy Van Habberney and the Grondijs family to the coastal Cromer to enjoy there (finally, for me) the famous Cromer crabs.



At Cromer pier



"Crabbing Bucket"

A crustacean in the



From left:
Michael Negele, Andreas Saremba, Rienke van Zutphen, Hendrik Grondijs, Bob van de Velde,
Marie-Theres Saremba, Harrie Grondijs

Back in the George Hotel, all guests had arrived in the meantime (apart from Jimmy Adams and Tony Peterson, both announced for Saturday).

Here 18 additional photographs from the visit to Cromer and some further arrivals in the hotel: [Gallery 1](#).



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Bernard Cafferty and Steve Giddins in the hotel bar

Mike Sheehan,



•
Owen Hindle

Guy Van Habberney with

At about 4 pm we started - with tea (or coffee or even a beer) - a short KWA session where Guy Van Habberney once again described our concerns.



session

Our chairman opens the

At 5.30 pm the group (without Cafferty and Giddins) started for a tour of the ancient city of Norwich, in spite of the beginning rain we saw everything (except the nice houses on the Wensum), particularly the interior of the Cathedral deeply impressed me. (Naturally I had never seen it before during my business trips, as being closed from 6.30 pm.)



Tony Gillam,
Marie-Theres Saremba, Gordon Cadden, Winifred van de Velde, Bob van de Velde

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Jurgen Stigter

with Tim and Joan Harding

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Inside Norwich

Cathedral - the nave

Due to the rain, we went a little earlier to the fish restaurant Loch Fyne, the atmosphere was excellent there, the service was kind, the quality of the meal however "variable". But I found the atmosphere very pleasantly light and friendly, not the rule in English pubs or inns.

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In front of the
fish restaurant



Dinner at Loch
Fyne



Our [Gallery 2](#) shows 39 photographs from the tour of the city and from the dinner.

Relatively far into the night I still potted about on my lecture, when my "room mate" Jurgen Stigter asked me aplenty questions about Twiss and his chemistry book.

Next morning at a (very good) breakfast, I could briefly talk with Bernard Cafferty and Steve Giddins about the "BCM affair", it was quite funny. We started on schedule at 9.30 am, to our great pleasure Michael Clapham (the wonderful chess pictures provided by him had been hung on the wall) and Kathleen & Owen Hindle had prepared a small chess exhibition in the large meeting room. Technically everything worked properly as well, if you ignore that for a short time Jurgen pulled the plug on the projector...

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Michael

Clapham's appearance

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Items from the

chess exhibition

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Who doesn't know this gentleman?

Who doesn't



The lectures have started

The lectures

Especially Owen Hindle's contribution has impressed me, but also Gordon Cadden presented his research convincingly - even if Tim Harding still doesn't seem to agree completely.

In the course of the morning also Tony Peterson and Jimmy Adams joined us, with surprise guest Ray Cannon on their coat-tails. (In the end Kathleen and Ray became new members and paid without resistance 30 GBP "special tariff".)



Tim Harding gave a lecture on "Eminent Victorian Chess Players"

- here his Presentation as PDF (0.6 MB; in the member section).

He has also reported on our assembly in his Kibitzer column at *ChessCafe.com*: [An Unusual Chess Congress in Norwich](#)

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Owen Hindle's presentation topic was "I.O. Howard Taylor and the Golden Days of the Norwich Chess Club": Howard Taylor (PDF/10.8 MB; member section)



Our treasurer Michael Negele talked about "John Keeble – Chess Historians have to take responsibilities": John Keeble (PDF/6.2 MB; member section)

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Gordon Cadden on Sleuthing
for Philidor's grave (PDF/3 MB; member section)



Coffee break:
Tony Peterson and Raymond Cannon

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Bernard

Cafferty dealt with "130 Years of British Chess Magazine"

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Tony Gillam

with his favourite subject: "Lost chess books"

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Per Skjoldager presented the recently founded [Lund Chess Academy](#) where Calle Erlandsson is involved as well. See for that also Steve Giddins' [Blog entry](#) as well as the above linked report by Tim Harding.



Andreas Saremba has resumed the work

on our BoC, at first a database of chess personalities ("New Gaige") will be tackled.

Here the presentation on the project **tobibliion**: Tools for Bibliographers' and Librarians' Open Networking (PDF/0.5 MB; in the member section)

