

Catalogue of the papers and correspondence of

**SIR PETER KENT FRS**

(1913 - 1986)

Compiled by Timothy E. Powell and Peter Harper

**VOLUME I**

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## GENERAL INTRODUCTION

### PROVENANCE

The bulk of the papers were received in February and August 1990 from Lady (Lorna) Kent. The papers deposited in Nottingham University Library by Sir Peter Kent in 1985 were received from the Library in August 1990.

### OUTLINE OF THE CAREER OF SIR PETER KENT

Percy Edward (from an early age he chose to be called Peter) Kent was born in West Bridgford, Nottingham, in 1913. He was educated at West Bridgford Grammar School and University College, Nottingham, where he read Geology under Professor H.H. Swinnerton. He graduated B.Sc. with first class honours in 1934. He was then awarded a scholarship by the Department of Scientific and Industrial Research for research on the stratigraphy of the Lincolnshire Limestone and registered with London University for his Ph.D. Shortly after graduation, however, Kent was recommended to L.S.B. Leakey as geologist for his fourth East African Archaeological Expedition, the original choice K.P. Oakley having withdrawn. The expedition searched for remains of *Homo sapiens* at Pleistocene sites at Kanam and Kanjera in Kenya following on from Leakey's expedition of 1931-32, and then at Olduvai Gorge in Tanzania, but with inconclusive results.

Kent returned to the UK in 1935 and spent the following year writing up his results and resuming his study of Lincolnshire Limestone. On the strength of his work in Lincolnshire Kent joined the Anglo-Iranian Oil Company (later to become British Petroleum) as an Assistant Geologist. He undertook survey work on the south coast of England 1936-37. Kent then returned to Lincolnshire to report on the geology of the area and was also assigned to check the geology of the 'Market Weighton Anticline' in south east Yorkshire. Kent's survey showed that in fact no anticline existed. In 1938 Kent was despatched to Scotland where exploration for oil had begun in the carboniferous rocks of central Scotland, and in 1939 to Formby in Lancashire where oil seepages had been discovered.

On the outbreak of war Kent was in a 'reserved' occupation and so continued to work for Anglo-Iranian in Nottinghamshire. In 1941, however, he was released by Anglo-Iranian as they cut back on their geological surveying and he joined the Royal Air Force Volunteer Reserve. He was assigned to the Photo-Intelligence Branch of D section (Industry) of the RAF Central Interpretation Unit based at



Medmenham, Buckinghamshire. Kent worked on the assessment of German oil supplies - initially locating oil storage tanks, later identifying synthetic oil plants in which the Germans were converting coal to oil. Kent was seconded to the Mediterranean Allied Air Force in Italy in 1944 and in 1945 he was posted to the Pentagon, Washington DC, to work with G2 Branch of US Army Intelligence on photo-interpretation of Japanese oil installations. For his work on identifying oil plants in Axis held Europe he was awarded the US Legion of Merit in 1946. At the end of the war with Japan Kent was the only non-American to accompany the US Strategic Bombing Survey, assessing the effectiveness of air raids on targets in Japan.

After the war Kent rejoined Anglo-Iranian and resumed work on oil finds in the Upper Carboniferous rock of the east Midlands, based at Eakring, Nottinghamshire. In 1948 he was posted to Iran for stratigraphic survey work in the Zagros mountains in south east Iran. He returned to the UK in 1951, following the political disturbances in Iran which had resulted in the nationalisation of BP's Iranian interests and so curtailed further survey work. He was almost immediately sent to East Africa, a report having been received that a Kenyan government geologist had found signs of oil. It transpired that no oil was to be found, although the area was geologically promising, and Kent went on to Tanganyika where the prospects of finding oil seemed better. The results of this pioneering geological work were published in 1971 by the Geological Survey as *Geology and Geophysics of Coastal Tanzania* with Kent as a co-author.

In 1955 Kent was posted to Papua New Guinea, first as Deputy Chief Geologist later Chief Geologist, with the Australasian Petroleum Company, a part-owned BP subsidiary. Kent was involved in surveys in the rain forest and the highlands of Papua. This met with little success despite the promising geology of the area. Kent was posted to Canada in 1957 as Adviser to the President of BP Canada. There was little progress in eastern Canada and work moved westwards to the Northwest Territories and Canadian Arctic islands in 1958. In 1959 BP also began investigating oil prospects in the north of Alaska. BP Exploration (Alaska) was formed with Kent as its first President. The work of Kent and his team was to lead to a number of discoveries of oil and gas including the two huge fields at Prudhoe Bay and Kuparek. In 1970 Kent and two BP colleagues, H.R. Warman and A.N. Thomas, were awarded the MacRobert Award of the Council of Engineering Institutions for the techniques they pioneered for accurate surveying through permafrost which made the discoveries possible.



From 1961 Kent's duties became more managerial. He was appointed Deputy Chief Geologist of BP in 1961, Regional Manager of BP North and South America in 1962 and Technical and Regional Manager of BP America and the Western Hemisphere a year later. In 1966 Kent was made Chief Geologist and was much involved in operations in the North Sea, particularly the discovery of the Forties field. Kent was appointed Assistant General Manager (Exploration) in 1971. Kent retired from BP in 1973 but continued as a consultant on exploration matters with special reference to Iran, Canada and the UK. Kent had maintained his close connection with oil exploration in Iran through his service from 1965 on the Exploration Advisory Group, a body formed in 1957 to advise oil companies operating in Iran on exploration matters. In 1973 Kent became Chairman of the Group, his continuing membership of the EAG being part of his post-retirement consultancy with BP. The EAG's activities were halted in 1978 by the Islamic revolution and the overthrow of the Shah.

On his retirement Kent was appointed Chairman of the Natural Environment Research Council, a post he held until 1977. In 1977 Kent joined the Board of LASMO (London and Scottish Marine Oil). He resigned from the Board in 1983 having seen LASMO develop from a very small investment house into a leading independent British oil company. In 1982 he accepted an invitation to join the Board of Directors of Minworth Ltd, the controlling body of the Minworth Group of companies, and became its Chairman the following year. He also served as Chairman of Strontian Minerals, a subsidiary company within the Minworth Group, 1983-86.

Kent's numerous contributions to geology were introduced by his Royal Society memorialists as follows:

'Under Professor Swinnerton we may assume that Peter became so familiar with the chronostratigraphy of the Jurassic and Cretaceous that he was able to recognize with confidence the zonal level of the rocks in Lincolnshire and Leicestershire that formed the subjects of his earliest researches. This was one of the techniques upon which his career was based; the other was the art of field mapping. Neither of these techniques, however, became an objective in its own right in his hands; both were employed for the deciphering of the structural history of parts of the Earth's shallow crust, some of them of great economic importance. His work will remain influential in this field of structural interpretation; growing from small beginnings in the East Midlands, thence to the North Sea and beyond that to the aseismic continental margins of northern Europe and East Africa'. (N.L. Falcon and Sir Kingsley Dunham, *Biographical Memoirs of Fellows of the Royal Society*, **33**, 1987, 343-373, p.360).



Kent was accorded many honours for his contributions to geology and to petroleum exploration. He was elected a Fellow of the Geological Society of London in 1938 and was awarded the Society's Lyell Fund in 1949 and their Bigsby and Murchison Medals in 1953 and 1969 respectively. He served as President of the Geological Society 1974-76. Kent was elected to the American Association of Petroleum Geologists in 1957 (Honorary Member 1976), the Geological Society of America in 1966 and the Petroleum Exploration Society of Great Britain, of which he was a founder-member in 1965 and which he served as Chairman 1966. He received the MacRobert Award (see above) in 1970. Kent was President of the Yorkshire Geological Society 1965-66 and was awarded its Sorby Medal in 1973. He received Honorary Degrees from the universities of Leicester (1972), Durham (1974), Bristol (1976), Glasgow (1977), Aberdeen (1978), Cambridge (1979), Hull (1981) and Birmingham (1983). Kent was elected to the Fellowship of the Royal Society in 1966 (serving on Council 1967-69) and was awarded its Royal Medal in 1971. Kent was knighted in 1973.

Kent married twice, in 1940 to Margaret Betty Hood, who died in 1974, and in 1976 to Lorna Ogilvie Scott.

#### DESCRIPTION OF THE COLLECTION

The material is presented in the order given in the List of Contents. This large collection covers almost all aspects of Kent's professional career.

Section A, Biographical, is substantial. There is Kent's autobiographical account 'Recollections in retirement', and records of Kent's student work at University College Nottingham, his membership of the East African Archaeological Expedition 1934-35, his Second World War service and his career with the Anglo-Iranian Oil Company/BP. The honours received by Kent are well-documented, including his election to the Fellowship of the Royal Society in 1966, the MacRobert Award in 1970 and his knighthood in 1973. The section also includes diaries 1950-71, family and social correspondence, including a sequence of letters home during Kent's period in Iran 1948-51, and miscellaneous personal papers and memorabilia.

Section B, Research and surveys, is the largest in the collection. It documents Kent's survey and oil exploration work and his own geological research from the first work with Anglo-Iranian Oil in Lincolnshire in 1936, through his postwar work for BP in the UK and overseas in Iran, East Africa, Papua New Guinea and North America, to the North Sea discoveries of the 1960s and 1970s, and



post-retirement research to 1986. There was a close relationship between Kent's work for Anglo-Iranian/BP and his academic geological research; with the company's goodwill Kent was able to use information from company surveys in his own publications. Kent retained a continuing interest in the geology and oil prospects of areas of the world he had visited and this is reflected in the wide geographical coverage of the papers. The bulk of the material, however, is concerned with the geology of England (particularly the Midland counties) and Iran (including the work of the Exploration Advisory Group). The material, most of which was found in Kent's own folders or envelopes, includes correspondence, manuscript notes (some on pages from 'filofax' style notebooks), typescript drafts and notes, stratigraphical columns, oil well logs, maps, sections and photographs. There are also a number of notebooks.

Section C, Deep Sea Drilling Project, documents Kent's involvement in the Deep Sea Drilling Project (DSDP) from the negotiations over British participation in 1973 and the establishment of the International Phase of Ocean Drilling (IPOD) in 1975. The lead agency in the UK was the Natural Environment Research Council, of which Kent was Chairman. Kent served on the Executive Committee of JOIDES, the consortium of member-institutions of the project, 1975-81, and on the UK IPOD Co-ordinating Committee. His involvement continued to the completion of the IPOD in November 1983 and the campaign for British participation in its successor programme, the Advanced Ocean Drilling Project (AODP, later just ODP). Kent played an active part in the research, reviewing the results of Leg 25 of the DSDP, which surveyed the western Indian Ocean and contributing to the series *Initial Reports of the Deep Sea Drilling Project*.

Section D, Publications and lectures, brings together material for many of Kent's published papers, 1936-87, and lectures from 1952. The largest single body of material documents his geological memoir for the Institute of Geological Sciences, *Eastern England from the Tees to the Wash* (HMSO, 1980). The lectures were chiefly delivered to university and college geological societies or local geological and natural history societies. The latter include Presidential addresses to the Yorkshire Geological Society and to the Lincolnshire Naturalists' Union. There are also sequences of editorial correspondence and Letters to *The Times*. At D.134 is material relating to a BBC radio broadcast on explorers in which Kent took part. There is an (incomplete) set of Kent's published papers at D.135.

Section E, Natural Environment Research Council, includes papers relating to Kent's service on the the Geology and Geophysics Committee (later Institute of Geological Sciences Advisory Committee)



of the NERC 1968-73, his Chairmanship of the NERC 1973-77 and subsequent Council service 1977-80. These activities are poorly documented since, with the exception of his first year as Chairman of the NERC, Kent did not retain many committee papers or official correspondence. The bulk of the papers document Kent's service on Preparatory Group 'A' of the Council, as a member of which Kent served on the Deep Geology Committee and Visiting Groups to the Institutes of Geological Sciences and of Oceanographical Sciences.

Section F, Societies and organisations, is the second largest in the collection. It documents Kent's association with 41 British, overseas and international bodies. These include the Foreign and Commonwealth Office, for which Kent acted as adviser in territorial disputes in the North Atlantic Ocean (Rockall) and the English Channel, the Geological Society, of which Kent was President 1974-76, the International Trust for Zoological Nomenclature, the Royal Society and the Watt Committee on Energy. For material relating to the British Geological Survey see the entry for the Institute of Geological Sciences and, specifically relating to the campaign to safeguard the future of the Survey 1984-86, the Institution of Geologists. Also of interest is the material on local geological and natural history societies of which Kent was a member, including the East Midlands and Yorkshire Geological Societies and the Leicestershire, Lincolnshire and Nottinghamshire Trusts for Nature Conservation.

Section G, Commercial consultancies and companies, comprises material relating to Kent's work for commercial organisations, principally BP, LASMO and the Minworth Group. The material relating to BP includes documentation of his later managerial career within BP, but much of it dates from his post-retirement consultancy from 1973. Kent's involvement with LASMO 1977-84 is the best documented component of this section. As a member of the Board and a consultant Kent was very closely involved with the operation of this company at a crucial stage in LASMO's development into a leading independent British oil company. The LASMO material also records the history of Charlton Thermosystems Ltd, a small company attempting to market a pioneering heating system, in which LASMO had a close interest. Kent's shorter period of service with the Minworth Group, as Board member and Chairman of Minworth Ltd and Chairman of Strontian Minerals, is also well-documented.

Section H, Visits and conferences, presents a chronological sequence, 1951-85, of some of Kent's engagements both in the UK and abroad. The visit for which most documentation survives is the 1968 International Geological Congress held in Prague, Kent led the UK delegation. The proceedings



were cut short by the Warsaw Pact invasion of Czechoslovakia and the Soviet occupation of Prague and the material includes accounts of the events by Kent and his wife, and memorabilia. The section does not present all of Kent's extensive travel and attendance at meetings and conferences. His overseas research and survey work for BP is documented in section B and his visit to East Africa with the East African Archaeological Expedition is documented at A.53-A.102.

Section J, Scientific correspondence, is the smallest in the collection. There are no extended sequences of correspondence. Much of Kent's correspondence is to be found in other sections, retained with other material with which it was found. There is, for example, a great deal of scientific correspondence in section B.

There is also an index of correspondents.

#### LOCATION OF OTHER MATERIAL

An album containing photographs taken during the East African Archaeological Expedition was donated by Kent to the British Museum (Natural History) in January 1977.

#### ACKNOWLEDGEMENTS

We are very grateful to Lady Kent for making the bulk of the papers available and to Lady Kent and Dr Dorothy Johnston, Keeper of Manuscripts, Nottingham University, for advice and encouragement.

T. E. Powell

P. Harper

BATH 1993

**SECTION A**

**BIOGRAPHICAL**

**A.1-A.268**

- A.1-A.18      BIOGRAPHICAL AND BIBLIOGRAPHICAL
- A.19-A.52      SCHOOL AND UNIVERSITY NOTEBOOKS
- A.53-A.102      EAST AFRICAN ARCHAEOLOGICAL EXPEDITION
- A.103-A.126      SECOND WORLD WAR
- A.127-A.187      CAREER, HONOURS AND AWARDS
- A.188-A.209      DIARIES
- A.210-A.238      FAMILY AND PERSONAL CORRESPONDENCE
- A.239-A.268      MISCELLANEOUS PERSONAL MATERIAL



## Biographical

### BIOGRAPHICAL AND BIBLIOGRAPHICAL

- A.1                      Memoir of Kent by N.L. Falcon and Sir Kingsley Dunham, *Biographical Memoirs of Fellows of the Royal Society*, **33** (1987), 343-373.
- A.2                      *The Times* obituary, 14 July 1986.
- A.3                      Application form for non-immigrant visa for USA, completed by Kent for visit to Colorado, 1955.
- Calendar of postings with Anglo-Iranian Oil/BP 1936-61.
- Copy of Kent's BP 'Staff review form' for 1965.
- Entry for *Who's Who*, 1966.
- Biographical data, possibly for biographical reference book, 1984.
- Biographical data, 4pp typescript. Compiled by Kent c.1984.
- A.4-A.16                'Recollections in Retirement'. Contents of Kent's binder divided into thirteen for ease of reference.
- Unpublished autobiographical account by Kent. The account comprises typescript sections, some with later typescript 'inserts', recounting episodes in Kent's life and career. The titles of the sections are reproduced in the catalogue entries, and the material is presented in the order in which it was kept by Kent.
- A.4                      'Beginnings', 'Oh, my Father!', 'Four schools'.
- A.5                      'University days - 1931-34, 1935-36', 'The family at Friary [Congregational Church]', 'Aunts and Uncles', 'Basford in the Twenties'.
- A.6                      'Geology in eastern England', 'East Africa 1934-5', 'With Leakey's 4th East African Archaeological Expedition 1934-5'.



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- A.7 'The later Thirties - early years with BP (1936-1940)', 'Midlands oil', 'Scottish interlude 1938-9', 'The last summer of peace - Formby 1939 (and after)', 'Oil at Eakring, Nottinghamshire, 1939'.
- A.8 'War years in the RAFVR', 'Interpreting the German oil industry', 'Medmenham', 'Intelligence in the Pentagon, Washington D.C., 1945', 'Strategic Bombing Survey, Japan, 1945', 'Wartime memory - San Severo - an Italian country town (1944)'.
- A.9 'Iran, 1948-1951', 'Iran - home at Haft Kel, 1949', 'Iran - surveys in the Zagros mountains 1948-1951', 'Iran regional geological surveys'.
- A.10 'Deep exploration in eastern England', 'Back to East Africa in the 1950s'.
- A.11 'East Africa again, 1952, and afterwards', 'Postscript to East Africa', 'East African exploration - a narrative history', 'In jungle country - Papua 1955-57'.
- A.12 'Canada - Calgary and the Arctic 1957-1960', 'Delivered by hand - a letter from Abu Dhabi and Kuwait May 1969', 'A visit to Oman, November 1970', 'A rather special week, November 1971'.
- A.13 'Iran - exploration advice 1965-1978', 'The high Zagros with the EAG, October 1972 - a diary note', 'Diary of the last days in Iran November 1972'.
- A.14 'Meeting cabinet ministers, 1966-76'.
- A.15 'An afternoon with the BBC TV', 'Without a passport', 'Singing', 'A Dutch breakfast', 'Strange customs', 'Pure lunacy', 'The unpredictability of air travel', 'Borrowed time'.
- A.16 'A new star in the oil industry - LASMO 1977-83', 'The heat that failed - Charlton Thermosystems Ltd., 1980-1983', 'Positive vetting', 'Prague 1968', 'Hong Kong at night'.

### Biographical

- A.17                      Lists of publications, to 1971 and 1974, and list of Kent's 'Reports held by BP'.
- A.18                      'Reprints Register'. Contents of Kent's folder so inscribed: tabulated lists of names of those receiving various reprints, 1958-72. Arranged alphabetically.

### SCHOOL AND UNIVERSITY NOTEBOOKS

#### School

- A.19                      Hardback. Labelled on front cover 'P.E. Kent. Practical Chemistry'. Used for accounts of experiments 1 - 46 from 15 October [?1929]. The work was marked on 5 February 1930, 23 February 1930 and 22 July 1931.
- A.20                      Hardback. Labelled on front cover 'P.E. Kent Practical Chemistry' and inscribed inside front cover '...Practical Chemistry II'. Used for accounts of experiments 47 - 52. The work was marked on 22 July 1931. Loose at front is July 1931 Chemistry Practical examination paper.
- A.21                      Hardback. Inscribed inside front cover 'P.E. Kent    Physics'. Used for accounts of experiments. Undated.

#### Undergraduate

- A.22-A.38                'Practical Lab work 1931-34 (possibly worthy of archives as example of H.H.S. [Swinnerton] teaching methods)'. Contents of Kent's large envelope so inscribed: diaries, binders, sketches and notebook.
- A.22-A.24                Pocket diaries 1932-34. Used for notes of geological fieldwork.
- A.22                      1932.



**Biographical**

- A.23 1933.
- A.24 1934.
- A.25, A.26 '(Stratigraphy) + Palaeontology'. Contents of Kent's ring binder so labelled divided into two for ease of reference: ms notes on fossil types.
- A.27-A.30 'Stratig Palaeo. Special'. Contents of Kent's ring binder so labelled divided into four for ease of reference. The binder was used from the front for ms notes principally on stratigraphy (A.27, A.28) and from the back for ms notes on vertebrate palaeontology (A.29, A.30).
- A.31, A.32 'Cret'. Contents of Kent's ring binder so labelled divided into two for ease of reference.
- A.31 Essay on the Tremadoc beds.
- A.32 Ms notes on Cretaceous rocks.
- A.33 'Palaeontology Foraminifera Graptoloidea Coelentera Brachiopoda Mollusca'. Kent's binder so inscribed. Pencil sketches, retained in original binder.
- A.34-A.37 'Palaeontology'. Contents of Kent's binder so inscribed divided into four for ease of reference.
- A.34 Pencil sketches of invertebrata; University of London B.Sc. examination admission card and timetable, June 1934.
- A.35, A.36 Pencil sketches of vertebrata. 2 folders.
- A.37 Duplicated instruction and problem sheets for map making course.



### Biographical

- A.38 Hardback notebook labelled on front cover 'P.E. Kent [...] Elementary Palaeontology Mineralogy. Petrology'. Used principally for pencil sketches of fossils and watercolours of rock specimens.
- A.39 Hardback notebook labelled on front cover 'Biogeography Geophysics Oceanography'. Used from 'Oct 2' for ms notes.
- A.40 Hardback notebook labelled on front cover 'Geomorphology and Physical Basis...' Used from the front for ms notes on geomorphology, and from the back for ms notes on the 'Physical basis' of air, water, snow and ice and notes on '2nd Year Geomorph British Isles and Europe'. A little loose intercalated material.
- A.41 Hardback notebook inscribed on spine 'Jurassic' and inside front cover 'Jurassics Inferior Oolite - Purbeckian'. Paginated 1-191 with list of contents on first page. Used for ms notes and sketches pasted into the notebook.
- A.42 Hardback notebook labelled on front cover 'Jurassics' and inside front cover 'Lower Lias of the British Isles'. Paginated 1-41 (some earlier pages cut from the notebook and later pages not numbered). Used for ms notes.
- A.43 Hardback notebook inscribed inside front cover 'Palaeontology'. Used from the front for ms notes on fossils and from the back for ms notes on Eocene, Oligocene, Miocene, Pliocene and the geology of south Shropshire. A little loose intercalated material.
- A.44 Hardback notebook labelled on front cover 'Petrology and Mineralogy'. Used from the front for ms notes on petrology and from the back for ms notes on mineralogy.
- A.45 Hardback notebook inscribed inside front cover 'Stratigraphy'. Paginated 2-146. Used for ms notes and sketches pasted into the notebook.
- A.46 Hardback notebook inscribed inside front cover 'Abstracts'. Paginated 1-82 (later pages not paginated). Used for ms notes on the literature and newspaper cuttings 1933-34 (from the *Manchester Guardian*) on geological matters pasted into the notebook.

### Biographical

- A.47                      Softback exercise book used from the front for ms notes on fossils and sketches pasted into the notebook, and from the back for bibliographical references (latest reference 1931). Some earlier pages cut from the notebook.
- A.48-A.50                'Field Work'. Contents of Kent's ring binder so labelled divided into four for ease of reference: ms accounts of field work 1932-34 with list of contents on first page. The accounts are individually paginated and some are illustrated by photographs pasted onto the pages.
- A later ms note by Kent found inside the binder (at A.48) describes it as 'Probably submitted in B.Sc. original work'.
- A.48                      Introductory note with list of contents; 'The hydraulic Limestones of S. Notts'; 'A study of the Lincolnshire Limestone'.
- A.49                      'Geological mapping'; 'The age of the highest Kimmeridgian of Lincolnshire'; 'the Northampton district'; 'Easter camp 1932 Bradford on Avon, Wilts'; 'Easter camp in Shropshire 1933'; 'Isle of Wight August 1933'.
- A.50                      'Welsh Border Easter '34'; 'Swanscombe' (later brief note on trial work with L.S.B. Leakey prior to East African Archaeological Expedition); photographs and map for 'Notes on river systems and glacial retreat stages in south Lincolnshire', by Kent, *Bibliog.* 7, 1939.
- A.51                      'A Charnian Axis in the East Midlands PEK/1933-4'. Contents of Kent's envelope so inscribed: ms draft + hand-drawn map.
- A later ms note by Kent found attached describes the circumstances behind the draft:  
'This note was written in 1933/4 after a heavy dose of [W.J.] Arkell's book (Jurassic rocks of G.B.) and papers by R.H. Rastall. It incurred the severe disapproval of Prof Swinnerton, who regarded it as an unjustifiable waste of time'.
- A.52                      Ring bound pocket notebook used from the front and from the back for miscellaneous notes, those at front including work at Barnston [Lincs] 1933-34.



## Biographical

### EAST AFRICAN ARCHAEOLOGICAL EXPEDITION

After graduation in 1934 Kent was invited to join L.S.B. Leakey's archaeological expedition to East Africa on its fourth season. He was recommended in the place of K.P. Oakley who had withdrawn from the expedition.

The expedition was to follow up Leakey's expedition of 1931-32 to Kenya, in the course of which Leakey had discovered fragments of a hominid skull at Kanjera and a hominid jaw bone at Kanam. The bones were thought to be from *Homo sapiens*. Leakey said the jaw had been found in Lower Pleistocene beds, which suggested an earlier date for the appearance of *Homo sapiens* than had hitherto been supposed, and the skull pieces in Middle Pleistocene. However, Professor P.G.H. Boswell, a leading authority on the Pleistocene, cast doubt on Leakey's claims and Leakey, to prove his case, persuaded the Royal Society to fund Boswell to visit the sites with him on his next expedition to East Africa.

The expedition left England on 24 October and arrived in Kenya on 10 November. There was considerable difficulty finding the site of Leakey's main discovery. This, it transpired, was because the photograph purported to be of the site was in fact, as Kent and S. White, the expedition surveyor, discovered, of gullies some distance away. Boswell returned to the UK in January and wrote a Letter to *Nature* in which he revealed the discrepancy. The matter was complicated by the fact that the photograph was to appear in Leakey's book on his discoveries about to be published by Oxford University Press. Leakey argued that there was no intention to mislead and withdrew the photograph from the book. Further difficulty arose when it became clear that the hominid jawbone had not actually been found *in situ* by Leakey but collected by a native assistant and that it was quite possible it had slipped down into the Pleistocene bed through cracks in the ground.

Kent initially served as assistant to Boswell, but following Boswell's return to the UK in January served as the Expedition Geologist. The first stage of the expedition searched for the sites of Leakey's finds and other evidence of early *Homo sapiens* at Kanam and Kanjera and other locations in the Kavirondo area of Kenya. In May 1935 the team moved on to Olduvai Gorge (Oldoway) in Tanganyika. Kent left Kenya on 8 August 1935.

See also B.365, D.2.

