

CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

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Report on the papers of

Dr. Stanley Gill

(1926-1975)

Compiled by: Jeannine Alton
Harriot Weiskittel

Deposited in the Library of the Science Museum, South Kensington, London

1978

Description of the collection

Stanley Gill's career involved him in the academic, commercial and political aspects of computing. He was Professor of Computing Science at Imperial College, London, 1964-70 (Section E), a consultant to International Computers Limited, 1964-65 and 1968-70 (D.29-D.39), and to the Ministry of Technology, 1966-69 (Section F), a founding member of the British Computer Society and its President, 1967-68 (D.6-D.17), U.K. representative on the General Assembly of the International Federation for Information Processing, 1963-69 (D.46-D.57) and served on numerous official committees. (See summary of career on p.21)

From 1946-48 Gill was employed at the National Physical Laboratory on punched card computing and the design of the Pilot ACE. The only record of this work is a 1 p. note 'A.C.E. Problems', 21 November 1947, which was kindly supplied by Mr. M. Woodger of the NPL. This note (see A.2) lists the various technical difficulties associated with the design of the Pilot ACE and alongside the 'problems' the names of NPL employees given responsibility for dealing with them. Gill was responsible for 'Divider circuits'. Mr. Woodger also supplied a photocopy of those portions of the proceedings of two conferences held at the NPL in which Gill took part. The 1953 Symposium on Automatic Digital Computation (25-28 March) was the third of its kind in the country, the first having been held in Cambridge in June 1949, and the second in Manchester in July 1951. Gill and E.N. Mutch presented a paper on 'Conversion Routines' (pp. 74-80 of the proceedings) and Gill presented a second paper 'Getting Programmes Right' (pp.80-83 of the proceedings). At the 1958 Symposium on the Mechanisation of Thought Processes (24-27 November) Gill presented a paper on 'Possibilities for the Practical Utilisation of Learning Processes' (pp.827-833 of the proceedings). Mr. Woodger retains a 1947 laboratory notebook of Gill and the 2nd report on ACE, June 1949, 'Description of Hollerith Input and Output for the Pilot Model'.

In the autumn of 1949 Gill began research at the Mathematical Laboratory, Cambridge, where he studied programming with Dr. (now Professor) M.V. Wilkes and Dr. D.J. Wheeler. See C.54 for a copy of their book The Preparation of Programs for an Electronic Digital Computer published in 1951. A.3 is a copy of Gill's doctoral thesis 'The Application of an Electronic Digital Computer to Problems in Mathematics and Physics' submitted in November 1952. Chapter 2 of his thesis 'A Process for the step-by-step integration of differential equations' was substantially the same as a paper published by Gill in Proc. Camb. Phil. Soc., 47, 96 (1951) and Chapter 8 'The Diagnosis of mistakes in programming' was published in Proc. Roy. Soc. A, 206, 538 (1951). Very little else remains of his early career (see A.4-A.6 and C.1-C.3 for material relating to Gill's year in USA 1953-54), but numerous letters throughout the collection amply testify to the friendly relationships he maintained with former colleagues at NPL, Cambridge and Ferranti Limited (see especially D.29-D.39) during the whole of his career.

Gill was keenly interested in 'computer policy' and wrote and lectured prolifically on this subject. His extensive correspondence and his collection of press-cuttings, commercial and political reports, committee papers etc. provide useful material for documenting the turbulent history of computer developments in Britain. Section G has been titled 'Computer Policy' but Gill's deep conviction that computer technology was vitally important to Britain, and his efforts to secure a strong position for it, are dominant themes throughout the collection and appear in every section.

Section B contains many files of notes, working papers and correspondence relating to the four-colour problem on which Gill was working at the time of his death.

The advice very generously given by Professor A.S. Douglas, Dr. R.G. Wilson and Dr. A. Hyman on various aspects of the collection is gratefully acknowledged.

The papers were received from Mrs. A. Gill (widow), Professor A.S. Douglas and Mr. M. Woodger. Most of them date from 1960-75. Not all the papers will be immediately available to readers.

Summary of career

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|----------------------|--|
| 1926 | b. Worthing. |
| 1935-43 | educ. Worthing High School. |
| 1943-45 &
1948-49 | b. Worthing.
St. John's College, Cambridge. |
| 1946-48 | Assistant Experimental Officer, National Physical Laboratory. |
| 1949-53 | Research Student, University Mathematical Laboratory, Cambridge. |
| 1952 | Ph.D. Cambridge. |
| 1952-55 | Fellow of St. John's College, Cambridge. |
| 1953-54 | Visiting Assistant Professor, University of Illinois, U.S.A., Visiting Lecturer, M.I.T. |
| 1955-64 | Computer Department, Ferranti Ltd., London (became part of International Computers & Tabulators, 1963). |
| 1963-64 | Part-time Professor of Automatic Data Processing, College of Science & Technology, University of Manchester. |
| 1963-69 | U.K. representative on the General Assembly of the International Federation for Information Processing. |
| 1964-70 | Professor of Computing Science, Imperial College, London, and Director of the Centre for Computing and Automation. |
| 1966-70 | Adviser on computers to the Minister of Technology. |
| 1967-68 | President of the British Computer Society. |
| 1970-71 | Director of various companies in the Miles Roman group, London (Software Sciences Holdings, Software Sciences, Zeus Hermes, Computer Typesetting). |
| 1972-75 | PA International Management Consultants Ltd. |

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A. Biographical and personal

A.1 Curricula vitae and miscellaneous autobiographical notes.

A.2 National Physical Laboratory:

1. 'A.C.E. Problems', 1 p. typescript, 21 November 1947. List of areas of responsibility of NPL employees working on design of ACE. See 'Description of the collection', p.1. 1947
2. Gill's application to NPL, December 1948, for temporary appointment during the following summer. Letter of appointment as temporary member of staff, 1-31 July 1949. 1948-49
3. Symposium on Automatic Digital Computation. 1953
4. Symposium on the Mechanisation of Thought Processes. 1958

A.3 'The Application of an Electronic Digital Computer to Problems in Mathematics and Physics', thesis submitted for the degree of Ph.D., University of Cambridge, November 1952. 1952

A.4 Visit to U.S.A., June 1953-December 1954. 1953-54
Gill spent the academic year 1953-54 as Visiting Assistant Professor at the University of Illinois. He lectured at M.I.T.'s summer courses on digital computers, 1953 and 1954, and collaborated with Professor Charles W. Adams of M.I.T. on a textbook for programming courses before returning to England in December 1954.

File includes letters of appointment at M.I.T. and University of Illinois, letters of thanks to Gill for lectures and seminars delivered at various institutions around the country, lengthy letter by Gill to the Master of St. John's College, Cambridge (12 February 1954) giving a full account of his work and his future plans in the U.S.

See also C.1-C.3.

A.5 Correspondence re offers of appointment in the U.S.A. and Australia. 1955-57, 1961

A.6 Correspondence re appointments in the U.K. 1956-58, 1961

A.7 Correspondence and papers re Gill's appointment as Professor of Computation (part-time) at Manchester University from April 1963. This was the first chair in the subject in Britain. Letter and resolution of thanks to Gill for his service to the University, November 1964. 1962-64

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|------|--|---------------------|
| A.8 | Press-cuttings <u>re</u> Gill's appointment to Chair of Computation at Manchester (1963), his succeeding M.V. Wilkes as the United Kingdom's Council Member of the International Federation for Information Processing (1963), his move to Software Sciences Holdings Limited (1970) and his joining PA International Management Consultants (1972). | 1963, 1970,
1972 |
| A.9 | Correspondence <u>re</u> appointment to the Chair of Computer Science, Imperial College and letters of congratulation. | 1964 |
| A.10 | Correspondence <u>re</u> appointments. | 1971-72 |
| A.11 | One file of misc. correspondence <u>re</u> advice to others on career, letters of recommendation, referees reports on research proposals, boards of election. Not indexed. | 1964-71 |
| A.12 | One file of correspondence with Department of Employment and Department of Health and Social Security <u>re</u> regulations governing unemployment benefits. Not indexed. | 1971-72 |
| A.13 | One file of correspondence with Eric Lubbock (Lord Avebury), Lord Halsbury, Carol Mather and R.K. Stamper <u>re</u> Gill's 'Logical Analysis of a National Insurance Regulation'. | 1971-72 |
| A.14 | Large leather-bound, loose-leaf address book. Very extensive, with many entries (business associates, academic colleagues, politicians, committee members, etc.). Useful for showing the very wide range of Gill's contacts. | |
| A.15 | Small brown notebook containing notes for speeches, for meetings, working notes, etc. Includes notes for meeting with the Minister of Technology (A. Wedgwood Benn) in May 1970 (see also F.7) and notes for meeting of staff of Centre for Computing and Automation, Imperial College, at which Gill announced his resignation. | 1970 |
| A.16 | One file of miscellaneous shorter correspondence <u>re</u> meetings, visits. | 1965-71 |
| A.17 | One file of miscellaneous shorter personal correspondence. | 1974-74 |
| A.18 | One file of conference, business, personal photographs. Some are dated and described by Gill on verso. | |
| A.19 | One file of miscellaneous technical photographs. | |

B. Working Papers

B.1 Ferranti Limited

Material relative to Gill's work at Ferranti Limited. He was with Ferranti from 1955 to 1964. Includes:

1. 'A Ferranti Standard Computer Description?' 1961
5 pp. (stencilled) with ms. notes by Gill.
2. Computer Industry Questionnaire, return made to 1962
the Government Committee of Enquiry into the
Computer Industry.
3. Lecture (draft) to the Institute of Directors Conference 1963
on Automation by B. de Ferranti, and correspondence
with B.L.J. Hart.
4. 'User Aspects of Backing Stores', 3 pp. by Gill. 1962
5. 'Uses of an Associative Store', 3 pp. by Gill. 1962
6. 'Design Aims for a Common Order Code', 6 pp. by 1963
Gill.
7. 'A Proposal for a Common Assembly Language'. n.d.
8. 'Increasing Uses for Digital Computers', Engineering, 1962
31 August 1962: offprint of article by Gill.

- B.2 Working papers, print-outs and notes on programs for the composition of music by a computer. Using the Ferranti Pegasus, Gill collaborated with the head of music productions, BBC Television, in devising the program (see C.38 for correspondence with the BBC, additional notes and ms. copy of musical score by Lionel Salter). The work was eventually published in 1963 as 'A technique for the composition of music by a computer', in Computer Journal.
- B.2 also includes a bibliography on computer music, prepared in 1967 and sent to Gill for his information.
- See also D.48.
- B.3 'Find out what it feels like to be a computer': set of 4 games, designed by Gill to introduce the concept of algorithms. Original working notes and sketch (c.1968), correspondence, copy of games and instructions as published and distributed by Software Sciences Limited, mailing list for recipients, letters of thanks.
- B.4 'Algol Groats Manual (Revised August 1969)': printed booklet by F.R.A. Hopgood with loose pages of notes by Gill, and letter from Hopgood to Gill (7 May 1971) inserted inside front cover. Also includes explanatory note by Andrew Gill (son) 'Believed to be M.S. notes on the projection of a 3- or 4-D object on to a 2-D medium - presumably he was working towards an algorithm for the Atlas graphics package'.
- B.5 Papers and correspondence pertaining to Gill's use of the ARPA (Advanced Research Projects Agency) Computer Network: application by Gill (17 October 1973) to demonstrate the ARPA Network at his lecture to the Royal Signals Institution on 29 November 1973. Brief report by Gill on his work using the network. Correspondence, notes, print-out.
- File includes a copy of the original proposal (1971) by P. Kirstein to provide a British link with the ARPA Network, with supporting letter from Gill.
- B.6 Printed material re ARPA Network: user notices and manuals, newsletters, reports.
- B.7 'The Travelling Salesman', demonstration program developed by Gill for his lecture to the Royal Signals Institution: typescript, correspondence (see also B.9).

