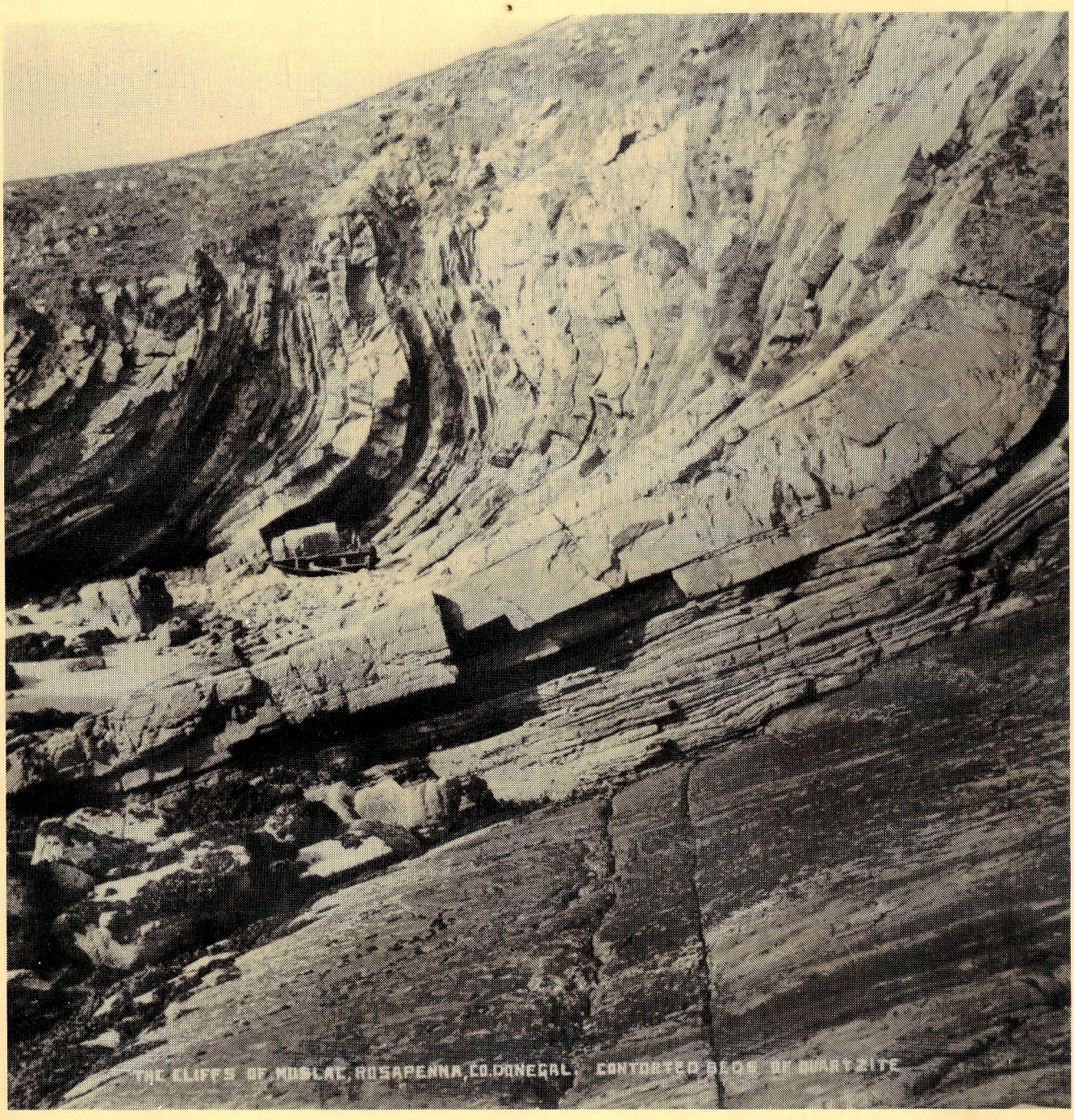
GCG

THE GEOLOGICAL CURATOR

VOLUME 4 No.2 Issue 2 for 1984



FROM THE R.J.WELCH COLLECTION

GEOLOGICAL CURATORS' GROUP

The Group is affiliated to the Geological Society of London. It was founded in 1974 to improve the status of geology in museums and similar institutions, and to improve the standard of geological curation in general by:

- holding meetings to promote the exchange of information.
- providing information and advice on all matters relating to geology in museums.
- the surveillance of collections of geological specimens and information with a view to ensuring their well being.
- the preparation of a code of practice for the curation and deployment of collections.
- the advancement of the documentation and conservation of geological sites.
- initiating and conducting surveys relating to the aims of the Group.

1985 COMMITTEE

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COVER:
folded Dalradian quartzites in sea cliff, Cliffs of Muslac, Rosapenna, Co. Donegal. 12th July, 1894. Geology 12/15, R.J. Welch Collection of photographs, Ulster Museum (catalogue reviewed herein).
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THE GEOLOGICAL CURATOR

VOLUME 4, NO.2

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GEOLOGICAL CURATORS' GROUP

April 1985

EDITORIAL

The most noticeable feature of this, the first issue of The Geological Curator to emanate from Leicester, is yet more cosmetic changes in its presentation. The 'new look' double column format (successfully introduced by my predecessor Tim Pettigrew in vol.4, no.1) is continued, at a slightly larger print size; the cover has been modestly revamped and tidied up; cover information about GCG and its journal has been standardised; internal headings have a new uniformity, etc. Certainly cosmetic changes only, but I hope the overall effect is to improve the journal's appearance and, as a consequence, give its content enhanced authority. I would much appreciate your views on the 'new look', since I am well aware that the journal's popularity has lain in part with its attractively informal appearance, giving it a happy aura of immediacy difficult to emulate with the new format. The last thing I want to do is preside over the journal's dreary 'sanitization'!

The need to produce this issue quickly has had a few repercussions, some good, some bad. The good news is that you have been spared having my views on some burning issue of geological import thrust upon you in true 'editorial' fashion. Such will not be the case in future. I plan to begin by reviewing a number of disturbing trends either directly related to, or having an important external influence upon, our profession - under the rather depressing title of 'Geology under Threat'. Future reviews will cover the Nature Conservancy Council's attitude to geological site conservation, the future of the British Geological Survey, and the outlook for NERC funded specimen based geological research: just three areas which should be of professional concern to all of us. These reviews will I hope stimulate discussion within GCG, thereby helping your committee to accurately present the Group's views to those capable of directly influencing events in these areas of concern.

Rushing this issue through may well have been to the detriment of typographical accuracy. I hope not, but it is only fair to the authors to admit that, this once, they were not given a chance to correct proofs. So please address any complaints to your new editor. As the new routine settles down authors will be sent proofs as usual.

I must add my own praise here to the warm thanks given at the Cardiff AGM to Tim Pettigrew for his five years as editor of The Geological Curator. Tim and his team certainly maintained the standards set by Brian Page and others at Keele in the early years of the Group's existence; he has performed heroically under increasingly difficult circumstances at Sunderland recently. The group owes him a great debt. Thanks also to Ken Sedman for his efficient distribution of the finished product from Middlesbrough.

Finally, it is my pleasure to acknowledge the support of my colleagues here in Leicester: principally that of Dr Patrick Boylan (Director of Leicestershire Museums, Art Galleries and Records Service), both for encouraging me to take on the editorship and for putting a variety of support services at my disposal - without which there could be no journal; Mrs Judy Marvin (Natural Sciences Clerk/Typist) typed everything you see, quickly and efficiently; John Martin (Keeper of Earth Sciences) and Chris Collins (Earth Sciences Technician) put up with my rather blinkered view of our priorities during hectic periods of production, and helped with distribution; and Alan Birdsall (Graphic Designer) redesigned the front cover. Internal titling was produced at the Sedgwick Museum through the good offices of Dr David Price and Michael Dorling.

Peter R. Crowther
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ERRATA FOR VOL.4, NO.1

(i) A number of references were unfortunately omitted from Don Steward's article 'Geology at Stoke-on-Trent Museum and Art Gallery' (pp.29-42). An update on this article is planned for Vol.4, No.3 and will include these missing references.

(ii) Collections, Collectors and Museums of Note, Nos.35-37 were wrongly numbered; they should have been numbered 43-45.

The Geological Curator, Vol.4, No.2, 1985 (for 1984), pp. 65-67 .

PROBLEMS IN THE CURATION OF FOSSIL MARINE REPTILES

BY MICHAEL A TAYLOR

The majority of the large fossil marine reptiles stored in British museums are ichthyosaurs, plesiosaurs and crocodiles collected from the Liassic beds of England. Many of these specimens were recovered during the nineteenth century from manually operated quarries, especially those at Street in Somerset and at Barrow-on-Soar in Leicestershire. Others came from coastal exposures at Lyme Regis, or at Whitby where there were also large alum shale quarries (Howe et al. 1981; Benton and Taylor 1984). Many of the more complete skeletons are now in the major collections held by the British Museum (Natural History), Oxford University Museum, and the Sedgwick Museum, Cambridge. The remainder, however, are scattered throughout the provincial museums of Britain and Ireland and often form the bulk of their fossil reptile collections.

Virtually every specimen suffers from one of the three most prevalent problems affecting such fossils: poor data, poor standards of preparation and poor display techniques. In discussing these problems, those aspects peculiar to marine reptiles will be examined. The more general problems of fossil vertebrate curation and storage have been reviewed by Gentry (1979); problems of their preparation have been dealt with by Rixon (1976), and aspects of museum climatology and conservation by Howie (1979a, 1979b).