The material is presented as follows:

A.53-A.87	Correspondence and papers
A.88-A.102	Notebooks and maps

## Biographical

### Correspondence and papers

- A.53-A.66      'East Africa. Technical correspondence etc from August 1934'      'Leakey's monthly reports. Letters from LSBL, Boswell, Wayland, Archdeacon Owen'. Contents of Kent's folder so inscribed divided into fourteen for ease of reference.
- A.53      Correspondence August - October 1934 *re* preparations for the expedition. Includes initial letter from Leakey *re* the possibility of Kent joining the party, 11 August, and correspondence *re* preparatory field trip to improve Kent's mapping techniques (see A.50).
- A.54-A.56      Monthly field reports.
- These duplicated typescript reports were written by Leakey for private circulation among expedition members and other colleagues. They report on the expedition's movements, excavations and discoveries, and include accounts of work carried out by Kent, with Boswell, and independently.
- A.54      24 October - 23 November 1934.
- 24 November - 23 December 1934.
- 24 December 1934 - 23 January 1935.
- A.55      24 January - 23 February 1935.
- 24 February - 23 March 1935. Includes Leakey's first reactions to reports of Boswell's criticisms of his work, published in *Nature*, 9 March (see A.57), and 'Report on geological work of the month' by Kent.
- 24 March - 23 April 1935. Includes 'Geologist's report' by Kent.
- A.56      24 April - 23 May 1935.
- 24 May - 23 June 1935. Includes 'Geological report' by Kent.
- 24 June - August 1935.



### Biographical

- A.57 'Human remains from Kanam and Kanjera, Kenya colony' by Boswell, *Nature* 135, 371-2; printed account of journey to Kenya and first impressions of the country by Kent, probably from the West Bridgfordian school magazine; letter from W.E. Owen, 5 April, and correspondence from E.J. Wayland, Director of the Geological Survey of Uganda, July, August 1935; typescript draft of letter from Kent to *East African Standard* on the newly discovered ruined city at Engaruka, 4 August 1935; hand-drawn maps of Songhor and Olduvai.
- A.58 Correspondence arising from the expedition, October - December 1935. Chiefly with expedition members (including Leakey and Boswell) and E.J. Wayland.
- A.59 Correspondence arising from the Expedition, January - April 1936. Includes W.C. Smith's typescript 'notes on [...] igneous rocks from Eyasi and Manyara exposures' collected by Kent, 6 April 1936 and other correspondence *re* specimens collected by Kent.
- A.60 Correspondence arising from the expedition, May 1936 - 1937, 1939. The correspondence 1939 is chiefly *re* red pebbles from Koru collected by Kent.
- A.61 Correspondence October 1940 - January 1941. Chiefly *re* fossil fish from Miocene and Pleistocene beds. Includes 'A note on Pleistocene deposits near Lake Manyara, Tanganyika' by Kent, 8pp typescript, submitted for publication in the *Geological Magazine*, 14 January 1941 (*Bibliog.* 13, 1942).
- A.62 Correspondence February - May 1941. Includes 'The recent history and Pleistocene deposits of the plateau north of Lake Eyasi, Tanganyika' by Kent, 16pp typescript, submitted for publication in the *Geological Magazine*, 27 February 1941 (*Bibliog.* 10, 1941).
- A.63 Correspondence and papers June - September 1941. Includes lists of 'Kavirondo Pleistocene mammals' compiled by A.T. Hopwood, sent to Kent 23 June; 'The Pleistocene beds of Kanam & Kanjera, Kavirondo, Kenya' by Kent, 19pp typescript, submitted for publication in the *Geological Magazine*, 6 July 1941 (*Bibliog.* 14, 1942); 'Miocene deposits in Kenya' by Kent, 2pp typescript, submitted for publication in *Nature*, 12 July 1941 (*Bibliog.* 12, 1941).
- A.64 Correspondence 1942. Chiefly *re* Kent's articles on Kenyan geology.



### Biographical

- A.65 Correspondence 1943-45. Includes 'Contribution to discussion on Dr F. Dixey: "The relation of the main peneplain of Central Africa to sediments of Miocene age" ' by Kent, 2pp typescript, 3 February 1945.
- A.66 Miscellaneous material. Includes press-cutting from the *Manchester Guardian*, 11 January 1939 of report from W.E. Owen on 'New discoveries in Kavirondo'; hand-drawn illustration of geology of Rusinga island and map of Kokkoth cliffs; ms notes; typescript draft Letter (? to *Geological Magazine*) on 'The age and tectonic relationships of East African volcanic rocks' by Kent, nd; two articles by K.P. Oakley, 1974 and 1975, reporting on radiometric assay dating of the hominid bone fragments discovered by Leakey's 1931-32 expedition.
- A.67-A.72 'Letters from Africa 1934-5'. Contents of Kent's envelope so inscribed divided into six for ease of reference: letters from Kent to his family, principally his mother, October 1934 - July 1935. Includes accounts of outward journey and activities in East Africa. At A.72 is miscellaneous material found therewith: 15pp ms notes for talk by Kent on his experiences in East Africa; 'East African chessboard' by Kent, 9pp ms draft on relations between Blacks and Whites in East Africa (probably written for the Friary Congregational Church newsletter); magazine photograph of Kent with Leakey and Miss Mary Nicoll (later Mrs Leakey) at Olduvai Gorge.
- A.73-A.79 'Letters to Africa 1934-35 (family matters) and Leakey'. Contents of Kent's envelope so inscribed divided into seven for ease of reference: letters from family, principally his mother, friends and colleagues, November 1934 - August 1935. Includes correspondence from Boswell, Leakey and E.J. Wayland. At A.79 are ms notes on ?Swahili grammar prepared by Kent.
- A.80 'The stratigraphy of the Miocene beds in the vicinity of the Kavirondo Gulf, Kenya (Summary)' by Kent, 27pp typescript + figures, 1934-35; 'Middle Pleistocene deposits near Lake Manyara, Tanganyika' by Kent, 5pp typescript + maps, 1935.
- A.81 Correspondence and papers 1939-43. Includes lists of fossil mammalia from Miocene deposits at Kavirondo sent to Kent by D.G. MacInnes and brief correspondence from Leakey re drafts sent to him by Kent.
- A.82 'Physiographical features of the Kavirondo Gulf of Lake Victoria, Kenya' by Kent, 16pp typescript found with correspondence at A.80. Not listed in *Bibliog.* but possibly early version of *Bibliog.* 15, 1942.



### Biographical

- A.83 'Kilimanjaro - an active volcano' by Kent, 4pp typescript, published as *Bibliog.* 19, 1944, with ms note on the shrinkage of the ice cap on Kilimanjaro; ms notes and pages of drafts 'The Uplift of East Africa' and 'The cause of the thrust vaulting of Rusinga' by Kent, nd.
- A.84 Miscellaneous material. Includes typescript notes on geology of Kavirondo, photographs, hand-drawn maps of Serengeti and Rusinga Island.
- A.85 Correspondence, 1976-77, principally *re* photographs of the expedition and identification of localities.
- A.86 Photocopies of pages from *Leakey's Luck. The Life of Louis Leakey, 1903-1972* by S. Cole (1975), with references to Kent underlined, and of front covers of *By the Evidence: memoirs, 1931-1951* by Leakey and *Disclosing the Past: an autobiography* by Mary Leakey (1984).
- A.87 'L.S.B. Leakey Virginia Morell corresp.' Contents of Kent's folder so labelled: correspondence with Morell *re* the expedition, May 1984 - November 1985.
- Morell was writing a book about the Leakey family and wrote to Kent with a number of queries, chiefly concerning relations amongst expedition members.
- The folder also includes an account by Kent of a 'Stone tool from Laetoli, Tanzania' sent by him to the British Museum 1985. Kent describes the circumstances behind his taking the tool into 'protective custody' during the expedition.

### Notebooks and maps

#### Notebooks

- A.88 Softback pocket notebook inscribed on fore edge 'Kanam'. Used from the front for field notes on work at Kanam and Kanjera, c. December 1934 - January 1935, and at the back for notes on D.G. MacInnes's presentation on Mastodon teeth at East African science meeting, Nairobi, 30 November 1934. Paginated 2-110 (later pages not paginated).
- Kent worked on the Pleistocene beds at the Kanam and Kanjera sites from November 1934 to 24 January 1935.

### Biographical

- A.89                      Hardback notebook inscribed on spine 'Kanam'. Used from the front for notes on sections at Kanam and later notes on Leakey's book *Stone Age Races of Kenya* (Oxford, 1935) and the Louth - Willoughby anticline, and from the back for notes on sections at Rusinga island.
- Loose material intercalated includes, at back, 9pp ms draft 'The geology of the Kanam - Kanjera area (Kenya colony)' in Kent's hand, and sections from Kanam, Kanjera and Rawe.
- Kent worked on the Miocene beds on Rusinga and nearby islands 1 February - 28 March and 23-30 July 1935.
- A.90                      Hardback desk diary for 1935. Used principally to record movement between sites 20 January - 8 August 1935. The page for 1 January has been used as an index.
- A.91                      Softback pocket notebook inscribed on fore edge 'Koru etc'. Used from the front for field notes on work at Songhor, Muhoroni and Koru, and at the back for 'General ideas'. Paginated 1-45 (Songhor) and 1-23 (Koru).
- Kent worked at Songhor 25-29 January and 22-25 April 1935 and at Muhoroni and Koru 6-14 April 1935. The notes on Songhor probably represent work on his first visit there.
- A.92                      Hardback notebook inscribed on spine 'Rusinga'. Used for notes on work on Rusinga, Mfanganu and Ngothe islands. Maps pasted into notebook at back. A little loose material intercalated.
- The later pages of the notebook had ?photographs pasted onto them. At some later date these have been torn from the pages.
- A.93                      Softback pocket notebook inscribed on fore edge 'Rusinga'. Used from the front for field notes on work on Rusinga island, and from the back for notes on Rusinga, Mfanganu and Ngothe islands. Paginated 1-94 (later pages not paginated).
- A.94                      Softback pocket notebook inscribed on fore edge 'Central Kavirondo'. Used for field notes on work at Mariwa, Omba, Maboko island, Majowa bluff and Lela. Most pages not used.
- Kent worked on the Miocene beds at these sites to the north of the Gulf of Kavirondo 15-21 April 1935.



### Biographical

- A.95                      Softback pocket notebook inscribed on fore edge 'Oldoway + Eyasi' and on first page 'Geology in north Tanganyika 1) Oldowai 2) Laitolil and Lake Eyasi'. Used from the front for field notes on work at Olduvai and from the back for field notes on work to north west of Lake Eyasi. Paginated at the back 2-42.

The Expedition moved to Olduvai Gorge, in Tanganyika, in May 1935. Kent worked in the Olduvai and Lake Eyasi area 10 May - 7 July.

- A.96                      Hardback notebook labelled on front cover 'Oldoway 1935 P.E. Kent'. Used from the front for draft of 'Sections in the Branch Gorge at Oldoway, Tanganyika', and from the back for draft on 'North Western Eyasi'. Paginated at the front 1-47 and at the back 1-89.

Loose material intercalated includes maps of Olduvai Gorge and letter to W.G. Aitken, 19 June 1953 *re* 'draft script on Oldoway'.

- A.97                      Softback pocket notebook inscribed on fore edge 'Manyara'. Used for field notes on work near Lake Manyara. Most pages not used.

Kent worked in this area 7-12 July 1935.

- A.98                      Softback pocket notebook used for miscellaneous ms notes on East African (site unidentified) and UK geology. In the middle of the notebook are brief entries for 1, 2, 17 and 21 August 1935. Most pages not used.

- A.99                      Softback pocket notebook cut in half and used as jotter for notes on East Africa and UK geology, addresses, bibliographical references etc.

### Maps

- A.100                     'East Africa [Kenya] Karungu', 1:250,000. Compiled by Ordnance Survey 1916. Printed on linen-backed paper.

This map covers the majority of sites at which the expedition worked in Kenya. The sites and some other features have been marked by Kent in ink and pencil.

### Biographical

- A.101 'German East Africa [Tanganyika] Eyassi', 1:300,000. Compiled by Ordnance Survey 1915. Printed on linen-backed paper.

This map covers the Olduvai Gorge and Lakes Eyasi and Manyara. Some of the sites at which the expedition worked have been marked by Kent in ink.

- A.102 'German East Africa Kilimanjaro', 1:300,000. Compiled by Ordnance Survey 1915. Printed on linen-backed paper. Inscribed on front 'Dr Leakey'.

### SECOND WORLD WAR

At the outbreak of war Kent was in a reserved profession and was therefore exempt from military service. He joined the Home Guard. In 1941 he was released from Anglo-Iranian as they reduced their geological programme (see A.131). Kent joined the RAF Volunteer Reserve and was assigned to the Photo-Intelligence Branch of D section (Industry) of the RAF Central Interpretation Unit based at Medmenham. He worked on the assessment of German oil supplies - initially locating oil storage tanks, later identifying synthetic oil plants in which the Germans were converting coal to oil. He was seconded to the Mediterranean Allied Air Force in 1944 and in 1945 to the G2 Branch of US Army Intelligence to work on photo-interpretation of Japanese oil installations. For this work he was awarded the Legion of Merit in 1946. At the end of the war with Japan Kent was the only non-American accompanying the US Strategic Bombing Survey to Japan to assessing the effectiveness of air raids.

- A.103-A.118 'RAF Records 1941-46'. Contents of Kent's large envelope so inscribed.

- A.103 'Orders Official corresp.' Contents of Kent's folder so inscribed: official papers 1944-46. Chiefly material *re* transfer to US Strategic Bombing Survey and subsequent visit to Japan with the Survey.

- A.104 Memoranda *re* 'Conflict with authority! [January] 1944'.

Relates to a memo Kent sent to his commanding officer critical of an order that D section was no longer to estimate oil production figures but only supply the basic data for others to analyse. Kent was reprimanded for the memo, as '...the tone of this memo does not reflect a clear appreciation of the duties and discipline necessary in a military organisation'.



### Biographical

- A.105-A.112 'R.A.F. correspondence'. Contents of Kent's folder so labelled divided into eight for ease of reference: correspondence and papers 1943-46.
- A.105 Charts and plastic measuring cards for photo-interpretation; 'Hydrogenation practice in Germany', 4pp typescript; 'The Fischer Tropsch Process', 2pp typescript + diagram; typescript list of 'Slides held by Section D of synthetic oil plants'.
- A.106 Travelling expenses 1943-45 and mess bill.
- A107 Papers *re* transfer to US Strategic Bombing Survey, 1944-45.
- A.108 'Extract from: "A review of the Air Offensive Against Axis Oil Supplies" Combined Strategic Targets Committee, Working Committee (Oil)' report, 21 June 1945, with Kent's letter of 16 July commenting on the report; 'M.I.S. [US Military Intelligence Service] Photo Interpretation', note written by Kent for use in compilation of official history of the Petroleum Section, 9pp typescript, 12 September 1945; memo from Kent *re* Blechhammer South oil production plant, 14 September 1945.
- A.109 Correspondence and papers *re* visit to Japan with Bombing Survey, August - December 1945. Includes 'Participation in U.S. Strategic Bombing Survey. Oil and Chemicals Division' by Kent, 4pp typescript + list of sites visited; 'Nagasaki - 1945' by Kent, 2pp typescript account of visit to Nagasaki in October 1945, 5 July 1946.
- A.110 Humorous items: spoof 'Extract from: Special Survey of Axis Europe Oil Production' meeting, 1 April 1944; spoof 'Functional analysis report' on 'Henry M. Noel'; 'Thoughts on a Hot Afternoon', limericks, chiefly *re* Japanese oil production, 'by Peter and Pat'.
- A.111 Printed material on Axis oil production, 1942 and 1945.
- A.112 List of photographs taken in USA and Japan, 4pp typescript; memorabilia.

### Biographical

- A.113 'Ploesti Mission 1st August 1943'. Album of photographs compiled by RAF Middle East Intelligence Unit.
- The raid on Ploesti in Rumania was carried out in daylight by 162 Liberators of the 9th US Air Force, flying without fighter protection, from RAF airfields in the Middle East. Of this force 108 bombers returned. 172 tons of bombs were dropped and oil production slumped from 2,850,000 barrels in July 1943 to 1,880,000 for August. By September, however, production had fully recovered.
- Further aerial photographs of the effects of the raid are at A.114-A.116, A.119.
- A.114-A.116 Aerial photographs, principally of Rumanian oil production sites at Ploesti, some showing damage from bombing (see also A.113, A.119). 3 folders.
- A.117 D-Day memorabilia, including printed sketch of 'Forts [Flying Fortresses] returning from France - seen from Medmenham'.
- A.118, A.119 'RAF'. Contents of Kent's envelope so inscribed divided into two for ease of reference.
- A.118 Copies of memos *re* secondment to Mediterranean Allied Air Force, Italy, 1944; interpretation reports on 'Surplus refinery capacity at Bergius hydrogenation plants', 12 March 1944, and Austrian oilfields, 8 January 1945; humorous song 'Christmas Day at Medmenham' and poem 'The usual channels'.
- A.119 Photographs, including aerial photographs of damage to oil production sites at Ploesti (see A.113, A.114-A.116) and photograph of launch of V2 rocket.
- A.120 'Corresp. re RAFVR/Washington DC 1945-6'. Contents of Kent's folder so inscribed: principally social correspondence 1945-47 with American colleagues. Also includes notification of award of Legion of Merit to Kent, 22 July 1946.
- A.121 'RAF: De-mob'. Contents of Kent's envelope so inscribed: documents *re* release from RAFVR duty 1946 and relinquishment of commission in RAFVR in 1958.



### Biographical

- A.122                      Correspondence and papers 1981-82 *re* Kent's contribution to BBC TV programme 'Auschwitz and the Allies'. Kent commented on the wartime role of the RAF Central Interpretation Unit.
- This programme was broadcast on BBC 2 on 16 September 1982. Kent's contribution was not included and he felt that the programme misrepresented the Unit by suggesting it could have known of the existence of a Death Camp at Auschwitz.
- Photocopies of pages from *Evidence in Camera. The story of Photographic Intelligence in World War II* by C.B. Smith (1958), *The Eye of Intelligence* by U. Powys-Lybbe (1983) and *Target: Hitler's Oil* by R.C. Cooke and R.C. Nesbit (1985), with references to Kent underlined.
- Kent wrote the Foreword to *Target: Hitler's Oil*, *Bibliog.* 141, 1985 (see D.74).
- A.123-A.126              Printed material.
- A.123-A.125              'Wartime Continental Oil installations Maps extracted from Oxford strategic handbooks'. Contents of Kent's envelope so inscribed divided into three for ease of reference.
- The material is pages of data, maps and background information on oil production capacity of European countries, torn from handbooks.
- A.126                      *Evidence in Camera*, vol.1, no. 1, 19 October 1942.
- Evidence in Camera* 'Special [final] Edition on Photographic Reconnaissance and Photographic Intelligence', March 1945.
- United States Bombing Survey Summary Report, 30 September 1945. Annotated on front cover 'Proof copy...'

## Biographical

### CAREER, HONOURS AND AWARDS

- A.127 Birth Certificate, 18 March 1913.
- Radcliffe House School, West Bridgford, School Report for Easter 1919.
- Award of Junior Scholarship by Notts. Education Committee, July 1924.
- A.128 References from Headmaster of West Bridgford County Secondary (later Grammar) School and Minister of Friary Congregational Church, 1929.
- A.129 University of Nottingham.
- Letter *re* visit to Stapleford Estate, Wymondham, Leics., 1932; results of University of London B.Sc. Special Examination for External Students, 1934; repayment of loan to University College, Nottingham, 13 January 1939.
- D.S.I.R. Maintenance Allowance for 1934-36.
- A.130 Appointment with Anglo-Iranian Oil Company.
- Letter to G.M. Lees declining appointment as geologist with the A.I. [?Anglo-Iranian Oil Company], 1935.
- Applications for post of Geologist, Geological Survey and Museum, 1936, 1937.
- Includes letter from the Notts Education Committee, 2 September 1936, confirming that Kent was not expected to pursue a teaching career in view of the financial support he received at West Bridgford County Secondary School, and was free to apply to the Geological Survey.
- Ms draft of application letter to Anglo-Iranian Oil, 16 August 1936, with references from H.H. Swinnerton, W.A. Richardson and P.G.H. Boswell, and letter of appointment, 26 September.
- Invitation to serve as Expedition Geologist on anthropological expedition to northern Tanganyika, 4 April 1937.



### Biographical

- A.131                      Correspondence and memoranda *re* work for Anglo-Iranian, 1937-41. Includes ms draft 'Details of Researches', and letter of 30 January 1940 giving Company approval for Kent's marriage.
- In May 1941 Anglo-Iranian released Kent 'owing to the restriction of the Geological Programme'.
- A.131A                     Election as Fellow of the Geological Society of London, March 1938.
- A.132, A.133              Ph.D. thesis 'The Miocene beds of Kavirondo, Kenya'.
- Kent was awarded his Ph.D. in December 1939.
- A.132                      Thesis (unbound).
- A.133                      Letter notifying Kent of the award; letters of congratulation.
- A.134                      Military service.
- References from G.M. Lees, H.H. Swinnerton and Rev. J.O. Dobson, Minister of Friary Congregational Church, for appointment as Officer; correspondence from Anglo-Iranian *re* salary arrangements.
- Photocopy of 'Citation for Legion of Merit, Degree of Legionnaire'
- This was awarded to Kent in December 1945 for his work in interpreting aerial photographs of Axis oil production installations in Europe.
- A.135                      Post war employment.
- Application for Chair of Geology, Nottingham University, March 1946.
- Letter from L.J. Wills *re* lectureships at Birmingham University, May 1946.
- Correspondence and papers *re* resumption of career with Anglo-Iranian, 1946-48.
- Offer of Associate Professorship, Pennsylvania State College, March 1949.

### Biographical

- A.136                      Award of moiety of the Lyell Geological Fund of Geological Society of London, 1949.
- Includes Abstract of Society Proceedings giving Kent's award on pp.74-75, with ms drawings by elder daughter (aged five) at the back.
- Award of Bigsby Medal of Geological Society of London, 1955.
- A.137                      D.Sc., London University, 1959.
- Appointment as BP Regional Manager (Exploration) North and South America, 1962.
- A.138-A.142              Election to Royal Society, 1966.
- A.138                      Correspondence *re* candidature, 1957, 1960, 1964; notice of election in BP Daily News Precis.
- A.139-A.142              Letters of congratulation, in alphabetical order.
- |              |                                      |
|--------------|--------------------------------------|
| A.139    A-G | A.141    P-Y                         |
| A.140    H-N | A.142    First name and unidentified |
- A.143                      Appointment as BP Chief Geologist, and long service award, 1966.
- Offer of Chair of Geology, Durham University, 1966.
- Award of Murchison Medal of Geological Society of London, 1969.
- A.144-A.150              Award of MacRobert Award for Engineering and Technology, 1970.
- This Award consisted of a Gold Medal and prize of £25,000 awarded for 'an outstanding contribution...in the fields of engineering or the other physical technologies or in the application of the physical sciences, which has enhanced or will enhance the national prestige and prosperity of the United

.../



### Biographical

.../ Kingdom'. Kent received this award, in conjunction with his BP colleagues H.R. Warman and A.N. Thomas, for 'Exploration leading to the discovery of the Prudhoe Bay oilfield', in particular the development of techniques for surveying through the permafrost of north Alaska.

The rules of the award allowed no more than five recipients of the prize and Kent, Warman and Thomas were named as the key senior personnel involved. They recognised the contribution made by other members of the BP team by dividing the £25,000 into 25 shares of £1,000 which were distributed by them to those involved in the Alaska work.

- A.144 Correspondence and papers *re* BP submission for the award.
- A.145 Award, including press-releases.
- A.146 Newspaper cuttings and transcripts of BBC reports on the award.
- A.147 Arrangements for division of the award including list of recipients, and letters of thanks.
- A.148, A.149 Letters of congratulation, in alphabetical order.
- A.148 A-L A.149 M-W and unidentified
- A.150 Correspondence arising, 1971.
- A.151, A.152 Award of Royal Medal of Royal Society, 1971.
- A.151 Press-release and citation.
- A.152 Letters of congratulation, in alphabetical order.
- A.153 Honorary D.Sc., Leicester University, 1972.

### Biographical

- A.154 Retirement from BP, 1973.
- A.155-A.163 Knighthood, 1973.  
Kent was knighted for services to petroleum exploration.
- A.155 Correspondence *re* arrangements, including style of address.  
Kent wished to be styled Sir Peter rather than Sir Percy Kent. The knighthood was conferred 24 October.
- A.156 Newspaper cuttings and features; 'A commendatory poem' by E.H. Kent, daughter, in celebration of the knighthood.
- A.157-A.162 Letters of congratulation, in alphabetical order.
- |            |                                   |
|------------|-----------------------------------|
| A.157 A, B | A.160 L-R                         |
| A.158 C-E  | A.161 S-Z                         |
| A.159 F-K  | A.162 First name and unidentified |
- A.163 Correspondence and papers *re* membership of the Imperial Society of Knights Bachelor, 1973-86 and nd.
- A.164 Offer of Consultant Professorship, Keele University, 1973.  
  
Offer of part-time post, Grant Institute of Geology, Edinburgh, 1973.  
  
Appointment as Chairman, Natural Environment Research Council, 1973.
- A.165 Award of Sorby Medal of the Yorkshire Geological Society, 1973.  
  
Honorary D.Sc., Durham University, 1974.



### Biographical

- A.166                      Honorary Membership, Geological Society of Bulgaria, 1975.
- A.167                      Honorary Membership, American Association of Petroleum Geologists, 1976.  
  
Folder includes biographical account and photograph of Kent.
- A.168                      Honorary LL.D., Glasgow University, 1977.  
  
Folder includes two mounted photographs of honorary graduands.
- A.169                      Honorary D.Sc., Bristol University, 1977.
- A.170                      Letter *re* proposed Peter Kent Medal 'for outstanding work in the field of oil and gas geology', 8 June 1978.
- A.171                      Honorary LL.D., Aberdeen University, 1978.
- A.172                      Honorary Sc.D., Cambridge University, 1979.
- A.173                      Honorary D.Sc., Hull University, 1981.  
  
Kent gave the address on behalf of the honorary graduands.
- A.174, A.175              Honorary D.Sc., Birmingham University, 1983. 2 folders.
- A.176                      Twenty-five years membership of American Association of Petroleum Geologists, 1984.

### Biographical

- A.177-A.187      Kent's death
- Kent died on 9 July 1986.
- A.177      Funeral Service, Friary United Reformed Church, West Bridgford, 16 July 1986.
- Envelope containing slips signed by those attending.
- A.178      Service of Thanksgiving, St James Church, Piccadilly, 19 November 1986.
- Includes order of service and correspondence.
- A.179      Correspondence and papers *re* contributions to the Nottingham Hospitals Scanner Appeal.
- Lady Kent asked that donations be sent for the Appeal, organised through Friary Church, in lieu of flowers.
- A.180-A.186      Letters of condolence, arranged alphabetically.
- |              |                                      |
|--------------|--------------------------------------|
| A.180    A-C | A.184    T-Y                         |
| A.181    D-H | A.185    First name and unidentified |
| A.182    I-M | A.186    First name and unidentified |
| A.183    N-S |                                      |
- A.187      Circular letter from Lady Kent *re* 'the two memorials set up to Peter', December 1987.
- BP Exploration and the Nature Conservancy Council established a Sir Peter Kent Conservation Book Prize in April 1987, and BP Petroleum Development and the Nottinghamshire Trust for Nature Conservation opened an Industrial Archaeology nature trail over the Duke's Wood oilfield, including a Sir Peter Kent Memorial Plantation.