B.8	Notes and computer print-out for Travelling Salesman program.	1973-74
B.9	'Time Sharing': correspondence and papers re Gill's use of the Time Sharing Limited system for demonstration at his Royal Signals Institution lecture and for work on the 4-colour problem (see B.11-B.23).	1973-75
B.10	'Current State of Knowledge of Software Methodology'.	1974
	Misc. notes and drafts, including one set labelled 'Hartree on Diffusion Equn.'	n.d.

B.11-B.23 Work on the 4-colour problem

Gill became interested in the 4-colour problem in the autumn of 1973 but it was only after he was confined to his home for convalescence following surgery in December 1974 that he gave the problem his full attention. Using the computer terminal loaned to him by Time Sharing Limited (B.9), Gill developed a program GILZIP (written in DEC PDP-10 Algol) to handle the data. In January 1975 he received a letter from F.R. Bernhart of the University of Waterloo, Ontario, who was also working on the problem. Gill replied 'Until now the few attempts that I have made to contact other people working in the field have failed, so I have been working entirely on my own, on the basis of a few passages in some rather ancient books on recreational mathematics. So you see your letter has come as something of a lifeline'. Gill began a series of lengthy, detailed letters to Bernhart, written almost daily, in which he reported his results, analyses and any changes to the GILZIP program which seemed to be required. In a letter to the managing director of Time Sharing Limited (27 February 1975) (B.9) describing his work, Gill wrote 'The other groups have got further into the theory than I have done, on the other hand progress depends critically on having powerful computer programs and it turns out that so far mine is far more powerful than any other in the world, so that I have been getting results that no-one else has been able to achieve'. Gill continued his work on the 4-colour problem and his correspondence with others in the field until his death in April 1975. In the summer the correspondence was taken up by his wife and son in response to Bernhart's proposal to produce a paper on the results, with Gill's name as one of the joint authors.

The solution to the 4-colour problem was published in the Illinois Journal of Mathematics, July 1976, by Kenneth Appel and Wolfgang Haken. In an article in the New Scientist (72, no.1023, 21 October 1976) Appel wrote that the Illinois team had set out to develop 'a collection of computer programs to test configurations for reducibility. Although such programs had been written before (by Heesch, S. Gill, Allaire, and Swart, and others), because of technical differences in purpose it was thought advisable to have a new set'. In an article in Scientific American (237, no.4, October 1977) Appel and Haken describe the history of the four-colour problem and of their solution, which relied on high-speed computers. 'The proof made unprecedented use of computers ... the correctness of the proof cannot be checked without the aid of a computer. Moreover, some of the crucial ideas of the proof were perfected by computer experiments'.

- B.11 Correspondence with F.R. Bernhart. The file also includes: 1974-75
- Gill's list of totally reducible clusters
 - his 1 p. note on 'A Method of Constructing Unavoidable Sets of Clusters'
 - his 2 pp. note on 'Sets of Reducing Configurations'
 - copies of Bernhart's 'New Results of "Heesch Algorithm" Program "GILZIP"' and 'An Extension of Winns Result on Reducible Minor Neighborhoods'.
- The correspondence was continued by Mrs. Gill and Jonathan Gill in the summer of 1975.
- B.12 'On the Characterization of Reductions of Small Order', 1974
45 pp. typescript report by Bernhart (August 1974) with supplement.
- 'Notes on Four-Color Reduction', parts I and II, by Bernhart.
- Diagrams of reducible configurations.
- B.13 Correspondence with Michael Rolle (University of Waterloo), 1975
Jean Mayer (Université Montpellier) re 4-colour problem.
- File includes photocopy of paper by Jean Mayer on 1962, 1972
the subject and of offprints by G.A. Dirac (1962) and H. Whitney and W.T. Tutte (1972).
- B.14 'GILZIP', 6 pp. typescript by Gill of notes for users of the 1975
program, 20 January 1975.
- Print-out of the GILZIP program, 27 January 1975.
- B.15 GILZIP program: print-out of program as taken on 20 1975
February and 19 April 1975. Ms. copy of program (by Gill's son) with explanatory notes.
- B.16 'Computation by G-Reductions': ms. draft with tables and 1974-75
calculations; 2 pp. of diagrams of 'Optimum weighing schemes', 29 September 1974-11 January 1975.
- B.17 GILZIP print-outs for 3-4, 9-11 March 1975 with several 1975
pages of ms. notes by Gill, many on 'JQC'.
- B.18 GILZIP print-outs for 22 February, 2, 3, 6, 16 March with 1975
numerous pages of ms. notes and diagrams by Gill of clusters of polygons.
- Note: the original order of papers within the file has not been altered.

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| B.19 | One file of extensive ms. notes by Gill: memo. of points to be included in letters to Bernhart, modifications to GILZIP program, diagrams of clusters, calculations, summaries of data. | 1974-75 |
| B.20 | One file of diagrams of clusters, work from June 1974-January 1975. | 1974-75 |
| B.21 | One folder of print-out, 5 January-25 February 1975, with annotations by Gill. | 1975 |
| B.22 | One set of 'Printouts containing reduction tests in chron. order from 26 June 1974'. Last print-out is for 29 December 1974. | 1974 |
| B.23 | One set of 'Printouts believed not to contain reduction tests', 4 June 1974-20 February 1975. | 1974-75 |
| B.24 | Working papers and print-out for EXPRES program. | 1972-73 |

C.1-C.24 Lectures, addresses, conference talks

The material is presented in date order as far as possible. Many of the files contain correspondence and notes for several different lectures; these have been itemised and numbered within the individual file. In general the early lectures are concerned with computing's technical aspects, while the later ones deal with the wider issues of its social, political and economic implications.

Many of the files in other sections of the collection contain papers and correspondence re Gill's lectures; some of these are itemised below for ease of reference:

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|-----------|---|------|
| A.2 | NPL Symposia, 1953 and 1958 | |
| B.5-B.9 | Royal Signals Institution, 1973 | |
| C.32 | Academy of Sciences Computer Centre, Moscow, 1969 | |
| D.3 | Real-Time Computer Systems, 1968 | |
| D.34 | Anglo-French Computer Project, 1965 | |
| E.2-E.3 | Imperial College, 1966, 1969-70 | |
| G.9 | Anglo-American Symposium on the Computer Industry, 1971 | |
| G.18-G.21 | Software conferences, 1971, 1972 | |
| C.1 | 'Notes on Digital Computers and their Applications', summer programme given at M.I.T., August-September 1953, by staff of the Digital Computer Laboratory: book of notes, list of registrants. Gill lectured on Multiple-Address Codes, Cycle Counters, Long Integers, Short Integers and Floating-Point Numbers, Subroutines, Interpretive Routines and Mistake Diagnosis. (See also A.4.) | 1953 |
| C.2 | 'Digital Computers. Business Applications', summer programme at M.I.T., 1954: book of notes, bibliography, list of participants. (See also A.4.) | 1954 |
| | 'Digital Computers: Advanced Coding Techniques', course at M.I.T., 2-6 August 1954: schedule and list of participants. (See also A.4.) | 1954 |
| C.3 | 'Electronic Computers', series of 5 lectures presented by Gill to employees of California Packing Corporation, 11-15 October 1954: printed typescript of lectures. (See also A.4.) | 1954 |
| C.4 | <u>1956-57</u> | |
| | 1. 'Pegasus: Introduction': ms. | n.d. |
| | 2. 'Commercial Applications in USA': ms. | n.d. |
| | 3. 'Technical Factors which Determine the Limits of Usefulness of Digital Computers', lecture at Conference on Electronic Digital Computers, Acton Technical College, 4-6 September 1956: typescript, conference programme, list of participants. | 1956 |

- C.4 (contd.)
4. Course of 6 lectures, Acton Technical College, October 1956-February (1957?): ms. notes. 1956-57
 5. Lecture at Birmingham Technical College, 30 October 1956: ms. 1956
 6. Lecture at Birmingham Technical College, 6 November 1956: ms. 1956
 7. 'Parallel Programming', speech to British Computer Society, 16 December 1957: ms. notes, offprint of text and discussion as printed in The Computer Journal. 1957
- C.5 c.1955-58
1. 'Ordinary Differential Equations': 4 pp. ms.
 2. 'D.E.'s: Ordinary only': 2 pp. ms.
 3. 'Lecture notes: Technical Applications': 1 p. ms.
 4. 'Horner's Method. Lecture Notes': 3 pp. ms. (related to Gill's article 'A Binary Form of Horner's Method', Computer Journal, 1, 2, 1958).
- C.6 'Essentials of Digital Computer Programming', series of 10 lectures, some labelled Brunel College, others Acton College, delivered in January-March 1958: transcripts of the lectures (with a view towards possible publication), duplicated hand-out sheets for distribution to the class, ms. notes. 1958
- C.7 'Introduction to the Course', 'Features of Computers' and 'Programming I, II, III, IV', lectures delivered to course on Electronic Computers and Digital Problems, Dundee Technical College, 23-27 June 1958: ms. and typescript notes, drafts of lectures, programming exercises. (A fuller account, with details of the programme and correspondence, will be found in the collection of Christopher Strachey, Bodleian Library, Oxford, which also includes carbon copies of 2 lectures by Gill, 'Programming Development' and 'Information and Coding' that do not appear in Gill's own collection.) 1958
- C.8 1958-59
1. 'Application of Computers', Course at Nottingham University, September 1958: typescript synopses of lectures 4-6. 1958
 2. 'E.D.P. course 14th to 18th October 1959': proposed timetable, ms. notes for Gill's lectures on 'Arithmetic Unit and Control' and 'Systems Analysis and Programming', block diagram of simplified payroll program. 1959

- C.8 (contd.)
3. 'Talk at L.U., 30/11/59': 8 pp. ms. notes for talk on computer applications. 1959
 4. 'Current Attempts to Standardise Programming Notation', seminar at Liverpool University, 4 December 1959: ms. notes and correspondence. 1959

C.9 1960-62

1. 'Computers in the Modern World', series of 4 talks: typescript drafts 'Why We Need Computers', 'Why Computers Are So Big', 'Programming', and 'Today and Tomorrow'. n.d.
2. 'Computers in the Future', talk at symposium on 'Electronic Devices at Helium Temperatures' sponsored by the Institute of Physics, 15 November 1960: list of participants, typescript draft of Gill's talk. 1960
3. Talk on the use of computers, Edinburgh University, 25 April 1962: correspondence, ms. notes. 1962
4. Course of 6 lectures on the Atlas Computer (of which Gill gave 2) held in September 1962 at Woolwich Polytechnic: correspondence only. 1962
5. 'Non-Numerical Applications of Digital Computers', Hatfield College of Technology, 6 November 1962: correspondence only. 1962

C.10 1962-63

1. 'The Computer as an Aid to Productivity', lecture at Symposium on Techniques and Aids in Operational Research, Derby College of Technology, November 1962: correspondence only. 1962
2. 'The Education of Computer Specialists', lecture delivered at conference at Hatfield College of Technology, 30 May 1963: typescript, correspondence. 1963
3. 'Automation', St. Savior's and St. Olave's Grammar School for Girls, 29 January 1963: correspondence, notes. 1963
4. 'Introduction to Digital Computers', Computer Applications Conference, Electricity Supply Industry, 3-4 April 1963: correspondence only. 1963
5. Conference on Computer Appreciation, sponsored by Electricity Board, Buxton, 10-14 June 1963: correspondence, programme. 1963
6. 'Potentialities of Electronic Digital Computers', lecture at conference of the Architectural Association, Oxford, July 1963: ms. notes, timetable, correspondence. 1963

C.11 1963-64

1. 'The Social Significance of Automation', Harlow Rotary Club, 11 July 1963: ms. notes, correspondence. 1963
2. 'Talk at Olympia', 9 October 1963: ms. notes and annotated typescript draft of lecture at symposium on business efficiency. 1963
3. 'Computers and the Business World', address to meeting of Business Equipment Trade Association, 26 February 1964: annotated typescript, correspondence, copy of talk as published in The Accountant, press-cuttings. 1964
4. Talk at Surrey Farm Institute, 28 February 1964: correspondence only. 1964
5. Opening address at conference on 'Digital Computers in Technical Education', College of Technology, Letchworth, Herts., August 1964: correspondence, programme. 1964