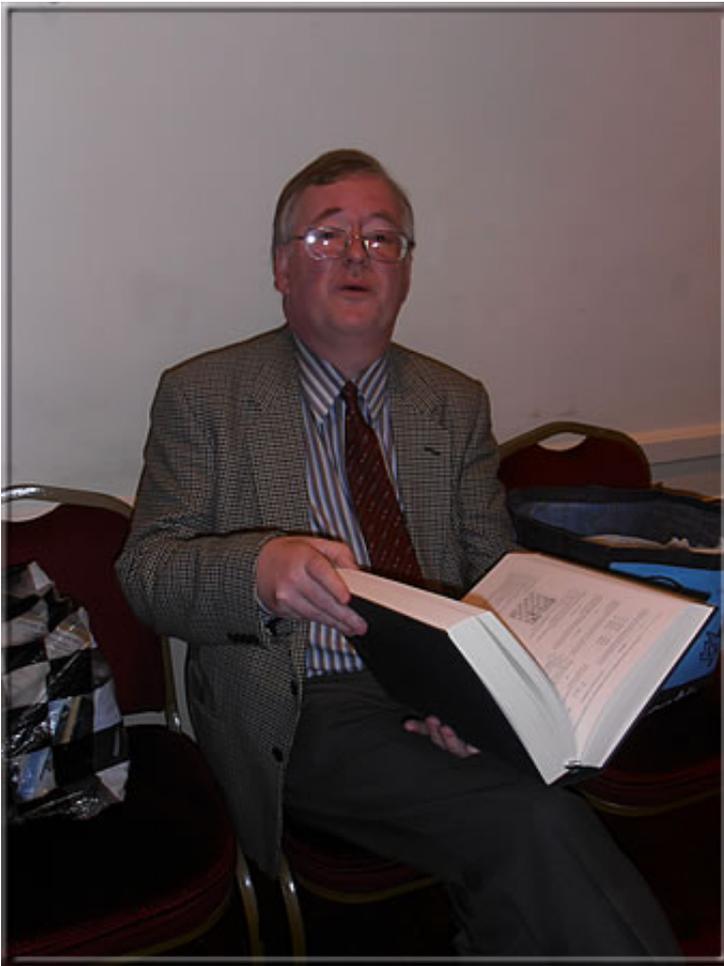
Further links:

- Topics of the general meeting, compiled by Michael Negele
- Guy Van Habberney's Report on the member assembly

There was also voted on the Zukertort donation, some didn't agree and abstained from voting. Afterwards the book market, mainly "equipped" by Mike Sheehan, Tony Peterson and Michael Clapham. I didn't buy much, only a quite high-priced Murray on *Board games other than Chess*.



At the book market: Harrie Grondijs, Mike Sheehan, Calle Erlandsson and Tony Gillam



Steve Giddins with the big Lasker monograph. Steve was the first who posted a note on our meeting in his blog: [Oasis of civilisation!](#)

Our [Gallery 3](#) offers 21 additional photographs from the meeting (including the chess exhibit and the book market).

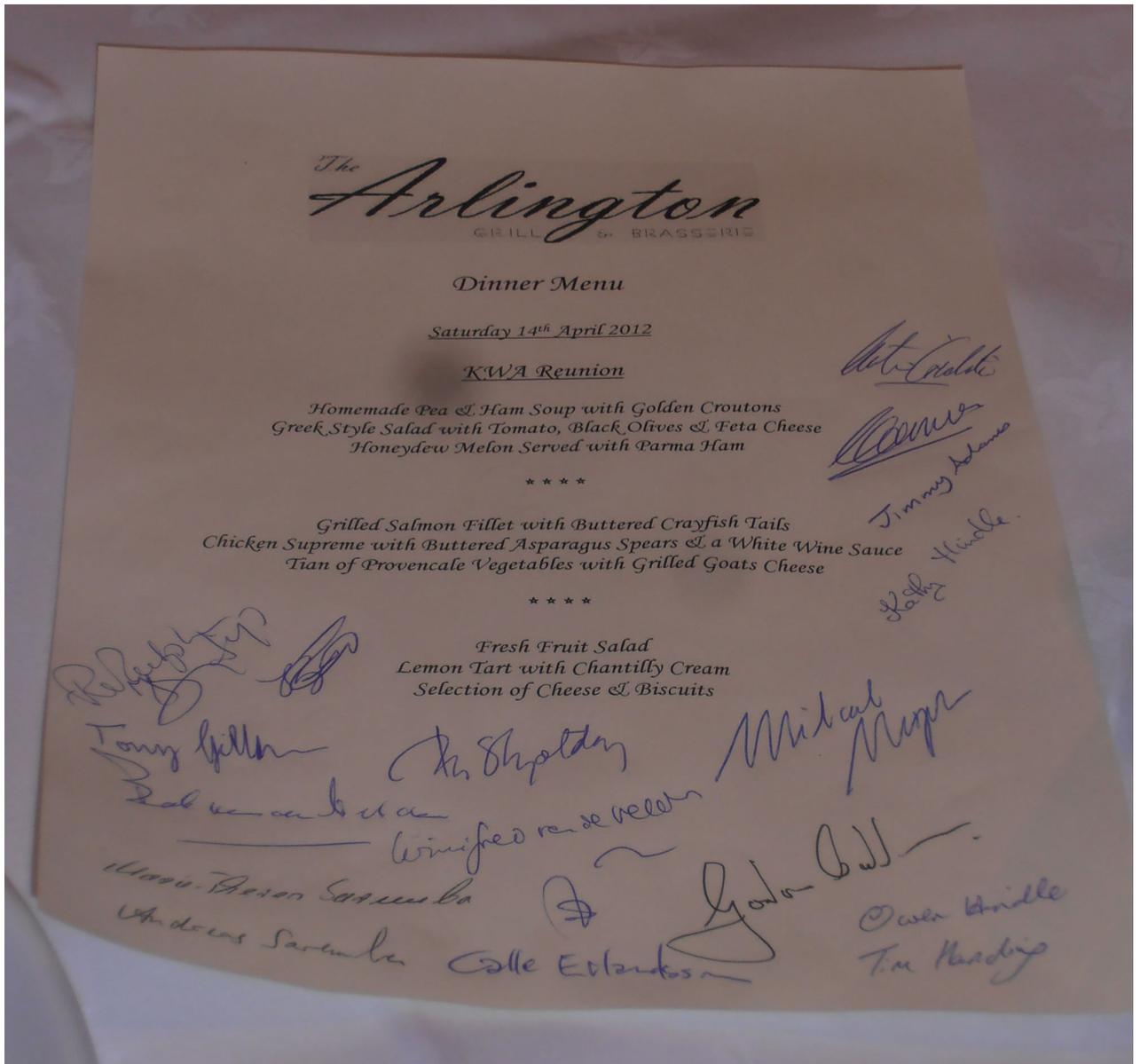
A fine dinner in the George Hotel followed, in a good mood and with a clearly better price-performance ratio. I had a great conversation with Jimmy Adams about his Breyer book project, I am very curious.