## Biographical

### DIARIES

#### Desk diaries

These were used by Kent principally to record survey work for BP. There is material intercalated or pasted to pages of the diaries. This may include photographs, letters and greetings cards, membership cards, newspaper cuttings, ms jottings, and theatre tickets and other memorabilia

A.188	1950.
A.189	1954.
A.190	1955. Photograph of M.B. Kent (wife) pasted into front. Intercalated material includes letter from M.B. Kent.
A.191	1956. 'Woods Australian Diary'. Photograph of Kent with his wife pasted into front.
A.192	1957. 'Woods Australian Diary'. Photograph of wife and daughters pasted into front.
A.193-A.205	BP desk diaries 1958-70.
A.193	1958.
A.194	1959.
A.195	1960.
A.196	1961.

**Biographical**

- |       |  |
|-------|--|
| A.197 | 1962.  |
| A.198 | 1963. Photograph of 'Knox United Church Choir, Calgary, November 3rd, 1963' pasted into front, with key. Kent was a member of the choir. |
| A.199 | 1964.  |
| A.200 | 1965.  |
| A.201 | 1966. Includes newspaper cuttings <i>re</i> election to the Royal Society.   |
| A.202 | 1967.  |
| A.203 | 1968.  |
| A.204 | 1969.  |
| A.205 | 1970.  |

**BP Pocket diaries**

- |       |       |
|-------|-------|
| A.206 | 1968. |
| A.207 | 1969. |
| A.208 | 1970. |
| A.209 | 1971. |



## Biographical

### FAMILY AND PERSONAL CORRESPONDENCE

#### Family

- A.210                      Brief ms and typescript notes on family members.
- A.211                      Annie Scott Kent, née Woodward, mother.  
One letter only, 6 April 1937. See also A.67-A.71 and A.73-A.79.
- A.212-A.222              Margaret Betty Kent, née Hood, first wife.  
Kent married M.B. Hood in 1940.
- A.212                      Letter, 2 November 1945.
- A.213-A.218              Correspondence 1948-51.  
These letters were sent home by Kent during his period in Iran 1948-51 and East Africa in 1951. It includes messages to his daughters and a few miscellaneous letters and memorabilia.
- |       |                       |       |      |               |
|-------|-----------------------|-------|------|---------------|
| A.213 | 1948, 1949            | A.216 | 1951 | January-April |
| A.214 | 1950 January-April    | A.217 | 1951 | May-December  |
| A.215 | 1950 October-December | A.218 | Nd   |               |
- A.219-A.222              Letters of condolence etc on death of M.B. Kent, June 1974, arranged alphabetically.
- |       |     |       |                             |
|-------|-----|-------|-----------------------------|
| A.219 | A-F | A.221 | N-W                         |
| A.220 | G-M | A.222 | First name and unidentified |

### Biographical

- A.223, A.224      Lorna Ogilvie Kent, née Scott, second wife.  
Kent married L.O. Scott in 1976.
- A.223      Material *re* wedding; photograph of L.O. Kent.
- A.224      Family correspondence to L.O. Kent, from July 1986.  
For letters of condolence on Kent's death see A.180-A.186.
- A.225      Judith Ann Kent, elder daughter.  
School project 'Calgary to Banff. A geographical appraisal', c.1959-60.  
Letter, 2 April 1978.
- A.226      Edward Woodward, uncle  
Letter *re* Estate, 1948.  
  
Charles Frederick Hickling, cousin.  
Obituary, 1977.

### Personal correspondence

Includes contents of Kent's personal correspondence file for 1964-67.  
Arranged chronologically.

A.227	1933, 1937	A.233	1980-82
A.228	1957, 1962, 1964	A.234	1983
A.229	1965, 1966	A.235	1984 January-May
A.230	1967-69	A.236	1984 June-December
A.231	1973	A.237	1985, 1986
A.232	1974-79	A.238	Nd



## Biographical

### MISCELLANEOUS PERSONAL MATERIAL

A.239-A.252 Church, clubs and charities

A.253-A.256 Passports

A.257-A.263 Social occasions

A.264-A.268 Memorabilia

#### Church, clubs and charities

##### Friary Congregational (later United Reformed) Church

Kent became a member of the church in 1931. He met his first wife through the church (she became Secretary in 1956) and retained his links throughout his working life. In 1982 he agreed to be elected an Elder of the church.

Correspondence and papers 1937-86.

A.239 1937, 1971, 1974, 1975. Includes Kent's 'Sermon for Friary Church 17th March 1974', 7pp typescript with ms additions.

A.240 1979, 1982, 1983.

A.241 1984-86, nd. Includes letter to K.H. Clarke MP *re* Sunday shop opening, 13 February 1986.

##### Medmenham Club

The Medmenham Club was open to those who served in Photographic Interpretation during the Second World War.

A.242 Membership lists 1954, 1979 and amendments.

### **Biographical**

A.243                      Newsletters 1966-85. Not a complete sequence.

A.244                      Miscellaneous correspondence and papers 1977-85. Includes correspondence from U. Powys-Lybbe *re* her book *The Eye of Intelligence* (see A.122).

### **English Club, Zanzibar**

A.245                      Rule book, sent to Kent on his election as a Full Member, 16 January 1954.

### **Old West Bridgfordians Association**

Kent was a pupil at West Bridgford Grammar School 1925-31.

A.246                      1966, 1974, 1980. 1966 item is extract from 'The West Bridgfordian' with brief account by Kent of developments in the search for natural gas beneath the North Sea.

A.247                      1982. Correspondence and papers *re* West Bridgford School Prize-Giving, 29 November. Kent presented the prizes.

A.248                      1985, 1986.

### **Sidney Sussex College, Cambridge**

A.249                      1971, 1975-86. Chiefly *re* dining rights.

### **Luton College of Higher Education**

A.250                      Degree ceremonies 1978 and 1979.

Kent was Guest of Honour at the 1979 Degree Ceremony.



## Biographical

### Rushcliffe Liberal Association

A.251 Membership, 1985.

### Charities and appeals

A.252 Various dates 1972-86.

### Passports

A.253 1934-39. Memorabilia *re* marriage pasted onto p.5, photographs of wife and daughters *c.*1956 and ?childhood photograph of Kent loose at p.27.

A.254 1947-57.

A.255 1953-58. Photographs of Kent loose at pp.13 and 25.

A.256 1957-67.

### Social occasions

A.257 Royal Garden Party, Buckingham Palace, 14 July 1964.

A.258-A.260 Naming Ceremony of SS *British Explorer*, Nagasaki, 26 March 1970.

The *British Explorer* was the first of seven 200,000 ton oil tankers built for BP by Mitsubishi Heavy Industries Ltd. Kent travelled to Japan with his wife and attended various functions in conjunction with the Naming Ceremony.

A.258 Diary of trip; memorabilia from pre-Naming Ceremony functions.

### Biographical

- A.259                      Memorabilia from Naming Ceremony.
- A.260                      Photographs.
- A.261                      Luncheon, Buckingham Palace, 21 May 1974.  
  
Includes Kent's ms account of the occasion, 3pp ms.  
  
Opening of British Antarctic Survey Building by the Duke of Edinburgh,  
Cambridge, 7 May 1976.
- A.262                      Elizabethans of Distinction Banquet, Savoy Hotel, London, 1 December  
1977.
- A.263                      Inauguration of Magnus oilfield by the Prime Minister, 14 September 1983.

### Memorabilia

- A.264, A.265              Newspaper cuttings on Kent's life and career.
- A.264                      1933. *Nottingham Guardian* 22 November, picture of Kent with part of an  
*ichthyosaurus communis* fossil he found at Barnstone Quarries.  
  
1935. *Nottingham Guardian* 15 November, feature on Kent (in East Africa)  
and R. Bentham, also a University College Nottingham geology student (in  
Arctic region).
- A.265                      1947, 1966, 1973-75. Item 1975 sketch from *New Scientist* of Kent  
(speaking), fellow chairmen of Research Councils, Sir Bernard Lovell and  
Airey Neave MP at British Association meeting, Guildford.



**Biographical**

- A.266 'Early flights'. Contents of Kent's envelope so inscribed: maps of USA and Pacific ocean with Kent's flight and voyage 1945 and flights 1955 marked thereon.
- A.267 Miscellaneous memorabilia, 1945-81. Includes photograph of Kent 1954.
- A.268 Miscellaneous memorabilia, nd. Includes copy of 'Arctic and Bush Survival'.

**SECTION B**

**RESEARCH AND SURVEYS**

**B.1-B.505**

The papers in this section document Kent's survey work for the Anglo-Iranian Oil Company (later BP) and subsidiary companies, and Kent's own geological research. The two are closely related. With the company's goodwill Kent was able to use information from company surveys to further his own geological research, and his survey work itself represents a considerable geological achievement. A list of the over 90 reports Kent prepared for BP is at A.17. The material dates from Kent's first work with Anglo-Iranian Oil in Lincolnshire in 1935, through his postwar work for BP in the UK and overseas in Iran, East Africa, Papua New Guinea and North America, to the North Sea discoveries of the 1960s and 1970s, and post-retirement research to 1986. The geographical coverage is thus very wide, although the bulk of the papers are concerned with the geology of England (particularly the Midland counties) and Iran.

Much of the material was found in Kent's own folders or envelopes, usually with the title inscribed thereon. These titles have been reproduced in the catalogue entries. The folders or envelopes may contain material spanning many decades, reflecting Kent's continuing interest over an extended period in certain areas of the UK and of the world - such as Lincolnshire, East Africa and Iran. This material includes ms notes (some on pages from 'filofax' style notebooks), typescript drafts and notes, stratigraphical columns, oil well logs, maps, sections and photographs. There are also a number of notebooks.

The material has been arranged by geographical area. At the end of the section is a little material reflecting Kent's concern with wider energy issues, such as the gasification of coal.

The material is presented as follows:

B.1-B.225	UNITED KINGDOM
B.1-B.7	England general
B.8-B.52	Midlands general
B.53-B.122	Lincolnshire
B.123-B.131	Nottinghamshire



**Research and surveys**

B.132-B.136    Leicestershire

B. 137-B.142    Derbyshire

B.143-B.145    East Anglia

B.146-B.163    Southern England

B.164-B.182    Yorkshire

B.183-B.186    Scotland

B.187-B.225    North Sea

B.226-B.353    IRAN

B.226-B.229    Kazerun Survey

B.230-B.251    Behbahan-Kazerun Survey

B.252-B.277    Fars-Laristan Survey

B.278-B.290    Salt Plugs

B.291-B.339    Exploration Advisory Group

B.340-B.353    General

B.354-B.407    EAST AFRICA

B.408-B.427    PAPUA NEW GUINEA

**Research and surveys**

B.428-B.456    NORTH AMERICA

B.457-B.469    GULF STATES

B.457-B.463    Kuwait

B.464-B.469    Oman

B.470-B.485    OTHER AREAS AND MISCELLANEOUS

B.486-B.505    ENERGY ISSUES

B.486-B.491    General

B.492-B.500    Coal

B.501-B.503    Oil shales

B.504, B.505    Other energy resources



Research and surveys

UNITED KINGDOM

England general

- B.1-B.4 'England General'. Contents of Kent's folder so labelled divided into four for ease of reference.
- B.1 'Note on the structure of the Ollerton district [Notts]' by Kent, 5pp typescript + maps, 11 April 1938; typescript notes on Millstone Grit, April 1940; 'The underground stratigraphical conditions of North Norfolk' by Kent, 5pp typescript + map and section, c.October 1940; 'A structure contour map of the base of the Mesozoic rocks of England' by Kent, 7pp typescript, 4 December 1940.
- B.2 'Explanatory note to accompany a geological map of central and southern England and two cross sections showing a possible reconstruction of pre-Permian strata and a discussion on the prospects of oil discovery' by G.M. Lees, 10pp typescript + 3pp data, map and sections, June 1944; covering letter from Lees to Kent; 'Sub-surface structure of S. Eastern England' by Kent responding to Lees's paper, 3pp typescript, 25 October 1944.
- B.3 Typescript memos by Kent 'Structure of the Kirkleatham - Redcar area [Yorks]', 2pp + contour map, 27 June 1946 and 'A reconnaissance of the Nunthorpe area [...] Yorkshire', 2pp + contour map; typescript note on 'Huntingdon Borings', 1 October 1965.
- B.4 Contour map of the 'Palaeozoic surface of England and the Channel coast'; map and diagram of 'Permian development in N.E. England'; 'Palaeographical map of the lower Palaeozoic floor [of England and Wales]...' by L.J. Wills, 1975.
- B.5 'UK Licenses'. Contents of Kent's folder so inscribed: maps showing production, mining and prospecting licenses granted to oil companies, 1962-67
- B.5A List of exploration wells in England and Wales, 1918-84.

### Research and surveys

- B.6 'Interim maps for the Wolfson Geochemical Atlas of England and Wales', Applied Geochemistry Research Group, Imperial College London, July 1974.
- B.7 Hardback pocket notebook paginated 1-116 (top right hand corner) and 169-237 (bottom right hand corner), later pages not numbered. Used for notes, maps (pasted onto pages) and data from well logs 1940-c.1971. A little intercalated material.

### Midlands

- B.8-B.11 'Lias corresp'. Contents of Kent's folder so inscribed divided into four for ease of reference: correspondence and papers 1935-78, chiefly *re* Lias of Leicestershire and Lincolnshire.
- B.8 1935-37. Includes Stanton Ironworks Company information on Holwell mine [Leics].
- B.9 1940-47. Correspondence 1940-41 chiefly *re* ammonites from lower Lias in the Vale of Belvoir, Leics, and the River Till, Lincs.
- B.10 1951-64. Includes typescript notes ?by Kent on 'The Mesozoic rocks of Bornholm', 23 October 1962 and 'The basal Lias near Long Bennington [Lincs]', 23 November 1962.
- B.11 1965-78. Includes 'A lower Lias section in the River Till' by Kent, 2pp typescript, published in *Bibliog.* 93, 1974, and 'The age of the Frodingham Ironstone' by M.K. Howarth, 3pp typescript, sent to Kent 17 April 1974.
- B.12 Ring binder made by Kent and used to file ms and typescript notes on sites in the Midlands in an alphabetical sequence. Various dates 1935-1968. Some loose intercalated material.
- B.13 Ring bound pocket notebook used by Kent from the front chiefly for notes on sea-shells and on sites in the Midlands where they were found. Latest bibliographical reference 1936.



**Research and surveys**

- B.14                      Pocket notebook inscribed on fore edge 'East Midlands' and on first page 'Lancashire, Lincolnshire & Leicestershire'. Used from the front for notes on sites 1937-46 and from the back for notes on sites and on first aid. Loose at front is personal note from younger daughter (Elizabeth) Helen following visit to Kent in Port Moresby (c.1955-57).
- B.15-B.17                'Geophysical data'. Contents of Kent's folder so labelled divided into three for ease of reference.
- B.15                      Driller's Tour Reports from bore-holes in Lincolnshire, June 1938.
- B.16                      D'Arcy Exploration Co. and other maps:  
  
D'Arcy Exploration was a subsidiary of Anglo-Iranian Oil operating in the UK.  
  
Structure Contour map of the base of the Lincolnshire Limestone, Lincs, 1937.  
  
Seismic Refraction Survey of Lincs and Notts, c.1940 (2 maps).  
  
Reflection Seismograph Survey of Log Clawson-Widerpool-Bunny area, Lincs and Notts, 1943 (3 maps).  
  
Refraction survey of Foston-Bourne-Thistleton area, Lincs, 1946.  
  
Seismic Refraction Survey of Lincs and Notts, 1951.  
  
Seismic Survey of area south of Lincoln, nd.  
  
Magnetic Survey of Lincs, nd.
- B.17                      Charts from 'East Lincs. Magnetic Survey', nd.
- B.18                      Hardback pocket notebook inscribed inside front cover '1939'. Used for notes on sites in Midlands. Many pages have been removed.
- B.19                      'Misc. Mids Jurassic Well data'. Contents of Kent's folder so inscribed: notes and data from wells at Spital [Berks], Wysall [Notts], Sproxtton [Leics], Blankney [Lincs] and Stixwould [Lincs]; 'A re-examination and study of Northampton sands samples from Lincs Test Wells' 3pp typescript, 16 January 1945; 'Revision of Sheet 142 - Melton Mowbray', 6pp ms not in Kent's hand; etc.

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- B.20, B.21 'Jurassic - E. Eng. Graphic Logs'. Contents of Kent's folder so labelled divided into two for ease of reference: D'Arcy Exploration Co. well logs 1940s.
- B.20 Long Bennington G.1 and G.2 [Lincs], Bottesford 1 and 2 [Leics], Claypole 1 [Lincs], Gulf Exploration Co. Cleveland Hills 1 [Yorks], Foston 1 [Lincs].
- B.21 Nocton 2, 6 and 7, Spital 1, Sproxton 1, Stixwould 1 [Lincs].
- B.22, B.23 '1" well logs E. Midlands'. Contents of Kent's folder so inscribed divided into two for ease of reference.
- B.22 D'Arcy Exploration Co. well logs 1940s: Eakring 1 and 146 [Notts], Long Clawson 1 [Leics], Widmerpool 1 [Notts].
- B.23 BP Exploration Co. well logs 1950s: Colston Bassett North 1 and South 1, Cropwell Butler 1, Langar 1 [Notts].
- B.24 'Sections + misc. reports E. Midlands'. Contents of Kent's folder so labelled: typescript notes by Kent 'Mesozoic structure of western Norfolk', 4pp, 6 May 1946 and 'The structure of the Haughton - Perlethorpe area [Notts]', 2pp + map, 6 August 1946; draft 'Deep borings in Lincolnshire' by Kent, 5pp ms, nd; 'Appendix. Notes on Geological Survey [of the Lincoln area]' ?by Kent, 6pp typescript, nd; Seismic Refraction Survey map of Notts and Lincs heavily annotated by Kent, 1951.
- B.24A Sections 'from Breedon to Widmerpool' and 'across the the north Leicestershire (Vale of Belvoir) syncline' by Kent, with covering memos April and May 1946.
- B.25-B.27 'Structure of East Midlands'. Contents of Kent's folder so inscribed divided into three for ease of reference.
- B.25 Typescript notes by Kent 'East Midlands drilling prospects', 2pp, 20 September 1951 + later map, 'Compilation and publication of U.K. drilling results', 3pp, 28 September 1951, 'Bottesford [Notts], recommendation for additional test', 3pp, 1948 with covering note 28 September 1951, 'The structure of Caunton [Notts]', 1p + map, 15 April 1953, 'Forward seismic programme: East Midlands', 2pp, 20 July 1953; ms notes.



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- B.26, B.27                      Maps.
- B.26                              'Geological structure contour map' of Notts and S. Yorks, 1940. Annotated by Kent.
- 'Relations of the Midlands coalfields' by Kent, 1 September 1947.
- 'Farley's Wood' by Kent, 13 October 1947.
- Isochron map of area south of Lincoln, 25 September 1949.
- B.27                              'Isopachs of the lower and middle coal measures (Millstone Grit to Top Marine Band) in the North East Midlands', 21 November 1951. (6 maps).
- Isochrons of deep refractors in Notts and Lincs, Shrops and Staffs, Lancs and N. Yorks, nd. (4 maps).
- Lincolnshire Limestone, nd.
- 'Belt for reflection survey' in Lincs, nd.
- B.28-B.32                      'Rhaetic beds of the North East Midlands' and 'Rhaetic drafts and correspondence'. Contents of Kent's folder so inscribed divided into five for ease of reference: material *re* 'The Rhaetic beds of the North East Midlands' by Kent, *Bibliog.* 34, 1953 (see also B.33-B.35) and other work on Rhaetic.
- B.28                              Notes and data from bore-holes at Thorney, Scotter Wood, Pilham [Lincs] and Billesdon [Leics], c.1940; 'The deposition of the Rhaetic bone beds' ?by Kent, 4pp typescript, latest bibliographical reference 1944; correspondence 1948 with M.R.W. Johnson and S.G. Clift *re* data on Rhaetic of Bunny area [Notts].
- B.29                              'Comments on Dr Kent's Rhaetic paper' by N.L. Falcon, 30 October 1951; correspondence *re* Rhaetic 1952-53, 1955.
- B.30                              'Details of sections', typescript and ms draft of part of Kent's article; ms notes, tables and figures.

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- B.31 Map of Rhaetic in the Midlands by Kent, 1961; 'U-shaped burrows in the Rhaetic of Nottinghamshire' by Kent, 2pp typescript + figures, revised 1960s, relates to 'Problems of the Rhaetic in the East Midlands', *Bibliog.* 76, 1970; 'The stratigraphy and palaeontology of the Rhaetic (Triassic) beds of Barnstone, Nottinghamshire' by J.H. Sykes and J.S. Cargill, 44pp typescript + figure, 10 November 1969.
- B.32 Typescript notes on the Rhaetic in the north Midlands, Lincs, Yorks, and the North Sea, c.1970, possibly prepared for the Stratigraphy Committee of the Geological Society, with comments on Kent's 'Rhaetic. Draft account for Geol. Soc. Strat. Committee', November 1970 (see F.101); charts of Rhaetic development in Lincs and Yorks by Kent, 1970; correspondence various dates 1971-86 and nd.
- B.33-B.35 'Rhaetic drafts'. Contents of Kent's folder so inscribed divided into three for ease of reference: chiefly *re* 'The Rhaetic beds of the North East Midlands' (see also B.28-B.32).
- B.33 'The Rhaetic beds of the North East Midlands' by Kent, 23pp typescript with ms correction; 'Sections in the Jurassic beds of the East Midlands' by Kent, 29pp typescript, latest bibliographical reference 1946.
- B.34 Figures for the article, illustrating Rhaetic outcrops in the N.E. Midlands.
- B.35 Correspondence *re* article 1952-53 and later work on the Rhaetic beds of the Midlands 1961, ms and typescript notes.
- B.36, B.37 'Rhaetic'. Contents of Kent's folder so inscribed divided into two for ease of reference.
- B.36 Ms notes on Bunny [Notts] sent to Kent 14 April 1946; ms draft 'The Rhaetic thicknesses in relation to structure' by Kent, 4pp, c.1940s; map of 'Rhaetic thicknesses in the Northeast Midlands' by Kent, 1961; correspondence and typescript notes on Rhaetic beds of Wilkesley bore-hole [Ches] from C.J. Stubblefield, January 1962.
- B.37 Ms notes on Torksey well 1, c.1962; correspondence 1964, 1977, 1978.



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- B.38 'Lias & Rhaetic (Source rocks +)'. Contents of Kent's folder so inscribed: letter *re* 'specimen of an Acanthodian jaw', 4 January 1956; 'Type sections of Bathonian, Portlandian and Purbeckian stages, and the problem of the Jurassic-Cretaceous boundary' by P.C. Sylvester-Bradley, 7pp duplicated typescript sent to Kent for comment 8 June 1962; ms notes.
- B.39 'Lower/Middle Lias Paper Lias Working Data'. Contents of Kent's envelope so inscribed: 3pp ms draft 'The basal Lias near Long Bennington' (see B.10); references; maps; etc. 1960s.
- B.40 'The lower and middle Lias sequence in the North-East Midlands' by Kent, 32pp typescript, 'Redraft dated March '63'.
- B.41-B.48 Contents of Kent's envelopes inscribed with map number (Ordnance Survey 1 inch:1 mile series) and area covered. The envelopes may contain ms and typescript notes and data, sections and maps chiefly relating to shot-points and bore-holes in the area.
- B.41 'Sheets 71-72 Market Weighton [Yorks]'. 1963-83 and nd. Includes 'The earlier Lias of North-West Lincolnshire' by Kent, 3pp typescript '2nd draft', nd.
- B.42 'Sheet 80 Shotholes sections Lias N. Lincs'. Notes and correspondence *re* South Cave, Lincs, 1975.
- B.43 'Sheets 89-90 Scunthorpe/Brigg [Lincs]'. 1962-73.
- B.44 'Sheets 102-103 Saxilby - Market Rasen Riseholme - Bishop Norton [Lincs]'. 1964, 1973.
- B.45 'Sheet 114-115 Lincoln - Rasen Brant Broughton - Thorney [Lincs]'. 1964-81. Includes well log from Welton well 1, 1981.
- B.46 'Sheet 127 (with 126) Grantham [Lincs]'. c.1950-72.

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- B.47                    'Sheet 141 Loughborough [Leics]'. Notes on Bunny, Notts, March 1978.
- 'Sheet 142 Melton Mowbray [Leics]'. Chiefly *re* Old Dalby. 1946-73.
- B.48                    'Sheet 143 Bourne   Woolsthorpe - Mkt Overton [Leics]'. 1966, 1972.
- 'Sheet 157 Stamford [Lincs]   Greetham - Wansford [Cambs]'. 1964-73.
- B.49                    Hardback pocket notebook used for notes on sites in East Midlands 1968-71. Pages at front removed.
- B.50                    Spiral bound notebook. Used for notes on sites in Lincs and Leics, 1975-76. Most pages not used.
- B.51                    'South Midlands'. Contents of Kent's folder so inscribed: miscellaneous material 1954, 1958, 1968. Includes well log from Noke Hill G.1, and note by Kent commenting on 'Oil prospects of the Staffordshire basin' by ?J.I. Gillespie, 1 May 1958.
- B.52                    'North Staffs   Maps 1965'. Contents of Kent's envelope so inscribed: sections etc.

**Lincolnshire**

- B.53-B.57            'Oolites - Corresp. Palaeo & stratig'. Contents of Kent's folder so inscribed divided into five for ease of reference: correspondence and papers *re* Lincolnshire Limestone 1934-79.
- B.53                    1934-36. Includes typescript list of 'Lincolnshire Inferior Oolite Brachipoda. Collected by P.E. Kent, 1932-1936' and ms list of those specimens missing.
- B.54                    1938-41. Includes 1941 correspondence with L. Richardson *re* stratigraphical nomenclature in the Lincolnshire Limestone and with H.M. Muir-Wood *re* specimens for the British Museum (Natural History).