C.12 1965

1. 'Prepare to Meet Thy Computer', Association for Science Education, Imperial College, 1 January 1965: correspondence, ms. draft, typescript synopsis, programme. 1965
2. 'Electronic Computers and National Affairs', Dundee Technical College, 21 January 1965: correspondence only. 1965
3. 'Automation', Imperial Defence College, 22 February 1965: correspondence, ms. notes. 1965
4. Talk at Leeds on time-sharing, 30 March 1965: ms. notes. 1965
5. 'The Changing Basis of Programming', International Federation of Information Processing Congress, New York, May 1965: duplicated typescript of Gill's address. 1965
6. 'IFIP C 65', report to the BCS on the IFIP Congress, delivered by Gill 22 June 1965: ms. notes. 1965
7. 'Computing and its uses', 2-day programme at Imperial College, 3-4 July 1965: brochure, correspondence, ms. notes for Gill's talk on 'Principles of digital computers'. 1965-67
8. 'Provision of Computers in Universities', address to Conference of Professors of Mathematics, London, 16 July 1965: correspondence, programme, list of speakers, annotated summary of Gill's talk. 1965
9. 'Recent Computer Developments in Britain', talk at ACM meeting, Cleveland, Ohio, August 1965: notes sent to Gill by ICT in preparation for his talk. 1965

- C.12 (contd.) 10. Talk to the British Association, 7 September 1965: 3pp. ms. notes. 1965
- C.13 1966
1. 'Why Real-Time is Different', address at conference on Real Time Systems, 17 January 1966: annotated typescript, 2nd typescript incorporating changes. 1966
 2. Talk to Ministry of Public Buildings and Works, 29 March 1966: ms. draft, list of speakers at meeting. 1966
 3. 'Computers and Computing': ms. draft. ? 1966
 4. 'Trends in Programming Language', Symposium on Automatic Data Processing, Tel-Aviv, 20 November 1966: ms. draft of Gill's address, programme for symposium. 1966
 5. 'The Next Round of Problems', concluding speech at Datafair Conference, Southampton University, 29 September: typescript of speech as released to press, typescript of press report. ? 1966-67
- C.14 1966-68
1. 2 talks on computers given to senior officials of the Bank of England, May and October 1966: correspondence, synopses of addresses. 1966
 2. Notes for talk to Institute of Strategic Studies, 19 April 1967, with notes for an earlier lecture to Bank of England, 23 May 1966 (see above). 1967
 3. Computer Appreciation Course, Institute for Strategic Studies, 19-20 April 1967: correspondence, programme. 1967
 4. 'Is Computing Mathematics?', Imperial College Mathematical Society, 9 October 1967: ms. draft, correspondence. 1967
 5. 'The Future of Information Engineering', seminar at CERN, 11 October 1967: correspondence, printed abstract of talk. 1967
 6. Talk at Reading University Conference Week, 15 February 1968: correspondence only. 1968
 7. Talk to Scientific Society of British Coal Utilisation Research Association, 7 June 1968: correspondence only. 1968
 8. 'We Must Accommodate the Rapid Rate of Change', Presidential Address to the British Computer Society, 2 October 1968: typescript, press-cuttings, copy of address as printed in the Computer Bulletin, November 1968. 1968

- C.15 1968-70
1. 'Computers and the Future', Institute of Internal Auditors Conference, London, 31 October 1968: ms. notes, ms. and typescript draft, correspondence. 1968
 2. 'Regimentation and Enterprise in a Computerised World', British Institute of Management, 22 January 1969: ms. notes, correspondence. 1969
 3. 'The Present Scene', talk to several Management Computer Appreciation Courses, sponsored by Engineering Industry Training Board and held in various cities during 1969-70: ms. draft, correspondence, programmes. 1969-70
 4. Symposium on 'Experience with Software in Computer Control Applications', London, 1 July 1969 (Gill chaired one of the sessions): correspondence, list of participants, programme. 1969
- C.16 1969
1. Talk to IFIP symposium on computer education, 25-27 March 1969: ms. notes, correspondence. 1969
 2. 'The Computer and Society', H.G. Wells Society, London, 24 April 1969: ms. notes, correspondence. 1969
 3. Computer Development Session, Civil Service Seminars, Centre for Administrative Studies, 9 May 1969: correspondence, programme, ms. notes. 1969
 4. Discussion on 'Why the Computer Grid?', Institution of Electrical Engineers, 21 May 1969: correspondence, ms. notes. 1969
 5. 'Computing possibilities, problems and policies', British Computer Society Medical Group, 23 June 1969: correspondence, report of talk for publication in Bulletin. File includes paper on 'Medical Applications of Computers in U.K.' prepared for Gill, 1965. 1969
 6. 'Computing in Britain: the Next Decade', British Computer Society, Chatham, 2 July 1969: correspondence, ms. notes. 1969
 7. 'Is computing too important to be left to computer people?', British Computer Society, Reading, 15 September 1969: correspondence, ms. draft. 1969
 8. BCS Conference on Software Protection, Brighton, 13-14 November 1969 (Gill chaired the session on the future of software): correspondence. 1969

C.17 1969-70

1. 'Computer Software', Friday Evening Discourse, Royal Institution, 5 December 1969: correspondence with R.I., programme, offprint with ms. of 'passage not included in R.I. talk', correspondence and material collected by Gill in preparation for his lecture. 1969
2. 'Has the BCS lived up to its initial lack of promise?', British Computer Society, Stoke-on-Trent, 22 January 1970 and Coventry, 25 February 1970: correspondence, synopsis of Gill's lecture, ms. notes. 1970
3. 'Careers in Computing', Imperial College, 20 March and 19 November 1970: ms. draft, programme, correspondence. 1970
4. Seminar on Auditing Techniques, Management Centre Europe, London, 2 December 1970: correspondence, programme. 1970

C.18 1970-71

1. Workshop on the Data Bank Society, sponsored by the National Council for Civil Liberties, 18-19 November 1970 (Gill chaired the Working Group on Technical Aspects): correspondence, ms. notes, programme, list of participants, recommendations, press release. 1970
2. 'Computerised Stock and Production Control - Making It Pay', conference sponsored by Production Engineering Research Association, 2-3 November 1971 (Gill served as Chairman of the Conference): correspondence, programme, list of participants, Gill's notes. 1971

C.19 1971

1. 'Computing in the 1970s,' Mathematical Association, Newcastle-upon-Tyne, 4-5 March 1971: correspondence, ms. notes. 1971
2. 'The Advantage of Real-Time in Business Information Systems', British Computer Society, 12 January 1971: correspondence, programme, ms. notes. 1971
3. 'The Future of Programming Languages', talk at Datafair, February 1971: correspondence, ms. draft of report to Civil Service Department referred to in address, typescript. 1971
4. 'Computers and their Impact on Society', talk at Computing in Schools Conference, Imperial College, 5 April 1971: correspondence, ms. draft, programme. 1971

- C.20 1970-73
(N.B. See G.18-G.21 for Gill's speeches at the 1971 and 1972 Software Conferences)
1. Speech at ICL Users' Conference, Swansea, 23 September 1971: correspondence, programme, typescript, report of Gill's speech for publication in Marketing, Gill's letter sending copy of speech to Hon. A. Wedgwood Benn. 1971
 2. Speech at Software Houses Association Symposium, London, 13 October 1971: ms. draft, correspondence, programme. 1971
 3. Remarks at conference to launch the book Computers and the Year 2000, National Computing Centre, 6 June 1973 (Gill wrote the first chapter 'Setting the Scene'): photocopy of typescript and of chapter, correspondence, 5 pp. typescript of Gill's address, which is an interesting exposition of his thoughts on where and why the British computer industry went wrong. 1973
- C.21 1. 'An Overview of Intelligent Terminal Applications', presentation at Datamation Conference, London, 30 October 1973: correspondence, ms. notes, amended typescripts, programme. 1973
2. 'The Present Status and Future Trends of Computer Utilities in Europe', Data Show 1974: typescript. 1974
- C.22 One folder of notes and drafts for lectures (none are dated):
1. 'NPL story'.
 2. 'Time Sharing'.
 3. 'Lecture on Management Applications'.
 4. 'Programming Developments'.
 5. 'Information and Coding'.
 6. 'Capabilities and Limitations of Computers'.
 7. 'Electronic Computers - A Progress Report'.
- C.23 One folder of misc. notes and drafts for lectures, none are dated or titled. Includes one set of problems to accompany programming course.
- C.24 One folder of misc. correspondence and papers re lectures, luncheon meetings, conferences, symposia, etc. presented in date order. 1958-71

C.25-C.30 Television, radio broadcasts

- C.25 'Machines for a New Age': series of 6 programmes for Granada Television with the titles: 1. The Speed Revolution, 2. The Anatomy of Computers, 3. Programming, 4. Computers are Useful, 5. More about Programming, 6. What Next? The file (which is very extensive) includes:
- annotated typescripts of Gill's narrative;
 - annotated camera scripts;
 - typescript of 'The Story of the Electronic Digital Computer' by Gill for a teachers' booklet to accompany the series;
 - correspondence re visual aids for the programmes and from viewers following the broadcasts;
 - Gill's notes.
- C.26 'Towards Tomorrow. The World in a Box', BBC broadcast, 18 January 1968: correspondence with the science programmes editor, Gill's comments on drafts of script, copies of the 3rd and 4th drafts, outline script with additional notes by Gill. 1967-68
- C.27 'The Information Age', series of 6 films for television produced by Balfour Films and financed (initially) by IBM. Gill was a member of the steering committee established to monitor the scripts and advise on technical points. Draft proposals, progress reports, synopses, correspondence. 1969-70
- C.28-C.29 The Open University. Gill took part in 2 radio programmes for the Open University, 'The Human Impact of Computing' and 'Computers and Computing', which were broadcast in March 1973. He then participated in 2 television discussions, 'The Future of Computer Technology' and 'The Social Implications of the Computer', for the Open University's course on Computer Appreciation for Managers. These 2 discussions were first broadcast in October 1973. Two files: 1972-74
- C.28 Correspondence with officials of the BBC and the Open University, Gill's notes and comments on proposed scripts, suggestions and memoranda by other participants, press-clippings re Open University courses.
- C.29 Scripts of radio discussions, copy of course book.

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| C.30 | One file of shorter correspondence/scripts, presented in date order: | 1959-66 |
| | 1. 'Science Review - Computer for election results', BBC Home Service: script. | 1959 |
| | 2. Correspondence with BBC re 'Who Knows?' programmes. | 1965 |
| | 3. Correspondence with BBC re Teach-In, Horizon and Further Education series on computers. | 1964-65 |
| | 4. 'Computers for Universities', BBC Home Service: transcript of interview with Gill. | 1966 |
| | 5. 'Questions for Brains Trust': typescript, annotated by Gill. | n.d. |

C.31-C.36 Overseas Visits

The correspondence in other sections of the collection contains references to numerous overseas visits by Gill for academic or professional purposes but very few papers re these visits remain. The only record of Gill's year as Assistant Professor at the University of Illinois (1953-54) is the material in A.4 and C.1-C.3, his lecture notes and books for computer courses delivered at M.I.T. and in California. The programme for a Symposium on Automatic Data Processing held in Tel-Aviv in 1966 is included in C.13 along with the ms. draft of Gill's address on that occasion.

The following material is presented in chronological order.