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meal in the George Hotel

The evening



The menu card signed by the attendees



Jimmy Adams,

Kathleen and Owen Hindle

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Gordon Cadden

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Tony Gillam

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Jimmy Adams and Michael Negele

Sunday morning we went to Bletchley Park, after all 2.5 h to ride. Unfortunately the Grondijs couldn't join us as they didn't travel by car and had to return to Norwich – where their plane had arrived directly from Amsterdam.

I had already reported about Bletchley Park before (see [On a Flying Visit to Bletchley Park](#)), it was my

second visit now and certainly not my last. The Sarembas and Van de Veldes looked impressed, but the other attendants as well, particularly the Hardings and Steve Giddins. Jurgen Stigter made again some waves because of much luggage and transfer to London ...



Bletchley Park

Mansion

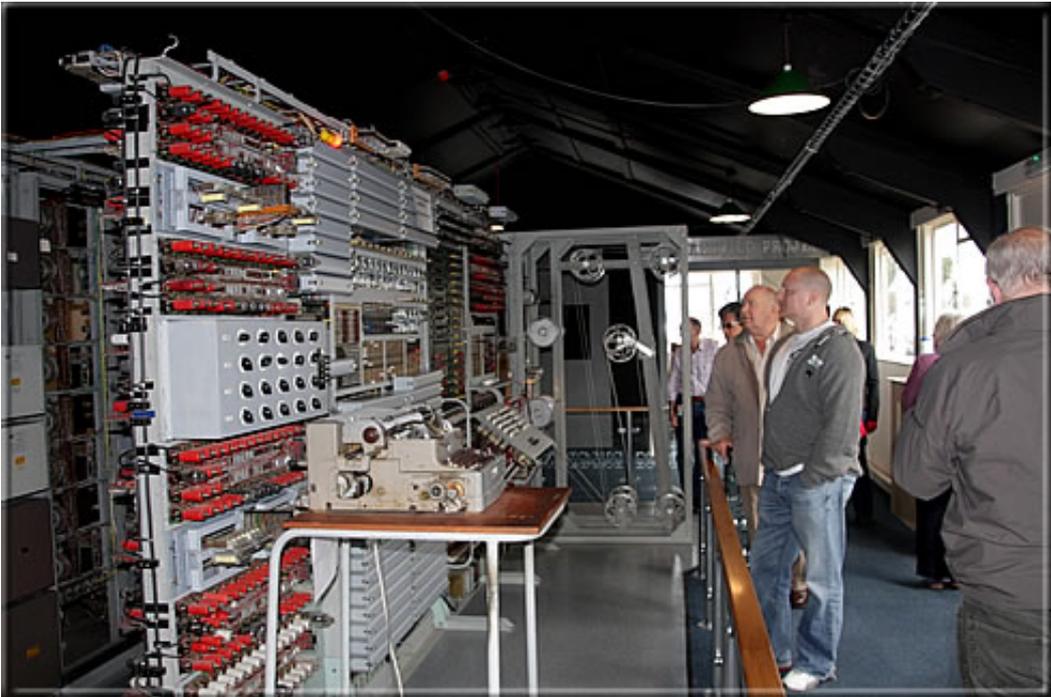


Calle

Erlandsson, Jurgen Stigter, Steve Giddins, Michael Negele und die drei Ehepaare Harding, Van de Velde and Saremba. (Photo taken by Per Skjoldager)