POOR DATA

The museum labels and registers of nineteenth century specimens usually lack any detailed information on the locality, geological horizon, or taphonomy of the skeleton. Stratigraphical data relating to many of these fossils is usually limited and terse eg 'Upper Lias of Whitby'. However, considerable information can be recovered from:

i) literature search.
ii) matrix or zonal fossils associated with the specimen.
iii) geology of the source area.
iv) industrial archaeology of the source quarries, with especial reference to the specific beds that were worked.
v) published and unpublished correspondence, biographies, manuscript notebooks, local topographies and histories, etc.

Benton and Taylor (1984) have exploited such sources to confirm and refine the provenances of many nineteenth century specimens from the Upper Lias of the Whitby area.

Such work ought not to be necessary for newly collected specimens, but far too many of these also lack precise data. The rarity of fossil marine reptiles requires the recording of as much data as possible for each and every specimen:

Locality: 8-figure National Grid Reference; sketch map.
Horizon: ammonite Zone; exact bed, using a published account when available (see Palmer 1983 for a good example of this sort of work).
Taphonomy: completeness of the skeleton; orientation and position of burial, with photos and sketches; location and articulation of each bone, numbering them where necessary; relationship of bones to sediment; condition of each bone; special features, such as presence and exact location of gut contents, stomach stones, etc.

Every collector, and every curator receiving new specimens, should ensure the recording of as many details as possible because they comprise an important fund of data. For example, the number of neck vertebrae is a critical character in plesiosaur classification, but this cannot be reliably applied to a given specimen without explicit knowledge that the neck was found entire and also intact from head to body. Such taphonomic data has been systematically recorded for many of the fossil vertebrates collected from the famous Upper Lias beds at Holzmaden in Germany, and forms a significant constituent of the total corpus of palaeoecological knowledge of these beds. Benton and Taylor (1984) note that, in contrast, such data are almost wholly lacking for the Upper Liassic vertebrates from Whitby.

POOR PREPARATION

Nineteenth century specimens were prepared to the rather poor standards of that time. Many of them are in a hard matrix or in concretions, and some of this matrix has been chiselled off, partly exposing the bones. This exposed bone surface has inevitably suffered superficial damage and sometimes gross mutilation. The matrix and often the bone was frequently covered with varnish or paint. Ideally, such specimens should now be prepared by modern methods, as outlined by Rixon (1976), using the techniques of fine mechanical preparation, air-abrasive, or acid solution of the matrix as appropriate. At least, the cumulative and superficial dirt, varnish, and discoloured matrix should be cleaned off to expose the underlying sound

matrix. Ultimately, most or all of the matrix may be removed to reveal the entire surface of the bones, or free them completely. Modern methods enable the exposure of delicate but undamaged bony structures. Specimens can be transformed into attractive objects for study and perhaps display.

Such preparation demands time, special facilities, and experience. In practice the specimen is sometimes required by a researcher who, in studying it, can carry out its preparation at little or no cost to the holding museum. Yet uncertainty as to the experience and abilities of a potential borrower can result in a museum refusing a loan. Institutions aware of their responsibilities for type material may decline to permit such preparation, and endeavour to ensure that complete preparation is only carried out by an experienced preparator working in a fully equipped laboratory. Unfortunately, the types are naturally the most important for precise scientific determination. Scrutton (1979) noted this same paradox when wanting to section types of fossil corals, although in this case the museum's refusal is more understandable, as sectioning to obtain further information results in destruction of at least part of a specimen, unless the modern - and very rare - diamond wire-saw is used.

A further difficulty is that nineteenth century workers erected far too many nominal species of fossil reptiles, with the result that virtually every good specimen in some groups (especially plesiosaurs) has type status, which complicates the research problem.

POOR DISPLAY

Many nineteenth century fossils consist of a number of blocks of associated bones still partly embedded in matrix. These blocks, which vary greatly in size, are usually embedded in plaster or cement, and placed in a purpose-built wooden case which is then mounted on a wall. Alternatively, they may even be directly fixed in the wall. This style of mount has many disadvantages since it is:

(i) almost inaccessible and immovable.
(ii) permanent and therefore inflexible for alternative display arrangements.
(iii) often misleading; bones may have been re-arranged, bones from other specimens introduced, or the restoration of missing portions of the skeleton may be quite inaccurate.
(iv) usually open, so that specimens and the mount itself are subject to physical damage, wear, or vandalism. All wall mounts are subject to building vibration.
(v) open to dust, air pollution, and variations of temperature and humidity. Many specimens contain pyrite which is often concentrated in the body cavity and in or around the bones. Relative humidity in excess of 60%, even for short periods of time, is liable to start the oxidative decomposition of pyrite (Howie 1979a). The clay and shale matrices of some specimens may also deteriorate under excessively low levels or large variations of relative humidity (Howie 1979b). Similarly, the mounts and their associated labels can disintegrate in such situations, while wooden mounts are always vulnerable to woodworm.
(vi) likely to shed any fragments loosened by either physical or chemical processes, when vertically oriented.

The particular solution to the problem posed by any given specimen is naturally dependent upon the specimen itself and its circumstances. In this brief summary, I can only present suggestions based upon specific examples rather than make generalisations.

In practice, many specimens are simply left displayed on the wall; this is most economical, both in terms of money and space, provided the mount and the specimen are still sound. If the specimen is placed near enough to eye-level to permit close and comfortable examination this is still an effective method. Glazing-in such a mount may offer a partial solution to the problems of physical or chemical deterioration and discourage or prevent vandalism, but it provides less environmental protection than a purpose-built case. Yet even a purpose-built case generates problems of lighting and micro-climate control (Thomson 1978). In either case, in order to display the specimen adequately, some consideration must be given to the requirements for internal lighting. Exceptional specimens might be suitable for complete remounting in a new vertically oriented case with the blocks of bone and matrix perhaps held by Perspex or metal supports, which then permit release of the bones for study. Howie (1979b) has outlined the general cleaning techniques to remove superficial dirt, and the remedial treatment for specimens in unstable shale or clay slabs.

The Hawkins Collection belonging to Oxford University Museum includes several dozen 'cased' ichthyosaurs and plesiosaurs, ranging in length from less than half a metre to more than five metres. These specimens were recently removed from public display during reorganisation and it is only intended to replace a few of the better specimens on the walls of the gallery. To facilitate storage, many of the remaining more conveniently sized blocks of bone and matrix were removed from the disproportionately large quantities of mounting compound into which they had been set. Prior to this the mounts were photographed as it has been found that their labelling and mounting styles are useful in establishing the provenance of specimens. A few badly deteriorated specimens were dismounted for conservation. The remainder

are now stored either flat or vertical (see Gentry 1979, p.94, text-fig.2). Vertical storage has the disadvantage of loose fragments falling off, especially if the specimen is subjected to vibration arising from the movement of mobile shelving, or the opening and closing of cabinet drawers and doors. Horizontal storage on roller shelving is certainly preferable for the less robust material.

Whenever sufficient space is available specimens can be remounted for a flat display. One of the ichthyosaurs at Oxford is being remounted on a slab of thick chipboard supported by a Dexion framework, with the whole display being slightly tilted towards the observer. A skeleton of the plesiosaur Rhomaleosaurus longirostris (Blake) is placed flat in a large glass case in the Department of Geology, University of Manchester and provides a superb display (Broadhurst and Duffy 1970). The lighting and decoration of this case are designed to represent the depths of the sea, with the mud of the sea-floor reproduced in painted papier-mache. The blocks holding the specimen rest within slight recesses concealed by the papier-mache and can easily be taken up when the specimen is required for study

CONCLUSIONS

Most specimens of fossil marine reptiles date from the nineteenth century and are still largely curated according to the standards of that time. These inherently impressive animals are of considerable historical (and sometimes local) interest through their associations with particular collectors. As very few similar specimens can be collected now, the use of these fossil reptiles in museum displays and in research is chiefly dependent upon the rehabilitation of old specimens.

ACKNOWLEDGEMENTS

I am very grateful to all the museum curators who have helped me, either by letter or by showing me their collections, and especially to Mr H.P. Powell of Oxford University Museum for his encouragement. I also thank Dr R. Cleevely and Dr F.M.P. Howie for constructive criticism of the manuscript. The work was done partly while I was supported by a Christopher Welch Scholarship, University of Oxford, and a Graduate Award, Wolfson College, Oxford, during my D.Phil. research on Jurassic plesiosaurs at Oxford University Museum.

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REFERENCES

BENTON, M.J. AND TAYLOR, M.A. 1984. Marine reptiles from the Upper Lias (Lower Toarcian, Lower Jurassic) of the Yorkshire coast. Proc. Yorks. geol. Soc. 44, 399-429.

BROADHURST, F.M. and DUFFY, L. 1970. A plesiosaur in the Geology Department, University of Manchester. Museums Jl, 70, 30-31.

GENTRY, A.W. 1979. Curation of fossil vertebrates. Spec. Pap. Palaeont. 22, 87-95.

HOWE, S.R., SHARPE, T. and TORRENS, H.S. 1981. Ichthyosaurs: a history of fossil 'sea-dragons'. National Museum of Wales, Cardiff, 32pp.

HOWIE, F.M.P. 1979a. Museum climatology and the conservation of palaeontological material. Spec. Pap. Palaeont. 22, 103-125.

1979b. Physical conservation of fossils in existing collections. Newsl. Geol. Cur. Gr. 2, 269-80.

PALMER, C.P. 1983. Stratigraphical recording - two practical problems. The Geological Curator, 3, 454-457.

RIXON, A.E. 1976. Fossil animal remains: their preparation and conservation. Athlone Press, London, viii + 304pp.