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| C.31 | 'Computing at the University of Zambia': report by Gill, 21 July 1967, of his recommendations to the University following his visit in an advisory capacity. | 1967 |
| | 'Report on visit to U.S.A.': 5 pp. typescript prepared by Gill following his visit to the Stony Brook campus of the State University of New York, 5-9 June 1967, to inspect the computing facilities. | 1967 |
| C.32 | <u>USSR, March-April 1969</u>
Gill visited the Soviet Union under the auspices of the British Council. He kept careful, detailed notes of his visits to various computer centres in Moscow, Kiev and Novosibirsk (including notes on equipment, personnel, discussions with staff, etc.). The file includes correspondence with the Department of Education and the British Council re application and details of arrangements for visit, copy of official proposal, itinerary and programme, Gill's notes for his talk to the Academy of Sciences Computer Centre, Moscow. Gill's journal for this trip (which was extended to include a visit to the Indian Institute of Technology, Delhi; see C.33) is retained in the file. | 1968-69 |
| C.33 | Visit to the Indian Institute of Technology, Delhi, April 1969, arranged by Ministry of Overseas Development. The file includes correspondence re arrangements for visit, scheduling of talks and meetings; Gill's notes on his visit. See C.32 for journal of this trip. | 1969 |
| C.34 | Visit to Institut de Recherche d'Informatique et d'Automatique, Paris, 20-21 March 1969: programme, briefing papers, notes by Gill of meetings and talks. | 1969 |
| | 'Man and Computer' conference sponsored by Institut de la Vie, Bordeaux, June 1970: programme, list of participants, abstracts of papers presented by others with notes by Gill. | 1970 |

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| C.35 | Conference on Achievement in Japanese Utilisation of Systems Technology ('AJUST'), sponsored by UNIVAC, Tokyo, September 1970: programme, photograph, correspondence, background briefing paper, Gill's report. | 1970-71 |
| C.36 | European Workshop on Computer Networks, Arles, 24 April-4 May 1973 (Gill served as Chairman at two of the sessions): programme, correspondence <u>re</u> organisation of the conference, notes by Gill for his own lectures, <u>re</u> planning of conference and on papers presented by others. | 1972-73 |

C.37-C.54 Publications, articles for journals, letters to the press

- C.37 One file of material for proposed book on digital computer programming: 2 pp. synopsis and 9 pp. typescript; letter to Cambridge University Press. 1958
- C.38 Correspondence with Lionel Salter, Head of Music Productions, BBC Television, re musical composition by computer, a passage of which was broadcast during the programme 'Machines Like Men', August 1962. Gill wrote the work up and published it as an article in Computer Journal entitled 'A technique for the composition of music in a computer', July 1963. The file includes notes, musical score and copy of Salter's article 'The New Music' published in Music Teacher, January 1962, as well as later correspondence and papers re composition of music by a computer. 1962-63, 1965, 1967, 1971
(See also B.2 and D.48.)
- C.39 1962-65
1. 'Computing Machines for Teaching and Research', letter to the editor, Computer Journal, January 1962: typescript. 1962
 2. 'The Ubiquitous Computer' (published as 'Towards a New Horizon') in The Financial Times, December 1962: typescript, correspondence. 1962
 3. 'Why Computers Matter', typescript with note by Gill on the first page 'Rejected by Sun. Times Oct. '64', with covering letter to Sir Willis Jackson. 1964
 4. 'Computers as Exports', The New Scientist, January 1965: typescript, press-cutting on the topic, correspondence. 1965
 5. 'Who's Learning First?', The New Scientist, October 1965: typescript. 1965
 6. Draft of letter to The Times re controversy over colour television, with copies of previous correspondence as it appeared in The Times and correspondence with Granada Television (Gill's letter 'not used'). 1965
- C.40 1967-70
1. 'Computer Strategy for the 1970s', introductory article for The Financial Times survey of computers, 11 December 1967: typescript, correspondence, copy of article as published. 1967
 2. 'Responding to Computers', guest leader in Science Journal, September 1967: annotated page proof. 1967

- C.40 (contd.)
3. 'Information Systems - A.D. 2000', article for Where supplement on 'Careers of the Future', December 1968: typescript, correspondence. 1968
 4. 'Computing in the Universities: The Next Decade', Computer Weekly, 8 August 1968: typescript. 1968
 5. 'Electronic Computing: The British Contribution', article for Board of Trade publication in Germany, February 1969: typescript, correspondence. 1969
 6. 'Software in the Seventies', article in Computer Weekly, October 1970: typescript, correspondence and comments. 1970
- C.41 'Charging for Computer Time in Universities' (with P.A. Samet), Computer Bulletin, January 1969: typescript drafts by both authors with annotations and comments on each other's work, correspondence between authors and with readers responding to the article, copy as printed. 1968-69
- C.42 1970-74
1. 'Computers', article for Sunday Times Magazine series on inventions (article was not used): ms. draft, typescript, correspondence. 1970
 2. 'The Modern Rake's Progress', 26 July 1971: 2 typescripts, 1 with annotations. 1971
 3. 'Computers. How Hard Should We Try?', National Electronics Review, September-October 1971 (based on speech to Software '71 Conference, see G.18): correspondence, typescript, printed version. 1971
 4. Letters to the press re ICL, National Computing Policy, Autonomics, etc.: typescripts. 1971, 1974
 5. 'Computers', Oxford Junior Encyclopaedia: revisions and amendments for article originally written in 1964 (and revised in 1968), correspondence with Oxford University Press. 1973
- C.43 'Computers and World Affairs', Management Informatics, April 1972: article for the IAG journal based on paper presented at IFIP/APC meeting, 3-6 March 1971 (Gill submitted a paper but was not present at the meeting): correspondence, copy of 1971 paper with ms. amendments and insertions, typescript of final article, offprint. 1972

- C.44 Encyclopaedia of Computer Science (Gill prepared the entry on 'Stored Program Concept' and a biographical note on M.V. Wilkes): correspondence with the editor, with Wilkes re the history of the stored program concept, ms. draft of article, typescript drafts with amendments and corrections. 1972-75
- C.45 'Computers' chapter for book on advanced technologies sponsored by Institution of Mechanical Engineers: correspondence, typescript, 3pp. draft, Gill's notes. (Gill died before the work was completed.) 1974-75
- C.46 Book Reviews
- (In every case there is a typescript copy of the review; if there is any editorial correspondence, the name of the journal is given in brackets.)
1. Les Machines à Penser, L. Couffignal (Mathematical Gazette). 1952
 2. The Design of Engineering Systems, W. Gosling; The Brain as a Computer, F.H. George; An Introduction to Computing, R. Wooldridge (New Scientist). 1962
 3. Computers and Common Sense, M. Taube. 1962
 4. Machine Intelligence, Vol. 1,2,3, N.L. Collins, D. Michie, E. Dale (Nature). 1968
 5. Machine Intelligence, Vol. 4, B. Meltzer, D. Michie (Nature). 1969
 6. Forecast 1968-2000 of Computer Developments and Applications, R.F. Williams (ed.). 1969
 7. Research and the Credibility of Estimates, R.V. Brown (The Computer Journal). 1970
- C.47 Minor correspondence re publications, requests for articles, revisions, etc. 1963-72
- C.48-C.53 Computer Monographs

Gill edited the series from its inception (in 1964) and was later joined by John Florentine as co-editor.

6 files presented in date order containing editorial correspondence with the publisher (Macdonald and Co.), with the authors - and prospective authors - of the books in the series; comments on the manuscripts submitted for publication; suggestions for topics. Copies of letters passed by the publisher to Gill for his information are not indexed.

C.48-C.53 (contd.)	C.48	1964-65
	C.49	1966
	C.50	1967
	C.51	1968
	C.52	1969, 1971-72
	C.53	1974-75

C.54 One box containing Gill's published work. Includes copy of The Preparation of Programs for an Electronic Digital Computer (1951) by M.V. Wilkes, Gill, and D.J. Wheeler, with supplement to the book and a copy of Russian translation.

- D. Committees and consultancies (See also Section F)
- D.1-D.5 Real-Time Club.
- D.6-D.17 British Computer Society (and committees on which Gill represented the BCS):
- D.11 Standard Programming Languages Committee.
 - D.12 Joint Mathematical Council.
 - D.13 British Standards Institution.
 - D.14 U.N. Questionnaire.
 - D.15 Education Committee.
 - D.16 Committees on (1) Scientific Programming, (2) Privacy and (3) Public Presentations.
 - D.17 Technical Board.
- D.18 USA Office of Naval Research.
- D.19 Advisory Committee on Computers, Government Statistical Services, H.M. Treasury.
- D.20 Study Group on Computer Science, NATO Science Committee.
- D.21 Academic Advisory Council, Computer Education in Schools.
- D.22 Advisory Committee, Documentation Processing Centre, and Advisory Committee for Scientific and Technical Information, Department of Education and Science.
- D.23 Programme Committee, Institute of Mathematics and its Applications.
- D.24 Ministry of Social Security.
- D.25-D.28 The Bowden Committee.
- D.29-D.39 International Computers and Tabulators Ltd./International Computers Ltd.
- D.40 British Computer Association.
- D.41 Computer Advisory Committee, National Research Development Corporation.
- D.42 Civil Service Department.
- D.43 Ministry of Labour.
- D.44 Ministries of Aviation, Defence, Public Buildings and Works.
- D.45 Conservative Research Department.
- D.46-D.57 International Federation for Information Processing (IFIP).
- D.58 'Advice'.

D.1-D.5 Real-Time Club

The Club was formed 'to further a common interest in the use of computers to process information in real time'. Gill served as Chairman at the informal dinner meetings, when the usual format was a short address by an invited speaker followed by discussion. See also C.13, D.25, F.2, F.5-F.7, and G.3 for other files containing material re the Real-Time Club.

- D.1 Constitution, notices of meetings and of speakers, lists of members, correspondence with members and with guests, committee papers and discussion of policy. 1969-74
- D.2-D.4 Presentation of Real-Time Computer Systems, Royal Festival Hall, 3 July 1968, organised by the Real-Time Club to demonstrate conversational, multi-access systems. Gill acted as spokesman for the organisers.
- D.2 Correspondence re organisation of demonstration, invitations to speakers and exhibitors. Notes of meetings. Correspondence with J.H.H. Merriman of GPO re his address (copy included in the file). Copies of exchange of letters in The Financial Times re issues raised at the demonstration (see also D.25). 1968
- D.3 Numerous typescript drafts of Gill's speech, with extensive annotations. Copy as printed for distribution.
- D.4 Printed material re presentation: programme, list of guests, instructions for exhibitors, etc.
- D.5 Publications and statements by the Real-Time Club:
1. Draft statement for the Sub-Committee of the Post Office. 1969
2. 'Real-Time Computing Systems', by D.N. Willis. 1969
3. 'An Experimental Store-and-Forward Data Transmission Network', report to Advisory Group on Data Transmission of the Post Office Economic Development Committee (see also D.28). 1969
4. Evidence submitted to Sub-Committee 'D' of the Select Committee of Science and Technology at the House of Commons: annotated drafts, correspondence. (See also G.6-G.17.) 1970

D.6-D.16 British Computer Society

Gill played an important role in the negotiations which led to the formation of the BCS. He was a founding member of Council, served as its President from 1967-68 and was on many of its Committees. He also represented the BCS on the Joint Mathematical Council (D.12) and the British Standards Institution (D.13) and was instrumental in drafting the Society's official reply to H.M.G. re a U.N.-sponsored questionnaire on the use of computers in developing countries (D.14).

See also C.12, C.14, C.16-C.17, C.19, G.3 and G.6 for additional material relative to the BCS.