In the
auditorium



Reconstruction
of the Colossus computer



Alan Turing statue

About Alan Turing

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Alan Turing

1912 - 1954

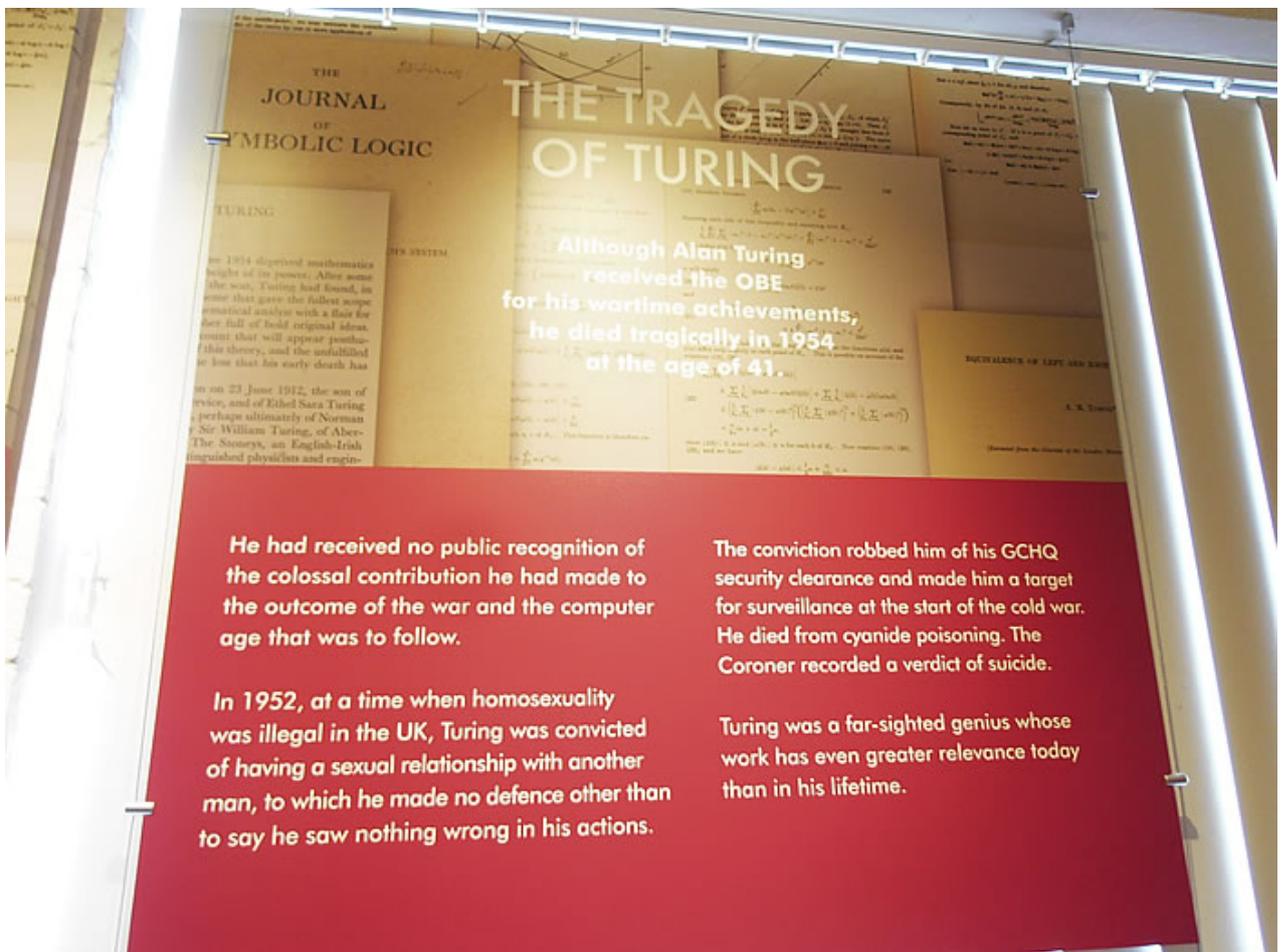


Alan Turing will always be associated with the birth of the digital computer age. Using his deep understanding of mathematics, he developed statistical approaches to codebreaking at Bletchley Park. His belief in a machine approach was soon vindicated by the operation of his 'bombe'. 'The Prof' was held in high regard there despite his sometimes shabby, uncouth appearance, and strange behaviour.