SCRUTTON, C.T. 1979. The preparation of sections or peels of corals and stromatoporoids: a question of curatorial policy. Spec. Pap. Palaeont. 22, 97-101.

THOMSON, G. 1978. The Museum Environment. Butterworths, London and Boston, xiv + 270pp.

POETS CORNER

Ian Rolfe forwarded an article about the Scottish poet Edwin Morgan (in the Glasgow Herald for 1st December 1984), from which the following 'edited highlights' were taken:

Poets these days don't come typecast. Edwin Morgan is neither Byronic nor dishevelled. Indeed, anyone meeting the Emeritus Professor of English from Glasgow University for the first time might easily take him with his well-cut grey hair and suit for a prosperous business man. His latest collection of poems, Sonnets from Scotland - the preposition is significant - was published on St Andrew's Day, 1984. The 51 poems range widely in time and subject matter from their Scottish launching pad, but all employ the sonnet structure.

His collection spans the visionary and olympian, the particular and intimate. From a distant past when the Bearsden sharks swam, the sonnets progress through historical times and characters to a searing view of nuclear holocaust, and a more mystic if equally apocalyptic future - Burns's seas really going dry and rocks melting with the sun, the surface of the earth folding in on itself, Scotland translated to Jupiter.

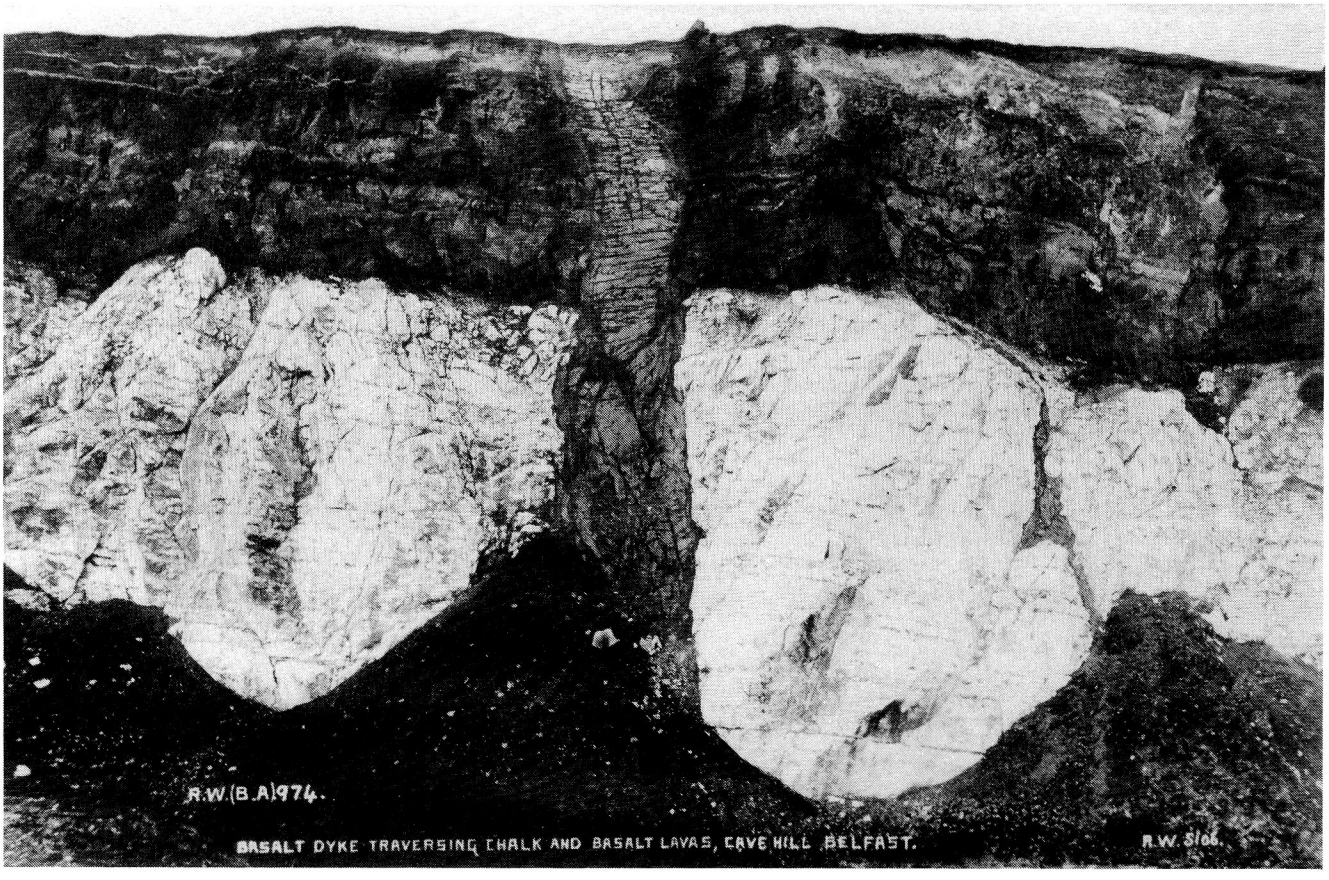
SONNETS FROM SCOTLAND by Edwin Morgan is published by Mariscat Press at £5.70 (hardback) and £3.75 (paperback).

CARBONIFEROUS (For I.R.)

Diving in the warm seas around Bearsden,
cased in our superchitin scuba-gear,
we found a world so wonderfully clear
it seemed a heaven given there and then.
Hardly! Et in Arcadia, said the shark,
ego. We stumbled on a nest of them.
How could bright water that hid nothing stem
our ancient shudder? They themselves were dark
but all we saw was the unsinister
ferocious tenderness of mating shapes,
a raking love that scoured their skin to shreds.
We feared instead the force that could inter
such life and joy, in fossil clays, for apes
and men to haul into their teeming heads.

THEORY OF THE EARTH

James Hutton that true son of fire who said
to Burns 'Aye, man, the rocks melt wi the sun'
was sure the age of reason's time was done:
what but imagination could have read
granite boulders back to their molten roots?
And how far back was back, and how far on
would basalt still be basalt, iron iron?
Would second seas re-drown the fossil brutes?
'We find no vestige of a beginning,
no prospect of an end.' They died almost
together, poet and geologist,
and lie in wait for hilltop buoys to ring,
or aw the seas gang dry and Scotland's coast
dissolve in crinkled sand and pungent mist.



Tertiary dolerite dyke intruded through Cretaceous chalk - Tertiary basalt succession. Quarry, south side of Cave Hill, Belfast, Co. Antrim, 1893. Geology 42/05, R.J. Welch Collection of photographs, Ulster Museum (catalogue reviewed herein). Reproduced by permission of the Ulster Museum.

The Geological Curator, Vol.4, No.2, 1985 (for 1984), pp. 69-84.
COLLECTIONS, COLLECTORS AND MUSEUMS OF NOTE. NO.46.

THE FOSSIL COLLECTION OF DR JOHN LEE (1783-1866) OF HARTWELL

BY JUSTIN B. DELAIR

BIOGRAPHICAL INTRODUCTION

Born on 28th April, 1783, John Lee was educated at St. John's College, Cambridge, where he was fifth wrangler in 1806. He obtained a LL.D degree in 1816, after which he travelled extensively in Europe and the East. He assumed the surname Lee in lieu of his patronymic by royal licence in 1815, in compliance with the will of his maternal uncle William Lee Antonie of Colworth House, Bedfordshire, devisee of Sir George Lee, Bt. Sir George being without issue on his death in 1827, the whole of the property devolved on John Lee.

Lee was the eldest son of John Fiott, merchant in London, by Harriott, daughter of William Lee of Totteridge Park, Hertfordshire and grand-daughter of Sir William Lee (Lord Chief Justice of England in 1754). Surviving records in Aylesbury Museum refer to Dr Fiott, who lived near Bedford, so the Fiott family were both scattered and well established professionally.

Lee seems never to have actively taken up his profession, except in the capacity of treasurer and librarian of the now defunct Advocates of Doctors Commons, and appears to have spent a great deal of his time at Hartwell House near Hartwell village, Buckinghamshire. He was, however, appointed a magistrate in 1819 and his name stood first in the roll of High Sheriffs of Buckinghamshire in 1867. He was made a Q.C. in 1864 by Lord Chancellor Westbury.

Lee was lord of the manors of Hartwell, Stone, and Bishopstone, and patron of two livings. Politically he was an 'advanced liberal'. A teetotaller, a champion of anti-tobaccoism and of female suffrage, Lee was nevertheless also a Fellow of such an 'establishment' institution as the Royal Astronomical Society (and its President for some years), and a Member of the Geological, Geographical, British Meteorological, British Archaeological, Syrio-Egyptian, Asiatic, Chronological, and Numismatic Societies. He built a large private observatory at Hartwell House which was much used by his fellow astronomers. The Buckinghamshire County Infirmary was opened in 1833 mainly through Lee's exertions. He generously gave 1000 guineas (a huge sum in those days) towards the infirmary's continued upkeep.

Married twice, first in 1833 to Cecilia Rutter (died 1854), and then in 1855 to Louisa Catherine (elder daughter of the then late Richard Ford Heath of Uxbridge), Lee had no children. He died in 1866 and an informative obituary notice of him was printed that year in the Gentleman's Magazine, new series, vol.1, pp.592-593.