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| D.6 | Letters to P.M.S. Blackett and B.V. Bowden offering the advice and help of the BCS to the newly-formed Ministry of Technology on matters affecting the computer industry. | 1964 |
| | General correspondence re affairs of the BCS. Includes one letter from Gill to A.S. Douglas (7 October 1971) suggesting that BCS sponsor an attempt to gather archival materials on the early history of electronic computing in Britain. | 1968-71 |
| D.7 | Luncheon at the Guildhall, London, sponsored by the British Computer Society, 18 October 1967: seating plan, text of address by Earl Mountbatten of Burma (President of the Society) as printed in <u>The Computer Bulletin</u> , Gill's notes, correspondence, drafts. | 1966-67 |
| D.8 | Papers connected with Extraordinary General Meeting of the BCS, 25 March 1968, to consider revision of articles of membership to introduce professional qualifications for its members (to enable the Society to become a professional body). Gill supported the revisions, which were accepted by a vote at the meeting. File includes correspondence re conditions for membership, ms. notes by Gill for his address at the meeting, programme, proxy forms, note by Gill as published in <u>The Computer Bulletin</u> , correspondence in the <u>Bulletin</u> , minutes of the meeting. | 1967-68 |
| D.9 | 'Academic Interests': circular letter sent by Gill to 19 senior members of the BCS re the possibility of a division occurring between academic and business members of the Society, and asking for comments. Correspondence received in reply. | 1968 |
| D.10 | Evidence prepared by BCS for submission to Sub-Committee 'A' of the Select Committee for Science and Technology, 24 March 1971: memorandum of evidence (annotated by Gill), background briefing papers, notes by Gill of questions which BCS representatives might be asked by Sub-Committee members, correspondence. (See also G.6.) | 1971 |

- D.10 (contd.) Copy of Memorandum of Evidence prepared by BCS for submission to Sub-Committee 'A' on 23 February 1973. 1973
- D.11 BCS Standard Programming Languages Committee (established in 1962): Committee papers, draft statement by Gill of committee's terms of reference, correspondence. 1958-59, 1962-64
- There had been an earlier BCS committee established in 1958 and known by a variety of titles (the most common being Research Committee on Scientific Programming Notation), on which Gill served as secretary. These earlier papers date from his service on that Committee; for a complete record of its work see the relevant files in the papers of Christopher Strachey deposited in the Bodleian Library, Oxford.
- The file includes correspondence and papers re ALGOL, with special reference to a conference held in Paris, 12-14 November 1959, to reach agreement between the European groups prior to a meeting with the American committee. Memo. and report for the Computer Journal by Gill, 1959. (See also D.17 for further correspondence re ALGOL.)
- D.12 Joint Mathematical Council. (Gill served as the BCS representative on the Council from March 1970): correspondence re Gill's representation, and re the issue of shortage of mathematics teachers. 1969-70
- Note: Committee papers have not been retained.
- D.13 British Standards Institution. (Gill served as one of the BCS representatives and was, from 1965, Chairman of the Sub-Committee on Data Processing Industry Standards): correspondence and papers for meeting with ICT on international standards for data formats and structures prior to merger. Correspondence and papers re Ministry of Technology representation on U.K. delegation to meeting of the Technical Committee of the International Organisation for Standardization in West Berlin, 8-12 June 1970. Correspondence and papers re layout requirements for magnetic tape exchanged between banks and customers. 1968, 1970
- D.14 United Nations Questionnaire on 'International co-operation with a view to the use of computers and computation techniques for development': correspondence and papers re official response by H.M.G. on the advice of the BCS and other interested bodies; numerous drafts and comments; notes of meetings to discuss the report; Gill's ms. working notes. 1969-71

- D.15 BCS Education Committee: correspondence and papers re proposed courses leading to Higher National Certificates and Diplomas in Computer Science. Papers re BCS examination. Notes of meeting between BCS and National Computing Centre on professional education. 1967-69
- D.16 BCS Committees on (1) Scientific Programming, (2) Privacy and (3) Public Presentations: correspondence and papers relative to the work of these 3 committees. File includes copy of BCS Code of Conduct (February 1971) and of paper 'Ethics and Code of Conduct' by A. d'Agapeyeff (April 1971). See also D.10 (Appendices E and F of the BCS evidence submitted in 1971) for further papers pertaining to the issue of privacy. 1970-71
- D.17 BCS Technical Board: draft papers and correspondence. Includes material re the ALGOL 68 report which was submitted in draft form to the Technical Board for its consideration. File also contains correspondence from Council Members on the Technical Board Steering Committee re BCS Ad Hoc Committee's report on revision of BCS structure. 1968-71

- D.18 USA Office of Naval Research: correspondence re obtaining 1965, 1968
US government reports, with special reference to report
'The British Computer Scene'. File does not include
copy of report, but does contain 3 pp. typescript by Gill
of extracts from the report.
- D.19 Advisory Committee on Computers, Governmental Statistical 1967-68
Services, H.M. Treasury (Gill was a member of the com-
mittee from its inception): correspondence, Gill's notes,
papers re formation, terms of reference and meetings of
Sub-Committee on Training, 2 pp. paper by Gill on
'A.D.P. Planning Procedures'. Copy of interim report
issued by the Committee, 6 May 1968, and copy of second
report, 17 December 1968.
- Correspondence with the Lord Privy Seal re reconstitution 1969-70
of the Advisory Committee. Gill's comments on 'Computers
in Central Government. Ten Years Ahead', report prepared
by Civil Service Department Computer Plans Review Team,
with ensuing correspondence. (See also D.42.)
- D.20 Study Group on Computer Science, NATO Science Committee 1967-70
(established to prepare a report re proposed international
software institute. Gill was the representative from the
U.K.): correspondence, committee papers, numerous drafts
of report with amendments and comments, Gill's ms. working
notes. Also contains papers relative to NATO-sponsored
conferences on software engineering, October 1968 and
October 1969.
- D.21 Academic Advisory Council, Computer Education in Schools: 1968-69
correspondence, committee papers, drafts of textbook
chapters, comments on proposals and general aims of project,
progress reports. Gill resigned from the Committee in
1969 as he did not agree with the choice of the 'SIR' language
for the project.
- D.22 Advisory Committee, Documentation Processing Centre, Depart- 1969-71
ment of Education and Science (established to advise and
evaluate the work of the DPC. Gill was a member of the
Committee from its inception until its termination in January
1971 when the DPC was closed down): committee papers,
correspondence, comments by Gill on proposed projects.
- The file also includes a small amount of correspondence
re work of the Advisory Committee for Scientific and
Technical Information, DES, of which Gill was a member
1965-69.

- D.23 Programme Committee, Institute of Mathematics and its Application: committee papers and correspondence re arrangements for Gill to give a series of Christmas lectures for children on regular figures in two, three and four dimensions. 1970-71
- D.24 Visit by Gill, Jeremy Bray and A.d'Agapeyeff to Central Office of the Ministry of Social Security, Newcastle-upon-Tyne, 16 January 1968: briefing papers and background correspondence exchanged between Jeremy Bray and Judith Hart, reports and comments by Gill, Bray and d'Agapeyeff, copy of letter from Bray to J. Hart with report 'Impressions of Data Processing in the Ministry of Social Security'. 1967-68

D.25-D.28 The Bowden Committee

1968-69

The Bowden Committee was an informal group of persons interested in, and concerned about, data transmission networks. It was never formally constituted, nor did it hold any regularly scheduled meetings. After the National Economic Development Office established its Advisory Group (D.26), several members of the Bowden Committee collaborated to present evidence and draft proposals for the Advisory Group's consideration. Gill provided the impetus and coordination for their efforts and thus his files present a very full record of their work. The correspondence is fully indexed and includes many photocopies of letters sent to Gill for his information by their recipients.

- D.25 Correspondence and arrangements for dinner meeting arranged by Gill for 24 July 1968 to 'discuss the problem of ensuring adequate communication facilities for the proper development of computing in this country' taking Gill's talk at the Real-Time Club Presentation (D.2-D.4) as a starting point for discussion. At this meeting the participants agreed to form a steering committee and working party under the chairmanship of Lord (Vivian) Bowden to investigate the establishment of a computer network. Copies of letters (signed by Bowden) to prospective committee members with photocopies of their replies. Extensive correspondence (August-December 1968) between Bowden, Lord (Willis) Jackson and Gill and officials of the GPO re arrangements for a meeting (4 December 1968) to discuss various proposals and plans for action. Gill's notes on this meeting and correspondence arising from its decisions.
- D.26 Following the meeting with the GPO, at which representatives of the National Economic Development Office were present, the N.E.D.O. established an Advisory Group on Data Transmission and invited Lord Bowden and Lord Jackson to be members. Correspondence re arrangements for several other members of the Bowden Committee (including Gill) to meet the Advisory Group on 15 July 1969. Drafts of paper prepared by Gill for this meeting, circulated for comment, with replies. Minutes of the meeting, at which the Advisory Group agreed to recommend the setting up of a pilot system for data transmission.
- D.27 Correspondence and papers re formulation of proposals for an experimental data transmission system. Suggestions for names of potential users. Includes Gill's ms. notes on the project and his notes of a meeting held to discuss the proposals.
- D.28 Draft report as circulated by Gill to other members of the Bowden Committee for comment, with their replies. Copy of final draft 'An Experimental Store-and-Forward Data Transmission Network', November 1969 (see also D.5), and copy of letter sent to all potential users, with their replies. Papers for a meeting of the N.E.D.O. Advisory Group on 28 November 1969 to consider the report. Draft of minutes, with comments by Gill and P. Hughes. Copy of addendum to original report to take account of points raised in the discussion.

D.29-D.39 International Computers and Tabulators Ltd. (ICT)/International Computers Ltd. (ICL)

In 1964 Ferranti Computer Dept. became part of International Computers and Tabulators Ltd. (ICT). In July 1968 ICT and English Electric-Leo-Marconi Computers Ltd. merged to form International Computers Ltd. (ICL) with financial participation from Plessey and Her Majesty's Government. Gill served as official consultant from 1964 to 1965 and from 1968 to 1970. See also C.12, C.20, C.42, D.13, F.4, F.8 and H.13 for other files containing material pertaining to ICT/ICL.

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| D.29 | Correspondence <u>re</u> terms of consultancy. Copies of correspondence exchanged with the Minister of Trade and Industry. | 1964-65,
1968-70,
1972 |
| D.30 | Correspondence with ICT, especially <u>re</u> choice of computer by London Regional Computing Centre (see E.7-E.14).
Draft of paper by G.G. Scarrott on the control of industrial research. | 1966
1974 |
| D.31 | General correspondence with ICT/ICL, especially <u>re</u> ICL New Range descriptions and ICL business statistics. | 1968-71 |
| D.32 | 'ICT 1908': papers and correspondence <u>re</u> development and design of 1908 computer. Includes memo. on 'Extension of Address Range on ICT 1900', 1964. | 1966-67
1964 |
| D.33 | 'Hologram': papers and correspondence between Gill, D. Gabor and ICT <u>re</u> Gabor's ideas on character recognition by holography. | 1965 |
| D.34 | 'Anglo-French Computer Project', technical presentation by ICT and English Electric - Leo Marconi Computers Ltd. to the Government, 30 September 1965, to win its support for a joint Anglo-French large computer. Programme, list of guests, Gill's correspondence with ICT and the Ministry of Technology. The correspondence also discusses the use of multi-programming on large computers and its influence on computer design, with special reference to Basic Language and M.I.T.'s Project MAC (Multiple Access Computer). The file includes Gill's ms. and typescript draft of his contribution ('The Need for Large Computers') to the presentation and a 2 pp. stencilled memo. on 'Advantages of Multiple Access Computers'. | 1965 |

- D.35-D.38 Collaboration between ICT/ICL and Imperial College re Basic Language Machine. 4 files presented in date order containing correspondence, seminar notices, record of meetings, departmental memoranda, progress reports, budget requirements, Gill's notes and drafts. Includes correspondence and papers re application to Ministry of Technology for support of project. See also D.34. 1964-69
- D.35 1964-66
D.36 1967
D.37 January-May 1968
D.38 June-December 1968, 1969
- D.39 One folder of press-cuttings, articles from journals, etc. re ICT/ICL, government support, etc. (See also G.22-G.26.) 1968-73

- D.40 British Computer Association: proposed formation of association. Correspondence re membership. 1971
- D.41 Computer Advisory Committee, National Research Development Corporation: correspondence, papers for first meeting (16 July 1965), Gill's notes on that meeting, memorandum submitted to N.R.D.C. in March 1965. 1965
- D.42 Civil Service Department: 1968-72
- Senior Management Seminars on Computer Systems: correspondence, programme, briefing papers distributed at seminar, notes by Gill on papers presented. 1969
- Copy of 'Automatic Data Processing - The Next Ten Years', October 1968, report and graphs. 1968
- Correspondence with the Lord Privy Seal re early achievements of computing in the UK, and re Gill's evidence to Sub-Committee 'D' (see also D.19, G.6-G.17, H.18). 1971
- Correspondence and papers re report session of case study on the relations between government and the computer industry, Civil Service College, 25 January 1972. 1972
- D.43 Ministry of Labour: correspondence re Manpower Research Unit's report on 'Computers in Offices' sent to Gill for his comments before publication. Further correspondence after publication re estimates of future growth of computers. Copy of report. 1965
- D.44 Ministry of Aviation: letter to the Minister re annual rate of expenditure by American government on computer research, with copy of Gill's report on address by Senator Hubert Humphrey to Joint Computer Conference, April 1964, on which Gill based his statement. See also C.30 for correspondence re broadcast where this figure was used. 1965
- Ministry of Defence: correspondence re Gill's meeting with Army Department Study Group on computers. 1969
- Ministry of Public Buildings and Works: correspondence re conference of the Committee on the Application of Computers in the Construction Industry. Cambridge, September 1968. Copy of the proceedings of that conference. 1968-69
- D.45 Conservative Research Department: correspondence and comments. 1965, 1968

D.46-D.57 International Federation for Information Processing (IFIP)

Gill served as the U.K. representative to the General Assembly, 1963-69 (see A.8) but no material remains from this period. The following files begin in 1969 after Gill had relinquished his post.