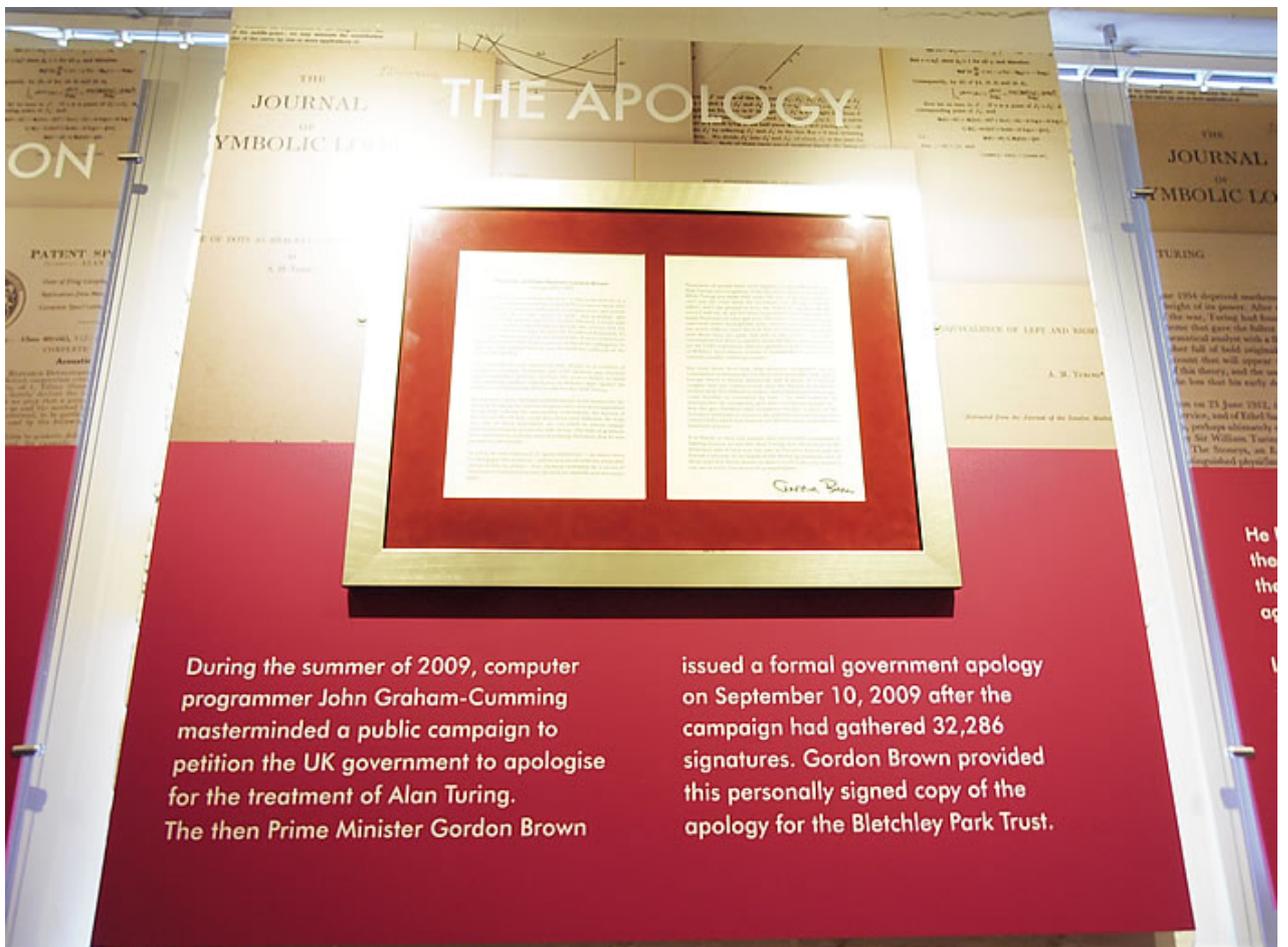
Alan Turing OBE FRS was born on 23rd June 1912 in London. At Sherborne he studied aspects of science – largely self-taught – but took no other interest in school life. His untidy habits and shy, hesitant, high pitched voice were to remain with him, as would his ability to think deeply, working from first principles. He seemed an anti-social loner, but with a sense of humour. He was much happier at Kings, Cambridge, both because of the intellectual challenge and the tolerance of his homosexuality. He became a Research Fellow in 1935, and pursued his interest in mathematical logic. In his paper of 1936 'On computable numbers...' he proposed a machine that could perform logical operations, seen as the underlying foundation of digital computation.

Alan had long been interested in codes, so when he arrived at BP on 4th September 1939, he was assigned to the Enigma Research section under Dilly Knox who soon reported that Alan Turing was producing a stream of ideas. Turing designed a machine for breaking Enigma, the 'Turing bombe' which was operating to help break Enigma messages by the autumn of 1940. By December 1939 Alan had worked out the way the Germans chose their Naval Enigma message 'indicators'. He led the small Naval Enigma team in Hut 8, and soon he was being consulted from around the site. After thinking deeply about a cryptographic problem, he could often suggest an approach that would open up a successful solution. In June 1940 Turing produced a manual known in BP as 'Prof's Book'. Hut 8 steadily worked towards the breaking of Naval Enigma, and, after receiving captured material, they succeed in the summer of 1941, breaking the vital Atlantic waters surface ship key, *Dolphin*, virtually every day. Alan's method for reducing the number of possible wheel orders, 'Banburismus', was based on his development in sequential statistical analysis, an original contribution to mathematics. Turing had no interest in administration, so Hugh Alexander was transferred to Hut 8 in March 1941, soon becoming head of Hut. Alan developed a statistical approach to breaking the Fish codes, called 'Turingery' in the Testery; those used on the machinery in the Newmanry were a derivative of this approach. He was not directly involved in the development of their machines, such as *Colossus*, but the concept certainly stemmed from his discussions with Max Newman.

In December 1942 Alan left for the USA, to help with the US high-speed bombes, and a system of secure voice radio at Bell Labs. He returned home in August 1943, leaving BP for Hanslope Park to build an elegant secure voice communications system. After the war, Alan went to NPL to build the computer, ACE. He produced a visionary design but was frustrated by the slow progress. Max Newman invited Alan to the Computing Laboratory at Manchester University in the October 1948. He designed an arithmetic routine for the Baby (June 1948) and used the machines there for a variety of pioneering applications, such as A.I., a theory of growth in biology, and for modelling reactions. He was made an FRS in 1951. After a prosecution for sex with another male adult, Alan committed suicide at his house in Wilmslow on 8th June 1954.