HISTORY OF THE COLLECTION

For most of his adult life, Lee was greatly interested in natural history and geology, and amassed a notable private collection of specimens. All the acquisitions were numbered and carefully listed in a manuscript catalogue that eventually filled four large leatherbound volumes, now preserved at Aylesbury Museum. In these records can be found entries for mummified Egyptian cats, abnormal apples (13 inches in diameter), tropical birds, and various other exotica. The fossils were numerous and varied, and obtained either directly by Lee himself or from other 'geologising' contemporaries. Several of the latter are well known, but many more were obscure individuals who until now have not found a place in published accounts of early and mid ninetenth century fossil collectors.

Records at Aylesbury Museum reveal that Lee was already collecting fossils while a student living at Colworth House, and that in later years he knew and entertained authorities of the calibre of Buckland, Charlesworth, and Owen at Hartwell House, where his collection of antiquities and geological specimens was preserved. Lee also knew and collected with the Rev. Edmund R. Williamson (son of John Williamson, 1774-1837) who, like John Phillips and Gideon Mantell, appears to have visited Hartwell on several occasions. Williamson published the first account of a plesiosaur skeleton discovered (on 17th January, 1833 at a spot between Bedford and Higham-Ferrers) and excavated by Robert Adams, curator of the local museum (1). It is, therefore, not particularly surprising that it was Lee who donated a cast of the left forelimb of this saurian - made at the time by Mrs William H. Smith (2) - to the Geological Society of London in 1833 (3), his involvement in geological matters by that date being very considerable.

Lee's collection remained at Hartwell until 1944, when the greater part of it was removed either to the Pitt-Rivers Museum Oxford (no geological material) or to the Buckinghamshire County Museum, Aylesbury. It was in July or August of that year that Miss I.M. Sweet of the Department of Mineralogy, British Museum (Natural History), examined Lee's geological material at Aylesbury. Certain decayed specimens were disposed of as being unsuitable for rescue; others were reserved for the national collection; some

were set aside for use in local schools; and a few more simply given away. In the following list, these specimens have been designated D (disposed of), BM(NH), and G (given away) respectively.

During October 1956, 131 Lias fossils and 27 Oolite fossils from Yorkshire were transferred from Aylesbury to the Mortimer Museum, Hull (KINCM: 85.56. See Edwards, P.L. 1985. The geological collections of Kingston upon Hull City Museums. The Geological Curator, 4, p.21); a month later 21 Devonian specimens were sent from Aylesbury to the Natural History Society of Torquay's museum in Babbacombe Road, Torquay. These are designated H and T respectively in the following list. All specimens without a letter prefix remain at Aylesbury Museum.

CONTENTS OF THE COLLECTION

Lee registered his acquisitions in the order in which he received them, be they archaeological, medical, mineralogical, or palaeontological specimens. Due to this policy, Lee's original catalogue numbers awarded to fossils (as listed below) are inevitably discontinuous. Volume One lists acquisitions 1-1566, Volume Two 1567-2814, Volume Three 2815-3943, and Volume Four 3944-4878. Wherever possible, Lee also identified his specimens in accordance with nomenclature current in his day, and his original names (in many instances now in need of revision) are given unchanged below. Text in parenthesis in the 'Details' column records details omitted from Lee's record, but which can be inferred with reasonable confidence from other sources. Accession numbers apparently out of sequence in the list accurately reflect their arrangement in Lee's catalogue.

ACKNOWLEDGEMENTS

I thank Miss Jill Royston of the Buckinghamshire County Museum, Aylesbury, for opportunities to examine the Lee manuscript catalogue volumes, for permission to extract from that source the material here presented, and for providing various items of relevant background information; and Dr R.J. Cleevely, Department of Palaeontology, British Museum (Natural History), London, for discussing several matters relating to Lee's collection and its donors.

Volume One

		Fossil	Details
	32	oak	Dredged from Harwich harbour, 1829.
	42	vegetable	Belonged to Mr Donovan of Lambeth. Sold by auction by Mr Thomas, King Street, Covent Garden, 18th March, 1828. Acquired about 1829.
	77	Ludus helmontii	From Captain W.H. Smyth, R.N., the observatory Bedford.
D	78	unnamed	Headington, Oxford. From William Longley.
BM(NH)	99	unnamed	Rocks below Hotwells, Clifton, Bristol. From T. Wilson of St Paul's Yard, 1797.
D	124	unnamed	Stonepit, Hartwell (Portlandian/Purbeckian).
	126	wood	Stonepit, Hartwell (Portlandian/Purbeckian).
D	127	unnamed	Headington, Oxford, or Bitton, Somerset. From William Longley.
	141	unnamed	Headington, Oxford. From Mr Longley.
D	147	unnamed	Stone-pits, Box End, Kempston, Bedfordshire. From W.H. Smythe.
	156	unnamed	Quainton, Buckinghamshire.
	157	unnamed	Ulpha-in-Millom, Cumberland. From Rev. I. Walker of Harold.
D	178	unnamed	Well in St Paul's, Bedford. Found at a depth of 60 ft. From Rev. E.R. Williamson.
	247	bivalves	Sharnbrook, Bedfordshire (Oxford Clay).
	254	'shell'	Gravel-pits, Beachampton, Buckinghamshire. From Joseph Monk.
	267	Ichthyosaurus sp.	Vertebra. Near river bank at Castle Mills, Bedford. In Gault, many feet below ground-level. From Dr Witt of Bedford.
	268	Ichthyosaurus sp.	Two vertebrae. Near river bank at Castle Mills, Bedford. In Gault, many feet below ground-level. From Dr Witt of Bedford.

	285	unnamed	Greenhithe chalk quarries, Kent, 1833. From Rev. G.C. Renossard.
	338-340	unnamed	Several specimens. Greenhithe chalk quarries, Kent, 1833. From Rev. G.C. Renossard.
	357	'shell'	Northampton.
	386	unnamed	Beachampton, Buckinghamshire. From Joseph Monk.
	390	unnamed	Hartwell. From Rev. S. Gompertz.
D	391-393	Trigonia sp.	?Hartwell.
	403	wood	Under the cliffs at Brighton. Found March 1835 by Rev. S. Gompertz.
	407	unnamed	Headington, Oxford. From Mr Longley (4).
	408	unnamed	Gravel-pit in Gold Close, Pullox Hill.
G	409	plant	Sharnbrook field. From Mr Gibbard.
	413	plant	Hartwell. Found by Rev. S. Gompertz.
	424	unnamed	Excavation in Newport Pagnell. Found by Mr George Lucas.
	450	unnamed	Ditch excavation at Hartwell. Found by Rev. S. Gompertz.
	486	unnamed	Sharnbrook, Bedfordshire. Specimen no.1 in Lee's old 'Colworth' collection.
	488	'shell'	Sharnbrook gravel-pit, Bedfordshire. Specimen no.4 in Lee's old 'Colworth' collection.
	511	Elephas sp.	Part of an axis. Norfolk (Pleistocene). From Dr Blake, LL.D.
	512	horn (mammalian)	In cliff above high-water mark, Walton-on-the-Naze, Essex.
	602	unnamed	Well at Edgeware, Middlesex.
	607	wood	Fuller's Earth pits, Aspley, Bedfordshire. Found 9th October, 1828.
	611	fish	Palate. Headington, Oxford, or Bitton, Somerset. Found by William Longley.
D	613-614	'shells'	Merton vicarage, Oxfordshire. Found by Rev. T. Lys.
	615	oyster (?Liostrea)	Brill. Found September, 1836.
	616-617	oysters	Hartwell. Found 1836.
	618	bones (two vertebrae)	Brill. Purchased September, 1836. One specimen went to Miss Jane Smyth of Bedford.
	621	'shell'	Brill. Found September 1836.
	622	'shell'	Stone or ?Quainton.
	623	'shell'	Stone or Hartwell.
	620	'shell'	Cliff in Norfolk. From Dr Blake, LL.D.
	629	bones	Cliff in Norfolk. From Dr Blake, LL.D.
	650	unnamed	Tunnel driven under River Thames (in ?London).
D	651	ammonite	On road to St Neot's about 7 miles from Cambridge. Specimen no.5 in Lee's old 'Colworth' collection.
D	652	ammonite	On road to St Neot's about 7 miles from Cambridge. Specimen no.8 in Lee's old 'Colworth' collection.
D	653	ammonite	On road to St Neot's about 7 miles from Cambridge. Specimen no.6 in Lee's old 'Colworth' collection.
	660	ammonite	11 ft. below surface in clay at Sherington, Buckinghamshire. Found 1826 and presented by Rev. I. Pretyman.
	713	tooth	No details recorded.