See also C.12, C.16, C.43.

- D.46 One file of general correspondence re IFIP, including letters to A.S. Douglas on his succeeding Gill as U.K. representative, to I. L. Auerbach on his election as an honorary member, invitation to Gill to serve as member of Editorial Board of Management Informatics (declined), notices of programmes and conferences, letter of resignation. 1969-75
- D.47 Survey of artificial intelligence field, organised by Gill in order to make recommendation to IFIP General Assembly: minor correspondence, 1 p. typescript draft of 'Report on Possible Formation of Group on Artificial Intelligence' by Gill. 1970
- D.48 IFIP Congress, Edinburgh, 5-10 August 1968: programme, list of participants, photograph, ms. notes for Gill's opening remarks of welcome (Gill was president of the BCS at the time of the Edinburgh Congress). Letters of thanks following the Congress. 1968-69
- File also includes correspondence and papers re computer-composed music competition for which Gill was one of the judges: programme of concert, Gill's ms. notes for remarks at concert, correspondence following the Congress. See also B.2, C.38.
- D.49 'Programming in the 1980's', panel discussion, chaired and organised by Gill, IFIP Congress, Stockholm, 5-10 August 1974. 1974
- Gill's ms. notes on composition of panel, letters of invitation to prospective panellists, correspondence and cables exchanged with panellists, Gill's ms. draft of his opening remarks and introduction of speakers, mss. of questions submitted by members of the audience.
- The panellists were J. Sammet, A. Ershov, R.W. Bemer and Prof. M.V. Wilkes.

- D.50-D.57 Technical Committee 6 - Data Communication. Gill served as the U.K. representative to TC 6 from 1972 to March 1975 when he resigned because of illness. 1972-73
- D.50 Preliminary correspondence re membership and terms of reference of Technical Committee. Memorandum circulated by Gill to members of TC 6 re possible activities for the new committee, 5 January 1973. Copies of correspondence sent to Chairman, A. Curran, and circulated to members for information.
- D.51 Correspondence re arrangements for meetings, proposals put forward for discussion. 3 pp. typescript draft by Gill on 'Computer Trends'. Photocopies of correspondence received by Chairman and circulated for information. 1973-75
- D.52 Records of meetings: 1973-74
- Munich, 2-4 April 1973. Gill's ms. notes and official typescript prepared and circulated by Chairman.
- Teddington, 17-19 September 1973. Official typescript and Gill's ms. notes.
- Chicago, 8-9 May 1974. Official typescript and Gill's ms. notes.
- Johannesburg, 4-8 November 1974. Official typescript. Gill did not attend this meeting.
- D.53 Lists of members.
- D.54 Technical Committee 6, Working Group 6.1 (International Network Working Group - INWG). 1973-74
- Correspondence and papers re establishment of Working Group 6.1, its membership, terms of reference, meetings. Copies of reports sent to Gill for information. Gill's ms. notes taken at meetings on 10 August and 15 September 1974. Index of reports by INWG.
- D.55 Technical Committee 6, Working Group 6.2 (International Information Networks). 1972, 1974
- List of members, project description, papers leading up to and arising from formation of the Working Group, correspondence, Gill's notes taken at meeting of the Working Group, Stockholm, 9 August 1974.

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D.56 'Technical Committee 6: CCITT'. 1973

Correspondence and papers re possibility of IFIP affiliating with CCITT (International Telephone and Telegraph Consultative Committee). File includes photocopies of correspondence and reports sent to Gill for his information and copies of question by CCITT Study Groups VII and A, 1973-76.

D.57 'Technical Committee 6: Tariffs'. 1973

Correspondence and papers re proposal to form a Working Group on Tariffs: information collected from member countries, Gill's ms. notes, 2 pp. typescript of Gill's 'Report of the Survey re Tariff Policies', 12 September 1973. The report recommended that the Working Group should not be established.

D.58 File labelled 'Advice' containing misc. papers and proposals submitted to Gill for comment and/or support, requests for information, to participate in surveys and questionnaires. Includes a proposal for numerical analysis by L. Fox, correspondence with D. Gabor re universal Computer language, correspondence with D. Michie re 'Tokyo-Edinburgh Dialogue'. 1969-71

E. Imperial College of Science and Technology, London

Gill was Professor of Computing Science and Director of the Centre for Computing Automation from 1964-70. The files are left in Gill's original order although their contents are very much inter-related. None of the files in this section is yet available to readers.

See A.6, A.9, C.12, C.14, C.17, D.30, D.35-D.38, F.2 and G.7 for other files containing material related to Imperial College.

- E.1 Papers and correspondence re application to DSIR by H. Jones, Gill's inaugural lecture on 26 January 1965 on 'Automatic Computing: its Problems and Prizes', administration of the Department, and re his move from Imperial College to Software Sciences Holdings Ltd. in 1970. 1962, 1964-70
- E.2 Lectures at the College:
1. Course on programming to first-year engineering students: ms. notes for series of 8 lectures. ?1966
 2. Course on artificial intelligence: ms. notes for lectures, bibliography, etc. 1970
 3. Survey of programming techniques: brief notes for lectures. 1965-66
- E.3 External lecture courses:
1. Correspondence re proposed course on the application and development of computers to be given in November 1969-January 1970, Centre for Administrative Studies by a member of the Imperial College staff. 1969
 2. Correspondence re proposed course for Imperial Defence College and re Gill's tutorial supervision of student at IDC. 1970
- E.4 Submission of evidence to Committee of Enquiry into the Governance of the University of London: correspondence and related papers. 1970-71
- E.5 General correspondence re Imperial College: postgraduate programme, proposed Business School, relations with industrial research establishments. Includes copy of press release announcing formation of 7090 Computing Centre in collaboration with IBM. 1964-70
1964
- E.6 Gill's correspondence with former colleagues at Imperial College or re matters pertaining to the College. 1970-71

E.7 '(Proposed) Regional Computer Centre' 1965-66

In the spring of 1965 the Council for Scientific Policy and the University Grants Committee set up a Working Group to undertake a full-scale review of the computer requirements of universities and research councils. The Working Group met under the chairmanship of Brian (now Sir Brian) Flowers and in July reported its recommendations, which were subsequently endorsed by the Government in December. One of its more important recommendations was the establishment of regional computer centres at the Universities of London, Manchester and Edinburgh. In response to this recommendation, Imperial College set up a Computer Committee (with Gill acting as chairman) to provide proposals and estimates for the London Regional Centre to be located at the College. (The Centre was eventually located in Bloomsbury.)

This file (E.7) includes papers relative to the work of that Committee and includes correspondence, draft proposals and papers, space and budget requirements, Gill's notes, minutes of meetings.

E.8-E.10 Technical Co-ordination Committee (Computing)

The University of London established this committee (of which Gill was a member) in February 1966, to advise its Joint Committee on Computing Facilities 'on the best means of securing co-operation and co-ordination, in the technical sense, between regional, University and collegiate computing centres'. The Technical Co-ordination Committee then set up, in May 1966, a Working Party on the Regional Centre 'to clarify the concept of the Regional Centre and its responsibilities and to report with recommendations ...' and a Working Group which was responsible for reporting on the technical merits of available equipment, and for formulating proposals for the detailed configuration to be installed at the Centre. Gill was a member of the Working Party and Chairman of the Working Group.

E.8 Correspondence, Gill's notes of meetings, proposals, drafts of papers, departmental memoranda, notes on the control of user time and on charging for computer time. 1966-67

E.9 Minutes for meeting of 21 February 1966. Committee papers for meetings of 29 April, 20 July, 5 October and 23 November 1966 and 8 February 1967. 1966-67

E.10 Miscellaneous printed papers and reports pertaining to the work of the Committee. Includes minutes and reports of the Working Party and newsletters of the University College London Computer Centre. 1966-67

F. Ministry of Technology/Department of Trade and Industry

F.1-F.9 Ministry of Technology

In the spring of 1966 Gill was appointed part-time consultant on computers to the Ministry of Technology. In his note on his experiences at Mintech (F.9), Gill wrote 'That [appointment] was under Mr. Cousins [Rt. Hon. Frank Cousins, Minister of Technology, October 1964-July 1966], who resigned shortly afterwards, and I continued under Mr. Benn [Rt. Hon. Anthony Wedgwood Benn, Minister of Technology, July 1966-June 1970] until I finally offered my resignation for commercial reasons at the end of 1969'. F.4 contains a useful summary note prepared by Gill for the Minister in May 1968 of the various Mintech committees on which he had served and of their recommendations.

The files are in the order in which Gill left them; some (especially F.1-F.3) are very large, containing many drafts, committee papers, press-cuttings and other material compiled by Gill for his work.

See also A.15, D.13, D.38 and G.27 for other files containing papers pertaining to Mintech.

F.1 Computer Technical Policy Working Party

1965

Before Gill took up his official consultancy with the Ministry of Technology in the spring of 1966, he was brought in to serve as a member of this Working Party, which had been established to forecast the type of large computer which would be needed in the 1970s so that the Ministry of Technology could formulate its policy on the direction in which computer technology should evolve. In his note to the Minister (F.4) Gill recalled that 'The Computer Technical Policy Working Party (subsequently known as the Large Computer Working Party), triggered off by the Anglo-French proposal of September 1965 [see D.34], met six times at weekly intervals, chaired by Mr. Maddock [Ieuan (now Sir Ieuan) Maddock, Deputy Controller B 1965-67, Controller (Industrial Technology) 1967-71, Ministry of Technology]. All members worked enthusiastically, leading to a detailed report dated 29 December 1965, and to recommendations for action.'

The file includes correspondence, minutes for the meetings held between 5 November and 16 December 1965; lists of members; numerous papers prepared by members of the Working Party for discussion and/or inclusion in the report (many of the drafts are annotated by Gill; the set includes his own contributions 'System Design in the Computer' and 'Future Trends in Software'); copy of the Report.

F.2 'Computer Policy' 1966

Gill's note (F.4) says of the period April-November 1966 that 'A fresh start was made by an informal group on computer policy meeting occasionally under Mr. Maddock. It resulted in a statement issued on 23 December 1966'.

The file contains informal notes on this series of meetings; various drafts of the statement on computer policy (one is heavily annotated by Gill) and copy of the final version; related papers and documents; press-cuttings; correspondence, including several letters written by Gill to officials in the Ministries of Technology and Defence in response to an article by Sir Solly Zuckerman in The Sunday Times, 20 February 1966 (copy enclosed in the file), with ensuing correspondence re use of computers by the military.

The file also includes a copy of a 'Report of the Ministry of Technology Working Party on Computer-Aided Design' to which Gill contributed Appendix D, 'Computer-Aided Design at Imperial College', but there is no record of the meetings (23 February-18 April 1966) of the Working Party which produced this report nor does Gill mention it in his note to the Minister.