— The Tragedy of Turing



— The Apology



Cipher

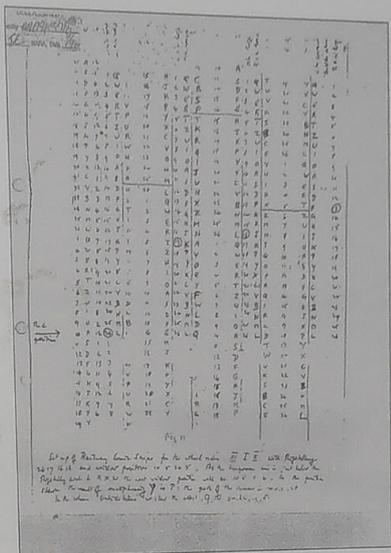
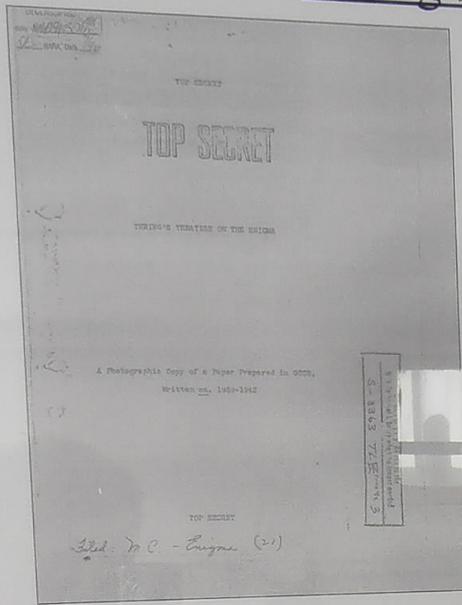
machine Enigma: <http://de.wikipedia.org/wiki/...> (in German only)

Enigma & the Bombe

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Enigma & the Bombe

Turing's Comic Cuts



The Comic Cuts

An early method for decoding Enigma messages was called "Rodding"

It is described in Turing's "Treatise on Enigma" which he wrote probably in 1942.

Turing's description is not very clearly written, but after a considerable amount of effort it can now be demonstrated.

Rodding is basically a paper method involving representing the Enigma wheels by strips of paper or card. Turing called these "comic strips". A colour coding was used to identify the Enigma wheels and this is used here.

A background sheet of paper has printed on it vertical strips of letters and numbers. On the left hand side is the representation of the Umkehrwalz (reflector), U.K.W. This contains three columns. The right hand of these is the entry and exit terminals, just the alphabet repeated. The centre is the numeric value of the alphabet repeated. The left hand column contains the connection within the U.K.W. for instance the entry terminal A is connected to the Y terminal.

The next three pairs of columns on the background sheet are reference columns with alphabets and numeric values. These sit in between the strips representing the wheels.

The last set of columns on the background sheet on the right hand side represent the Stecker, (plugboard) connections. The central column giving the Steckers for the two outside columns.

The wheel strips contain the alphabet on the right hand side, the numeric values of the alphabet down the centre and the wheel wiring in the left hand column. The letter

entered into this column is the letter to which it is connected on the right hand column.

The strips would be folded into a ring with the letters on the inside to represent a rotor.

A single alphabet strip is placed between the centre column and the left-hand column. This represents the Ringstellung or tyre setting on the wheel. It is placed so that the Ringstellung letter on this strip is alongside the number 26 in the centre column of the wheel. For instance on wheel IV in this example, its Ringstellung is G so G on the Ringstellung strip is alongside 26. The coloured strips represent the core cross wiring inside the wheel. The white strip represents the tyre with the alphabet on it. It is these letters which show through the windows on the Enigma machine.

In the first demonstration, the wheels IV and II are moved up or down until letter D is at the datum point on wheel IV and H is on the datum point for wheel II. (The datum point is 26 on the background sheet).

Now the strip for wheel V can be moved until O is at the datum. This is the same as turning the wheels on a real datum. This is the same as turning the wheels on a real Enigma until DHO shows in the windows. This is the indicator setting for decoding the message setting. This on intercepted message is GXSS. Now the strip for wheel V is moved up one place to P. This is because the current flows through the real Enigma and lights a lamp AFTER the right hand wheel has moved due to the entry key being pressed down.

So now it is possible to decipher G, the first letter of the message setting. Entering on the far right hand side at G reveals that it is Steckered to R, so moving down to R on the background column leads to I on the right hand side of the wheel V. Now finding I on the left hand column of wheel Y on the right hand column of the middle wheel II. Finding Y on the left hand side leads to T on the background sheet leading to Q in the right hand side of the left hand wheel. Finding Q on the left hand side leads to Q on the Umkehrwalz. This leads to E on the output of the Umkehrwalz leading to Z on the left hand side of the left hand wheel. Finding Z on the right hand side on the output of the Umkehrwalz leading to Z on the right hand side leads to I on the left hand side of the middle wheel. Finding I on the right hand side leads to G on the Stecker panel. This is Steckered to R and on the real Enigma, the R lamp would light.