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- B.55 1946-47. Includes correspondence *re* specimens for British Museum (Natural History) and H.L. Hawkins, Reading University, and 1p ms note on 'Section at South Ferriby, Lincolnshire', 8 July 1947.
- B.56 1952-60. Includes 'The nomenclature and subdivisions of the Lincolnshire Limestone' by Kent, 8pp typescript + references and figures, with comments from Muir-Wood 20 May 1955.
- B.57 1961-79. Includes correspondence 1968-69 *re* 'the Clipsham ammonite'.
- B.58-B.60 'Lincolnshire - Limestone structure'. Contents of Kent's folder so labelled divided into three for ease of reference.
- B.58 'Report of a study of the Lincolnshire Limestone' by Kent ('Prelim. Report to D.S.I.R. 1936'), 19pp typescript + figure; 'The structure of north Northamptonshire' by Kent, 5pp typescript, November 1936.
- B.59 'The geology of north Lincolnshire' by Kent, ms and typescript draft with ms corrections and additions, February 1938.
- B.60 Typescript notes by Kent 'Revised structural contour interpretation of Lincolnshire Seismic Survey', 7pp, 2 April 1941; 'Report on the occurrence of pure Limestone, suitable for large scale quarrying, in Lincolnshire', 3pp, nd; 'Deep borings in Lincolnshire', 3pp, nd; 'The Jurassic beds', 4pp, nd.
- B.61 'Report of a study of the Lincolnshire Limestone' by Kent, 20pp typescript, September 1936. This report is a revised version of that at B.58 above. It is annotated 'Report to DSIR under terms of research grant...'
- B.62-B.64 'Geological Report P.E.K. 1. Report on the geology of Lincolnshire' by Kent, May 1937. This was Kent's first report for Anglo-Iranian Oil.
- B.62 24pp typescript + 6pp appendix and errata.
- B.63 Figures.

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- B.64                      Miscellaneous maps found with figures:
- 'Revised structure contour map of the base of the Lincolnshire Limestone near Lincoln' by Kent, 31 May 1938.
- 'Surface contour map of the upper surface of the interior Oolite near Grantham, Lincolnshire' by Kent, 3 June 1938.
- 'Thicknesses of Jurassic rocks near Grantham' by Kent, 3 June 1938.
- 'Structural contour map of the upper surface of the Lincolnshire Limestone' by Kent, 'Revised November 1940'.
- B.65                      Exercise book inscribed on front cover 'Previous literature Lincs. Limestone', and with business card printed 'P.E. Kent, B.Sc. Research Student...' pasted to inside front cover. Most pages have been removed, those remaining are loose. Miscellaneous ms notes.
- B.66-B.70                'Well logs. N & E Lincolnshire'. Contents of Kent's folder so labelled divided into five for ease of reference. Chiefly 1930s.
- B.66-B.68                Records, sections and notes of wells or borings.
- B.66                      Appleby, Barnetby, Broughton, Burton upon Stather, Caenby.
- B.67                      Clapgate, Haverholme, Hibaldstow, Howsham, Kettleby, Kirton Lindsay, North Lincoln.
- B.68                      Reeds Island, Risby Warren, Scothern, Scotney Farm, Scotter, Winteringham, Winterton Holmes, Worlaby, Wrawby, Wressle.
- B.69                      'Appleby - Brigg area 3" index to [water and exploratory] borings'; 'Borehole records' collected by A.M. Cobban; etc.
- B.70                      List of 'Ammonites from the Frodingham Ironstone of the Scunthorpe district. Collected by P.E. Kent...January 1938', 2pp typescript with ms annotation; list of 'Frodingham Ironstone - deep exploration borings'; 'Plan showing Frodingham Ironstone exploration area'; section from Worlaby showing strata above Frodingham Ironstone.



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- B.71, B.72 'Well logs. Lincs. Wolds'. Contents of Kent's folder so labelled divided into two for ease of reference. Chiefly 1930s.
- B.71 Typescript data from Beelsby, Cadbourn, Caistor, Croxby, Grasby, Great Limber, Kelstern, Nettleton, Somerby, Tealby, Thoresway, Walesby, Wold Newton.
- B.72 Records of wells or borings from Addlethorpe, Alford, Burgh le Marsh, Calcethorpe, Donington, Grimoldby, Louth, Maltby le Marsh, Melton Ross, Sutton on Sea, Tathwell, Welton le Marsh, Willoughby, Wold Newton; miscellaneous data.
- B.73-B.77 'Well logs. C + S Lincs'. Contents of Kent's folder so inscribed divided into five for ease of reference. Chiefly 1930s.
- B.73-B.76 Records of wells or borings.
- B.73 Ancaster, Anwick, Bainton, Benefield, Cottesmore [Leics], Billingborough, Braceby, Branston, Burton Pedwardine, Canwick, Clipsham [Rut], Colsterworth, Cranwell, Digby, Donington, Dorrington, Dowsby, Easton [Northants], Edenham, Evedon, Ewerby Waithe.
- B.74 Faldingworth, Fineshade [Northants], Folkingham, Gosberton, Great Casterton [Leics], Great Ponton, Grimsthorpe, Hacconby, Haydor, Horbling, Kingscliffe [Northants], Kirkby Underwood, Langworth, Laxton, Lincoln.
- B.75 Little Bytham, Metheringham, Miningsby, Normanton, Pilsgate, Potter Hanworth, Preston, Ropsley, Sapperton, Scampton, Scopwick, Sempringham, Shelford, Sleaford, South Witham, Spalding.
- B.76 Spanby, Spridlington, Stamford, Stanion [Northants], Swaton, Swayfield, Swineshead, Swinstead, Thorpe Tilney, Threckingham, Tickencote [Leics], Waddington, Wansford, Wilsford, Wittering, Wymondham [Leics].
- B.77 Correspondence 1936, 1941; sections of Eagle and Thorney bore-holes, 1940; ms notes.

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- B.78 'Seismic Wells - Lincoln 1938-9'. Contents of Kent's envelope so inscribed: ms notes on refraction surveys carried out in area south of Lincoln; map of area surveyed.
- B.79 'Seismic Wells Notts, S. Lincs, Leics 1940-43'. Contents of Kent's envelope so inscribed: ms and typescript notes on refraction surveys.
- B.80 Softback pocket notebook inscribed on front cover 'Lincoln 1937 Lincs'. Used for notes on sites lying south and south east of Lincoln.
- B.81 Hardback pocket notebook inscribed on front cover 'Central Lincs May 1938'. Used for notes on sites lying east and south of Grantham.
- B.82 Pocket notebook inscribed on front cover P.E. Kent N. Lincolnshire, 1938'. Used for notes on sites east and south-east of Brigg.
- B.83-B.85 'The geology of North Lincolnshire' by Kent, February 1938.
- B.83 39pp typescript + 'Stratigraphy of the Frodingham Ironstone', 11pp typescript appendix and 'Note on the Brigg district', 2pp typescript.
- B.84, B.85 Figures. 2 folders.
- B.86 Correspondence and papers, 1940-67 and nd, found with preceding. Includes typescript notes by Kent 'Boreholes at Winterton and Scotney, North Lincolnshire', with covering letter to C.H. Dinham, 24 January 1940, 'Ammonites from the Kim[m]eridge Clay of the Lincolnshire Fens', 18 June 1940, 'An ammonite from the Spilsby Sandstone of Elsham , North Lincolnshire', 8 November 1961 and 'River systems and glacial retreat stages in south Lincolnshire' by Kent, nd.
- B.87-B.89 'South Lincolnshire Reports. 1. Surface structure of Grantham - Sleaford area (1938). 2. Surface structure of Long Benington district. 3. Underground structure of Grantham - Stamford area (1946)'. Contents of Kent's folder so inscribed divided into three for ease of reference.



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- B.87 'On the geology of the Grantham district', by Kent, 6pp typescript + figures, 7 October 1938.
- B.88 'Report on the underground structure of the county between Grantham and Stamford' by Kent, 4pp typescript + figures; 2 July 1946; 'Sections of South Lincolnshire', 27 July 1946.
- B.89 'A borehole to basement rocks at Glinton, near Peterborough, Northants' by Kent, 6pp typescript, for meeting of Geological Society 13 December 1961 (*Bibliog.* 47); 'Glinton no.1 Geological completion report' by M.F. Ridd, 22pp photostat copy, October 1961; note on 'Material from Glinton No. 1 borehole' by R. Walls, 2pp typescript, 24 November 1961; etc.
- B.90 Miscellaneous material *re* Glinton well. Includes four mounted photographs of rock samples from the well.
- B.91, B.92 'Columnar secns'. Contents of Kent's envelope so inscribed divided into two for ease of reference.
- B.91 'Report on the Long Bennington structure' by Kent, 8pp typescript, 1942; miscellaneous ms sections; maps; exchange with R.J. Firman *re* Long Bennington bore-holes, October 1962.
- B.92 '[The lias of the north east Midlands] Part two: the Lias and Oolites', 14pp typescript + appendix; typescript data 1948 from test borings at Blankney, Bottesford, Claypole, Lincoln, Nocton, Ruskington, Spital, Sproxton, Stixwold, Sturton by Stow; 'Palynological report on chipping samples from BP...borehole at Claypole, 16 June 1971.
- B.93, B.94 'Lincolnshire Brochure (revision)'. Contents of Kent's box file so labelled divided into two for ease of reference.
- B.93 Correspondence, chiefly *re* East African geology and Lincolnshire Limestone, 1941-45.
- B.94 Bibliographical references; figures; outline list of contents ?for brochure.

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- B.95                      Spiral bound notebook used from the front for notes on sites in Lincs 'pre-1945' and from the back for draft 'Outline of stratigraphy'. Most pages not used.
- B.96                      Hardback pocket notebook inscribed on front cover 'Lincolnshire 1946'. Used for notes on Hibaldstow boring 28 June 1946. Most pages not used.
- B.97, B.98                'Lincs Seismic Holes 1948'. Contents of Kent's envelope so inscribed divided into two for ease of reference.
- B.97                      Ms data from shot-points at Aubourn, Blankney, Brandon, Brauncewell, Claypole, Coleby, Digby, Dorrington, Gelston, Haddington, Kettlethorpe, Nocton, North Hykeham, Potter Hanworth, Scopwick, Stubton, Wellingore
- B.98                      Hand-drawn maps indicating positions of bore-holes; section from Carr Lane bore-hole, Hibaldstow.
- B.99                      Miscellaneous material 1940s: map of Trent and sites to the east 1941; section of area from Eakring - Dunston 1943; map of Long Clawson; ms note 'A lateral change in the Red Chalk [of north Lincolnshire]'.
- B.100                     Hardback pocket notebook used from the front and from the back for notes on sites in Lincs, earliest date 3 July 1950. Most pages not used.
- B.101                     'Lexicon of Stratigraphy. Jurassic Rocks of Lincolnshire' by Kent, March 1955. Retained in original binder.
- B.102                     Correspondence and papers found with preceding. The correspondence is principally with J.E.Hemingway, 1955, responsible for recording the Jurassic entries.
- B.103                     'M[iddle] + U[pper] Lias & Oolites'. Contents of Kent's folder so inscribed: 'A borehole at Welton, near Lincoln' by Kent, 3pp typescript, 31 January 1955 (*Bibliog.* 39); ms and typescript notes and pages of drafts.



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- B.104 'Northerly estuarine'. Contents of Kent's envelope so inscribed: typescript accounts of sections at Fillingham and Ingham Cliff, 1964; report on Welton borehole, 3pp typescript.
- B.105 'The earlier Lias of north-west Lincolnshire' by Kent, 2pp typescript, 24 September 1964.
- B.106 'Tetney Lock No. 1'. Contents of Kent's folder so inscribed: well log from Tetney Lock 1; typescript notes, c.1964; sample descriptions.
- B.107 Hand-drawn sections by Kent 1964, some from 1930s data, others from data from trenches dug by East Midlands Gas Board: Blyborough, Clipsham, Denton, Colsterworth, Fillingham, Glentworth, Hibaldstow, Ingham Cliff, Leadenham, Scampton, Spital, Waltham, Welton.
- B.108 London Palaeontological Notes by F.C. Dilley, 1965, 'Microfaunas from Jurassic (chiefly Liassic) surface samples from Lincolnshire' and 'Microfauna from the Jurassic of Tetney Lock No. 1 Well', with 2pp typescript comments by Kent 25 June 1965.
- B.109, B.110 'Fenland Graphic Logs'. Contents of Kent's envelope so inscribed divided into two for ease of reference.
- B.109 BP log for Bardney well 1, 1966.
- B.110 Notes and data on wells at Wisbech and Wittering 1971; well logs from Ruskington 1, 1955, Helpringham 1, 1969, Brigg 1, 1981.
- B.111 Miscellaneous material 1960s: correspondence *re* borings 1962; typescript note on 'Trench sections at Westborough, Lincs' ?1966; sketches by Kent of geology at Castle Quarry, Ancaster and Leadenham Quarry, 1969; sections.
- B.112 Contents of Kent's envelope: miscellaneous correspondence and papers, 1971-73. Includes ms 'field notes & sketches' and typescript data from 1971 Gas Council trench in north west Lincs; log and typescript data from Nettleton well 1 1972; and 'The Cretaceous - Jurassic contact in the 1973 Elsham trench section' by Kent, 3pp typescript, November 1973.

B.113	Contents of Kent's folder: correspondence and papers 1973-76 <i>re</i> second edition of 'The geology of Lincolnshire', by Kent and H.H. Swinnerton ( <i>Bibliog.</i> 105, 1976).
B.114	'The River Brant section between Skinnand, Brant Broughton and Stragglethorpe, mid-Lincs. 1973' by Kent, 5pp typescript + 'Brant section near Stragglethorpe 1.2.74'.
B.115	'Oolites J.A.D. Dickson sections'. Contents of Kent's envelope so inscribed: sections from the Great Hale bore-hole sent to Kent January 1974.
B.116	Inferior Oolite isopach maps of area east of Lincoln, sent to Kent by R.J.M. Dixie 22 March 1974.
B.117	'Lincs. Palaeontology (Lias - ex-I.G.S.) B.M.'. Contents of Kent's folder so inscribed: 16pp list of identifications of Lincolnshire fossils presented by Kent to Institute of Geological Sciences 1968-72, sent to Kent 4 April 1974.
B.118	'Nettleham #1 Logs'. Contents of Kent's envelope so inscribed. 1982.
B.119	'Ewerby (Sleaford) Boreholes'. Contents of Kent's envelope so inscribed: 'basic strata logs' for four bore-holes sunk by Anglian Water 1985-86.
B.120	Hardback pocket notebook used from the front and from the back for notes on sites in north Lincs. Nd.
B.121	'Lincs Lst. Richardson's Strat. Columns'. Contents of Kent's envelope so inscribed. Nd.
B.122	Miscellaneous ms notes and sections.



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**Nottinghamshire**

- B.123 'Land Utilisation Aug. 1941 Fisketon'. Content of Kent's envelope so inscribed: hand-drawn map.
- B.124 Report UK 137 'Geology of South Nottinghamshire' by Kent, December 1947, retained in original binder. Some later material has been added within the binder at back of report. Material found loose is at B.125.
- B.125 Correspondence, papers, photographs and maps found loose at back of B.124. 1969 correspondence is principally *re* Widmerpool Gulf.
- B.126, B.127 'South Notts. 1951 Draft'. Contents of Kent's envelope so inscribed divided into two for ease of reference
- B.126 13pp typescript with ms correction + ms list of illustrations and title page, with covering letter 1954. A note on the title page states: 'Draft of paper, written 1951 revised 1955, intended for eventual publication'.
- B.127 Figures.
- B.128 'South Notts draft maps'. Contents of Kent's envelope so inscribed: annotated well log for Widmerpool 1.
- B.129-B.131 'Notts - Air photos'. Contents of Kent's envelope so inscribed divided into three for ease of reference. Some labelled or inscribed with identification on verso. 1941 and nd.

**Leicestershire**

- B.132 'Leicestershire Lower Carboniferous Field records 1939'. Contents of Kent's envelope so inscribed.

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- B.133 'Plungar [Leics]'. Contents of Kent's folder so inscribed: 'Note on the Plungar structure' by Kent, 1p typescript, 27 January 1954; draft on the Middle and Upper Lias, 4pp typescript; D'Arcy Exploration Co. well logs for Plungar 1 and 2 and Barkeston 1; maps of Plungar area; etc.
- B.134 Report UK 357 (PEK 68) 'The Melton Mowbray Prospect' by Kent, July 1961, retained in original binder. Some later ms notes loose at back.
- B.135 'Oolites sections'. Contents of Kent's folder so labelled: miscellaneous notes, sections etc 1969-73, chiefly *re* Sproxton.
- B.136 Miscellaneous material various dates 1964-84. 1984 correspondence and papers *re* Asfordby bore-holes sunk by National Coal Board.

**Derbyshire**

- B.137-B.141 'Derbyshire'. Contents of Kent's envelope so inscribed divided into five for ease of reference. Correspondence and papers 1946-71.
- B.137 1946-50. Chiefly *re* geological examination of silica pits in Newhaven area. Includes Kent's report on 'The location of silica deposits on the Derbyshire plateau' prepared for the Derbyshire Silica Firebrick Company, 3pp typescript, 3 January 1947 and 'The Mesozoic history of the southern Pennines' by Kent, 4pp ?incomplete typescript with ms correction and annotation, latest reference 1947.
- B.138 1957-59. Chiefly *re* 'Triassic relics and the 1,000-foot surface in the southern Pennines' by Kent (*Bibliog.* 42, 1957). Includes draft of article, 12pp typescript and of 6pp typescript 'Postscript note' arising from work of C. Yorke, and related correspondence.
- B.139 1961-71. Includes photocopies of letters of F.W. Shotton to C. Yorke, 1961-62, *re* Derbyshire blue clays.
- B.140 Typescript and ms notes on the literature.



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B.141 Ms notes, tables etc.

B.142 'UK exploration - Land Licenses, South Derbyshire' by Kent, 1p typescript note to H.R. Warman, 22 November 1973, with map showing area for which Kent recommended a License should be sought.

### East Anglia

B.143, B.144 'East Anglia'. Contents of Kent's folder so labelled divided into two for ease of reference.

B.143 'Seismic investigations of East Anglia and their geological implications' by Kent and J.E.R. Wood, 2pp duplicated typescript resumé of presentation to British Association meeting August 1961; 'Notes on paper "Seismic investigations of East Anglia [...]" ' by T.F. Gaskell, 4pp photostat typescript, 23 November 1961, with response from J.E.R. Wood.

B.144 Revised version of 'Seismic investigations of East Anglia [...]', 13pp typescript, October 1962.

B.145 Contents of Kent's folder: logs from North Creak well 1, South Creak well 1 and Somerton well 1; Superior Oil Co. summaries of logs for Ellingham, Four Ashes, Lakenheath, Ashwell, Little Chishill, Tring 1965-66; ms and typescript notes.

### Southern England

B.146-B.151 'S. England'. Contents of Kent's folder so inscribed divided into six for ease of reference

B.146 'Geological Progress Report for March 1937' by A.H. Tait, 3pp typescript; data from Worbarrow Bay, Mupe Bay and Lulworth Cove [Dorset], October 1937, with ms diagrams and notes found therewith; data from Chaldon well 1 [Dorset], 29 March 1939.

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- B.147 'Choice of a deep drilling location for Mesozoic oil in Southern England' by Kent, 4pp typescript + covering memo, 20 May 1946; 'Draft Memo to Mr Seamark. A recommendation for a boring at Sandown, Isle of Wight' by G.M. Lees, 10pp typescript, sent to Kent for comment 6 June 1946; notes on 'Kimmeridge oil shale development' by Kent, 4pp typescript + covering memo, 8 October 1947; memo to N.L. Falcon on 'Corallian prospects of the Dorset coast', 2pp typescript, 29 December 1947.
- B.148 Correspondence and papers *re* fossils in Isle of Wight Carstone, October 1952; typescript list of chief or characteristic ammonites to be found in various rocks, nd.
- B.149 Well logs from Brightling 1 [Sussex], Fordingbridge 1 [Hants], Grove Hill 1 [Sussex], Portsdown 1 [Hants], Poxwell 1 [Dorset], Willesden 1 [Mddx].
- B.150 Annotated chart of data from logs of wells in Sussex, Hants and Isle of Wight; BP geological maps of southern England showing gas and oil production, June 1970.
- B.151 Two cross-sections 'across the I.o.W. structure', sent to Kent 27 September 1974; correspondence *re* geology of Ham and Kingsclere [Hants], 1979; material *re* bore-holes at Marchwood [Hants] and Winterborne Kingston [Dorset]; etc.
- B.152, B.153 'Dorset reports. September 1937'. Contents of Kent's folder so labelled divided into two for ease of reference.
- B.152 Memo from P.T. Cox to A.H. Taitt 5 May 1937 (includes note that 'Mr Kent will report to you as Resident Geologist, Poxwell, on Friday 14th May'); notes by W.J. Arkell, July 1937 on 'Thickness of Kim[meridge] Clay', 5pp typescript and 'Oil prospects in the Lulworth district'; 'Poxwell No. 1. Completion Report' by Kent, 8pp typescript + section; 'Report on excavations on the Poxwell structure' by Kent, 2pp typescript + sections.
- B.153 'Note on the Bincombe, Sutton Poyntz, Poxwell and Chaldon structures of S. Dorset' by Taitt, 4pp typescript + figures, with copy of comments by Arkell; 'Note on the succession penetrated at Broadbench, Kim[m]eridge Bay' by Kent, 4pp typescript + log; well logs of Kimmeridge 1 and Radipole 1 [Dorset].



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- B.154 'Dorset Sutton Poyntz & shot holes'. Contents of Kent's envelope so inscribed: includes annotated map of Sutton Poyntz area, correspondence *re* specimens, May 1948, and sections through Chaldon Herring anticline, 1955.
- B.155-B.157 'Kingsclere [Hants] Boring'. Contents of Kent's envelope so inscribed divided into three for ease of reference.
- B.155 'The Kingsclere boring' by R.V. Melville, 24pp typescript + table, sent to Kent for comment 20 September 1949, with related correspondence including later draft for letter to Melville asking 'Now that you are facing retirement, would you like to take it up again?'
- B.156 'Underground storage prospects' by Kent, 4pp typescript + covering memo and figure, May 1953.
- B.157 Log and data from Kingsclere well 1.
- B.158 'Dorset stratigraphy'. Contents of Kent's folder so inscribed: letter to Kent from M. Adcock, 26 December 1939; ms and typescript drafts of 'The origin of Ptygmatic folding' by Kent; data from wells at Eakring, Caunton and Kelham [Notts].
- B.159 'Vale of Wardour'. Contents of Kent's folder so inscribed: letters from B.H. Mottram *re* the Poxwell Fault, and Mere Fault and Wardour Fold, December 1953; ms draft 'The structure of the Vale of Wardour'; ms notes; maps of vale of Wardour area.
- B.160 'UK oil prospects - West Dorset Mesozoic' by Kent, 2pp typescript, 28 November 1973.
- B.161 'R. Stoneley - Wessex Basin'. Contents of Kent's folder so inscribed: draft 'On the structural development of the Wessex Basin' by Stoneley, 13pp typescript + figures, sent to Kent for comment 6 January 1981, with letter arising.

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- B.162, B.163 'Oil in Dorset'. Contents of Kent's folder so labelled divided into two for ease of reference.
- In 1985 BP celebrated fifty years of exploration and production at Kimmeridge in Dorset. They asked Kent to assist in the compilation of a profile of operations in the 1930s.
- B.162 Draft profile of Kimmeridge operations by D.J.T. Smale, with covering letter to Kent, 24 July 1985.
- B.163 'The Kimmeridge story' by Kent, 9pp typescript with ms correction and annotation, 31 July 1985; background information including copy of 'Oil in Dorset' by Kent, *New Scientist*, 16 July 1959, 84-85 (not listed in *Bibliog.*).

### Yorkshire

- B.164 'The Market Weighton Anticline' by Kent, 26pp typescript + figures, with ms annotation and correction, May 1938, retained in original binder. Also enclosed in the binder is contemporaneous correspondence from H.D. Thomas and a 'Comment on the results of the Beverley Seismic Survey - Report UK. 204' by Kent, 3pp typescript, 15 February 1955.
- B.165 Hand-made paper-back pocket notebook inscribed on front cover 'Market Weighton district P.E. Kent 1938'. Used for notes chiefly on South Cave and Millington.
- B.166, B.167 Correspondence and papers *re* 'The Market Weighton structure' by Kent, (*Bibliog.* 41, 1955).
- B.166 35pp typescript.
- B.167 Includes correspondence *re* paper, including comments from J.E. Hemingway, 22 March 1955, who read the paper to the Yorkshire Geological Society in Kent's absence in New Guinea; 5pp typescript transcript of comments on the paper following its presentation.



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- B.168 'Yorkshire Rhaetic'. Contents of Kent's folder so inscribed: correspondence 1946, 1952, 1953; well logs from Cleveland Hills 1, Eskdale 2, Moordale 1; ms notes.
- B.169 Composite structure contour map of the Cleveland Hills by Kent, 18 March 1947.
- B.170-B.172 'NE & SE Yorks'. Contents of Kent's folder so inscribed divided into three for ease of reference.
- B.170 'Potential gas-bearing structures in East Yorkshire' by Kent, 3pp typescript, 11 September 1953; list of Yorkshire wells with depths and thicknesses of Lias and Permo-Trias, nd; UK Gravity Survey 1952-53 maps of Middlesbrough and Humber areas.
- B.171 Maps, including:  
  
Map of east Yorkshire by Kent, 10 February 1954.  
  
Gas Exploration Proposed Seismic Programme map of Lincs and east Yorks.  
  
Geological sketch map of north east Yorks.
- B.172 Typescript and ms data from Eskdale bore-holes; maps of the area.
- B.173-B.176 Contents of Kent's folder divided into four for ease of reference.
- B.173 Account of ?East Midlands Geological Society field trip to north east Yorkshire, 15-18 October 1965, with illustrative material found therewith; London Palaeontological Note 'Ostracod dating of Pre-Cretaceous strata, Market Weighton area' by R.A. Field, 11 December 1968.
- B.174 Miscellaneous correspondence and papers 1966-79.
- B.175 Ms and typescript notes on sites in Givendale area, 1973, 1975, 1980-82.

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- B.176 Correspondence and interim reports *re* bore-holes at Brown Moor, Howsham and Scalla Moor, 1974.
- B.177 'Yorkshire Deep Wells'. Contents of Kent's envelope so inscribed: well logs from Cleveland Hills (extension), Crayke 1, Fordon 1 (extension), Harlsey 1, Whitwell on the Hill 1 (extension). Latest date 1965.
- B.178, B.179 'East Yorks. Bore-hole Secns'. Contents of Kent's folder so inscribed divided into two for ease of reference: well logs, notes, data and correspondence with F.C. Dilley 1971-74.
- B.178 Barmston 1, Eskdale 2 and 12, Fordon 1.
- B.179 Great Hatfield 1, Hornsea 1, Millington Pasture shot-hole, Risby 1, Robin Hood's Bay 1, South Cliffe 1.
- B.180 'Winestead No. 1 S. Yorks'. Contents of Kent's envelope so inscribed: well log, data and notes, c.1972.
- B.181 'E. Yorks. and Humberside B.H.s'. Contents of Kent's envelope so inscribed: map of Hull area with sites of bore-holes indicated; well log from Kirkleatham 2; 10pp typescript list of thicknesses and depths of strata for bore-holes in Aclam area, sent to Kent 9 September 1975; etc.
- B.182 'Howardian Hills'. Contents of Kent's envelope so inscribed: ms notes, some dated June 1977.