F.3 'Computer Policy Meetings' 1966-67

The Minister chaired a meeting on computer policy on 27 January 1967 at which he called for a White Paper to appear in 1967. As a result of this meeting, the Joint Parliamentary Secretary (Dr. Jeremy Bray) held a series of weekly meetings on computer policy with the Ministry's Computer Division and its computer advisers. The file contains papers for the meeting with the Minister on 27 January; minutes of the meetings with Dr. Bray (held between 9 February and 13 April 1967); Gill's notes; numerous documents and reports prepared for the meetings, many with Gill's annotations; correspondence; typescript note by Gill on 'Research and Development in Software and Hardware', 6 February 1967.

Gill wrote in his note to the Minister (F.4) 'Weekly meetings on computer policy were chaired by Dr. Bray. There were many working papers, but no resulting document'.

- F.4 Continuation of Gill's correspondence and papers re his consultancy at the Ministry. These include (among others): 1967-69
- Third Draft of White Paper on Computer Policy (October 1967) sent to Gill for comment, with his reply 'I had hoped that after three years of the Ministry we could see something much more positive'.
- Letter from Gill to the Minister (20 May 1968) expressing his disquiet over 'the apparent lack of progress in the development of the Government's computer policy'. Gill appended to his letter a note 'Moves within the Ministry of Technology towards the formulation of a national computer policy, November 1965-May 1968' which provides a useful summary of the various groups and committees in the Ministry on which Gill served. Reply from P.M.S. Blackett and 3 pp. typescript reply from the Minister (19 June 1968), with Gill's comments and subsequent letter to the Minister, 20 June 1968.
- Copy of 'Industrial Investment. The Computers Merger Project, 1968' and copy of Hansard for 21 June 1968. In his comments on his experiences at Mintech (F.9) Gill wrote '... not only was I never consulted on the ICL merger but I was never officially informed of the proposal, and to learn what the Ministry had done I actually went to HMSO to buy my own copy of the White Paper'.
- Notes, correspondence, minutes re a meeting at the Ministry (20 January 1969) to discuss 'the overall development of data processing computer systems'.
- Copy of a two-part interview with Benn as published in the New Scientist, 6 and 13 June 1968.
- F.5 Correspondence with the Ministry in the spring of 1965 on various topics, e.g. software development, a proposed one-day 'Seminar on Computer Technology in 1975', information films about computers, the need for standardisation in the computer industry, etc. The file includes copy of paper by A. d'Agapeyeff 'Advanced Computer Techniques Project. Some Considerations on the Support of Software Developments', 9 September 1965, and numerous articles and press-cuttings re the Ministry. These include a copy of an article by P.M.S. Blackett published in The New Statesman, 11 September 1964, 'Wanted: A Wand Over Whitehall'. Gill refers to this article in his comments on his experiences at Mintech (F.9). 1965
- F.6 Papers and correspondence re a meeting at the Ministry (6 January 1967) to discuss PL/I as a possible national programming language. Briefing notes supplied to Gill prior to the meeting. Letter from H. Zemanek of IBM enclosing first version of the PL/I definition (not in file) and asking for comments. 1966-67

- F.7 Correspondence re Gill's resignation from his part-time consultancy with the Ministry on his move from Imperial College to Software Sciences Holdings Ltd. 1969-71, 1973
- Press reports of Benn's evidence to Sub-Committee 'D' of the Select Committee on Science and Technology, 4 May 1970. Notes and correspondence for a meeting with the Minister, 8 May 1970 (see also A.15). Invitation to Benn to meet with Real-Time Club (invitation declined).
- F.10 Copy of interview by Judith Bloor with Benn as published in Computing, 18 January 1973: copy of Gill's letter to Computing published in the 1 February issue of the magazine, under the heading 'Benn's former adviser lashes out'. 1972-73
- Copy of report on 'Computer Industries Support Policies', July 1971 (not by Gill).
- F.8 'Mintech in Retrospect': two-part article by Sir Richard Clarke (Permanent Secretary of the Ministry of Technology 1966-70) published in Omega, vol.1, Nos.1 and 2, 1973. On pp.155-156 of part II he discusses Mintech's support of ICL. (See F.9 for Gill's comments on this article.) 1973
- Also in the file is a press-cutting reporting Sir Richard's appointment as chairman of the BSI's International Policy Panel, 1973.
- F.9 'Managing Intervention. An Interpretation of the Mintech Experience', draft of a paper (31 pp.) by Michael Beesley and Alan Mencher, 24 November 1974. Gill replied to Dr. Mencher on 14 March 1975 enclosing with his letter a 5 pp. typescript of comments on the paper and of his own reminiscences of his experience at Mintech. Gill wrote of the paper 'To me it conveys an impression of the activities and motivations of Mintech that agrees much more closely with my own experience than, for example, the account by Sir Richard Clarke published in Omega'. Gill's narrative provides an interesting autobiographical account of his efforts to influence the Ministry's policy on computing and an analysis of the reasons behind what Gill believed to be the Ministry's failure in the computer field. 1974-75
- F.12 Correspondence with officials of the Department mostly on the subject of software. Letters written by Secretary of State for Industry (Benn) to Gill concerning on his address to the Royal Signals Institution (see B.5-B.9). Papers collected by Gill prior to his meeting of the Department on 3 December 1974 'to consider the problems of compatibility, standardisation and co-ordination of developments in computer communications'. Gill's notes of the meeting, draft minutes, papers and correspondence re subsequent meeting (6 March 1975) which Gill was unable to attend owing to ill health. 1973-75

- F.10-F.12 Department of Trade and Industry (later Department of Industry)
- 3 files of correspondence and papers re governmental policy towards the British computer industry. On 20 July 1972 Gill wrote to the Minister for Industrial Development (Christopher Chataway) 'Although I am no longer an official adviser on computers, I would be happy at any time to give your Department whatever help I can on this very important subject'.
- F.10 Correspondence with Chataway re his evidence before the Select Committee on Science and Technology (see also G.14), 3 August 1972, and re points embodied in Gill's Software '72 speech (see G.21). 1972-73
- Copy of Memorandum submitted by the Department to the Select Committee, August 1972, 4 pp. ms. draft by Gill of comments on the memorandum, typescript of 5 pp. second draft of comments, 25 October 1972.
- Correspondence with J.W. Nichols re Memorandum and re Computers, Systems and Electronic Requirement Board.
- Correspondence with other officials in the Ministry re general matters of computing policy.
- F.11 Correspondence and papers. Correspondence includes: 1973-74
- Lengthy (5 pp.) letter re policies and activities of National Computer Centre submitted by Gill (15 November 1973) prior to his meeting with the Minister to discuss proposal that Gill become Director of the NCC; the offer was declined by Gill.
- Letters from Gill (March 1974) re possible participants for discussion on computer policy and re ideas for development of a computer peripherals industry.
- File includes copy of note submitted by the Department of Industry to Select Committee on Science and Technology, June 1974.
- F.12 Correspondence with officials of the Department mostly on the subject of software. Letters written by Secretary of State for Industry (Benn) to Gill commenting on his address to the Royal Signals Institution (see B.5-B.9). Papers collected by Gill prior to his meeting at the Department on 3 December 1974 'to consider the problems of compatibility, standardisation and co-ordination of developments in computer communications'. Gill's notes of the meeting, draft minutes, papers and correspondence re subsequent meeting (6 March 1975) which Gill was unable to attend owing to ill health. 1973-75

G. Computer Policy

G.1-G.2 National Computer Authority

1964-66

G.1 Correspondence, papers, comments and proposals re the establishment of such an authority. File includes:

- 'The Computer Industry', 4 pp. paper by Christopher Strachey, 9 June 1964, and 2 pp. paper by Gill, 18 July 1964 responding to Strachey's 'diagnosis' and proposals (see also G.29).
- 'Tentative plan for a national computer authority', 5 pp. paper by Gill, September 1964, circulated for comment. Numerous lengthy letters exchanged with interested parties.
- Extensive correspondence exchanged with K.V. Roberts on the subject of a national computer policy. Copies of Roberts's papers 'The Effect of Fast Data Links on Future Computer Policy' (August 1963), 'Notes on Computing Policy' (July 1966) and 'The functions of a national computing authority' (published in Computer Bulletin, Vol.10, No.3, December 1966).

See also F.2.

G.2 Meeting with the Labour Parliamentary Science and Technology Group, House of Commons, 13 April 1965, to discuss computer policy, with special reference to a national computer authority: Gill's ms. notes of the meeting, correspondence, background papers re national data processing service.

1965

G.3 Civil Evidence Bill

1968

Correspondence with the Lord Chancellor's Office and the Institute of Chartered Accountants re admissibility of statements produced by computers. Gill encouraged the BCS to submit a note of its views on the Bill.

G.4 Computer Policy in Europe

1970, 1973-74

Copy of Report of the European Communities Commission on 'Community Policy on Data Processing' (21 November 1973) with extensive comments by Gill as expressed in a letter to the Director General for Industrial and Technological Affairs. File also includes a copy of 'A Proposal for the Development of the Minicomputer Industry in Europe' by I.M. Barron and T.A. Margerison which Gill refers to in later correspondence with the Commission.

One letter (1970) from Secretariat of Council of Europe re Sub-Committee on Data Processing of the Committee on Science and Technology.

G.5 'Professionalism and Ethics' 1971-74

The papers in this file duplicate or relate to material located elsewhere in the collection, but have been kept together under the heading which Gill gave them. In the autumn of 1974, Gill loaned these papers to a colleague who was preparing an address on 'Professionalism'; a copy of the typescript draft for this address is included in the file (No.10). All the papers listed below are typescript or printed, with the exception of No.8 which is Gill's ms.

1. 'Control of Personal Information Bill'. 1972
2. 'Note on the [British Computer] Society's Code of Conduct, Code of Good Practice and Syllabi'. 1972
3. 'Some Negative Social Side-Effects of Computer Technology' prepared by D.D. McCracken, for Open University Course on Computing and Computers. n.d.
4. 'Presidential Address to the British Computer Society'. 1971
5. 'The Future Role of the British Computer Society. Notes for the President's Speeches re Tour of the Branches - May 1971'. 1971
6. 'Computer Qualifications in the United Kingdom' by G.J. Morris and J. Southall (with ms. annotations by Gill). c.1973
7. 'Real-Time, 5', newsletter of the Real-Time Club. n.d.
8. 'Notes for a talk to the US-Canada-UK cttee mtg. Atlantic City, May '72', Gill's ms. notes for this talk re the British Computer Society. 1972
9. 'Draft Broadcast Letter' of the American Federation of Information Processing Societies, Inc., re project to develop system review manuals. n.d.
10. 'Professionalism' by N.J. Lillie 1974

G.6-G.17 Select Committee on Science and Technology

G.6-G.11 Sub-Committee 'D' of the Parliamentary Select Committee on Science and Technology met for six months during the 1969-70 Session. When the date for the general election was announced for 18 June 1970, the Committee had time only to authorise publication of the Minutes of Evidence and an accompanying volume of appendices. G.8-G.10 are files relating to an unofficial report by those members of the Select Committee who lost their seats in the election. G.11 is a copy of the report.

After the election the Sub-Committee was reconstituted as Sub-Committee 'A' and continued to hear evidence and issue reports (G.12-G.17).

Throughout the collection there are numerous references to the work of the Select Committee. The following files are itemised for ease of reference, but the list is by no means complete: D.5, D.10, F.7, F.10, F.11, G.19, G.22-G.26, H.4.