The right hand wheel V is now moved up one position and the next entry of X made. When this is traced through it returns to L on the Umkehrwalze which is self Steckered so the L lamp would have lit.

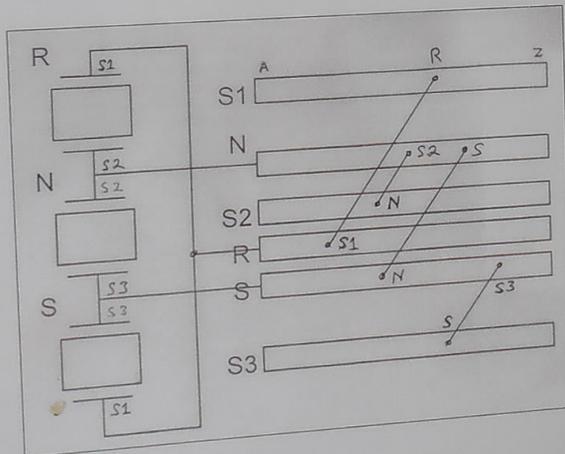
Moving the right hand wheel again allows S to be entered. This comes back to V on the Umkehrwalz. This is steckered to P and the P lamp would have lit.

Thus the enciphered message setting, GXSS deciphers as RLP. The second demonstration has the left hand wheel moved to R, the middle wheel to L, and the right hand wheel set to P. The decipherment of the main text, NQVLT can now be achieved after moving the right hand wheel up one place. This reveals the deciphered text FLUEG etc.

Enigma & the Bombe

The Diagonal Board

Gordon Welchman came up with the idea of the diagonal board. This was an implementation of the simple fact that if B is Steckered (linked) to G then G is also Steckered to B. If 26 rows of 26 way connectors are stacked up, then any connection point can be referenced by its row letter and column letter. A physical piece of wire can now connect row B element G to row G element B. The device was called a Diagonal Board because such a piece of wire is diagonally across the matrix of connections.



Now the double ended Enigma configuration knows nothing about Steckers. It can only deduce rotor core wiring positions which satisfy the menu. However, the possible Steckers such as R->S1, can be exploited by the Diagonal Board. If the joins between double ended Enigmas are also connected into the Diagonal Board at the position corresponding to the original cipher/plain text pair on the menu, say R, then this can significantly increase the rejection of incorrect double ended Enigma drum positions.

It has already been shown that if a set of drum positions had been found where S1->S2->S3->S1 then a physical wired connection has been made through the joins between opened out Enigmas at S1, S2 and S3. The deduction from this is that R is Steckered to S1 etc. Now if the join representing R on the menu is plugged piece of wire will connect through the Diagonal Board from row R at position S1 to row S1 at position R. Since S1 is not plugged to anything the voltage on this wire goes nowhere else. Similarly for the other joining positions between opened out Enigmas. Thus the Diagonal Board does not affect the finding of the correct drum positions.

But if the drums are not in the correct position to make the connection S1, S2, and S3, then a voltage travelling around the network and finally arriving at say row N position S will be passed via the Diagonal Board wire to row S position N and will thus continue through the wiring in the opened out Enigma on both sides of the join S. The Diagonal Board thus greatly contributes to the voltage flow around the network of wires in the opened out Enigmas due to the extra connectivity that is provided. This increase the rejection of drum positions which do not satisfy the menu.

Hugh Alexander

1909 - 1974

Hugh Alexander was an outstanding chess player, but he was also amongst the greatest of British cryptographers. When he came to BP in early 1940 he had had no previous experience at codebreaking, but in Hut 6, and then Hut 3, he soon became adept at using both traditional and machine-based methods for breaking Enigma. He led the Naval Enigma team in Hut 8 from 1942, and ended the war on Japanese codes. After the war he led the cryptographers at GCHQ until he finally retired in 1971, keeping up his chess in his retirement.



C. Hugh O'D. Alexander was born in Cork, but after his father's early death the family moved to Birmingham. He read mathematics at King's College, Cambridge where he was seen as an outstanding mathematician. He went on to teach maths at Winchester College, always playing and writing about chess, being near the top of British chess for many years. Moving to London, he joined the John Lewis Partnership in 1938, the year in which he became British champion.

In February 1940, aged 29, he joined the Hut 6 team of cryptographers at BP working on the German Air Force & Army cyphers. He soon became one of the 'Heads of Wash' in Hut 6, providing both an excellent cryptographer and a fine manager. He was transferred to Hut 8 in March 1941, both to strengthen the attack on German Naval Enigma, and to improve their administration. Hugh soon became the acting Head of Hut, and took over from Alan Turing when Alan left to visit the US in November 1942. If the theoretical ideas for breaking Naval Enigma largely stemmed from Alan, it was Hugh who led the team to practical success, in particular in breaking the German Atlantic key, **Dolphin** in the summer of 1941, and by the breaking of the U-boat key, **Shark**, in December 1942. He strengthened BP's relations with the US Navy cryptographic team in Washington. Hugh tackled the 4-wheel Enigma, driving on the introduction of the high-speed bombes, both in the UK and in the USA. When he left them in August 1944, his Hut 8 was breaking about a dozen German naval Enigma keys each day.