**Scotland**

- B.183 'D'Arcy Exploration Company's search for petroleum in Scotland' by B.K.N. Wyllie, pre-print of presentation at Institute of Petroleum Conference, Glasgow, 6-11 June 1938.



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- B.184, B.185 'North-West Scotland 1968 Applecross Gruinard Bay, Skye'. Contents of Kent's folder so labelled divided into two for ease of reference.
- B.184 Field notes and typescript notes June 1968; letter to Kent from M.G. Collett *re* samples from Applecross, 23 July 1969.
- B.185 Geological Survey of Scotland map of Applecross.
- B.186 'Rhaetic etc Scotland'. Contents of Kent's folder so inscribed: notes on Trias succession at Rudha na Leac, Raasay, sent to Kent 7 April 1972; unidentified sections.

### North Sea

- B.187 'Jurassic and Cretaceous reservoirs in the North Sea basin' by Kent, 4pp typescript + figure, 2 July 1962.  
  
A covering note has been annotated by Kent 'Largely misleading'.
- B.188-B.191 'North Sea - General'. Contents of Kent's folder so labelled divided into four for ease of reference: papers *re* North Sea oil prospects 1963-67.
- B.188 'How good are North Sea offshore oil prospects?' by J.A. Kornfeld, *World Oil*, 1 February 1963, 47-51; 'The search for oil and gas in the North Sea' by J.S. Royds, 9pp typescript pre-print + figures, 'Nov. 1965'; 'A summary of the geology and geophysics of the British North Sea' by M. Holmes, 9pp typescript + 3pp typescript 'File Note' and table, December 1965.
- B.189 Programme for 14th Inter-University Congress on the Geology of Shelf Seas, Hull, January 1967, with Kent's ms notes on proceedings. See H.19.
- B.190, B.191 Figures, possibly illustrations for Kent's contribution above. 2 folders.
- B.192 'The basis of North Sea exploration' by Kent and A.F.M. Matthews, 12pp typescript, 'For oral presentation at the A.A.P.G. Convention, Toronto - May 1964'. See H.12.

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- B.193 London Palaeontological Note 'Foraminifera from BP (North Sea) 48/6/3, incorporating a Zonal Scheme for the Lias and its application to Hamilton' by F.C. Dilley, 1 December 1966.
- B.194, B.195 'North Sea: General 1967-'. Contents of Kent's folder so inscribed divided into two for ease of reference.
- B.194 Exchange with D.T. Donovan *re* nomenclature of North Sea features, February 1967; papers *re* discussion with Board of Inquiry into a North Sea submarine pipeline, 1970; etc.
- B.195 Memos etc. 1972.
- B.196-B.200 'North Sea Logs and Summaries 1/500'. Contents of Kent's envelope so inscribed divided into five for ease of reference. Latest date 1968.
- B.196 Wells 47/3-1 and 47/9-1.
- B.197 Well 47/15-1x.
- B.198 Wells 47/18-1 and 47/25-2.
- B.199 Well 48/6-5.
- B.200 Well 48/6-10.
- B.201-B.208 'North Sea Wells'. Contents of Kent's folder so inscribed divided into eight for ease of reference: well logs and summaries etc. Latest date 1973.
- B.201 Lists of oil companies and their wells; maps of oil fields and wells.
- B.202 Wells A339/-1, 38/29-1, 41/8-1, 41/20-1.



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- B.203 Wells 41/24A, 42/23-1, 42/29-1, 44/11-1, 44/21-1.
- B.204 Wells 47/3-1, 47/9-1, 47/13-1, 47/15.
- B.205 Wells 47/18-1, 47/20-1, 47/25-2, 47/29A-1.
- B.206 Wells 48/6-1, 48/6-5, 48/6-10.
- B.207 Wells 48/21-2, 49/13-1, 49/17-1, 49/22-1, 49/26-1, 53/10-1.
- B.208 'N. Sea Lias Zonal Chart'.
- B.209 Softback notebook inscribed on first page 'North Sea data 1974-'. Used from the front and from the back for notes 1974-75.
- B.210 'N. Sea - Cretaceous Sub-crop J. Butler 1975'. Contents of Kent's envelope so inscribed: data.
- B.211 Softback notebook inscribed on fore edge 'North Sea 1978'. Used for notes on wells in block 47. Most pages not used.
- B.212 Softback notebook inscribed on fore edge 'North Sea Lancaster Gate 1979 1980 83'. Used for notes on organisation of British National Oil Corporation and its Exploration Department; Conference on Petroleum Geology of the Continental Shelf of North-West Europe, March 1980 (see H.111, H.112); Geological Society meeting 1983.
- B.213 Institute of Geological Sciences North Sea Survey 'Equalised Stack' data. 1980.

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- B.214                      Institute of Geological Sciences North Sea Survey 'Relative Amplitude Stack' data. 1980.
- B.215-B.217              Background material *re* North Sea pockmarks, sent to Kent 19 October 1982. 3 folders.
- B.218-B.225              North Sea figures and maps. 8 folders.
- Some of this material was used as illustrative material for Kent's presentations and articles on the North Sea.

### IRAN

Kent's first overseas posting with Anglo-Iranian/BP was to Iran. Here he was involved in studying the geology of the outer mountains of the Zagros range. Kent was involved in three major surveys; of Kazerun 1948-49, and then of Bebehah-Kazerun 1949-50 and Fars-Laristan 1950-51 both of which were led by Kent. In 1951 BP was expelled from Iran when foreign owned oil companies were nationalised. For Kent's letters home to his family in this period see A.213-A.218.

With the restoration of the monarchy in Iran BP were able to resume their activities. In 1957 a consortium of western oil companies operating in Iran, including BP, established the Exploration Advisory Group, to advise on exploration matters. Later it reported to OSCO - the Oil Service Company - a joint concern of western oil companies serving as a direct contractor to the National Iranian Oil Company. Kent became a member of the EAG in 1965, replacing N.L. Falcon as the BP representative. In 1973 Kent became Chairman of the Group in succession to H.D. Hedburg, his continuing membership of the EAG being part of his post-retirement consultancy with BP. EAG activity comprised visits to Teheran to receive briefings from staff on the ground followed by field trips, chiefly to the oilfields and the Zagros mountains area. The party would then return to Teheran to draft its report. The EAG made its last visit in 1978; its activities were halted by the Islamic revolution and the overthrow of the Shah.

Kent's interest in salt plugs dated to his survey work in the Zagros mountains in 1948-51. Salt plugs are more numerous and better seen in this region of Iran than in any other area of the world. In February 1968 Kent was a member of a party which conducted a minor survey of salt plugs in the Fars province.



### Research and surveys

The material is presented as follows:

- B.226-B.229     Kazerun Survey
- B.230-B.251     Behbahan-Kazerun Survey
- B.252-B.277     Fars-Laristan Survey
- B.278-B.290     Salt Plugs
- B.291-B.339     Exploration Advisory Group
- B.340-B.353     General

#### Kazerun Survey

- B.226             Appendices to 'Kazerun Survey - 1948/49' by Kent, August 1949. Retained in original binder.
- B.227, B.228     Maps prepared during Kazerun survey. 2 folders.
- B.229             Hardback pocket notebook used for notes on Iran 1948-49, and UK Midland sites 1970s.

#### Behbahan-Kazerun Survey

- B.230-B.236     'Behbahan-Kazerun Survey 1949-50 Monthly and Interim reports'. Contents of Kent's folder so inscribed divided into seven for ease of reference.
- B.230             Correspondence and memos *re* organisational and logistical arrangements, August - November 1949; Progress Report for September; 'Note on the Bingistan Barytes deposits' by Kent, J.F. Watson and H.R. Warman, 5pp typescript, ?November 1949.

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- B.231 Progress Reports for October and November 1949.
- B.232 Progress Reports for December 1949 and January 1950.
- B.233 Correspondence and papers *re* samples from Tang-i-Shahen fissure, January, July 1950.
- B.234 Correspondence and memos February 1950; Progress Report for February 1950.
- B.235 Progress Reports for March and April 1950.
- B.236 Miscellaneous material.
- B.237-B.242 'Bebahan-Kazerun Strat Columns'. Contents of Kent's folder so inscribed divided into six for ease of reference: stratigraphical sections, dated October 1949 - April 1950.
- B.243, B.244 'Bebahan-Kazerun Survey. Palaeontologists' Reports'. Contents of Kent's folder so inscribed divided into two for ease of reference.
- B.243 Reports by J.A. Douglas on fossils collected during the survey, June 1950 and January 1951.
- B.244 Preliminary palaeontological reports July - September 1950.
- B.245 'The Bingistan Barytes deposits Supplementary Note [to Report PEK 35]' by Kent, 2pp duplicated typescript + plates and figure, 11 July 1950. See B.230.



**Research and surveys**

- B.246-B.249 'Mamatain'. Contents of Kent's envelope so inscribed divided into four for ease of reference.
- B.246 Report PEK 36 'An examination of the Mamatain Limestones' by Kent, J.F. Watson and H.R. Warman, August 1950. Retained in original binder.
- B.247-B.249 Material found with preceding. 3 folders.
- B.247 Memos, notes and sections *re* Mamatain Limestone; humorous verse 'To Editor, H.K. [Haft Kel] News'.
- B.248 1:253,440 topographical maps of Kazerun, Basht and Haft Kel areas, 1940s; 1:253,440 geological maps of Kazerun and Beheban, 1920s.
- B.249 1inch: 1/2mile map of 'The lower Fars stage 3. Secondary Limestones of Mamatain', March 1949; Anglo-Iranian Oil Co. 'Panorama of Iran showing the oil operations' annotated by Kent with 1949-50 survey route; ms sketches 'Samples of Gach-Limestone transitions'; miscellaneous ms figures etc.
- B.250, B.251 Report PEK 37 'The Behbehan - Kazerun Survey 1949-50' by Kent, J.F. Watson, H.R. Warman and D.G.F. Bailey, c.September 1950. Retained in original binders.
- B.250 Part I.
- B.251 Part II.

**Fars-Laristan Survey**

- B.252-B.254 Series of three hardback pocket notebooks inscribed 'P. E. Kent Fars-Laristan' on fore edge and numbered on front cover.
- B.252 '1'. 'Book 1 Surmeh to Asalu'. Used from October 1950.

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- B.253                    '2'. 'Book 2 Khiaru to Chiru'. Used from December 1950.
- B.254                    '3'. 'Book 3 Kalat to Chah Kazimah'. Used from February 1951.
- B.255-B.257            'Kuh-i-Surmeh (Fars-Laristan Survey)'. Contents of Kent's folder so inscribed divided into three for ease of reference: material *re* Report PEK 39. The report itself was not found.
- B.255                    Progress Reports for October and November 1949 and February 1950 (prior to Kent joining the Survey).
- B.256                    Correspondence and memos 1950-52. Includes reports on fossils collected.
- B.257                    Well logs and sections from Kuh-i-Surmeh; photographs; ms figures; ms notes.
- B.258-B.260            'Monthly repts 1950-51 Fars Laristan'. Contents of Kent's folder so inscribed divided into three for ease of reference.
- B.258                    October, November, December 1950, January 1951.
- B.259                    February, March, April 1951.
- B.260                    Ms notes on work December 1950 - April 1951; correspondence and memos April, September - October 1951; typescript notes on Cenomanian Marls; maps and ms figures.
- B.261, B.262            'Fars-Laristan Stratig Sections'. Contents of Kent's folder so inscribed divided into two for ease of reference: stratigraphical sections dated October 1950 - April 1951.



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- B.263-B.269 'Pal Data & specimens'. Contents of Kent's folder so inscribed divided into seven for ease of reference: papers *re* samples sent for analysis.
- B.263, B.264 Macrofossils field data sheets, numbered 1- 60. 2 folders.
- B.265, B.266 Memos *re* data sheets and cans of fossil samples returned for examination, October 1950 - July 1951, with lists of samples. 2 folders.
- B.267, B.268 Reports by J.A. Douglas on macrofossils collected during the survey, 1951. 2 folders.
- B.269 Correspondence and memos January 1951-1952.
- B.270-B.277 Material *re* report PEK 40 'The Fars - Laristan Survey, 1950-51' by Kent, A. McGugan, H.R. Warman and E.K. Cullingham, c. September 1952.
- B.270, B.271 Contents of Kent's envelope divided into two for ease of reference: papers *re* report PEK 40.
- B.270 Memos 1951-52; letter to C.J. Stubblefield *re* Kalat Cambrian trilobites, 20 June 1952; 'Salt plugs' by Kent, 11pp typescript with ms correction; typescript notes on 'Gach-i-turushes on Kuh-i-Gavbut', 'Eocene landslip within the Bakhtiri conglomerates of Kuh-i-Safid (Janna)'.
- B.271 Sections and photographs for report PEK 40; etc.
- B.272 Typescript draft of text with ms correction and annotation.
- B.273, B.274 Final report. Retained in original binders.
- B.273 Part I.

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- B.274 Part II (incomplete). Some of the sections and photographs which accompanied Part II may be at B.271.
- B.275, B.276 Papers *re* the Report found loose at back of B.274.
- B.275 Chart of horizontal sections from the survey.
- B.276 Miscellaneous material. Includes draft 'Appendix A - The Knemiceras Beds', 4pp typescript + figure.
- B.277 'Fars Laristan Survey 1950-51. Appendix A'. Retained in original binder.

**Salt Plugs**

- B.278-B.283 'Salt Plugs'. Contents of Kent's folder so inscribed divided into six for ease of reference.
- B.278 Correspondence 1951, 1959, 1963-65. Includes correspondence *re* 'The origin and movement of Salt Domes in S.W. Persia' by Kent, presentation to Leicester University Geological Society, 1964. See also D.100.
- B.279 Correspondence 1966-69. Includes 'The temperature conditions of Salt Dome intrusions' by Kent, 2pp typescript Letter to *Nature, Lond.*, 1966, and correspondence with H.D. Hedberg *re* 'Fars Salt Plugs minor survey' (see B.280).
- B.280 Report on 'Fars Salt Plugs minor survey February 23rd - 28th, 1968', 8pp typescript + lists of specimens.
- B.281 Correspondence 1971, 1975-85, nd. Chiefly *re* 'The emergent Hormuz Salt Plugs of southern Iran' (*Bibliog.* 121, 1979, see D.44, D.45).



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- B.282 'Iran November 1969 - Revised list of PEK samples'; ms note by Kent on 'Piercement Salt Plugs of the Southern Gulf'; sketches of salt plugs by Kent.
- B.283 Maps, sections, etc.
- B.284, B.285 'Iran etc Salt Plugs. SP diagrams'. Contents of Kent's envelope so inscribed divided into two for ease of reference: miscellaneous maps and figures.
- B.286-B.290 'Salt Plugs Lit[erature] Other Countries'. Contents of Kent's folder so inscribed divided into five for ease of reference.
- B.286 Off-print 'Internal structure of the Grand Saline salt dome, Van Zandt County, Texas' by W.R. Muehlburger, University of Texas, 1959. Pasted into back of the notebook are Kent's ms notes on visit to Grand Saline and page of programme from American Association of Petroleum Geologists Conference, March 1959.
- B.287 'Emplacement of the Arctic Gypsum Diapirs' by Kent, 6pp typescript, 16 June 1960; 16pp typescript notes on 'Petrographical examination of Erratic rocks associated with Gypsum Diapirs from the NW Territories'; 'Evaporite Piercement structures in the northern Richardson mountains' by Kent and W.A.C. Russell, 11pp typescript + references (*Bibliog.* 46, 1961).
- B.288 Correspondence 1980-81.
- B.289, B.290 Miscellaneous material. 2 folders.

**Exploration Advisory Group (EAG)**

**1965**

- B.291 Note *re* recommendations of 1964 report; correspondence and papers *re* 1965 visit, 21 November - 6 December.

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B.292                      Programme and ms notes.

B.293                      'Recommendations of the Members Exploration Advisory Group December 1965'.

**1967**

B.294                      Programme and ms notes of 1967 visit, 19 November - 4 December.

B.295                      Hardback pocket notebook used from the front for notes on EAG visits to Iran 1967 and 1971 and from the back for notes on 1967 visit.

B.296                      Draft 'Recommendations of Members Exploration Advisory Group December 1967'. The draft is annotated by Kent 'Unexpurgated draft. To be retained!'

**1968**

B.297                      'Report of [Consortium] Committee on Reserves under the Chairmanship of Mr [M.M.] Pennell', 25 June.

**1969**

B.298                      Correspondence *re* and draft report of EAG meeting, London 10-12 February, and 1969 visit.

B.299                      Programme and ms notes of 1969 visit, 21 November - 4 December.

B.300                      Report of EAG December 1969. Retained in original binding.



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**1971**

- B.301 Correspondence, papers, annotated programme and ms notes *re* 1971 visit, 1-15 March.
- B.302 Report of EAG March 1971. Retained in original binding.
- B.303 'Exploration Presentation to Members' Technical Representatives November 1971'.

**1972**

- B.304 Correspondence and papers *re* 1972 visit, 29 September - 13 October.
- B.305 'Summary of technical papers for presentation to Members Exploration Advisory Group in Teheran, October 1972'. Annotated by Kent.
- B.306 'Exploration Advisory Group Meeting October 1972 Field Excursion Notes'.
- B.307 Programme and ms notes of 1972 visit.
- B.308 Report of EAG October 1972. Retained in original binding.
- B.309 Correspondence arising, including correspondence *re* Kent's succession as Chairman, etc.

**1973**

- B.310 Correspondence *re* Chairmanship and 1973 visit, 30 November - 13 December.

**Research and surveys**

B.311 Programme and field excursion notes; ms notes of visit.

B.312 Report of EAG December 1973. Retained in original binding.

B.313 'Geological map of South-West Iran', 1:1,000,000.

**1974**

B.314 Correspondence, chiefly *re* structure of anticlinal cores.

B.315 Persian Gulf oil well summaries, August and September - October.

**1975**

B.316 Programme and ms notes of first 1975 visit, 3-19 January.

B.317, B.318 '1975 E.A.G. field trip maps and sections Dezful Embayment'. Contents of Kent's folder so inscribed divided into two for ease of reference.

B.317 Drafts by EAG members of sections of the January 1975 recommendations.

B.318 Geological maps of Dezful and Ahwaz, 1:250,000.

B.319 Report of EAG January 1975. Retained in original binding.

B.320 'Dalan prospect. Proposed Bangestan, Khami and Permian Test Well Proposal Summary', sent to Kent 20 February; notes by Kent for second 1975 EAG meeting, [3-18] October; brief correspondence.

B.321 Loose-leaf pocket notebook containing programme and ms notes of October meeting.



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B.322 Report of EAG October 1975. Retained in original binding.

**1976**

B.323 Report of EAG October 1976. Retained in original binding.

B.324 Correspondence November 1976. Includes 2pp typescript 'Appraisal of Iranian oil potential' by Kent.

**1977**

B.325 Letter *re* meeting of OSCO Geophysical Advisory Group, 3 May; exploration drilling results, August 1976 - September 1977; annotated programme of visit; etc.

B.326 Report of EAG October 1977. Retained in original binding.

**1978**

B.327 Correspondence; annotated programme of visit; attendance list for EAG de-brief meeting, 10 November.

B.328 Report of EAG October 1978. Retained in original binding.

B.329-B.339 OSCO Geological and Exploration Division reports and technical notes. See also B.350, B.351.

B.329-B.331 'The post-Asmari formations of South Iran' by G. Favre, report 1220, December 1974. 3 folders.

B.332, B.333 'The geothermal gradient map of S.W. Iran and adjacent areas and its applications' by G. Orbell, technical note 2/1976, April 1976. 2 folders.

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- B.334 'The Mesozic sequence in southwest Iran and adjacent areas' by A. Setudehnia, report 1248, August 1976.
- B.335, B.336 'Synsedimentary tectonics in the Bangestan of Kharg' by H. Bolz, report 1275, January 1978. 2 folders.
- B.337-B.339 'The geology of the Bandar Abbas hinterland, South Fars' by P. Verral, report 1286, August 1978. 3 folders.

**General**

- B.340-B.344 'Iran - General'. Contents of Kent's folder so inscribed divided into five for ease of reference: correspondence and papers 1964-75, nd.
- B.340 1964. Includes material *re* research on oil recovery techniques in Iran and 3pp typescript memo by Kent 'S.W. Iran - Reservoir data', 24 November.
- B.341 1965. Includes papers *re* crude oil from Kharg oil wells.
- B.342 1967-70.
- B.343 1971. Includes material *re* proposed research on the Zagros Crush Zone.
- B.344 1971-75 and nd.
- B.345 Softback pocket notebook inscribed on fore edge 'Iran 64'. Used from the front and from the back for notes on visit to Iran 1964. Paginated up to p.53.



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- B.346-B.353                      Contents of Kent's envelope divided into eight for ease of reference: maps, stratigraphical columns and sections.
- B.346-B.348                      Stratigraphical columns. 1960s. 3 folders.
- B.349                                Seismic sections, c.1976.
- B.350, B.351                      Figures for OSCO Exploration Division technical note 3/1977 on Kuh-e Darang area. 2 folders. See B.329-B.339.
- B.352, B.353                      Miscellaneous. 2 folders.

### EAST AFRICA

Kent was posted to East Africa very shortly after his return from Iran in 1951, initially to investigate a report that oil had been found in Kenya. No oil was found but Kent remained in East Africa principally surveying the geology of Tanganyika where the prospect of finding oil seemed better. He left Africa in 1955 but made several later visits. The final results of Kent's geological work in East Africa were only published in 1971 in *Bibliog.* 80.

Also includes a little material relating to oil prospects in northern Africa which Kent visited during his time in East Africa.

For material relating to Kent's work on the East African Archaeological Expedition of 1934-35 see A.53-A.102. For material relating to work arising from the Deep Sea Drilling Project for which Kent reviewed the results of Leg 25 drilling in the western Indian Ocean, see C.117-C.121.

- B.354                                Softback pocket notebook inscribed on first page 'Kenya - Northern Frontier Dist. 1951 Uganda - Albert visit'. Used from the front for notes on sites 23 May - 7 July 1951, and notes on expenses, itineraries etc, October - December.
- B.355-B.357                      Series of three hardback pocket notebooks used 1951, dated and identified by inscription on front cover.
- B.355                                'Northern Kenya'. Used for notes and sketches 11-27 June.

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- B.356 'Coastal Tanganyika'. Used for notes and sketches 25 October - 22 November. At the entry for 26 October on the Tanga district are stapled later notes on Tanga, February 1953.
- B.357 'Mafia-Zanzibar' and on first page 'Voyage of the "Burgan" '. Used for notes and sketches 24 November - December. At entry for 7 December are pasted later notes on shot-point 39 in Zanzibar, 16 November 1954.
- B.358 Hardback pocket notebook inscribed on front cover 'Tanganyika flights Nairobi Uganda 1951'. Used to record observations made during flights 14-21 October 1951. At front are stapled later notes on flight to and visit at Dodoma, Tanganyika, June 1953.
- B.359 'E. Af. Seepages'. Contents of Kent's envelope so inscribed: correspondence and papers chiefly *re* sulphurous soil samples, 1952-53.
- B.360 Hardback pocket notebook inscribed on front cover 'Tunisia 1952'. Paginated (incomplete) 1-32 on left-hand pages. Used for notes and sketches 15-27 September 1952. Most pages not used.
- B.361, B.362 Report PEK 45 'A reconnaissance of Eastern Tunisia' by Kent, September 1952.
- B.361 21pp typescript + 1p appendix.
- B.362 Figures.
- B.363 Material found with preceding report. Includes 'Oil prospects of Algeria' by A.N. Thomas, 6pp typescript + figure, 15 October 1952.
- B.364 'Geology of the Wajir-Mandera district, North-East Kenya...by B.M. Ayers...With appendices on fossils collected in the area'. The appendices are by Kent although published anonymously. Retained in original binding. 1952.



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- B.365                      Geological Survey of Tanganyika Report no. PEK/1 'Sections in the branch gorge at Olduvai' by Kent. Retained in original binding. c.1953.
- The report is based on work done while the East African Archaeological Expedition was at Olduvai during 1935.
- B.366-B.370              Series of five hardback pocket notebooks used 1953, numbered, dated and identified by inscription on front cover.
- B.366                      '1. Mafia Bagamoyo [Tanganyika]'. Used for notes January - February.
- B.367                      '2. Zanzibar Pemba'. Used for notes February - March.
- B.368                      '3. Smaller Islands Lindi Uganda'. Used March and May.
- B.369                      '4. Pemba Miscell'. Used October - December and for further notes on Mafia island September 1954.
- B.370                      '5. Madagascar'. Used September - October 1953. Paginated 1-68 (incomplete).
- B.371                      Report PEK 48 'A visit to western Madagascar' by Kent, September 1953. Retained in original binding.
- B.372-B.375              Series of four hardback pocket notebooks used 1954, dated and identified by inscription on front cover. Used for recording observations made during flights, and site notes and sketches.
- B.372                      'Tanganyika...With Arusha - Nairobi flight 30.6.54'. Used June - August.
- B.373                      'Kenya'. Used August - October.
- B.374                      'British Somaliland October...Flight over Somalia'.

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- B.375 'Kilwa Mtwala [Tanganyika]'. Used October - November.
- B.376 'Somaliland'. Contents of Kent's folder so labelled: draft of Report PEK 54 'A brief visit to British Somaliland' by Kent, November 1954, retained in original binding; ms notes; printed material *re* oilfield at Dagah Shabell, British Somaliland 1958 and 1959.
- B.377 Memos and photograph *re* bitumen extracts from Karoo sands from Madagascar, 1955.
- B.378 Hardback notebook inscribed on front cover 'Tanganyika 1957'. Used for notes and sketches during visit October. Most pages not used.
- B.379 Duplicated typescript 'Comments' by Kent on: ' "Geology of the Western Matumbi Hills, Tanganyika" by J. Spence', 29 October 1957; ' "The sediments of coastal Kenya..." by R.E. Linton and R.G. Maclean', 4 November 1957; 'The stratigraphic sequence at Zanzibar', 24 March 1958.
- B.380 Technical note PEK 5 'Earth movements in inland East Africa' by Kent, 20 March 1958. Retained in original binding.
- B.381 Hardback pocket notebook inscribed on first page 'Libya Jan-Feb 1960'. Used for notes during visit 27 January - 20 February.
- B.382 Hardback notebook inscribed on fore edge 'Fr. N. Africa'. Used during visit June 1961. Most pages not used.
- B.383-B.388 'East Africa 1962'. Contents of Kent's envelope so inscribed divided into six for ease of reference.
- B.383 Proposed programme, 18 May 1961, and 8pp duplicated typescript list of 'General objectives'; 4pp typescript notes on 'Visit of Dr. P.E. Kent - 22nd May 1962' by R.E. Linton.