	779	wood	Calley Farm, Hartwell. Presented by I. May.
	781	Capra sp.	Fish-pond excavation south of Hartwell House, 1837. From I. May. Identified as a metacarpal by W.V. Pettigrew.
	794	bone	Limestone (?Purbeck). Stone-pit in Mr Benjamin Todd's fields at Stone, Buckinghamshire.
	816	elk	Antler. Kirkdale Cave, Yorkshire (Pleistocene). Found by Dr W. Buckland.
	817	wood	From W.V. Pettigrew.
	820	Rhinoceros sp.	Upper portion of femur. (Pleistocene). Found by J. Lee, July 1837.
	906	Turbo sp.	Buckinghamshire.
	913-915	unnamed	Three fossils found with the Bedfordshire plesiosaur skeleton (v.p.2). From Captain Smith, R.N.
D	916-921	'shells'	Bognor Regis, Sussex (Eocene). From W.V. Pettigrew.
	922	shell	Hartwell.
D	923	Carducium	Bedfordshire.
D	924	'cockle-shells'	Unprovenanced.
	995	ammonite	Cambridgeshire. Specimen no.9 of Lee's old 'Colworth' collection.
	996	ammonite	Gravenhurst, Bedfordshire, 1835. From Rev. I.W. Hawksley of Souldrop.
	1262	wood and other fossils	Hartwell, 1836.
D (in part)	1103-1115	echinoids	Chalk. Kent (1108 and 1112 disposed of in 1956).
D	1116-1122	Plagiostoma spinosa	Middle Chalk. Kent.
G	1125	coral	No details recorded.
	1132-1133	ammonites	Lower Chalk. Kent.
	1135-1136	sharks	Teeth. Chalk. Kent.
	1140	(?) saurian or fish	Vertebra in septaria. Sheppey, Kent. (London Clay).
D, G(in part)	1141-1145	pectens	Chalk. Kent (1143 and 1144 disposed of; 1145 lent to Sands School).
	1137	fish	Palatal tooth. Lower Chalk. Kent.
	1146-1147	terebratulae	Greensand. Kent.
G (in part)	1148-1149	fish	Scales in Lower Chalk. Steyning, Sussex (1148 lent to Sands School).
D (in part)	1150-1154	Venus sp.	Lower Chalk. Kent (1151 disposed of 4th July, 1956).
D	1158	Pecten sp.	Kent.
D (in part)	1159-1162	ostreae	Kent. (1159 and 1161 disposed of 9th May, 1956).
	1163	Cardua sp.	Kent.
	1164	Inoceramus sp.	London Clay. Sheppey, Kent.
	1165	(?) fish or saurian	Vertebrae. London Clay. Sheppey, Kent.
	1166	wood	No details recorded.
	1167	Pecten sp. (in flint)	(Chalk). Kent.
	1184	crab	London Clay. Sheppey, Kent.
D	1189	'shells'	Hordle Cliff, Hampshire (Eocene).
D	1199	'shells'	Limestone (Oolitic). From course of canal at Gibraltar, between Woodstock and Bicester. Found October, 1836.
	1201	'shells'	Blue Limestone. Stonepit by the two mills on the Bicester Road, two miles towards Aylesbury, Buckinghamshire. Found October, 1836.

	1203	'shells'	Chalk. Kent.
	1254, 1257	oysters (in clusters)	Brill. Found 1836.
D	1255	'shells' (cluster of)	Screws, near Brill. Found 1836.
	1256	Mya sp., and other 'shells'	Brill, near Aylesbury. Found 1836.
	1258-1259	ammonites	Hartwell (?Portlandian).
	1260	Cardium	Hartwell or Stone stone-pit.
	1261	Cardium, or Natica	Hartwell or Stone.
	1262	wood	Blue Clay. Hartwell.
	1263-1264	unnamed	Chalk. Boddington Hill near Wendover Hale. Obtained 31st August, 1837.
	1322	oyster (?Liostrea)	Hartwell.
	1332	Ammonites elegans	Bugbrook, Northamptonshire. Presented by W.D. Saull, 12th December, 1837 (5).
	1335	Ammonites communis	Lias. Whitby, Yorkshire.
	1356	Iguanodon mantelli	Vertebrae. Wealden. Isle of Wight. Donated by W.D. Saull, 23rd March, 1838 (5).
	1357	Iguanodon mantelli	Vertebrae. Wealden. Culver Cliff, Isle of Wight. Donated by W.D. Saull, 23rd March, 1838.
	1358-1359	Iguanodon sp.	Vertebrae. Wealden. Near Brading, Isle of Wight. Donated by W.D. Saull, 1836.
	1360	Iguanodon sp.	Part of femur. Wealden. Near Culver Cliff, Isle of Wight. Donated by W.D. Saull, 1836.
	1361	bone fragment (?saurian)	Wealden. Isle of Wight. Donated by W.D. Saull, 1836.
	1362	nummilites	Upper beds of London Clay. Caldwell Bay, Isle of Wight. Donated by W.D. Saull, 1836.
	1363	cervid mammal	Antler. Excavations for Woolwich Docks, London. Obtained 25th June, 1838.
	1393-1394	fish	Vertebral centra. Cliff by station house, Becton, near Hordle, Hampshire.
	1395	oyster	London Clay. Cliff at Becton, Hampshire.
	1396	'reed-shaped' fossil	London Clay. Cliff at Becton, Hampshire.
	1397	crustacean	London Clay. Cliff at Becton, Hampshire.
D	1398	fish	Bone. London Clay. Cliff at Becton, Hampshire.
	1399	fish	Palate. Limestone 15-16 ft.below surface in stone-pit at Hartwell (?Portlandian). Seen by J.J. Bowerbank (6).
	1427	unnamed	Bacomb Hill, near Wendover. Presented by Mr Mayne of Great Hampden, 1838.
	1496	bones (?saurian)	Hartwell, Buckinghamshire.
	1503	wood	Portland, Dorset (Portlandian). Presented by Mrs Mullins, 23rd November, 1839.
	1510	unnamed	Cheltenham, Gloucestershire. Presented by Mrs A. Smyth of Cardiff, 13th December, 1839.

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	1595	Nautilus sp.	No details recorded.
	1601	Ostrea sp.	London Clay. Hardwell (=Hordwell/Hordle), Hampshire.
	1629	ammonite	Mr Tomes's stonepit, Dinton, Buckinghamshire. (Portlandian). Found 1840.
H	1639	Ammonites annulatus	Lias. Whitby.
	1640	Ammonites communis	Lias. Whitby. Two specimens.
	1641	Ammonites hawskerensis	Lias. Whitby.
	1642	Ammonites striatus	Lias. Whitby.

	1643	Ammonites elegans	Lias. Whitby.
H	1644	Ammonites communis	Lias. Whitby. Two specimens.
H	1645	Ammonites walcotti	Lias. Whitby. Two specimens.
H	1646	Ammonites planicostatus	Lias. Whitby.
H	1647	Ammonites vittatus	Lias. Whitby. With Pecten planus and Cardium truncatum.
	1648	Ammonites sp.	Lias. Whitby.
H	1649	Inoceramus dubius	Lias. Whitby.
H	1650	Cardium truncatum	Lias. Whitby.
H	1651	Nacula ovum	Lias. Whitby.
H	1652	Amphidesma donaciforme	Lias. Whitby.
H	1653	Zamia sp.	Lias. Whitby.
H	1655	Ichthyosaurus sp.	Lias. Whitby.
	1675	unnamed	Creslow, Buckinghamshire. Obtained 28th July, 1840.
	1676	trigoniae	Mr Read's pit, Hartwell square, Buckinghamshire. Found 3rd August, 1840.
	1677	Asteracanthus sp.	Hartwell Limestone (?Portlandian). Hartwell, Buckinghamshire. From Mr James Horton, 1838.
	1689	unnamed	Received from Lord Albert Conyingham. No other details recorded.
	1695	Ostrea sp.	Several 'shells'. Blue Clay in shaft by railway near Dr Pearson's farm, where the tracks pass through the tunnel at Blisworth, Northamptonshire.
	1696	Ostrea sp.(two specimens)	Same horizon and locality.
	1697	Ostrea sp.(eight specimens)	Same horizon and locality (7).
H	1700	Pecten sp., and a belemnite.	Same horizon and locality.
	1701	'shells'	Same horizon and locality.
D	1702	ammonite (portion of)	Same horizon and locality.
	1703	Pholidomya and Pecten	Same horizon and locality.
	1704	Pecten sp.	Same horizon and locality.
	1705	unnamed	Same horizon and locality.
	1706-1707	ammonites (two specimens)	Same horizon and locality. Found 1836 or 1837.
	1708	belemnites (four specimens)	Same horizon and locality.
	1709-1711	wood	Same horizon and locality. Found 1836 or 1837.
	1722	bones (saurian or fish)	8 or 9 ft. below ground level. Hartwell, Buckinghamshire. Found September, 1840.
	1723	?Plesiosaurus sp.	8 or 9 ft. below ground level. Hartwell, Buckinghamshire. Found August, 1840.
	1724	bones (saurian or fish)	8 or 9 ft. below ground level in Field no.74 on the Hartwell estate. Found October, 1840.
	1737	crocodile	Tooth. 8 or 9 ft. below ground level in Field no.74 on the Hartwell estate. Presented by Mr John Williams.
D	1741	bone	Hordle Cliff, Hampshire (Eocene).
	1780	Gyrodus sp.	Jaw and palate. Pit in Field no.74 on the Hartwell estate. Found December, 1840.
	1792	'shell'	Chalk. Near High Wycombe, Buckinghamshire. From Lord Carrington, 6th April, 1841.
D	1843	ammonite	Near Caxton, Cambridgeshire.
	1844	Ostrea (?Liostrea) sp.	Near Sharnbrook, Bedfordshire. Found by Mr Scrivener, 17th June, 1841.
	1845	fish	Near Sharnbrook, Bedfordshire. Found by Mr Scrivener, 17th June, 1841.