- G.6 'Memorandum of evidence to Sub-Committee 'D' of the Select Committee on Science and Technology' submitted by Gill, 24 March 1970: early typescript draft with requests for comment; typescript as submitted. Gill's evidence was published as Appendix 77 in Vol. II of the Select Committee's report; a photocopy of the version as published is included in the file. 1970
- Correspondence with C. de Paula re contents and distribution of Gill's memorandum and with member of the public re government's 'Buy British' policy.
- Photocopy of minutes of evidence by members of the British Computer Society (A. d'Agapeyeff, Gill and E. L. Willey) on 11 March 1970. See G.15 for press reports re this evidence and D.10 for the evidence submitted to the Committee by the BCS in 1971 and 1973. 1970
- G.7 'Computer Appreciation Course' for members of Sub-Committee 'D', held at Imperial College, 12 and 13 January 1970 and 1971. Booklet for each course containing synopses of lectures, notes on speakers, programme. Ms. notes and typescript draft for Gill's contribution 'The Computer Industry. Computing Service Bureaux and the Software Industry'. Letter of thanks from Sub-Committee 'D' Chairman, Airey Neave. 1970-71

- G.8-G.11 "'Ghost" Sub-Committee D Report'. 1970-71
- Three parliamentary members of the Select Committee (Eric Moonman, Eric Lubbock and Arnold Gregory) lost their seats in the General Election in June 1970. They decided to collaborate with specialist advisers in issuing an unofficial report 'commenting on the evidence assembled by the Select Committee'; this was published by George Allen and Unwin Ltd. in 1971 as British Computers and Industrial Innovation. 4 items:
- G.8 Correspondence re preparation of the book. Draft of Gill's contribution 'Telecommunications and the Computer Industry' with extensive comments by colleagues. Notes for meetings to discuss the book. Correspondence with Post Office official re his evidence to the Committee. 1970
- G.9 'Anglo-American Symposium on the Computer Industry', one-day conference, London, 19 April 1971, to launch the publication of the book. Copy of Gill's address 'Wanted: a National Plan' with typescript summary for distribution to the press. List of delegates. Letter of thanks for the book. 1971
- G.10 Typescripts of other contributions to the book, some annotated by Gill. See G.8 for the related correspondence. 1970-71
- G.11 Copy of British Computers and Industrial Innovation.
- G.12 Correspondence re the work and findings of Sub-Committee 'A'. Includes: 1971-73
- Gill's comments on evidence presented to the Sub-Committee and his approval of its Reports, as expressed in his letters to A.M.S. Neave, Chairman.
 - Correspondence with Members of Parliament.
 - Copy of Gill's letter to the editor of New Scientist (August 1972) replying to report by T. Dalyell on the need for public support of the British computer industry.
- G.13 'Memorandum of Evidence submitted by Miles Roman Ltd.' to Sub-Committee 'A': typescript, with covering letter, January 1971 (see also H.4). 1971
- 'Memorandum by Dr. S. Gill, PA International Management Consultants Limited' to Sub-Committee 'A': typescript, with covering letter, March 1973. 1973

- G.14 Reports issued by the Select Committee:
1. 'Research and Development Activities of the Department of Trade and Industry', 21 July 1971.
 2. 'The Prospects for the U.K. Computer Industry in the 1970's', 3 August 1972.
 3. Minutes of Evidence, The Rt. Hon. Christopher Chataway, MP, and Mr. I.T. Manley, 24 January 1973.
 4. Minutes of Evidence, Mr. T.C. Hudson, Mr. R.G. Cross, Mr. A.F. Edwards and Mr. E.S. Mack, 7 February 1973.
- G.15 Extensive file of press-cuttings re the work of the Select Committee. 1970-71
- G.16 One file of correspondence re evidence presented by the Department of Education and Science, 20 May 1971, with specific reference to use of computers in schools and to extension of the Computer Board's terms of reference to include teaching in schools. 1971
- G.17 One file of press notices issued by the Committee re meetings, reports, witnesses.

G.18-G.21 Software '71 and Software '72 Conferences

- G.18 'The State of the Art', opening address by Gill at Software '71 Conference, University of Kent, 5 July 1971: 2 typescripts (one with ms. amendments), report for the press, preliminary correspondence in preparation for address, comments by others on draft, photocopy of speech as printed in conference proceedings. 1971
- This speech, in which Gill 'called for a campaign to draw attention to the impending domination of Britain by American computers and software', aroused much correspondence and comment in the press (file includes numerous press reports of his talk) and was widely distributed.
- G.19 Correspondence received by Gill following his address. 1971
Several letters enclose copies of correspondence with MPs, initiated in response to Gill's suggestion that a massive public campaign should be mounted to 'break through the political soundbarrier'. Some of the letters also relate to the work of the Parliamentary Select Committee on Science and Technology (G.6-G.17). File includes list of individuals and journals to whom copies of the address were distributed.
- G.20 Conference programme, list of participants, abstracts of papers. 1970-71
- G.21 'The Present Outlook for Software in the U.K.', opening address by Gill at Software '72 Conference, University of Kent, 24 July 1972: typescript, press-cuttings re his address and re software development. Copy of Gill's letter to J.R. Pickin re software for minicomputers. (See also D.31 and F.10.) 1972
- G.22-G.26 Press-cuttings re computer industry, with photocopies of speeches and reports. 5 files in date order:
- | | |
|------|---------|
| G.22 | 1965-70 |
| G.23 | 1971 |
| G.24 | 1972 |
| G.25 | 1973 |
| G.26 | 1974 |

- G.27-G.35 Correspondence re computer policy (presented in date order)
- G.27 Correspondence with R.H.S. Crossman. File includes copy (annotated by Gill) of Harold Wilson's speech at Labour Party Conference, Scarborough, 1 October 1963 and 2pp. typescript of Gill's comments on that speech, prepared at Crossman's request. In his covering letter to Crossman, Gill called it 'an inspiring speech and it was largely the reports of this speech that converted me from Liberal to Labour'. File also includes copies of correspondence exchanged between members of Labour Government and N. Sanders re British computer industry. 1963-64
- G.28 Correspondence with B.V. Bowden re DSIR Advanced Computers Techniques Project and re talk delivered by Bowden to Institute of Directors, 12 December 1963, on the general problems of automation. 1963
- G.29 Correspondence with P.M.S. Blackett re research needed in the computer field (3 pp. letter from Gill on this topic). File includes copy of memorandum 'The Computer Industry' by C. Strachey, sent to Blackett and Gill by the author. (See also G.1.) 1964, 1965
- G.30 Correspondence with F.C. de Paula re wider use of computers in British Industry, de Paula's paper on national investment in computer industry (with comments by Gill), commodity coding, National Computer Centre, etc. Memoranda, position papers, committee papers. 1965, 1968-69
- G.31 Correspondence with David Price, M.P. re debate in House of Commons on Bill dealing with computing. 1968
- Correspondence with Sir Edward Playfair re his article 'The Edge of the Maelstrom' published in The Listener, 8 February 1968. 1968
- Correspondence with Central Policy Review Staff (Director: Lord Rothschild) re British computer industry. File includes copy of article by Nora Beloff (Observer, 18 July 1971) 'What the Rothschild think-tank thinks' with comments by Gill. 1970-71
- G.32 Correspondence with B.V. Bowden and D. Michie re computer crisis, sums of money needed, time-sharing installations, etc. 1971
- G.33 One file of correspondence re computer policy. File includes typescript of 'Computers and Politics, 1971-1984, A Preview', a satirical note by Gill published anonymously in the Computer Weekly, 25 March 1971. 1971

- G.34 One file of correspondence (both private and as published in The Times) re editorial of 17 May 1971 called 'Keeping the Data Lines Open' and re report in Business News, 18 May 1971, of A. d'Agapeyeff's speech at British Computer Society. Gill's letter was published on 20 May. Other correspondents were R. Ingham, C. Southgate, A. d'Agapeyeff, C.T. Ross, M. Ashill. 1971
- G.35 Correspondence with the Department of Trade and Industry and the UKAEA re amount of government support for aircraft, nuclear power and computer industries. 1973-74
- Correspondence with Science Research Council re 'paper symposium' on artificial intelligence with 4 pp. type-script of comments by Gill.
- Correspondence re Canadian government's policy of support for computers.
- Lengthy letter to G. Black re public switched digital data network, 24 October 1974.
- G.36 'Oxford and Cambridge Club' (an informal group of computer specialists who had dinner meetings annually to discuss computer policy). 1971-73
- 1971 minor correspondence.
- 1972 correspondence re dinner held at the LACES Centre, 18 July. Photographs.
- 1973 correspondence re meeting arranged by Gill for 4 July 1973 and re Royal Institution debate on 'Robots Have no Future' which the group attended before the meeting.

H. Miles Roman

In 1970 Gill left the Chair of Computing Science at Imperial College to become chairman of Software Sciences Holdings Ltd., a division of the Miles Roman group. He remained with Miles Roman until the autumn of 1971 when Autonomics, the major subsidiary of Miles Roman, was forced to call in a receiver, a move which in turn brought about the collapse of the parent company. See G.23 for a full-page clipping from The Guardian of 30 November 1971 describing the history of Autonomics and Miles Roman and of the financial support from the City for the project.

The material in this section is that arising from Gill's association with Miles Roman and its subsidiaries. Arrangement of the material is based on Gill's original filing classification; his file headings are given in the handlist, the contents are summarily noted and an indication is given of terminal dates. Some of the files deal with a particular subsidiary (Autonomics, Software Sciences Holdings Ltd., Zeus-Hermes) while other files contain correspondence and papers documenting the firm's business contacts with various government departments (H.15-H.21).

None of the files in this section is yet available to readers.

H.1	Software Sciences - General: correspondence, report, briefing notes, annual report for 1970.	1970-71
H.2	Miles Roman: correspondence, memoranda, press-cuttings, notes of meetings, annual report for 1970, ms. notes by Gill.	1970-71
H.3	Autonomics (a subsidiary of Miles Roman): correspondence. See also H.5 and H.10.	1971
H.4	Sub-Committee 'A': correspondence, drafts of memorandum of evidence. See also G.13.	1970-71
H.5	Lord Mountbatten: correspondence.	1970-72
H.6	Buckingham Palace: correspondence. See also G.36.	1971
H.7	Software Sciences Holdings Ltd.: correspondence.	1969-73
H.8	Milrom Contacts: correspondence.	1970-71
H.9	Kleinwort Benson Ltd.: correspondence; also includes papers of Computer Steering Committee and Gill's report on Autonomics system (August 1971).	1970-72
H.10	Autonomics Launch (22 September 1970): invitations and replies.	1970
H.11	Computer Analysis '71: sample questionnaire form, correspondence, memoranda, press release, arrangements for publication by National Computer Centre, page proofs.	1970-72
H.12	Zeus-Hermes: correspondence, Gill's notes.	1971

H.13	International Computers Limited: correspondence, copy of Gill's letter to editor of <u>Financial Times</u> (July 1971) (see also C.42).	1971
H.14	British Broadcasting Corporation: correspondence.	1971
H.15	Proposal to the Post Office Corporation and to the Advisory Group on Data Transmission of National Economic Development Council: correspondence, copy of proposal.	1969-71
H.16	Government - Meetings and Liaison within Miles Roman: correspondence, memoranda, minutes of meetings.	1970-71
H.17	Government - Departments - General: correspondence, Gill's notes on meetings.	1970-71
H.18	Government - Civil Service Department: correspondence, memoranda, briefing notes.	1970-72
H.19	Government - Department of the Environment: correspondence, memoranda.	1971
H.20	Government - Department of Trade and Industry - General: correspondence, briefing notes, memoranda.	1971
H.21	Government - Department of Trade and Industry - Research Association: correspondence, briefing notes, memoranda.	1971

I. Correspondence

Gill kept his correspondence in subject files - with the result that his letters (those sent and those received) are distributed throughout the collection according to topic. Many of the files as described in the other sections of the handlist are composed almost entirely of correspondence. In addition to these subject files, however, Gill (and his secretaries) also maintained chronological files of carbon copies of all letters and memoranda that went out with his signature. There are 6 such folders dating from April 1969 to his death. The folders are very extensive, most of them containing several hundred carbons, but nevertheless they are not complete. Attached to I.4 is a note by Gill's secretary 'This has been severely (but possibly incompletely) "pruned" (from 12 fat files!) ...'

This chronological sequence of correspondence preserves an interesting record of the many different topics to which Gill addressed his attention during an 'ordinary' working day. The files also contain numerous carbons which do not appear elsewhere in the collection, indicating that subject files were either destroyed, left behind on Gill's move from Imperial College or were passed on to colleagues for information.

None of these files is yet available to readers.

- I.1 April 1969-December 1969.
- I.2 January 1970-September 1970.
- I.3 October 1970-November 1971.
- I.4 November 1971-March 1975.
- I.5 October 1970-September 1971 (Software Sciences, Milrom, etc. only).
- I.6 December 1970-April 1973.

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