Hugh did not believe in having cryptographers standing idle, so he kept his team small. But with his endless enthusiasm and energy, he was an inspiring leader, very popular with his staff, and certainly ran one of the best organised and productive teams at BP, despite his own untidy ways. He had phenomenal powers of concentration, and habitually worked very long hours. In February 1943 he invited the Naval sub-Section struggling to break the Japanese Naval attaché machine, Coral, to join his Hut 8 team. In the autumn he sent the US team a detailed report on how to break it, and was in Washington to over-see the final stages of the break in February 1944. In the autumn of 1943 it had become clear to Hut 6 that the Germans were planning to introduce a variable reflector, known in BP as 'Uncle Dick'. It is a tribute to his reputation that Hugh was asked to oversee the attack on this development. He and his working party produced various suggestions on how to tackle the threat, some of which were implemented when the Germans introduced it into service on some Air and Army Enigma keys during 1944. In August 1944 Hugh moved from Hut 8 to lead the team working on the main Japanese naval key, JN 25. After the war, following a short interval back at John Lewis, Hugh rejoined GCHQ, and led their cryptographic teams until he finally retired in 1971, having refused promotion to the top management. He continued to be actively involved in the chess world until his death in 1974.

• C. Hugh O'D. Alexander

Stuart Milner-Barry

1906 - 1995

Stuart Milner-Barry had achieved fame as a champion chess player when he came to BP early in 1940. He led the 'cribsters' team in Hut 6 from its opening in January 1940, becoming head of the Hut in September 1944. The work of Stuart and his team lay at the heart of the triumph over the German Luftwaffe & Army Enigma codes. After the war he had an outstanding career in the civil service.



Sir (Philip) Stuart Milner-Barry was born on 20th September 1906 in London, he went to Cheltenham College and on to Trinity College, Cambridge, where he read for a first in part I of both the classical and the moral sciences tripos. He became a not-notably enthusiastic stock broker, though it was chess that filled his life. He had been boy chess champion of England in 1923, playing for England before and after the war. He was chess correspondent of the Times from 1938 and throughout the war. It was Gordon Welchman, a friend from their days up at Trinity together, who persuaded Stuart to join BP. He arrived in January 1940 joining the newly created Hut 6, and was encouraged by Gordon Welchman to study the decrypts that were beginning to emerge from the Zygalski sheets being operated by John Jeffreys. Gordon wanted Stuart to develop an intimate knowledge of the German cypher clerks and radio operators. When the Germans dropped the use of the repeated indicator, as they did on 1st May 1940, Hut 6 would have to rely on its knowledge of the traffic to find suitable 'cribs' to enable the bombe to operate, and in the meanwhile to make use of the careless procedural habits of some of the Germans. Stuart had noted that the cypher clerks tended to use addresses and signatures that were both long and stereotyped, providing a fruitful source for cribs. A crib had to be a phrase of about 13 characters long that was very likely to be found in certain easily identified messages, but also had to have linguistic features that provided good 'closed loops' for the bombe menus. The use of 'kisses', cribs derived from suitable decrypted messages from other keys, often provided the first break into a new key. Stuart organised a team of wizards, as Gordon called his cribsters, who eventually were able to provide good keys for Hut 6 to be able to break into most of the Luftwaffe keys and then some of the Army keys. Milner-Barry became recognised as Gordon Welchman's deputy, and when Gordon left in October 1943, to become responsible for mechanisation projects, it was Stuart who became Head of Hut 6.

Stuart signed the Turing letter in October 1941 and it was he who took the letter directly to Downing Street. It drew Churchill's attention the extreme shortage of support personnel in the Enigma huts. His powers of smooth administration now became clear as Hut 6 grew, reaching over 550 in total, one of the largest teams in BP. Stuart was a quiet, undemonstrative, highly effective leader who believed in delegation and was always to be seen sporting a very large pipe. His reports show that he was totally "unflappable," in the midst of the problems for Hut 6 created by the tightening of German cypher security in 1944, which they largely overcame.

Stuart was recruited to Whitehall in June 1945. He rose rapidly, becoming the ceremonial officer in the Civil Service Department. He had received an OBE in 1946, a CB in 1962, and a knighthood in 1975. He married in 1947 and they had three children. He died in Lewisham on 25th March 1995. He had repeated his visit to Downing Street in October 1991, with a letter signed by 10,000, asking for BP to be preserved as a monument to the great war-time work.

— Stuart Milner-Barry



Churchill Museum ...

Entry to the



countless memorabilia.

... presenting

Our [Gallery 4](#) presents 30 additional pictures from the visit to Bletchley Park.

The intended visit to Brompton ([Zukertort's grave](#)) - Mike Sheehan arguably appeared there at the cemetery and missed us - was cancelled due to the advanced time, the traffic jam on the M11 and the beginning hailstorm at temperatures below 10°C. The accompanying ladies were happy about my turn into the direction Radisson Hotel Stansted, and it was "rewarded" with a fine evening meal in the Italian restaurant there.

Finally sincere thanks go to Kathleen and Owen Hindle as well as to Michael Clapham, but also to those who made the book market possible.

Text: Michael Negele Photos: Andreas Saremba, Michael Negele & Guy Van Habberney