	1846-1847	ammonites	Near Sharnbrook, Bedfordshire. Found by Mr Scrivener, 17th June, 1841.
D	1848	'shell'	Near Sharnbrook, Bedfordshire. Found by Mr Scrivener, 17th June, 1841.
	1849-1850	'shells'	Hordle Cliff, Hampshire (Eocene).
	1855	bones, vertebrae, etc.	Hartwell, Buckinghamshire. Found 1841.
D	1879-1881	unnamed	Kidlington Green, north of Oxford. Presented by John Lockhart, 13th September, 1841.
	1883	unnamed	Railway cutting at Studley Hill, on Great Western Railway, near Wootton Bassett, Wiltshire. Presented by John Lockhart, 13th September, 1841.
	2060	Ammonites biplex	'Rubble-bed' above blue clay, 3ft. 8in. below ground level. Brickpit in field no.151 on the Hartwell estate (8).
	2061	ammonites	Two unidentified specimens. Same horizon and locality.
	2062	Cirrus sp.	Same horizon and locality.
	2063	Trigonia sp.	Same horizon and locality. (Two specimens).
	2064	Ostrea (Liostrea) deltoidea	Same horizon and locality.
	2065	Trigonia sp.	Same horizon and locality.
	2066	Cirrus sp.	Clay below the 'Rubble-bed', 12-18ft. below the surface. Same locality.
	2067-2068	Ostrea (Liostrea) deltoidea	'Rubble-bed' above blue clay, 3ft. 8in. below ground level. Same locality.
	2069-2070	'shells'	Same horizon and locality.
	2071	ammonite	Unnamed form in blue clay. Same locality.
	2072	Ammonites ?gigas	Same horizon and locality.
	2073	'shells'	Same horizon and locality.
	2074	'shell'	Same horizon and locality.
	2075	ammonite	Huge unidentified form in limestone (Portlandian). Same locality.
	2140	unnamed	Various unspecified fossils from a cliff in Norfolk.
	2141	fish	Limestone (Portlandian/Purbeckian). 7ft. below ground level, pit no.76 on the Hartwell estate.
D	2142	unnamed	Well for new villas by pit no.63 on the Hartwell estate.
	2182	Ammonites dentatus	Gault. Folkestone, Kent.
	2340-2341	ammonites	Blue Lias. Bath, Avon. Presented by Charles Empson of Bath.
	2342-2343	fish	Two palates in Bath oolite. Near Hampton (probably Bathampton), Bath. Presented by Charles Empson of Bath.
	2344	'shells'	Bath limestone. Park at Bath. Presented by Charles Empson of Bath.
	2345	fish	Limestone (?Purbeck). Stone, Buckinghamshire. Presented by Rev. J.B. Reade, 30th September, 1843.
	2346	'shell'	Chalk. Plisted (?) Common, Buckinghamshire (9).
	2352	unnamed	Railway excavations. Esk valley, near Whitby (7).
	2355	pectens (two specimens)	Railway tunnel near the chapel, on the Usk (= Esk). One specimen presented by W. Blake.
H	2360	?saurian	Vertebra. Whitby, Yorkshire (Lias). Obtained 5th September, 1843.
H (2363); D (2361-2)	2361-2364	belemnites (four specimens)	Whitby, Yorkshire (Lias). Obtained 5th September, 1843.
	2359-2362	unnamed	Lias. Whitby, Yorkshire.

	2389	'shell'	Found on garden-walk at 'Elm Grove', John Fowler's estate, near Corsham, Wiltshire. Received 21st September, 1843.
	2391	unnamed	From quarries at Clappergate, near Ambleside, Cumbria.
H	2392	Ammonites vulgaris	Lias. Whitby, Yorkshire. Received from Mr J.Y. Akerman.
H	2393	Ammonites hildensis	Same horizon, locality and history.
D	2394	Ammonites hawskerensis	Same horizon, locality and history.
H	2395	Ammonites sp.	Same horizon, locality and history.
	2396	Ammonites annulatus	Same horizon, locality and history.
H	2397	Ammonites elegans	Same horizon, locality and history.
H	2398	Ammonites clevelandicus	Same horizon, locality and history.
H	2400	Ammonites sp.	Same horizon, locality and history.
	2401	Ammonites striatulus	Same horizon, locality and history.
H	2402	Ammonites vittatus	Same horizon, locality and history.
H	2403	Ammonites semicostatus	Same horizon, locality and history.
H	2404	Ammonites maculatus	Same horizon, locality and history.
H	2405	Ammonites hetrophyllus	Same horizon, locality and history.
H	2406	Ammonites gagateus	Same horizon, locality and history.
H	2407	Ammonites crassus	Same horizon, locality and history.
H	2408	Ammonites planicostatus	Same horizon, locality and history.
D	2409	fish	Fragments in Lias. Quarry at Whitby. From Mr J.Y. Akerman.
H	2410-2411	fishes	Alum Shales (Lias). Whitby. From Mr J.Y. Akerman.
	2412	Pecopteris hastata	Alum Shales (Lias). Whitby. From Mr Saull.
H	2413	Sphenopteris sp.	Lias. Whitby. From Mr J.Y. Akerman.
H	2414	Zamia pectinata	Lias. Whitby. From Mr J.Y. Akerman.
H	2415	Zamia gigas	Lias. Whitby. From Mr J.Y. Akerman.
D (2416) H (2417)	2416-2417	belemnites	Lias. Whitby. From Mr J.Y. Akerman.
	2421	saurian	Tooth. Yorkshire Oolite. From Mr J.Y. Akerman.
	2422	Hybodus sp.	Lias. Whitby. From Mr J.Y. Akerman.
	2423	Astacus rostratus	Lias. Whitby. From Mr J.Y. Akerman.
H (2425)	2424-2425	Melania heddingtonensis	Oolite. Scarborough. From Mr J.Y. Akerman.
H	2426	Pecten abjectus	Oolite. Scarborough. From Mr J.Y. Akerman.
H	2427	Pecten maltonensis	Oolite. Unprovenanced. From Mr J.Y. Akerman.
H (2429-2430, 2432-2435)	2428-2435	Pecten spp.	Oolite. Malton. From Mr J.Y. Akerman.
H (2437-2442, 2445-2448, 2450-2451, 2454-2456, 2459-2460)	2437-2461	'shells'	Oolite. Malton and Scarborough. From Mr J.Y. Akerman.
	2462	Gryphaea incurva	Derived specimen. Alluvium. Hartford (10). Presented by Mr W.D. Saull.
D (2474) (some to H)	2464-2474	unnamed invertebrates	Oolite. Malton and Scarborough.
	2515	Pecten sublaevis	Ironstone. Near railway by chapel on the Usk (= Esk) between Whitby and Pickering, Yorkshire. Presented by John Waddington, 1st October, 1843.
H (2517)	2516-2518	unnamed invertebrates	Blue Lias. Same horizon, locality and history.

H	2524	Pecten sublaevis	Lias ironstone. Tunnel near Whitby.
	2553	Ammonites heterophyllus	Lias. Whitby, Yorkshire. From Mr Ripley.
H	2554	Ammonites annulatus	Lias. Whitby, Yorkshire. From Mr Ripley.
H	2555	Ammonites excavatus	Lias. Whitby, Yorkshire. From Mr Ripley.
D	2556	plant	Lias. Whitby, Yorkshire. From Mr Ripley.
H	2557	Ammonites crassus, A. mulgravius, A. crassulus, A. heterophyllus (in one block)	Lias. Whitby, Yorkshire. From Mr Ripley.
H	2558	Ichthyosaurus sp.	Vertebrae in a nodule. Lias. Near Whitby. From Mr Ripley.
	2559	madrepores (two specimens)	Beach at Whitby. From Mr Ripley.
H	2560	Belemnites tubularis	Upper Lias. Saltwick, Yorkshire. From Mr Ripley.
H	2561	belemnite	Upper Lias. Near Whitby. From Mr Ripley.
D (2562) H (2563)	2562-2564	unnamed invertebrates	Lias. Whitby. From Mr Ripley.
	2565	fish (dorsal spine)	Lias. Whitby. From Mr Ripley.
H	2566-2567	fishes	Lias. Near Whitby. From Mr Ripley.
H	2570	Pinna folium	Lias. Whitby. From Mr Ripley.
H	2572-2573	plant impressions	Sandstones. Near Whitby. From Mr Ripley.
	2574	Ichthyosaurus sp.	Sectioned vertebra. Whitby. From Mr. Ripley.
H	2575	Pentacrinus briaerius	Lias. Whitby. From Mr Ripley.
H	2576	Zamia gigas	Sandstone. Near Whitby. From Mr Ripley.
	2577	Teleosaurus sp.	Upper jaw and skull. Whitby. From Mr Ripley.
H	2578	Inoceramus dubius	Lias. Whitby. From Mr Ripley.
	2579	Ichthyosaurus sp.	Phalangeals. Whitby (Lias). From Mr Ripley.
	2581	Teleosaurus sp.	Lower jaw. Whitby (Lias). From Mr Ripley.
H	2582	Ammonites elegans	Whitby (Lias). From Mr Ripley.
	2585	Ichthyosaurus sp.	Specimen in case no.40. Whitby (Lias). From Mr Ripley.
	2588	Lepidotus minor	Palates. Stonepit no.76 on Mr John Monk's farm, Stone, Buckinghamshire (?Purbeck).
	2589	oyster	Stonepit, Hartwell, Buckinghamshire (Portlandian/ Purbeckian). From Rev. J.B. Reade (11).
	2591	unnamed	Clouds Hill limeworks, near Breedon, Leicestershire (?Lias). Presented by Rev. W.H. Kelk.
	2594	Hamites sp.	Gault. Burham, Kent. From Mr Simmons of Maidstone (12).
	2594a	Hamites sp. (fourteen specimens)	Gault. Burham, Kent. From Mr Simmons of Maidstone.
	2596	pentacrinite	Gault. Burham, Kent.
G (13)	2597	scaphite	Upper Chalk. Near Maidstone, Kent.
	2598	scaphite	Greensand. Near Maidstone, Kent.
	2599	sponge	Upper Greensand. Wiltshire. From Mr W.D. Saull.
	2600	Ingonia alaformis	Greensand. Near Maidstone, Kent.
D	2601	Nautilus sp.	Greensand. Near Maidstone, Kent.
G (13)	2602	?Carophylla sp.	Upper Chalk. Maidstone, Kent.
	2603	coprolites (two specimens)	Lower Chalk. Near Maidstone.
D	2604	Terebratula sp.	Chalk. Debtling, near Maidstone.
	2605	Horneria sp.	Chalk flint. Debtling, Kent.
G (13)	2606	echinoid	Specimen in flint. Debtling, Kent. From Mr Simmons of Maidstone.