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- B.384                      Material *re* 1961-65 East African drilling programme; ms notes etc.
- B.385                      Maps of Pugo area and Pemba island.
- B.386                      Maps of Tanganyika showing BP operations etc.
- B.387                      Stratigraphical columns from East African bore-holes.
- B.388                      'Part III' of draft on Tanzania by J.A. Hunt: figures sent for information, 30 September 1965.
- B.389-B.393              'Geophysical data book 1965'. Contents of Kent's folder so inscribed divided into five for ease of reference.
- B.389                      'Geophysical data book for Tanganyika, including Mafia' by M.J. Laws and R.C. Sbresni, Mombasa, January 1965, 42pp duplicated typescript + appendices.
- B.390                      Figures for preceding.
- B.391                      'Geophysical data book for Zanzibar and Pemba' by M.J. Laws, Mombasa, January 1965, 13pp duplicated typescript + appendices.
- B.392                      Figures for preceding.
- B.393                      'Appendix "C" Southern Somalia' to Geophysical data book for Kenya (not found), sent 2 March 1965, 4pp duplicated typescript; annotated BP map of Somalia, March 1968, showing oil exploration concessions with ms notes on bore-holes.
- B.394                      Softback pocket notebook inscribed on fore edge '1967 East Africa'. Most pages not used. A little loose material intercalated.

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- B.395 Letter from R. Walters to Kent, 4 August 1967, enclosing 'some of the photographs...taken on our flying visit to Kilifi and Matasade on July 22nd, together with quick tracings as an aid to memory'; ms sketches of Matasade and Dogogicha islands; ms notes.
- B.396 Ms notes on 'Tanzania AGIP Visit, 1970' and 'East Africa Geophys 18/10/70'; typescript note 'Northeast Africa: geology of the Afar triangle' by Kent, 2pp typescript, 9 January 1973.
- B.397 BP Exploration Development Co. Report 'Geology and oil prospects of the western Indian Ocean Region', by Kent, September 1973. Retained in original binding.
- B.398-B.407 Maps.
- B.398 1:4,000,000 geological map of East Africa, March 1949.  
  
1:2,000,000 geological map of East Africa, 1952.
- B.399 1:2,000,000 topographical maps of Abyssinia, June 1943, and Kenya, 1933 and 1950.
- B.400 1:1,000,000 topographical map of Dar es Salaam, 1946. Annotated by Kent.  
  
1:1,000,000 geological map of Tanganyika, March 1962.
- B.401 1:1,000,000 geological map of Mombasa - Nairobi, November 1942.  
  
1:1,000,000 topographical map of Mombasa - Nairobi, 1946. Annotated by Kent.
- B.402 1:1,000,000 topographical maps of Marsabit (Kenya) and Uganda, 1915 and 1919. The area on both maps round Lake Rudolf has been coloured in with geological information and both are annotated by Kent.



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- B.403                      1:1,000,000 aeromagnetic survey map of Kenya, May 1963.
- 1:1,000,000 map of Kenya, showing Bouguer gravity contours, basement depth contours and seismic features, nd.
- B.404                      Miscellaneous geological maps of Kenya.
- B.405                      BP maps of Mombasa.
- B.406, B.407              'Tanzania figures'. Contents of Kent's envelope so inscribed divided into two for ease of reference: maps and stratigraphical columns.

### PAPUA NEW GUINEA

Kent was posted to Papua New Guinea in 1955, first as Deputy Chief Geologist, later Chief Geologist, with the Australasian Petroleum Company, a part-owned BP subsidiary. Kent was involved in searching for signs of oil in the rain forest and the highlands of New Guinea. This met with little success despite the promising geology of the area.

- B.408-B.412              Series of five spiral bound reporters notebooks inscribed with topics and dates on front cover.
- B.408                      'Orie visit June 1955'. Used for notes 18-23 June, with map of area of survey pasted into notebook. Loose at front is copy of letter *re* arrangements for Kent's arrival and the Orie survey.
- B.409                      'Port Moresby Misc. 1955 Bwata visit 1956'. Includes notes on Pio-Purari flight 6 July 1955 and ?Baimuru to Bwata survey.
- B.410                      'Highlands visit 1956'. Used for notes 5-9 April, and for later notes on sites in England 1974.

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- B.411 'Misc. Recce flights 1957 1971'. Used for notes on flights November 1956 and January 1957, with map of area of later flight pasted into notebook, and for notes '1971 Highland Recce + [at back] Mananda with D.A.L. Jenkins 10+11 Nov'. Pasted to back cover of notebook is envelope containing two scaled squares used for calculating on a map distances covered by aircraft travelling at various speeds.
- B.412 'Melbourne visit'. Miscellaneous notes, nd.
- B.413-B.422 Australasian Petroleum Co. Reports.
- B.413-B.415 Report XG 'The stratigraphy of the Neogene rocks of Papua' by Kent and J.O. Zehnder, July 1956.
- B.413, B.414 32pp duplicated typescript + figures. 2 folders.
- B.415 Plates.
- B.416, B.417 Report XE Part II 'A review of the Mesozoic stratigraphy of Australian New Guinea' by F.K. Rickwood, August 1956.
- B.416 23pp duplicated typescript.
- B.417 Plates.
- B.418-B.420 Report LW 'Report on the Pio Purari Survey, 1955' by Kent and Rickwood, August 1956.
- B.418, B.419 46pp duplicated typescript + figures. 2 folders.
- B.420 Plates and photographs.



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- B.421 Report XH 'The stratigraphy of the older tertiary rocks (Eocene and Oligocene) of Papua' by Kent, April 1957. 21pp duplicated typescript + figures and plates. Retained in original binding.
- B.422 Report XK 'The pleistocene volcanoes of Papua' by Kent, 'Issued February 1958'. 14pp typescript + map.
- B.423 Hardback pocket notebook inscribed on first page 'Fiji 1956'. Used for notes and sketches 29 September - 6 October.
- B.424 'List of samples collected [by Kent in Fiji] Sept/October 1956'; 'Addendum to London Palaeontological Note no.171 on fifteen samples from the Fiji islands', 15 October 1964; map of Viti Levu.
- B.425 Hardback pocket notebook inscribed on first page 'Papuan Volcanoes etc...Puri 1957'. Used chiefly for sketches, some of which are pasted into the notebook.
- B.426 'Papua General maps'. Contents of Kent's folder so inscribed: list of samples from Pio-Purari survey; hand-drawn map; map of western Papua.
- B.427 'Summary of a geological history of Eastern New Guinea' by J.E. Thompson, 7pp duplicated typescript prepared for 'A.P.E.A. Conference, Sydney, March 1967' (see H.17). Annotated by Kent.

### NORTH AMERICA

- Kent was posted to Canada in 1957 as Adviser to the President of BP Exploration (Canada). In 1959 he was appointed as the first President of BP Exploration (Alaska). The material includes papers relating to BP policy in Alaska and northern Canada.
- B.428 Hardback notebook inscribed on first page '1. Athabasca (Mildred Lake) 2. Hay River 3. Spray Lake area'. Used for notes and sketches June and August 1958.

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- B.429                      Softback pocket notebook inscribed on fore edge 'NWT Canada'. Used for notes on visit to survey party 16, July 1958 and 'Visit to Canadian Arctic' 21-24 July 1958. Paginated 5-34.
- B.430                      Report on 'Visit to Mackenzie District, Northwest Territories, Canada July, 1958' by Kent. Retained in original binding.
- B.431                      Softback pocket notebook inscribed on fore edge 'NWT Canada' and on first page 'June 1959 Aklavit Visit'. Used for notes and sketches c.20-26 June. Paginated 3-85.
- B.432                      Softback pocket notebook inscribed on fore edge '1959 N. Canada 1969, 70', and on first page '1959 Visit to Monkman area 1969 Visit to Liard, Herschel Id, Inuvik and Ft Good Hope 1970 Arctic Islands visit 1971 Arctic islands reconnaissance incl. Barrow Dome + Isachsen [shot-point]'.
- B.433                      Softback pocket notebook inscribed on first page 'Arctic visit Aug. 1959'. Used for notes on visits to Arctic islands 14-21 August. Paginated 1-95. At back is index of islands visited and pasted inside back cover is map of route taken.
- B.434                      Softback pocket notebook inscribed on first page 'Alaska 1959 Reconnaissance flight, Susitna area 1964 Visit to Sadlerochit Mtns [at back] 1969 Visit to North Slope'.
- B.435                      'Arctic Gypsum Plugs'. Contents of Kent's folder so labelled: chiefly correspondence *re* analysis of gypsum samples, and paper by Kent and W.A.C. Russell 'An evaporite piercement structure in the northern Richardson Mountains', delivered at 1st International Symposium on Arctic Geology, Calgary, 11-13 January 1960. Includes draft of paper, 5pp typescript + figures, *Bibliog.* 46, 1961 (see also D.99).
- B.436                      Softback pocket notebook inscribed on fore edge 'Alaska 1960'. Used for notes on Alaska and flights over Canada June 1960.



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- B.437 'Alaska Yak[utat]'. Contents of Kent's envelope so inscribed: material *re* possible agreement with Colorado Oil and Gas *re* collaboration in Yakutat Development Contract, 1960, including papers for 10th meeting of Board of Directors of BP Exploration (Alaska) Inc., 20 October.
- B.438 'Gulf of Alaska'. Contents of Kent's envelope so inscribed: BP Exploration (Alaska) maps of southern Alaska, 1961, 1962.
- B.439 Contents of Kent's envelope: ms 'Notes on Kern [California] - St Helens Sept 1961'; ms itineraries: 'San Francisco & Calgary 1962', 'Los Angeles Houston New Orleans Mar/Ap 1963', 'Calgary & Edmonton Oct/Nov 1963', 'N-Y, Pittsburg, Toronto, Calgary May 1964', '1965 Trinidad and US', 'Visit to NY, St Louis, LA 1966', 'Visit to Calgary & Australia Feb/March 1967'.
- B.440 Miscellaneous ms notes on Canadian and US oil matters November 1963, July 1964, November 1965 and February 1967.
- B.441 'Alaska 1966 1968 1972'. Contents of Kent's envelope so inscribed: notes *re* BP policy May 1966, November 1968, May 1972 and nd.
- B.442 'International Symposium on the Devonian System. Guidebook for Canadian Cordillera Field Trip Sept. 1-3, 1967' by P.A. Ziegler, 81pp duplicated typescript.
- B.443 Flight notes for visit to Yukon and Northwest Territories 9-10 April 1969 by M.C. Pick, 12pp duplicated typescript + figures.
- B.444 Contents of Kent's envelope: ms notes on visit to Canada and Alaska 1969.
- B.445 'Alaska'. Contents of Kent's folder so labelled: material *re* Prudhoe Bay operations. Includes BP press-releases, September - October 1969; article from *World Petroleum* September 1969 *re* conditions at Prudhoe; 5pp typescript of presentation by BP to Geological Society on 'Alaskan Exploration and the development of the Prudhoe Bay Oilfield', December 1970.

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- B.446                      January 1970 issue of *BP Shield* devoted to Alaska. Article by Kent 'Entry into Alaska' is at pp.5-9 (*Bibliog.* 75).
- B.447                      'Canadian Minerals 1970 1971 1972'. Contents of Kent's envelope so inscribed: ms notes *re* activities of Canadian Minerals (?subsidiary of BP Minerals) chiefly uranium.
- B.448                      'The status of Arctic Islands exploration' by Kent, 6pp typescript, 30 July 1971.
- 'Exploring Canada's Arctic Islands' by Kent, 7pp typescript, 3 August 1971.
- B.449                      Contents of Kent's folder: material *re* graptolites from Twilight Creek, Bathurst Island, Canada, collected by Kent, 1971.
- B.450                      'Canada 1971 etc'. Contents of Kent's envelope so inscribed: ms notes on Canadian oil matters various dates 1968-71.
- B.451                      'Canada Jan 1972'. Contents of Kent's envelope so inscribed: ms notes on Canadian oil matters.
- B.452                      Softback notebook inscribed on first page 'Canada 1975': ms notes during visit to Canada May 1972. Includes notes on briefing by BP Canada, University of Calgary Extension course and visit to Geological Survey of Canada.
- B.453                      September 1975 issue of *BP Shield International* devoted to Alaska.
- B.454-B.456               'Arctic Islands - maps'. Contents of Kent's folder so inscribed divided into three for ease of reference.



**Research and surveys**

B.454 'Bathymetric chart of Arctic Ocean as of 1956 (approx.) compiled from Soviet sources'.

Canadian Southern Petroleum Ltd map of Arctic islands showing distribution of drilling concessions.

B.455, B.456 Geological Survey of Canada 1:506,880 maps of Arctic islands. 2 folders.

**GULF STATES**

**Kuwait**

B.457 'Kuwait Oil Company Limited Geological Summary: May 1961'. Annotated by Kent. Loose material found at end of report is at B.458.

B.458 Loose material found at end of B.457: letter from P.T. Cox, Managing Director BP Exploration, *re* exploration programme in Kuwait, 26 May 1961; ms notes; maps.

B.459, B.460 'Kuwait notes 1968 etc'. Contents of Kent's envelope so inscribed divided into two for ease of reference: chiefly material *re* visits to Kuwait, 1968, 1970

B.459 Ms notes on 'Geological History of Kuwait', February 1968; map of oil field development in Kuwait area, 1968; etc.

B.460 Programme for and ms notes on visit to Kuwait March 1970; 'Kuwait', 3pp typescript draft 8 June 1971; 'Deep structure of Burgan and Ahmadi' by Kent, 3pp typescript, 20 November 1972.

B.461-B.463 'Kuwait'. Contents of Kent's folder so inscribed divided into three for ease of reference.

B.461 Programme for and ms notes on visit to Kuwait January - February 1973, correspondence and memos arising.

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- B.462, B.463            Material *re* visit to Kuwait, February 1976. 2 folders.
- Kent visited Kuwait as a Consultant to Kuwait Oil Co. to advise on deep exploration of the Burgan dome.
- Oman**
- B.464                    Softback pocket notebook inscribed on first page 'Visit to Oman November 1970'. Used for notes and sketches during visit.
- B.465-B.467            'Oman'. Contents of Kent's folder so inscribed divided into three for ease of reference.
- B.465                    Programme for visit to Oman, November 1970; correspondence 1970, 1972, 1977, nd.
- B.466                    List of Kent's samples from Oman; ms sketches and maps; 'Oman Mountain Geology - Comments by K.W. Glennie...on some aspects raised by Dr Kent', 4 February 1971.
- B.467                    Miscellaneous background information. Includes 'Low-grade metamorphic tuffs, rhyolites, porphyrites, and marbles from Qarn Sahma Salt Dome, Oman [collected] By F.J. Fitch', 5 September 1955.
- B.468                    BP report 'Structure of Oman' by Kent, February 1971. Retained in original binding.
- B.469                    Report 'A reconnaissance of salt plugs in Oman' by Kent, November 1972. Retained in original binding.



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OTHER AREAS AND MISCELLANEOUS

This material is principally brief ms notes from filofax style notebooks on areas visited for a few days, or in some cases just flown over. Arranged in a chronological sequence.

- B.470 University College Nottingham hardback notebook used from the front for miscellaneous notes c.1940s, and from the back for records of distribution of off-prints on British and African geology from 1941 (*Bibliog.* 10) to 1958 (*Bibliog.* 43). Pages at front have been cut from the notebook.
- Much loose intercalated material dating from 1937 to 1958.
- B.471, B.472 Hardback notebooks used for notes on visit to Australia and New Zealand 1962.
- B.471 New Zealand, February. A little loose material at back of notebook.
- B.472 Australia, February-March. At back is draft by Kent on 'Papua: Visit of Prof S.W. Carey + G.A.V. Stanley to the Purari area'.
- B.473 Contents of 'Filofax'-style loose-leaf pocket notebook: ms notes 1962. Arranged alphabetically from 'Alaska' to 'UK'. The entries are in diary form and principally cover the period April - August.
- Ms notes on Colombia, 8 April 1963.
- B.474 Ms notes during visit to Trinidad 1965.
- Ms notes 1968. Headings include 'Berlin' and 'Germany - Misc'.
- B.475 Softback pocket notebook inscribed on fore edge 'Italy Bulgaria'. Used for notes and sketches during visits to Italy October 1968 and September 1969, and Bulgaria September 1971.

**Research and surveys**

- B.476                      Softback pocket notebook inscribed on fore edge 'S. Germany    France'. Used for notes and sketches during visits to Germany September 1970, and France 17-20 April 1972.
- B.477                      'Port Moresby - Melbourne - Perth 1971'. Contents of Kent's envelope so inscribed: ms notes.
- B.478                      Ms notes during visit flight over East Asia, 21 July 1971. Headings include: 'Thailand', 'Burmah', 'India', 'W. Pakistan/Afghanistan'.
- B.479                      'Filofax'-style loose-leaf pocket notebook containing notes during visits c.1972-73. Headings include: 'Arctic Inst', 'BOC Perth', 'BP New Zealand' etc. At back is pocket containing miscellaneous memorabilia.
- B.480                      Contents of 'Filofax'-style loose-leaf pocket notebook: ms notes 1973. Includes notes on visit to Iran December, Nature Conservancy meeting, 12 September and Natural Environment Research Council business.
- B.481                      Ms and typescript notes from visit to Thailand and Far East, March 1973.
- B.482                      Stratigraphical columns from Hudebay Oil (Australia) Ltd, 1981.
- B.483                      Softback pocket notebook inscribed on fore edge 'North Atlantic'. Principally used for notes on symposium on the International Programme of Ocean Drilling, Geological Society, May 1981. Most pages not used.
- B.484                      Softback pocket notebook inscribed on front cover 'Greece'. Used for notes and sketches, nd. Most pages not used.
- B.485                      Miscellaneous undated ms notes.



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ENERGY ISSUES

General

- B.486-B.489 'Energy and Reserves'. Contents of Kent's envelope so inscribed divided into four for ease of reference: press-cuttings, photocopied information etc *re* energy reserves 1972-74.
- B.486 1972. Typescript drafts of Kent's comments on 'The Limits to Growth' report of the Club of Rome; incomplete copy of *Times Higher Educational Supplement*, 31 March, featuring 'The Limits to Growth'. Kent's comments are on p.11.
- B.487 1973(1). Extract from Hansard, House of Lords debate on energy policy and world supplies, 28 February.
- B.488 1973(2). Includes report from *Nature* on Royal Society meeting on Energy in the 1980s organised by Kent. See H.69.
- B.489 1974.
- B.490, B.491 'Energy'. Contents of Kent's envelope so inscribed divided into two for ease of reference: miscellaneous information on energy reserves 1977-80.
- B.490 1977. Text of speech by Tom King MP, Opposition spokesman on energy, 5 November. Annotated by Kent 'mostly quite sensible...'
- B.491 1977-80.

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Coal

- B.492-B.495 'Underground Coal Gasification + N.C.B. [National Coal Board] general'. Contents of Kent's folder so labelled divided into four for ease of reference.
- B.492 'Underground Gasification of Coal' by Kent, 5pp typescript, 1973, sent to NCB Mining Department recommending NCB/BP collaboration, November 1973, with brief correspondence arising; press-cuttings.
- B.493 'Coal reserves and resources, with particular reference to those in Britain' by A.M. Clarke, Chief Geologist of NCB, 23pp duplicated typescript draft, 1977.
- B.494 'A note on the new concept of national reserves...' by A.M. Clarke, 32p duplicated typescript + summary etc, sent to Kent 15 May 1981 with covering letter chiefly *re* the Flowers Commission on Energy and the Environment.
- B.495 Article on gasification from the *New Scientist*, 18 February 1982; 'Economically recoverable coal reserves' by A.M. Clarke, 9pp duplicated typescript, November 1983, with covering letter to R.J. Price *re* conclusions; Letters to *The Times* by Sir Kingsley Dunham ('Keeping coal for the future') and Kent ('Conserving coal stocks') 22 June and 5 July 1984. See also D.97.
- B.496-B.498 Correspondence and papers *re* NCB proposal to develop Vale of Belvoir coalfield 1976-82.
- B.496 Correspondence *re* NCB proposals 1976-78.
- B.497 Ms notes on NCB investigations of sites 1974; press-cuttings 1976 and 1982.
- B.498 Stratigraphical columns of shafts in Vale of Belvoir; maps.
- B.499, B.500 'Coal reports'. Contents of Kent's envelope so inscribed divided into two for ease of reference. Papers *re* the Coal Study Paper of the Flowers Commission.



### Research and surveys

- B.499 'Coal reports 1979-1980': copies of submissions to the Commission.
- B.500 Chart of 'Measuring performance in the management of national coal resources' drawn by A.M. Clarke; letter from Kent to P.T. Warren, Deputy Executive Secretary of Royal Society, *re* Royal Society's *ad hoc* group on the coal study paper, January 1979.

### Oil shales

In September 1973 Kent wrote to the Institute of Geological Sciences suggesting there was 'a strong case for assessing the available reserves [of oil shales] in U.K. to enable the Government to review policy on this long-term hydrocarbon reserve'. The IGS began a survey of UK oil shales in conjunction with the Department of Energy. Its report was released in 1981.

- B.501 Correspondence *re* possible IGS investigation of oil shales 1973. Also includes photocopy of minutes of informal meeting on Kimmeridge shale at the Ministry of Supply, London, 6 October 1947.
- B.502 Correspondence and papers *re* oil shales 1974-75, 1981. Includes typescript notes by Kent 'UK oil shale investigation', 2pp and 'UK oil shales prospects: Yorkshire, Lincolnshire, and Norfolk: Kimmeridgian shales', 4pp, with extensive ms correction.
- B.503 IGS reports on oil shales in England and Scotland sent to Kent for information

### Other energy resources

- B.504 Press-cuttings on nuclear energy, 1974, 1977-79; 'Social responsibility and the Atom' by Kent, 2pp typescript draft, 10 March 1978, responding to British Council of Churches decision to oppose reprocessing at Windscale.
- B.505 'Geothermal'. Contents of Kent's envelope so inscribed: proof copy of 'Geothermal energy. Review of *Geothermal energy - Resources, production, stimulation...*' by Kent (*Bibliog.* 96, 1975); material *re* Italian geothermal energy development.



SECTION C

DEEP SEA DRILLING PROJECT

C.1-C.121

The Deep Sea Drilling Project (DSDP) began in August 1968 as an 18 month project drilling off the eastern coast of Florida. The success of this first phase led to 30 and 36 month extensions and widening of the geographical scope. During the period 1968-75 the Project concentrated on making an extensive reconnaissance of the sedimentology of the ocean floor.

The Project had been financed by the US National Science Foundation and operated by Scripps Institution of Oceanography, for a consortium of universities called the Joint Oceanographic Institutions for Deep Earth Sampling (JOIDES). In 1973 with the end of the reconnaissance drilling in sight it was proposed the DSDP be internationalised and in the autumn of 1975 the UK, France, West Germany, the USSR and Japan joined the Project in the International Phase of Ocean Drilling (IPOD). The lead agency in the UK was the Natural Environment Research Council, of which Kent was Chairman. The IPOD was to drill fewer boreholes but to greater depths than previously feasible.

The IPOD ended in November 1983 after 15 years when its drilling ship the D/V *Glomar Challenger* required an overhaul. A successor 10 year programme was put forward by JOIDES, the Advanced Ocean Drilling Project (AODP, later just ODP). The UK was involved in the planning stage of AODP and, after some difficulty raising the requisite funds, joined the Project in December 1985.

The DSDP was considered to be a highly successful enterprise. Among its practical results was the discovery of oil in the Gulf of Mexico at a depth of 12,000 feet, and its findings have been used to support the theory of continental drift. In a letter of 31 January 1984 (C.47) J.C. Bowman wrote to Kent describing the project as 'remarkably successful in exploring the geology of the ocean floor, both in terms of the basic knowledge gained and its application in other fields such as mineral and hydrocarbon exploration'.

In addition to his service on the Executive Committee of JOIDES, 1975-81, and on the UK IPOD Co-ordinating Committee, Kent played an active part in the research. He reviewed the results of Leg 25 of the DSDP, which surveyed the western Indian Ocean, particularly the area around Madagascar and contributed a chapter to *Initial Reports of the Deep Sea Drilling Project* (Bibliog. 91, 1974).



### Deep Sea Drilling Project

The material is presented as follows:

C.1-C.5	ESTABLISHMENT OF IPOD
C.6-C.56	JOIDES EXECUTIVE COMMITTEE
C.57-C.82	UK IPOD CO-ORDINATING COMMITTEE
C.83-C.116	LEG REPORTS, SITE SUMMARIES ETC
C.117-C.121	LEG 25

## Deep Sea Drilling Project

### ESTABLISHMENT OF IPOD

Kent was very keen that the UK should participate in IPOD. His advice was sought by the JOIDES Planning Committee Working Group on Oceanic Margins while preparing its proposal for IPOD to drill in continental margins to test the plate tectonics theory.

- C.1 'Global Ocean Research'. Report of a joint working party on the scientific aspects of international ocean research, 1 June 1969.
- C.2-C.4 Papers *re* JOIDES Planning Committee Working Group on Oceanic Margins, 1973.
- C.2 Invitation to contribute, 16 March, with note on 'Proposed research programs of IPOD'; copy of Kent's contribution, 2pp typescript, 3 April.
- C.3 Working Group papers sent to contributors, 23 April.
- C.4 'Draft Scientific Narrative for an International Program of Ocean Drilling', sent to Kent 20 July. Retained in original binding.
- C.5 'Deep Sea Drilling Project' by Kent, 2pp typescript note sent to W. Reed, Advisory Board for the Research Councils, setting out the technological case for UK involvement in IPOD, 19 April 1973; letter *re* IPOD from G.V. Wood, 17 May 1973; background information.

### JOIDES EXECUTIVE COMMITTEE

Kent was UK delegate on the JOIDES Executive Committee 1975-81. He was succeeded by J.C. Bowman.

Correspondence and papers principally *re* meetings of Executive Committee 1978-84. Also includes papers of JOIDES Planning Committee, Panels and Working Groups, and general documents *re* DSDP activities. Much of the  
/...



### Deep Sea Drilling Project

/... material is concerned with proposals and planning *re* the projected AODP.