	2607	Cidaris diadema	Oolite. Near Calne, Wiltshire. From Mr W.D. Saull.
	2608	figs (two specimens)	Sheppey (London Clay).
	2609	figs (eight specimens)	Sheppey (London Clay).
	2610	crabs (two specimens)	Sheppey (London Clay).
	2611	fish	Two vertebrae. Sheppey (London Clay).
	2617	Ostrea sp.	Limestone.
	2621	Gymnodus sp., or Orodus sp.	Palate.
	2622	Asaphus tyrannus	Dudley limestone. Dudley. From Rev. Erle of Hardwicke (14).
	2623	Gorgonia assimilis	Dudley limestone. Dudley. From Rev. Erle of Hardwicke.
	2624	plants	Blue Lias. Near Bath. From John May.
	2625	Stigmaria fucoides	Sandstone band in Coal Measures. Near Huddersfield. From Mr W.D. Saull.
T	2632-2634	madrepores (five specimens)	Chalk. Near Torquay, Devon (15).
T	2635	Stromatopora sp.	Limestone (saliferous conglomerate). Near Teignmouth, Devon.
T	2636	Stromatopora battingsbyi	Limestone (saliferous conglomerate). Near Teignmouth, Devon.
T	2637	Strombodes helianthoides	Barton, near Torquay, Devon.
T	2638	Paites sp.	Polished specimen. Meadfoot, near Torquay. From Rev. J.I. (or S.) Statham of Torquay.
T	2639	Orthoceras sp. (three specimens)	Limestone, Petit Tor, Devon.
T	2641	Favosites spongites	Limestone. Petit Tor, Devon.
T	2642	Nautilus sp. (several specimens)	Limestone. Petit Tor, Devon.
T	2644	Orthoceras sp.	Limestone. Petit Tor, Devon.
	2647	Terebratula sp.	Barton, near Torquay, Devon.
	2674	Dapedium politum	Lower Lias. Osgathorpe, near Barrow-on-Soar, Leicestershire. A complete fish presented by Rev. J.H.H. Kelk on 17th July, 1844. Figured as Dapedium politum by G.A. Mantell in his 'Wonders of Geology'.
	2675	stem of fern or pine (two specimens)	Coal Measures. Coal-pit in Leicestershire (exact site unnoted). Received from Rev. J.H.H. Kelk.
	2681-2683	'shells'	Hill between Bakewell and Castleton near Bonsall, Derbyshire. Obtained 17th September, 1844.
G (2687)	2685-2687	'shells'	Pit near Castleton, Derbyshire.
	2693	'shells'	Castleton, Derbyshire. From Mrs Lee.
	2720-2721	'shells'	Hill near Speedwell Mine close to Mr Evans's hotel, Matlock. Obtained 9th September, 1844.
	2740-2742	'shells'	Hill near Crick, Matlock, Derbyshire. Found 10th September, 1844.
	2743-2744	Crinites sp.	Hill near Crick, Matlock, Derbyshire. Found 10th September, 1844.
	2759	'shells'	Hill near Middleton, Matlock, Derbyshire. Obtained 11th September, 1844.
	2762	entrochi	Third quarry near Middleton, Derbyshire. Obtained 11th September, 1844.
	2766	entrochi	Limestone. Third quarry near Middleton, Derbyshire. Found by Mrs Lee.
	2775	'shell'	Limestone. Middleton, Derbyshire.
	2780	'shell'	Limestone. Middleton, Derbyshire.

	2784-2785	'shells'	Roadside by inn on road descending hill to viaduct near Middleton, Derbyshire.
	2786	'shells'	By high road on west side of Matlock Bridge, above terrace over river facing church, Derbyshire. Found 12th September, 1844.
	2788	'shells'	Limestone. Churchyard wall at Old Matlock Church, Derbyshire. Found 12th September, 1844.
	2806	Cetiosaurus sp.	A vertebra. Sussex (Wealden). Presented by G.A. Mantell, who alluded to it in his 'Medals of Creation' (London, 1854), vol.2, p.726.
	2807	Iguanodon sp.	A vertebra. Sussex (Wealden). Presented by G.A. Mantell, who alluded to it in his 'Medals of Creation' (London, 1854), vol.2, p.726.
	unnumbered	pecten	Tertiary strata. Maryland, USA. Presented by Dr (G.A.) Mantell.

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	2849	Cerithium sp.	Kimmeridge Clay. Brick-kiln, Hartwell, Buckinghamshire. From Mr Hunt (16).
	2853	ruminant mammal	Portion of a diseased lower jaw. Unprovenanced. Received from Mr (E.P.) Charlesworth in 1845. Stated to have been examined by Richard Owen in 1860.
	2854	Bos primigenius	A humerus. Unprovenanced. Received from Mr (E.P.) Charlesworth in 1845.
	2855	mammal	A fossilised os calcis. Unprovenanced.
	2856	mammal	A second cervical centrum. Unprovenanced. Received from Mr Charlesworth in July, 1845.
G	2857	sharks	Teeth. Tertiary beds. Malting (17).
	2896	Pliosaurus sp.	Bones. Field no.150 on the Hartwell estate (Kimmeridge Clay). Found three feet below ground level by James Horton (bailiff), and identified by R. Owen.
	2897	Pliosaurus sp.	Bones. Field no.73 on the Hartwell estate (Kimmeridge Clay). Found by James Horton (bailiff), and identified by R. Owen.
	2903	Pleuropholis serratus	A fish in (Portlandian) stone-quarry on summit of Lodge Hill, near Waddesdon, Buckinghamshire. Found about 1825 by Thomas W. Field of Aylesbury, and presented by his son, Thomas Field, on 26th September, 1845.
	2953	ammonite	Cast. Oxford Clay. Chippenham, Wiltshire. Presented by Rev. Albert Badger of Chelsea, who had received it from W.J. West of Tonbridge, Kent. Acquired on 17th September, 1845.
D	2954	ammonite	Specimen 3 metres in diameter. Oxford Clay. Chippenham, Wiltshire. Presented by Rev. Albert Badger of Chelsea, who had received it from W.J. West of Tonbridge, Kent. Acquired on 17th September, 1845.
	2955	Belemnosopia sp.	Oxford Clay. Near Chippenham, Wiltshire. Presented by Rev. Albert Badger of Chelsea, who had received it from W.J. West of Tonbridge, Kent. Acquired on 17th September, 1845.
	2977	carapace of turtle	Nodule. Harwich, Essex. Presented by Edward Charlesworth in 1845.
G	3016	echinoids	Portions of two specimens in flint (Chalk). Unlocalised site in the Chiltern Hills. Presented by Rev. Cole of Hardwicke.
	3028	saurian (?)	Tooth in limestone containing univalves. Hazlebury Bryan, Dorset. Found by Rev. Henry Walter.
	3034	'shells' and impressions of ferns	Blue Clay. Field in Shropshire (exact site unnoted). Presented by Rev. J.C. Wycherley of Tring in 1846.

	3089	Nautilus sp.	Sheerness, Isle of Sheppey, Kent. Presented by J. March.
	3090	?aenemal impressions	Sandstone bed in Coal Measures. Holmsworth, near Sheffield. Presented by J. Yates about 1847 (18).
D	3156	ammonite (part of)	Dinton, Buckinghamshire (Portlandian). Acquired about 1847.
	3157	ammonites and other fossils	Gloucester (Lias). Acquired about 1847.
	3163	Stigmaria fucoides	Ganister seam in Coal Measures. Derbyshire. Presented by J. Yates (18).
	3247	echini	Several specimens found in Mr Carrington's garden at Missenden, Buckinghamshire. Found September, 1851 by William Kersey, gardener at Hartwell.
	3248	echini	Specimens found at Drayton Beauchamp, Buckinghamshire. Presented by Rev. Kelk in August, 1851.
	3258	?mammal	Bones and a horn. Clay-pit in field no.151 on the Hartwell estate. Found January, 1851.
	3269	unnamed	Stone-pit in field no.200 on the Hartwell estate.
	3270	?mammal	Teeth. Clay-pit in field no.151 on the Hartwell estate.
	3279	unnamed	Probably in Gault, 30ft. below ground level in well sunk in Bridge Field, at Broughton House, 2 miles east of Aylesbury. Presented 1st January, 1852, by Mr Trevor Snr.
	3280	unnamed	From a well 488ft. deep at the asylum, Stone, Buckinghamshire. Obtained January, 1852.
	3333	madrepore (coral)	Sub-fossil specimen. Bermuda. Presented by Captain H.A. Smyth.
	3359	ammonites	'Blue' Lias. Near Newport Pagnell. Presented by George Lucas (19).
	3360	wood	'Blue' Lias. Near Newport Pagnell. Presented by George Lucas (19).
	3388	Pecten maximus and P. carinatus	Tertiary sands. New Jersey, USA. From Mr W.D. Saull.
	3389	fish	A palate. Cornbrash. King's Cliff, Northamptonshire. From Mr W.D. Saull.
	3404	unnamed	Several vertebrae. Dinton, Buckinghamshire (?Purbeck). Found during 1851 and 1852.
	3407	ammonite	From Mr Hunt of Aylesbury (16).
	3437	cervid	Horn (antler) and tooth. Nine ft. below ground level in 'Dark Ruff'. Clay-pit no.161 on the Hartwell estate. Found 17th March, 1851, with a skull that disintegrated. Presented by Mr Lock.
	3574	wood	Halifax. From Prof. Morris, 10th May, 1855. (20).
	3590	unnamed	Near Grantham, and other places, in Lincolnshire. Acquired 1854 or 1855.
H	3591	Ichthyosaurus sp.	Skull. Granby, Nottinghamshire (Lias). Acquired about 1854 or 1855.
	3593	wood	Aspley Wood, Bedfordshire.
	3622	Ichthyosaurus sp.	Vertebrae. Lias. Lyme Regis.
	3625	silicified wood	No details recorded.
D	3685	unnamed	Cambridgeshire. Presented by Rev. William Monk in 1855.
	3691	Ammonites bifrons? and terebratulae	Bedfordshire (Oxford Clay). From W.R. Lewis, Esq., of Sharnbrook (7).
	3713	unnamed	Near Aylesbury (Kimmeridge Clay). From Mr Hunt (16).
T	3714	Strombodes stathami	A coral from the Devonian Limestone. Babbacombe, Devon.