C.6	1978 June (1)	C.32	1981 December (1)
C.7	1978 June (2)	C.33	1981 December (2)
C.8	1978 December	C.34	1982 April
C.9	1979 January	C.35	1982 May
C.10	1979 April	C.36	1982 August
C.11	1979 May	C.37	1982 September (1)
C.12	1979 July	C.38	1982 September (2)
C.13	1979 August (1)	C.39	1982 September-November
C.14	1979 August (2)	C.40	1983 January, April
C.15	1979 October	C.41	1983 January
C.16	1979 November	C.42	1983 June
C.17	1979 December	C.43	1983 July
C.18	1980 February	C.44	1983 August, September
C.19	1980 March (1)	C.45	1983 September
C.20	1980 March (2)	C.46	1983 November
C.21	1980 July	C.47	1984 January
C.22	1980 August	C.48	1984 February-March
C.23	1980 September, October	C.49	1984 March-April
C.24	1980 November (1)	C.50	1984 June (1)
C.25	1980 November (2)	C.51	1984 June (2)
C.26	1981 March, April	C.52	1984 June-July
C.27	1981 June	C.53	1984 September (1)
C.28	1981 August (1)	C.54	1984 September (2)
C.29	1981 August (2)	C.55	1984 October
C.30	1981 November (1)	C.56	1985, nd
C.31	1981 November (2)		

## Deep Sea Drilling Project

### UK IPOD CO-ORDINATING COMMITTEE

The terms of reference of this Committee were defined in a paper presented to its seventh meeting on 2 December 1983 (C.69) as to coordinate UK policy on the IPOD programme and the JOIDES planning structure, to ensure adequate consultation between scientific and technological interests and between academic, industrial and government organisations participating in IPOD, to secure a proper balance between scientific and technological interests in IPOD, to appoint, or nominate, and brief delegates to JOIDES Committees, and to appoint such sub-Committees as are necessary and to receive reports from them. Kent was Chairman of the Committee for the period 1975-82, being succeeded by M.G. Audley-Charles. He served thereafter as Royal Society representative.

Papers *re* meetings of Co-ordinating Committee from 1978, including many papers from JOIDES Committees and Panels circulated to the Committee.

The papers 1984-85 chiefly relate to British participation (or non-participation) in the AODP. It includes a paper by Kent on 'Deep Sea Drilling Results - Industrial Applications', presented to a meeting held to discuss UK participation in the ODP on 2 March 1984 (C.70).

C.57	1978-79	C.70	1984 March (1)
C.58	1980 July (1)	C.71	1984 March (2)
C.59	1980 July (2)	C.72	1984 March (3)
C.60	1980 July (3)	C.73	1984 March (4)
C.61	1980 August	C.74	1984 March-August
C.62	1980 November	C.75	1984 November-December
C.63	1981 February, May	C.76	1985
C.64	1981 November	C.77	1986 January
C.65	1982 April, June	C.78	1986 February
C.66	1982 November	C.79	1986 March-April
C.67	1983 February, June	C.80	1986 March
C.68	1983 December (1)	C.81	1986 May, June
C.69	1983 December (2)		



## Deep Sea Drilling Project

### LEG REPORTS, SITE SUMMARIES ETC

Papers reporting on progress of DSDP investigations carried out from the drill-ships *D/V Glomar Challenger* 1970-83 and the *JOIDES Resolution* 1985-86.

The material is presented in chronological order 1970-86. It comprises scientific summaries and operation resumés, press-releases, and site summaries of Legs 13-110 (not a complete sequence) of the DSDP sent to the JOIDES Executive and Planning Committees and to the UK IPOD Co-ordinating Committee.

- |      |  |
|------|--|
| C.83 | Legs 13 (Mediterranean Sea, 1970), 15 (Caribbean Sea, 1970-71), 16 and 17 (Pacific Ocean, 1971).                         |
| C.84 | Legs 19 (northern Pacific Ocean and Bering Sea, 1971), 20 (Pacific Ocean, 1971), 21 (Coral Sea and Tasman Sea, 1971-72). |
| C.85 | Legs 22, 1972 (Indian Ocean, 1972), 23 (Arabian Sea and Red Sea, 1972).  |
| C.86 | Legs 24, 26 (Indian Ocean, 1972).<br><br>For Leg 25 see C.117-C.121.   |
| C.87 | Legs 27 (eastern Indian Ocean, 1972), 28 (Antarctic, 1972-73).   |
| C.88 | Leg 48 (northern Atlantic Ocean, 1976).  |
| C.89 | Leg 69 (Caribbean Sea, 1979).  |
| C.90 | Legs 70 (southern Pacific Ocean, 1979), 71 (southern Atlantic Ocean, 1980).  |
| C.91 | Legs 72 (northern Atlantic Ocean, 1980), 73 (southern Atlantic Ocean, 1980).   |

**Deep Sea Drilling Project**

- C.92    Legs 74, 75 (southern Atlantic Ocean, 1980).
- C.93    Legs 76 (northern Atlantic Ocean, 1980), 77 (Gulf of Mexico, 1980-81), 78A (Caribbean Sea, 1981).
- C.94    Legs 79, 81 (northern Atlantic Ocean, 1981).
- C.95    Legs 82 (northern Atlantic Ocean, 1981), 83 (eastern Pacific Ocean, 1981-82).
- C.96    Leg 84 (eastern Pacific Ocean, 1982).
- C.97    Leg 85 (northern Pacific Ocean, 1982).
- C.98    Legs 86 (northern Pacific Ocean, 1982), 87 (Sea of Japan, 1982), 88 (northern Pacific Ocean).
- C.99    Leg 89 (western Pacific Ocean, 1982).
- C.100    Leg 90 (western Pacific Ocean, 1982-83).
- C.101    Leg 91 (southern Pacific Ocean, 1983).
- C.102    Leg 92 (Pacific Ocean, 1983).
- C.103    Leg 93 (northern Atlantic Ocean, 1983).
- C.104    Leg 94 (northern Atlantic Ocean, 1983).



**Deep Sea Drilling Project**

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|--------------|--|
| C.105        | Leg 95 (northern Atlantic Ocean, 1983).                              |
| C.106        | Leg 96 (northern Atlantic Ocean, 1983).                              |
| C.107        | Leg 101 (Gulf of Mexico, 1985).                                      |
| C.108        | Legs 103 (northern Atlantic Ocean, 1985), 104 (Norwegian Sea, 1985). |
| C.109        | Leg 105 (Baffin Bay and Labrador Sea, 1985).                         |
| C.110        | Leg 106 (Atlantic Ocean, 1985).                                      |
| C.111, C.112 | Leg 107 (Tyrrhenian Sea, 1985-86). 2 folders.                        |
| C.113, C.114 | Leg 108 (Atlantic Ocean, 1986). 2 folders.                           |
| C.115        | Leg 109 (Atlantic Ocean, 1986).                                      |
| C.116        | Leg 110 (Caribbean Sea, 1986).                                       |

**LEG 25**

Leg 25 of the DSDP surveyed the western Indian Ocean, particularly the area around Madagascar. Kent was asked by JOIDES to review the results and contribute a chapter on 'Leg 25 results in relation to East African coastal stratigraphy' to volume 25 of *Initial Reports of the Deep Sea Drilling Project* (Bibliog. 91, 1974).

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|-------|---|
| C.117 | Correspondence re Leg 25 and Kent's contribution, January - May 1973. |
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**Deep Sea Drilling Project**

- C.118 Correspondence *re* Leg 25 and Kent's chapter, June 1973 - January 1974.
- C.119 Draft of Kent's chapter, 15pp typescript + figures, with ms correction.
- C.120, C.121 'Hole Summaries': summary of scientific results of Leg 25 in two volumes. Retained in original binding.
- C.120 'Book 1'.
- C.121 'Book 2'.



SECTION D

PUBLICATIONS AND LECTURES

D.1-D.135

D.1-D.97 PUBLICATIONS

D.1-D.80 Drafts

D.81-D.93 Editorial correspondence

D.94-D.97 Letters to *The Times*

D.98-D.133 LECTURES

D.134 BROADCAST

D.135 REPRINTS

Publications and lectures

PUBLICATIONS

Drafts

A chronological sequence of material relating to publications, or to the intention to publish. Where applicable reference has been made to the Bibliography in the Royal Society memoir of Kent (A.1) in the form *Bibliog...*

- D.1 'Intra Jurassic movements in North Northamptonshire'. Dated '10/36' but not listed in *Bibliog*.

3pp typescript.

- D.2 'On the Serengeti plains of Tanganyika'. Not listed in *Bibliog.*, latest bibliographical reference 1936.

This is an account of Kent's journey from Kenya to the Serengeti with the 1934-35 East African Archaeological Expedition (see A.53-A.102).

9pp typescript with ms corrections and additions. It is drafted on the verso of typescript notes of the geology of sites visited by the expedition.

- D.3 'The lower Lias of South Nottinghamshire', *Bibliog.* 2, 1937.

Letter only.

'A borehole at Foston (Lincolnshire)', *Bibliog.* 4, 1938.

2pp ms.

- D.4 'Note on a borehole at Kettleby, near Brigg', *Bibliog.* 8, 1939.

3pp typescript.

'Note on faulting south east of Nottingham'. Dated 27 November 1939 but not listed in *Bibliog*.

3pp typescript + figure.



Publications and lectures

- D.5 'Note on the age of the uppermost Kimmeridge Clay of north Lincolnshire', *Bibliog.* 9, 1940.  
3pp typescript.  
  
'A short outline of the stratigraphy of the Lincolnshire Limestone', *Bibliog.* 11, 1941.  
8pp typescript.
- D.6 'The Pleistocene beds of Kanam and Kanjera, Kavirondo, Kenya'. *Bibliog.* 14, 1942.  
19pp typescript + figures.
- D.7 'The country round the Kavirondo Gulf of Victoria Nyanza'. *Bibliog.* 15, 1942.  
18pp typescript + references and ms list of plates; 16pp typescript ?earlier draft 'Physiographical features of the Kavirondo Gulf of Lake Victoria, Kenya'.
- D.8 'Pleistocene climates in Kenya and Abyssinia', *Bibliog.* 16, 1942.  
5pp typescript, with covering letter from Kent to his Commanding Officer at RAF Medmenham, 19 May 1942, requesting permission for its publication.
- D.9 'Upper Rhaetic beds in North Lincolnshire', *Bibliog.* 17, 1943.  
2pp typescript.  
  
Book review of *South African Scenery. A text book of geomorphology* by L.C. King (Oliver & Boyd 1942), by Kent, 1943.  
3pp typescript.
- D.10 'The age and tectonic relationships of East African volcanic rocks', *Bibliog.* 18, 1944.  
13pp typescript + table and figure.

Publications and lectures

- D.11 'Glacially transported Inferior Oolite at Hougham', *Bibliog.* 21, 1944.  
1p typescript.  
  
'Tangential and vertical forces in the Earth's crust'. Dated 14 August 1946 but not listed in *Bibliog.* Review of the geophysical theories of P. Fourmarier.  
2pp typescript.
- D.12 'The Carr Lane borehole, Hibaldstow', *Bibliog.* 28, 1948.  
3pp duplicated typescript + figure.
- D.13 'A structure contour map of the surface of the buried pre-Permian rocks of England and Wales', *Bibliog.* 29, 1949.  
  
Draft summary; 3 typescript pages of the draft with ms corrections; comments by N.L. Falcon and L. Richardson 1947.
- D.14 'Shallow borings in the Jurassic rocks near Hibaldstow, North Lincolnshire', *Bibliog.* 35, 1953.  
4pp typescript with ms correction + figure.
- D.15 'Jurassic and Cretaceous rocks of the Bagamoyo district'. Not listed in *Bibliog.*, latest reference 1954.  
6pp typescript + diary of traverses, lists of samples and palaeontological reports.
- D.16-D.18 'The structural history of South Nottinghamshire'. Dated March 1955 but not published.  
  
Bears typescript note 'Draft of paper, written 1951 revised 1955, intended for eventual publication' and ms annotation 'Copied to NCB January 1975'.
- D.16 11pp typescript + plate.
- D.17 Figures.



Publications and lectures

- D.18 '1st Draft', 8pp typescript + ms list of figures.
- D.19 'A Kimmeridge sandstone in North Lincolnshire' (with R. Casey), *Bibliog.* 48, 1963.  
13pp typescript + figure, with covering letters; ?earlier draft, 7pp typescript.
- D.20 'The basal Lias near Long Bennington'. Dated 18 June 1964 and intended for publication in *Transactions of the Lincolnshire Naturalists' Union* but not listed in *Bibliog.*  
3pp typescript; letter to Kent from editor, 1 December 1964.
- D.21, D.22 'The transport mechanism in catastrophic rock falls', *Bibliog.* 51, 1966.
- D.21 9pp typescript + references; 7pp typescript earlier draft.
- D.22 Brief editorial correspondence; background information on landslides.
- D.23, D.24 'A review of the correlation of the Lincolnshire Limestone', *Bibliog.* 56, 1966.
- D.23 'Final draft' 16pp typescript + references.
- D.24 Correspondence with L. Richardson and P.C. Sylvester-Bradley *re* the paper, 1966; 'Third draft', 10pp typescript.
- D.25 Book review of C.A. Burk, *Geology of the Alaska peninsula - island arc and continental margin*, (with A.P. Terris). This review was submitted to the *Geological Magazine* 2 January 1967 but not listed in *Bibliog.*  
3pp typescript; request to review.  
  
Book review of E.G. Poole *et al*, *Geology of the country around Nantwich and Whitchurch*. *Bibliog.* 58, 1967. This review was submitted to the *Geological Magazine* 20 February 1967.  
2pp typescript; brief editorial correspondence and correspondence arising.

Publications and lectures

- D.26                    'Sections through the Great Oolite series near Spital'. Dated 18 May 1967 and intended for publication in *Transactions of the Lincolnshire Naturalists' Union* but replaced by 'Fossiliferous Dogger in North Lincolnshire', *Bibliog.* 68, 1968 (see D.31).
- 1p typescript + references; covering letter.
- 'A contour map of the pre-Carboniferous surface in the North-East Midlands', *Bibliog.* 64, 1967.
- '1st Draft', 5pp typescript with ms corrections + 'Tentative contour map...'
- D.27-D.30            'The buried floor of eastern England', *Bibliog.* 66, 1968.
- D.27                    12pp typescript + references; 3pp appendix 'The Lower Carboniferous at Grace Dieu, Leicestershire'.
- D.28                    'First draft' of 'The buried floor...' dated 2 January 1962', 8p typescript with extensive ms correction; 4pp ms draft of appendix.
- D.29, D.30            Miscellaneous figures found with preceding. 2 folders.
- D.31                    'The Jurassic-Cretaceous junction at Elsham' (with F.C. Dilley), *Bibliog.* 67, 1968.
- Letter covering galley proofs (not found).
- 'Fossiliferous Dogger in North Lincolnshire', *Bibliog.* 68, 1968.
- 2pp typescript; editorial correspondence.
- 'Dating of the North Atlantic opening'. Dated 8 July 1969 and probably intended for publication in *Quarterly Journal of the Geological Society* but not listed in *Bibliog.*
- 2pp typescript.



Publications and lectures

- D.32, D.33      'The salt plugs of the Persian Gulf Region', *Bibliog.* 77, 1970.
- This was a revised and extended version of his Bennett lecture to Leicester University, January 1970 (see D.111).
- D.32      32pp typescript + references.
- D.33      Correspondence with P.C. Sylvester-Bradley, including his Preface to Kent's paper.
- D.34      'Exploring Canada's Arctic islands'. Dated 3 August 1971. Not listed in *Bibliog.* but annotated 'BP Magazine' and possibly early draft of *Bibliog.* 79, 1971.
- 7pp typescript.
- D.35      'The Mesozoic history of the east coast of Africa', *Bibliog.* 81, 1972.
- 4pp typescript; miscellaneous figures.
- D.36      'The Lias at Old Dalby, Leicestershire', *Bibliog.* 88, 1973.
- 5pp typescript + references and captions for figures; background information including note by Kent 'Temporary exposures near Old Dalby, Leicestershire' dated 27 May 1965.
- D.37      'The world's future oil reserves - the problem of discovery'. Dated 1973. Not listed in *Bibliog.* but intended for publication in 'BP Shield'.
- 6pp typescript.
- D.38      'Structural history', *Bibliog.* 90, 1974. This was chapter 2 of D.H. Rayner and J.E. Hemingway (eds), *The geology and mineral resources of Yorkshire*.
- Comments on Kent's draft from Rayner; references; miscellaneous figures.

Publications and lectures

- D.39                    'The contribution of industry to knowledge of ocean margins', *Bibliog.* 94, 1974.
- 19pp typescript proof + references and captions for figures; brief editorial correspondence.
- D.40                    'Continental margin of East Africa - region of vertical movements', *Bibliog.* 95, 1974.
- Editorial correspondence only.
- 'Middle Jurassic nomenclature in eastern England: the "Upper Estuarine beds" ', written for *Mercian Geologist* but annotated 'Not submitted or used', latest bibliographical reference 1975.
- 2pp typescript + references.
- D.41                    'The Madagascar controversy still lives' (with D.H. Tarling), *Bibliog.* 104, 1976.
- 4pp typescript + references and figures (titled 'Madagascar controversy still very much alive'); letter from co-author; ms notes; miscellaneous background information.
- D.42                    'Hydrocarbons in Cleveland - an early proposal by P.F. Kendall', *Bibliog.* 108, 1976.
- 6pp typescript; proof with ms corrections; draft of letter to editor *re* correction of mistakes in Kendall's original note reproduced in this paper.
- D.43                    Request to Kent to write introduction for J. Brooks' book *Carbonisation and coalification of sedimentary organic matter*, with brief correspondence arising. 1976-78.
- 'The structure of Mesozoic basins in southern England'. Drafted as Letter to Geological Magazine, April 1977, but not listed in *Bibliog.*
- 1p typescript; earlier draft sent to N.L. Falcon for comment.



Publications and lectures

- D.44, D.45      'The emergent Hormuz salt plugs of southern Iran', *Bibliog.* 121, 1979. See also B.281.
- D.44              Ms drafts of sections of the paper.
- D.45              Brief correspondence; photographs for plates.
- D.46              'Tectonics of the northwest European continental shelf', *Bibliog.* 122, 1980.  
8pp typescript.
- D.47-D.60        *Eastern England from the Tees to the Wash*, *Bibliog.* 123, 1980.
- D.47-D.50        Final draft, 129pp typescript + preface, tables etc. 4 folders.
- D.51-D.53        Typescript chapters of '2nd Draft'. 3 folders.
- D.54-D.56        Correspondence with Institute of Geological Sciences, contributors and others, 1973-77, 1981.
- D.54    1973-75                                  D.56    1977, 1981
- D.55    1976
- D.57              Miscellaneous figures, tables etc.
- D.58-D.60        Photographs. Some used in the volume. 3 folders.
- D.61              *Minerals from the Marine Environment*, *Bibliog.* 125, 1980.  
Editorial correspondence; reviews; miscellaneous ms notes.

Publications and lectures

- D.62 'Subsidence and uplift in East Yorkshire and Lincolnshire: a double inversion', *Bibliog.* 129, 1980.
- 'Penultimate' draft entitled 'Epeirogenic subsidence and inversion in East Yorkshire and Lincolnshire', 11pp typescript with extensive ms correction and annotation; editorial correspondence.
- D.63, D.64 'The structural and tectonic environment of Permian and Mesozoic igneous rocks', *Bibliog.* 133, 1982.
- D.63 'Final copy', 13pp typescript + reference; 'Draft II', 11pp typescript with extensive ms correction.
- D.64 Editorial correspondence 1976-82.
- D.65, D.66 'The Somali ocean basin and the continental shelf of East Africa', *Bibliog.* 134, 1982.
- D.65 'Final Draft', 14pp typescript with ms corrections.
- D.66 Editorial correspondence 1977-82.
- D.67-D.71 'Montague Mattinson Pennell', *Bibliog.* 136, 1982.
- D.67 Proof, 36pp typescript with ms correction.
- D.68 'Copy vetted by BP Legal Dept', 33pp typescript with ms correction and annotation (not all in Kent's hand).
- D.69, D.70 Ms and typescript drafts of parts of the memoir. 2 folders.
- D.71 Correspondence, principally with Pennell's family and colleagues; ms notes and other biographical material.



Publications and lectures

- D.72                      'The origin of North Sea pockmarks'. Written 1983 but not listed in *Bibliog.*
- This arose from a Royal Society Discussion Meeting at which T. Gold's controversial views on the origin of hydrocarbons were considered. See also E.179-E.188.
- 4pp ms and typescript draft with extensive ms correction; correspondence *re* pockmarks, including comments on Kent's paper.
- D.73                      Preface to *Geophysical Logs in British stratigraphy*, *Bibliog.* 140, 1985.
- 2pp typescript; brief editorial correspondence.
- D.74                      Foreword to R.C. Cooke and R.C. Nesbit, *Target: Hitler's oil*, *Bibliog.* 141, 1985.
- 2pp typescript and 4pp ms drafts; correspondence from author.
- D.75, D.76              'D.C. Ion'. 1985. Not listed in *Bibliog.*
- Kent wrote obituaries of Ion for the *British Geologist* and *Petroleum Review*. He also gave the address at the Service of Remembrance and Thanksgiving, 11 February 1986.
- D.75                      Obituaries by Kent and text of address at Remembrance Service; draft of obituary for the Geological Society by N.L. Falcon (Kent had declined the invitation to write Ion's obituary for the Geological Society and suggested Falcon).
- D.76                      Biographical information on Ion
- D.77                      'Leonard Johnston Wills', *Bibliog.* 142, 1986.
- Kent had written the obituary of Wills for *Nature* in 1980, *Bibliog.* 124.
- 3pp typescript; correspondence with publishers and colleagues; obituaries; ms notes on Wills's career.

### Publications and lectures

- D.78 'Island salt plugs in the Middle East and their tectonic implications', *Bibliog.* 144, 1987. This was published posthumously.
- Editorial correspondence.
- D.79, D.80 'The place of Infra-Cambrian salt in Middle East tectonics'. Dated c.1986 but not listed in *Bibliog.* This is related to the preceding and may be a draft towards a planned book.
- D.79 31pp ms and typescript draft with extensive ms correction + abstract, ms captions for figures and acknowledgements.
- D.80 Miscellaneous figures.

### Editorial correspondence

Arranged alphabetically by publisher or journal title.

- D.81 Adam Hilger Ltd. 1980
- Invitation to write monograph on the geological structure of the North Sea (declined).
- BP Explorer* 1984
- Paper on UK onshore exploration.
- Earth and Planetary Science Letters* 1980
- Refereeing.
- D.82 *Geological Magazine* 1974-85
- Kent was an Associate Editor.
- Correspondence re Associate Editorship; book reviews for the *Geological Magazine*.



Publications and lectures

- |           |   |                       |
|-----------|---|-----------------------|
| D.83      | Graham & Trotman Ltd.   | 1982                  |
|           | Invitation to serve as Senior Adviser to Graham & Trotman on earth science series (declined).   |                       |
|           | <i>Journal of Petroleum Geology</i>   | 1980-81               |
|           | Requests for papers.  |                       |
|           | <i>Journal of the Geological Society</i>  | 1985-86               |
|           | Refereeing.   |                       |
| D.84-D.88 | Mitchell Beazley Publishers Ltd   | 1978-81               |
|           | Kent acted as adviser for the energy section of <i>Atlas of Earth Resources</i> , published by Mitchell Beazley in 1979, commenting on draft chapters as they were sent to him. |                       |
|           | D.84 1978 March-August  | D.87 1978 October (2) |
|           | D.85 1978 September   | D.88 1978-79, 1981    |
|           | D.86 1978 October (1)   |                       |
| D.89      | <i>Nature</i>   | 1980                  |
|           | Refereeing; fee for contribution.   |                       |
| D.90      | <i>Open Earth</i>   | 1979-83               |
|           | Book reviews for <i>Open Earth</i> .  |                       |
| D.91      | Oxford University Press   | 1980                  |
|           | Invitation to write book for OUP (declined).  |                       |
| D.92      | Pergamon Press Ltd  | 1979                  |
|           | Refereeing.   |                       |

### Publications and lectures

- D.93                      *Proceedings of the Yorkshire Geological Society*                      1974, 1978
- Refereeing.
- World Oil*                      1965
- Invitation to write article on North Sea exploration (declined).

### Letters to *The Times*

In addition to the Letters listed below, Kent wrote to *The Times* in 1968, about the Warsaw Pact invasion of Czechoslovakia (see H.32).

- D.94                      'East African glaciers', 26 September 1944.
- 'Meeting world demands for oil', 28 January 1974.
- 'Problem of atomic waste disposal', written as Chairman of the NERC, c.1973-77.
- 'The quality of architecture', written 15 August 1977. No evidence of publication.
- 'Assessing future oil resources', drafted in reply to Letter of P.R. Odell, 24 October 1977. No evidence of publication.
- D.95, D.96                      'Need for law to aid exploration into Britain's mineral resources', 9 January 1980 and 'Minerals exploration', 22 April 1980 (both with K.C. Dunham).
- Kent and Dunham's Letter of 9 January, arguing for Crown ownership of all undiscovered mineral reserves, provoked a lively correspondence in *The Times*. Following their second Letter Kent and Dunham were invited to speak before the House of Commons All-Party Minerals Group on 23 July.
- D.95                      Letters of Kent and Dunham and other Letters published in *The Times* in response.
- D.96                      Correspondence arising, including exchange with T.H.H. Skeet MP re meeting with All-Party group.



### Publications and lectures

D.97 'Cohabitee', written 23 January 1982. No evidence of publication.

'Keeping coal for the future', 5 July 1984. See also B.495.

Unpublished Letter, January 1985.

### LECTURES

D.98 'Problems of Midlands Geology', University College Nottingham, 4 February 1952.

Ms list of ?slides only.

D.99 'Evaporite Piercement structures in the Northern Richardson mountains' (with W.A.C. Russell). This was published as *Bibliog.* 46, 1961.

'Lecture copy' 12 January 1960, 11pp typescript with ms annotation + references and figure. See also B.435.

D.100 'Persian salt plugs', Leicester, November 1963.

Ms list of slides only. See also B.278.

'UK operations', Bristol, 16 January 1964.

Typescript list of slides only.

'North Sea exploration', Fyzabad, Trinidad, 24 March 1965.

Poster only.

D.101-D.104 'The structure of the concealed Carboniferous rocks of North-eastern England', Presidential address to the Yorkshire Geological Society, York, 11 December 1965. This was published as *Bibliog.* 52, 1966.

D.101 27pp typescript + ms introductory remarks and typescript list of slides.

Publications and lectures

- D.102, D.103      Figures for slides. 2 folders.
- D.104      Correspondence 1965-66; notice of Kent's lecture.
- D.105      'Outline geology of the North Sea basin', Presidential address to the Yorkshire Geological Society, York, 10 December 1966. This was published as *Bibliog.* 59, 1967.
- References, figures and plates; programme; letter *re* publication, 31 December 1966.
- D.106      The North Sea, Royal Geographical Society, 16 January 1967.
- 8pp typescript + list of slides.
- D.107      Invitation to lecture on North Sea exploration to Petroleum Exploration Society of Libya in 1967.
- D.108, D.109      Adrian Visiting Fellowship, Leicester University.
- In 1968 Kent gave three lectures as Adrian Visiting Fellow. See also F.255-F.264.
- D.108      'The building of the Zagros mountains', 17 February.
- Typescript list of slides with ms annotation; notice of Kent's lecture.
- 'Tanzania - a study of an epeirogenic region', 11 May. Kent gave this lecture, under the title 'The coastlands of East Africa. A stratigraphical and structural study'.
- Typescript lecture notes and list of slides; list of fossils for lecture.
- D.109      'The search for North Sea gas' by Kent, 22 November.
- Typescript lecture notes; ms list of ?slides; notice of Kent's lecture.



Publications and lectures

- D.110                      Lecture on Persian surveys, Sheffield University Students Geological Society, 23 January 1969.
- Ms lecture notes; letter *re* arrangements.
- Lecture on the North Sea, Geological Society of Alaska, 2 April 1969.
- Typescript introductory remarks; ms list of slides.
- Invitation to lecture to Arthur Holmes Society, Durham University in December 1969.
- D.111                      Lecture on the North Sea, University College of Wales, Aberystwyth, 7 January 1970.
- Letter *re* arrangements; typescript list of slides.
- 'Salt Mountains of the Middle East', 11th Bennett Lecture, Leicester University, 9 January 1970.
- Typescript list of slides; ms notes; notice of lecture. See also D.32, D.33.
- D.112                      Lecture on East African structures, Cambridge University, 29 January 1970.
- Brief correspondence *re* arrangements only.
- Address on opening the new Department of Geology, Keele University, February 1970.
- 5pp typescript.
- D.113, D.114              'Lincolnshire geology in its regional setting', Presidential address to the Lincolnshire Naturalists' Union, 1970. This was published as *Bibliog.* 78, 1970.
- D.113                      'Final copy', 10pp typescript + references; typescript list of slides.
- D.114                      1969 draft of the address, 7pp typescript; typescript list of slides; miscellaneous notes and data.

Publications and lectures

- D.115                      Correspondence *re* possible lecture to the Geological Society on the North Sea. It was planned to hold this in November or December 1969 but was subsequently postponed to 1970. There is no evidence it was ever delivered.
- Kent did participate in a Geological Society meeting which included discussion of the developments in the North Sea in October 1969 (see H.43).
- D.116                      'Arctic oil exploration', Nottingham University Geological Society, 14 January 1971.
- Typescript list of slides; correspondence *re* arrangements.
- Invitation to lecture on the North Sea to Geological Society of Glasgow in October 1971 or later (declined).
- D.117                      'Geotechnical problems in Alaskan oil exploration and production', British Geotechnical Society, London, 8 December 1971.
- This presentation was originally scheduled for 22 November.
- Correspondence *re* arrangements.
- D.118                      'Geological problems in exploration for oil and gas in the North Sea', Luton College of Technology, 1 February 1972. This formed part of the College's short course 'Advances in Geology'.
- Ms list of slides; correspondence *re* arrangements.
- D.119                      Invitation to lecture to Geographical Association Lincoln Branch, January or March 1972 (declined).
- Invitation to speak at University College of Swansea Geological Society Dinner-dance, 16 February 1972 (declined).
- Invitation to speak at Institute of Geological Sciences Leeds Office annual dinner, 25 February 1972. This was subsequently cancelled.
- Brief correspondence.



Publications and lectures

'New light on North Sea geology', Petroleum Exploration Society of New York, 18 May 1972.

Correspondence *re* arrangements.

D.120

Lecture on Arctic islands, 27 September 1972.

Typescript list of ?slides; 'Concessional history' of Canadian Arctic islands'.

Invitation to lecture on Petroleum to Brincliffe Grammar School for Girls, Nottingham, in October, November or December 1972 (declined).

Invitation to lecture to University College of Swansea Geological Society in October or November 1972 (declined).

D.121

List of 'Dr P.E. Kent lectures: 1973'.

'Plate tectonics problems. Inadequacies and imperfections in the hypothesis', Leicester University Geological Society, 16 January 1973.

Invitation; typescript outline of lecture.

Invitation to speak at Queen Mary College London Geological Society annual dinner, 23 February 1973 (declined).

D.122

'Geology and geophysics in the search for hydrocarbons', Durham University, 1 June 1973.

Correspondence *re* arrangements; ms list of ?slides.

'Exploration of continental margins', Wigan and District Geological Society, Wigan, 19 October 1973.

Correspondence *re* arrangements only.

Lecture to North Notts Mining Engineering Society, Mansfield, c.1973.

Letter *re* arrangements only.

Publications and lectures

- D.123                      Address to Queen Mary College London [?Geological Society annual dinner], 15 February 1974.
- 3pp typescript with ms annotation.
- Address to Manchester Geological Association annual dinner, 1 March 1974.
- 2pp ms introductory remarks; letter *re* arrangements.
- D.124                      Address to Swinnerton Geological Society, Nottingham, 14 March 1974.
- Invitation; 4pp typescript with ms correction and annotation.
- Address to Leeds Geological Association centenary dinner, 19 April 1974. Kent spoke to the Association on 'The North Sea and its problems' on 18 April.
- 3pp typescript; letter *re* arrangements.
- D.125                      Royal Institution Evening Discourse, 31 January 1975.
- Typescript list of slides; letter arising.
- Lecture at Birkbeck College London, 11 February 1975.
- Typescript list of slides only.
- Invitation to lecture to Cambridge Natural History Society, January or February 1975.
- 'The modern face of the Geological Society of London', address of welcome at Charles Lyell centenary celebration reception, 2 September 1975.
- 3pp typescript.
- D.126                      Lecture at Trinity College Dublin, 9 January 1976.
- Ms list of slides only.



Publications and lectures

'Major synchronous events in continental shelves', [?Royal Institution] Evening Discourse, 7 April 1976. This was published as *Bibliog.* 111, 1976.

4pp typescript; typescript list of slides.

Address on opening of new British Antarctic Survey headquarters by H.M. The Queen, 7 May 1976.

2pp typescript.

D.127

Mesozoic lectures.

Kent delivered three lectures in this series in Cambridge 16, 17 and 18 November 1976: 'Eastern England and the southern North Sea - a history of blocks and basins', 'The northern North Sea and the western approaches. Model for continental margin development' and 'The problem of aseismic continental margins - the problem of world wide synchronism'.

Ms lists of slides; references; brief correspondence *re* arrangements and ms itinerary of 'Cambridge week'.

D.128

'Epeirogenic movements on the continental shelf of N.W. Britain', Celebrity lecture of the Geological Society of Glasgow and Edinburgh Geological Society, Glasgow, 5 April 1977.

Correspondence *re* arrangements.

Lecture on offshore oil exploration, Endeavour Society University College of North Wales, 30 November 1977.

Letter *re* arrangements only.

D.129

'Structure of the British continental shelf', Aberdeen Geological Society, 15 February 1978. This was rearranged from 12 October 1977.

Correspondence *re* arrangements.

D.130

'The British continental shelf', Cumberland Geological Society, Cockermouth, 4 April 1979.

Invitation and letter *re* arrangements only.

Publications and lectures

'Applied research in Government science and the relation of science and industry', Luton Technical College, 17 April 1979.

8pp ms.

- D.131                      Lecture on the geological background to Middle East oil to Swinnerton Geological Society, Nottingham, 19 January 1981.

Invitation only (accepted).

Lectures on oil and gas to residential course on energy resources for HM Forces, Nottingham University, September 1981.

Invitation only (?accepted).

'Oil exploration in Britain', Sylvester-Bradley Geological Society, Leicester University, 11 March 1982.

Ms ?list of slides; correspondence *re* arrangements.

- D.132                      A.K. Wells Memorial Lecture to the Lyell Club, King's College London, 24 February 1983.

Ms list of slides; correspondence *re* arrangements.

'Deep exploration in the North Sea - scientific achievement and mineral wealth', 2nd L.R. Moore Lecture, Sheffield University, 27 April 1983.

Ms introductory remarks; ms list of slides; correspondence *re* arrangements.

- D.133                      'A history and review of UK onshore activity', Annual University Celebrity Lecture, Strathclyde University, 16 May 1985.

Correspondence *re* arrangements; poster.



**Publications and lectures**

**BROADCAST**

D.134 'Comparisons in oil prospecting', broadcast in BBC Home Service 'The Travellers' series, 12 February 1965.

Transcript, retained in original binding; letter and contract from BBC December 1964; cutting of review from the *Listener* magazine.

**REPRINTS**

D.135 Published papers 1941-82. Not a complete set.

1 box.

**SECTION E**

**NATURAL ENVIRONMENT RESEARCH COUNCIL**

**E.1-E.196**

Kent served on the Geology and Geophysics Committee (later Institute of Geological Sciences Advisory Committee) of the Natural Environment Research Council (NERC) 1968-73. In 1973, following his retirement from BP, he was appointed Chairman of the NERC for four years. Kent continued to serve on the Council of the NERC until September 1980. He sat on a number of NERC committees during his Chairmanship and subsequent period on Council.

The material presented in this section is by no means comprehensive. Both Kent's Chairmanship of the NERC 1973-77 and his service on Council 1977-80 are poorly documented. Of particular interest therefore is Kent's 'daybook' for 1973-74 (E.23-E.35), a folder in which he kept copies of outgoing correspondence and papers. This chiefly, though by no means exclusively, relates to NERC business. The best documented area of NERC activity is Kent's service as adviser on geological and geophysical activities under the auspices of Preparatory Group 'A'.

The material is presented as follows:

E.1-E.15	GEOLOGY AND GEOPHYSICS COMMITTEE
E.16-E.64	CHAIRMANSHIP AND COUNCIL
E.65-E.188	PREPARATORY GROUP A
E.65-E.90	General, and Visiting Group to IGS/IOS
E.91-E.178	Deep Geology Committee
E.179-E.188	Working Group on Abiogenic gases within the UK crust
E.189-E.196	MISCELLANEOUS



**Natural Environment Research Council**

**GEOLOGY AND GEOPHYSICS COMMITTEE**

(later INSTITUTE OF GEOLOGICAL SCIENCES ADVISORY COMMITTEE)

The Committee's terms of reference were 'To guide, co-ordinate and keep under review the whole field of research on geology and geophysics, including the geology and geophysics of the sea-floor, to assume responsibility... for the Institute of Geological Sciences, [and] to advise on the award of grants to universities and other bodies, and of fellowships and training grants to post-graduate students, in the earth sciences'.

Kent served on the Committee as BP representative for three years from 1 August 1968 in succession to N.L. Falcon. In 1971 the Committee was restructured into a number of smaller Committees, including the Institute of Geological Sciences Advisory Committee. Kent served on this body for a further three year term.

- E.1 Correspondence *re* appointment, meetings etc 1968; minutes of tenth meeting 15 October 1968.
- E.2 Papers of discussion meeting on NERC interest in geology and geophysics 20 February, and of eleventh Committee meeting 25 March 1969.
- E.3 General correspondence 1969; minutes of twelfth meeting 4 November 1969.
- E.4, E.5 Papers of thirteenth meeting 10 March 1970. 2 folders.
- E.6 General correspondence 1970; minutes of fourteenth meeting 2 June 1970.
- E.7 General correspondence 1971.
- E.8 Correspondence 1971 *re* Report of Working Party on Geotectonics and Crustal Studies. With 'Revised Interim' draft sent to Kent for comment.
- E.9, E.10 Papers of first meeting of IGS Advisory Committee 13 October 1971.

### Natural Environment Research Council

- E.11 Papers of second meeting 2 May 1972.
- E.12 Correspondence May-August 1972, chiefly *re* possible UK participation in the Deep Sea Drilling Project (DSDP) (see section C). Kent served on a Working Group to advise on this.
- E.13 Draft Report of Working Party on Mining and Economic Geology, with Kent's comments 3 August 1972. Kent was a member of the Working Party.
- E.14 Correspondence and papers September 1972 - January 1973 *re* possible UK participation in the DSDP.
- E.15 Minutes of third meeting 11 October 1972.

### CHAIRMANSHIP AND COUNCIL

- E.16 Correspondence *re* terms of appointment, 1973-75.
- E.17-E.20 Papers of Council meeting 26 July 1973. This was the first meeting of Council chaired by Kent. 4 folders.
- E.21 Papers for Annual Week-End Meeting of the NERC, Edinburgh, 21-23 September 1973.
- E.22 'Research in the Geological Sciences', NERC Publications Series B, no.7, September 1973. Annotated by Kent.
- E.23-E.35 'Chairman's Daybook'. Contents of Kent's bulky folder so inscribed divided into thirteen for ease of reference.
- This folder comprises Kent's own copies of correspondence and papers sent out from his office as Chairman of the NERC 12 September 1973 - 14 October 1974. The material does not cover NERC business exclusively but



### Natural Environment Research Council

includes scientific and social correspondence. Subjects range from social invitations to NERC policy on support of research.

A continuing theme in these papers is the NERC response to the Government White Paper Cmnd 5046, which changed the way in which certain areas of research were funded. Certain programmes of applied research were to be funded by the relevant Government Departments with funds transferred from the NERC. This entailed negotiations with the Department of Trade and Industry (DTI), the Department of the Environment and the Ministry of Agriculture, Food and Fisheries over which projects should be supported by them and how much money should be transferred. Most of the material concerns negotiations over the 'DTI gap', the discrepancy between the sum to be transferred from the NERC to the Department of Trade and Industry (which in 1974 was then divided into three Departments of Energy, Trade and Industry) and the cost of the existing and available applied research programmes.

- |      |  |
|------|--|
| E.23 | 1973 September-October.  |
| E.24 | 1973 November.   |
| E.25 | 1973 December - 1974 January.  |
| E.26 | 1974 February.   |
| E.27 | 1974 March (1).  |
| E.28 | 1974 March (2). Includes typescript note on NERC support for energy research, submitted to the ABRC.   |
| E.29 | 1974 April.  |
| E.30 | 1974 May. Includes letter to <i>Nature</i> responding to article 'European Scientists Disunite' which Kent and co-signatories believed to be 'erroneous and misleading'. |

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- E.31                      1974 June. Includes 3pp typescript note by Kent 'Mesozoic development of aseismic continental margins, Europe and elsewhere' sent to Royal Society 19 June 1974, and minutes of meeting on funding of the Marine Biological Association activities, 19 June.
- E.32                      1974 July (1).
- E.33                      1974 July (2).
- E.34                      1974 August, September. Includes correspondence *re* offshore research supported by the NERC.
- E.35                      1974 September, October.
- E.36                      Correspondence *re* criticism of NERC organisation 1975.
- E.37                      Miscellaneous correspondence and papers 1975-77. Includes correspondence *re* completion of term of service as Chairman.
- E.38, E.39                Papers of Council meeting 24 May 1977. 2 folders.
- E.40-E.44                'Taxonomy in Britain: The Report of the ABRC Review Group on Taxonomy, 1977'. Annotated by Kent. This report was discussed by the NERC at their meeting on 24 November 1977. 5 folders.
- E.45                      Miscellaneous correspondence 1978-79. Includes data on duration of research grants awarded by the NERC.
- E.46-E.49                Papers of Council meeting 24 May 1979. 4 folders.
- E.50-E.54                Papers of Council meeting 27 March 1980. 5 folders.



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- E.55, E.56                Papers for *ad hoc* meeting of Council members to discuss British Antarctic Survey (BAS) scientific priorities.
- E.55                      'Report on BAS's [British Antarctic Survey] Antarctic activities & facilities' by P.F.G. Twinn and D.R. Gipps, March 1980. Retained in original binding.
- E.56                      Paper on 'BAS's Scientific Programmes', April 1980.
- E.57                      Correspondence April- June 1980, principally *re* reorganisation of NERC.
- E.58, E.59                Interim reports of NERC Special Topic programmes sent to Council members 14 July 1980. 2 folders.
- E.60, E.61                Papers of Council meeting 31 July 1980. 2 folders.
- E.62                      Correspondence August-October 1980 *re* end of Kent's term of office and Council meeting of 25 September 1980. Kent was unable to attend this, due to be his final Council meeting, through illness.
- E.63, E.64                Papers of Council meeting 25 September 1980. 2 folders.

**PREPARATORY GROUP A**

**General and Visiting Group to IGS/IOS**

Kent served on the NERC's Preparatory Group 'A' (Earth Sciences) which advised Council on geological and geophysical matters. He was a member of the Visiting Group to the Institute of Geological Sciences (IGS) Continental Shelf Division and the Institute of Oceanographic Sciences (IOS) Marine Geophysical Group.

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- E.65-E.70      Visiting Group to the IOS Marine Geophysical Group and IGS Continental Shelf Division on 17 and 25 October, 20-21 November and 1 December 1978.
- Kent chaired the Group.
- E.65-E.68      Papers for visits. 4 folders.
- E.69      Kent's ms notes on visit of 17 October to IOS, Wormley.
- E.70      Draft report of Visiting Group sent to Kent April 1979. With extensive ms correction and additions by Kent.
- The final report was circulated with the papers for the meeting of Preparatory Group 'A' on 17 May (see E.71).
- E.71-E.73      Papers for meeting of NERC Preparatory Group 'A', 17 May 1979. 3 folders.
- E.74      IGS 'Proposal for the continuation of the Mineral Reconnaissance Programme', paper for meeting of Preparatory Group 'A', 5 December 1979.
- E.75-E.79      Papers for meeting of Preparatory Group 'A', 5 February 1980. 5 folders.
- E.80      Letter *re* meeting of Preparatory Group 'A', May 1980.
- E.81, E.82      Papers for meeting of Preparatory Group 'A', 1 July 1980. 2 folders.
- E.83      Papers for joint meeting of Preparatory Groups 'A' and 'D' on marine sedimentology, 1 July 1980.
- E.84, E.85      Papers for meeting of Preparatory Group 'A', 2 February 1981. 2 folders.



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- E.86                      Papers for meeting of Preparatory Group 'A', 5 February 1982.
- Kent was a Visitor at the meeting reporting on the future of IPOD.
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- E.87, E.88                Visiting Group to the IGS Continental Shelf Division, Edinburgh, 23-24 November 1983.
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- E.87                      Timetables, annotated by Kent; 'The Continental Shelf Division. A view of the future' by H.R. Tainsch, sent to Kent for comment 20 January 1984.
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- E.88                      Papers for visit. Retained in original folder.
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- E.89, E.90                Visiting Group to the IGS Marine Geology Unit, Keyworth, 13 December 1983.
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- E.89                      Timetables, annotated by Kent; draft report of the Group sent to Kent for comment 8 March 1984.
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- E.90                      Papers for visit. Retained in original folder.

**Deep Geology Committee**

In 1978, following the creation by the Institute of Geological Sciences of a Deep Geology Unit, the NERC established a Deep Geology Programme to coordinate research into Deep Geology carried out by the IGS Unit and a number of universities. The Deep Geology Committee was established in February 1979 to oversee the Programme. Kent served on the Committee from its inception (as the first Chairman 1979-83). The Committee reviewed progress and considered proposals for the research to be carried out under the Programme, and organised meetings. It reported to Preparatory Group 'A'.

- E.91                      Notes on IGS/Universities Discussion Group on Deep Geology, 2 May 1978.
- This was an exploratory meeting called to discuss the future direction of the programme.

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- E.92 Notes on IGS/Universities Discussion Group on Deep Geology, 23 May 1978; ms notes by Kent.
- This meeting received detailed proposals for ten projects.
- E.93 List of projects recommended for funding within the Deep Geology Programme, 1 June 1978; notes on IGS/Universities Discussion Group on the Lower Crust (Deep Geology Programme), 15 June 1978.
- E.94, E.95 Papers for first meeting of Committee, 30 May 1979. 2 folders.
- E.96 Paper on 'Role of Government geological agencies in mineral resource development', commenting particularly on the role of the French Bureau de Recherches Géologiques et Minières, with enclosures, July 1979; 'NERC and the Earth Sciences' by J. Sutton, 4pp typescript, 27 September 1979.
- E.97-E.99 Papers for second meeting of Committee, 8 May 1980. 3 folders.
- E.100 'Deep Geology Project: Availability of U.K. onshore confidential information' by Kent, 1p typescript with ms correction and addition, 8 May 1980, with comments on the draft by members of the IGS. See E.115.
- E.101 Papers *re* proposal for deep crustal reflection profiling in British Isles, sent to Kent 1 July 1980.
- E.102, E.103 Workshop on the Deep Geology of the onshore UK, Leicester, 23-24 September 1980. Kent was unable to attend due to illness.
- E.102 Correspondence *re* arrangements, programme, correspondence arising.
- E.103 Abstracts.
- E.104-E.106 Papers of third meeting of Committee, 11 November 1980. 3 folders.



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- E.107-E.111      Papers of fourth meeting of Committee, 13 January 1981. 5 folders.  
  
Chiefly research grant applications and proposals arising from the Deep Geology Workshop (E.102,E.103).
- E.112      Report of Deep Geology Committee 1979-1981 for Preparatory Group 'A'.
- E.113, E.114      Papers of fifth meeting of Committee, 28 July 1981. 2 folders.
- E.115      'Deep Geology Project: Availability of U.K. onshore confidential information' by Kent, 2pp typescript, 9 August 1981, and 2pp typescript amended version. With covering and related correspondence. See E.100.
- E.116-E.118      Sections of Deep Geology Committee Report sent to Kent for corrections September 1981. Principally project reports. 3 folders.
- E.119-E.122      Papers of sixth meeting of Committee, 24 February 1982. 4 folders.  
  
Chiefly research grant applications and reports.
- E.123, E.124      Papers of seventh meeting of Committee, 28 April 1982. 2 folders.
- E.125-E.130      Papers of eighth meeting of Committee, 20 October 1982. 6 folders.  
  
Chiefly research grant applications.
- E.131, E.132      Second Workshop on the Deep Geology of the onshore UK, Cambridge, 5-6 January 1983. Kent introduced the Workshop.
- E.131      Correspondence, list of participants, ms notes for introduction etc.
- E.132      Programme and abstracts, Report on Workshop.

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- E.132A Correspondence and papers *re* Deep Fluid Processes seminars.  
  
Three of these meetings were held during 1983: Cambridge, 14 February, and London, 16 May and 19 September. Kent attended the first.
- E.133-E.138 Papers of ninth meeting of Committee, 20 April 1983. 6 folders.  
  
Chiefly research grant applications.
- E.139 Correspondence May-July 1983, *re* Kent's period of service as Chairman.
- E.140-E.143 Papers of tenth meeting of Committee, 12 October 1983. 4 folders.  
  
Chiefly research grant applications.
- E.144, E.145 Papers of BIRPS [British Institutions Reflection Profiling Syndicate] Advisory Committee meeting, 29 November 1983. 2 folders.  
  
BIRPS was established in 1981 to operate a UK programme of deep seismic reflection profiling. The BIRPS Advisory Committee reported to the Deep Geology Committee with proposals for experimental projects.
- E.146 Correspondence and papers *re* BIRPS North Sea 1984 Workshop held following the BIRPS Advisory Committee meeting.
- E.147-E.157 Papers of eleventh meeting of Committee, 22 March 1984. 11 folders.  
  
Chiefly research grant applications.
- E.158-E.161 Papers of twelfth meeting of Committee, 2 October 1984. 4 folders.  
  
Chiefly research grant applications.
- E.162, E.163 Third Workshop on the Deep Geology of the onshore UK, Durham, 3-4 January 1985.



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- E.162                      Brief correspondence *re* arrangements, list of participants and papers offered, 1p ms notes on 'Future of BIRPS'.
- E.163                      Programme and abstracts.
- E.164-E.166              Papers of thirteenth meeting of Committee, 26 March 1985. 3 folders.
- E.167-E.172              Papers of fifteenth meeting of Committee, 10 October 1985. 6 folders.  
Chiefly research grant applications.
- E.173                      Papers of BIRPS Advisory Committee meeting, 25 March 1986.
- E.174-E.178              Papers of sixteenth meeting of Committee, 20 June 1986. 5 folders.  
Chiefly research grant applications.

**Working Group on Deep Source Gases within the UK crust**

This Working Group was established by the Deep Geology Committee at their meeting on 24 February 1982 'to propose a programme of work to investigate occurrences of methane, actual and potential within the UK crust'. Kent was Chairman of the group.

The subject under study arose from the hypothesis of Professor Thomas Gold of Cornell University that throughout geological time carbon gases trapped inside the Earth during its formation gradually seep out through the Earth's surface. The most common of these carbon gases was methane and it was suggested that if the hypothesis were correct this methane could be a valuable source of energy.

Kent's interest in Gold's ideas about the origins of natural gases and oil preceded the formation of the Working Party. In 1980 Gold visited the Energy Technology Support Unit (ETSU) at the Atomic Energy Research Establishment, Harwell, to lecture on 'Primordial methane - energy source for the future?' and discuss his ideas, and Kent had been among those attending.

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- E.179-E.182            Papers from visit of Gold to ETSU, 9 April 1980.
- E.179                    Invitation; programme of visit.
- E.180, E181            Background information provided by ETSU. 2 folders.
- E.182                    Notes on round table meeting with Gold; copy of 'Harwell Bulletin' covering the visit of Gold; correspondence arising April-June 1980.
- E.183                    Letter *re* establishment of Working Group, 1 March 1982; papers for meeting of Working Group, 7 April 1982, annotated by Kent; Kent's ms notes.
- E.184                    Draft report of meeting; 'Draft programme to investigate the possibility of economically significant accumulation of deep source hydrocarbons existing in the UK crust', annotated by Kent.
- E.185, E.186            US Department of Energy meeting on Unconventional Deep Source Gas, Morgantown, WV, 3-4 May 1982.
- E.185                    Unofficial report by A.T. Huntingdon, NERC representative at the meeting.
- E.186                    US Department of Energy report of the meeting.
- E.187                    Discussion meeting on Origin of fossil fuels - biogenic vs non-biogenic, London, 7 October 1982. Kent spoke on 'Investigation of Deep Source Gas' as Chairman of the Working Group.
- Programme; Kent's notes for his lecture and ms notes on lecture by Gold; brief correspondence.
- E.188                    Draft of 'The duplex origin of natural gas and petroleum, and the prognosis for future supplies' by Gold, sent by him to Kent for information 4 December 1984.



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MISCELLANEOUS

- E.189, E.190      Working Party on the Law of the Sea.
- This was established by the European Science Foundation to consider the implications of the Law of the Sea negotiations for marine research. It was feared that the terms under consideration might restrict such research. Kent was the NERC representative on the Working Party.
- Most of the material concerns the meeting of the Working Party in Paris on 8 February 1978.
- E.189      Correspondence and papers, December 1977 - February 1978. Includes 'draft paper of what could be the ESF answer to the American statement on the implications of the conclusions reached by the Conference on the Law of the Sea negotiations upon marine research', heavily annotated by Kent.
- E.190      Papers of meeting of 8 February, including Kent's ms notes and report; revised draft of ESF paper telexed to Kent 13 February, with Kent's reply suggesting amendments.
- E.191, E.192      'NERC misc - continental shelf survey'. Contents of Kent's envelope so inscribed divided into two for ease of reference.
- E.191      'Programme of Offshore Studies by IGS for Department of Energy. Proposals for 10 year programme 1979-1988'.
- E.192      Brief correspondence January-April 1978; maps.
- E.193-E.196      Geological Survey of Great Britain Consortium.
- Kent was Chairman of this body.
- Papers for meetings 1979 and 1980. See also F.145-F.161.
- E.193-E.195      Sixth meeting, 12 June 1979. 3 folders.
- E.196      Seventh meeting, 20 February 1980.