	3715	Ammonites gulielmi	Oxford Clay. Claydon (21).
	3719	fish	Spine. Kimmeridge Clay. Hartwell, Buckinghamshire.
D (3763, 3766)	3759-3767	ammonites	Oxford Clay. Near Souldrop, Bedfordshire (22).
D (3768)	3768-3769	terebratulae	Oxford Clay (3768) and Lias (3769). Souldrop, Bedfordshire.
D	3770	Plesiosaurus sp.	Vertebra. Lias. Souldrop, Bedfordshire.
	3771	Terebratula subrotundata	(?) Red Chalk. Souldrop, Bedfordshire.
D	3772	Terebratula impressa	Oxford Clay. Near Souldrop.
	3773	coral	Near Souldrop.
	3775	pentacrinite	Portions of stems. Lias. Souldrop.
	3776	belemnites	Several specimens. Souldrop.
	3777	belemnite (part of)	Souldrop.
	3778	Ammonites walcotti	Lias. Souldrop.
	3779	Ammonites koenigi, and Turbo panopaea	Oxford Clay. Probably from Souldrop.
	3780	Gryphaea incurva	Lias. Souldrop.
	3782	Gryphaea dilatata	Oxford Clay. Souldrop.
	3783	Glyphea sp.	Part of claw. Portland Stone. Bugle Quarry, Stone, Buckinghamshire.
	3792	unnamed	Artesian well, Southampton, Hampshire. From Captain Atkinson and Mr Pearce of Southampton.
	3829	Ichthyosaurus sp.	Two vertebrae. Trenching on Mr French's Farm, Dinton (Kimmeridge Clay). Found about 1857.
	3904	unnamed (six specimens)	Kimmeridge Clay. Mr Locke's brick-kiln, Hartwell. Buckinghamshire.
	3906	fish	Tooth. Cliffs at Ramsgate, Kent (Chalk). Found during August, 1857.
	3911	ammonite	Oxford Clay. Christian-Malford, Wiltshire. Found by William Jackson in July, 1859.
	3919	wood	Coal Measures.
	3921	coprolites	Several specimens. Belvoir, Leicestershire (Lias). Found October, 1859.
	3922	ammonites (three specimens)	Denton, near Belvoir, Leicestershire (Lias). From Mr Rose.
	3926	unnamed (four specimens)	Denton, near Belvoir, Leicestershire. From Mr Rose, October, 1859.
	3929	ammonites (two specimens)	Belvoir (Lias). From Mr Rose, October, 1859.
	3933	belemnites (two specimens)	Denton, near Belvoir (Lias). From Mr Rose.
	3940	Teleosaurus sp.	Dorsal vertebra.
	3941	Pliosaurus sp.	Portions of a humerus with associated phalangeals.
	3942	Pliosaurus sp.	A humerus.
	3943	Pliosaurus sp.	A small tooth.

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	3944	Pliosaurus sp.	The last cervical vertebra accompanied by the first dorsal vertebra.
	3945	Psammodus sp.	A tooth.
	3946	Megaceros hibernicus	No details recorded.
	3947	Cervus elaphus	No details recorded.
	3948	chelonian	Part of a plastron.
	3949	Ichthyosaurus sp.	Ribs. Kimmeridge Clay near Weedon, Buckinghamshire.

	3950	Ichthyosaurus sp.	A bone. Kimmeridge Clay near Weedon, Buckinghamshire.
	3951	Ichthyosaurus dilatatus	Eight bones. Kimmeridge Clay near Weedon, Buckinghamshire.
	3952	Ichthyosaurus sp.	Five vertebrae. Kimmeridge Clay, near Weedon, Buckinghamshire.
	3953-3955	Ichthyosaurus dilatatus	Nine bones. Kimmeridge Clay, near Weedon, Buckinghamshire.
	3956-3966	Plesiosaurus laevis	A tooth, ribs, vertebrae, and bones. Kimmeridge Clay, near Weedon, Buckinghamshire.
	3967	Ichthyosaurus plano-concavus	Vertebrae. Kimmeridge Clay, near Weedon, Buckinghamshire. (23).
D	3968-3969	Ammonites biplex (two specimens)	Kimmeridge Clay.
	3970-3972	Ammonites biplex (three specimens)	Obtained 19th April, 1860.
	3973	Lima hartwelliana	The TYPE specimen. Kimmeridge Clay. Obtained 19th April, 1860.
D	3974	Thracia depressa	Portlandian. Hartwell, Buckinghamshire.
	3979	Chelone planimentum	Most of an indifferently preserved individual. Eocene Clay. Harwich, Essex.
	3980	Elephas sp.	Bone. Kent's Hole, Torquay, Devon. Presented about 1860 by Mr Abraham of Exeter.
	4032	ammonite	Pit at Hartwell (Kimmeridgian or Portlandian). Found 1859.
	4045	ammonite (part of)	No details recorded.
	4056	unnamed	Denton, near Belvoir, Leicestershire (Lias).
	4057	crinoids	Portions of stems. Devonian Limestone. Ogwell, near Newton-Bushel, Devon. Presented by Mr Vicary of Exeter (24).
	4058	coprolite	Crag beds. Suffolk.
	4059	coprolites	Several specimens. Cambridge Greensand. Cambridgeshire.
	4060	fish and/or saurian	Teeth and vertebrae. Cambridge Greensand. Cambridgeshire.
	4062	unnamed	No details recorded.
	4063	ammonites	Several specimens made into a box.
	4064	(mammalian)	Teeth, ear-bones, vertebrae, etc. Coprolite beds in Suffolk Crag. Suffolk.
	4067	Elephas sp.	Molar. Presented by Mr Dollond, 1860.
	4810	'shell'	(Derived specimen) found on gravel path to Mr Gibbard's house near Sharnbrook, Bedfordshire. Found and presented by him on 28th June, 1861.
	4814	ammonite	Middle Lias marlstone.
	4816	Lima gigantea and Gryphaea arcuata	Belvoir, Leicestershire (Lias).
H	4817	Lima gigantea	Lias. Belvoir, Leicestershire.
	4818	Stigmaria fucoides	Coal Measures. Belvoir, Leicestershire.
	4819	ammonites (two specimens)	Middle Lias marlstone.
D	4820	ammonite	A cut and polished specimen. Belvoir, Leicestershire (Lias).
	4822	Cardinia	Middle Lias. Belvoir, Leicestershire.
	4824	Terebratula punctata	Middle Lias. Belvoir, Leicestershire.
	4826	Pecten sp. (three specimens)	Middle Lias. Belvoir, Leicestershire.
	4827-4829	unnamed	Nodules with enclosed fossils. Middle Lias. Belvoir, Leicestershire. From Mr Rose.

	4830	Gryphaea incurva	Vale of Belvoir, Leicestershire (Lias).
H	4831	Nautilus sp.	Vale of Belvoir, Leicestershire (Lias).
H	4832	Rhynchonella tetrahedra	Middle Lias marlstone. Vale of Belvoir, Leicestershire.
	4833	Modiola sp.	Middle Lias marlstone. Vale of Belvoir, Leicestershire.
	4835	belemnites and ammonites	Seven belemnites and two small ammonites. Quainton, Buckinghamshire (Kimmeridge Clay).
	4847	Lima sp.	Portland Stone. Eythrope, Buckinghamshire.
	4849	Mytilus sp.	Oolite. Near Oxford. Found by Dr Lee in 1860.
	4851	Venus sp.	Oxford Clay. Found by Dr Lee in 1860.
	4878	Bos sp. and Cervus sp.	Portion of stag's antler, portion of horn, and part of limb bone of an ox; and small bone of unidentified mammal found 15 ft. below the surface in gravel-pit (worked 1858-1860) in new garden at Frogmore, Hampshire. Preserved and presented by Mr Ingram of the Royal Gardens at Frogmore (25).
H	4481	unnamed (three specimens)	Shale beds. Redmile, near Belvoir Castle, Leicestershire (?Lias). Presented by Mr W. Ingram in October, 1861.
	4486	unnamed (thirteen specimens)	Shale beds. Redmile, near Belvoir Castle, Leicestershire (?Lias). Presented by Mr W. Ingram in October, 1861.
D	4487	ammonites	20-30 very small specimens. Presented by Mr W. Ingram in October, 1861.
D	4491	ammonite (part of)	No details recorded.
	4500	unnamed	Many specimens. Upper Greensand. Cambridgeshire. Presented by Rev. W. Monk, in January, 1862.
	4501	mammoth (Mammuthus primigenius)	A molar and other bone fragments. Presented by Joseph Carter of 'San Geronimo', Guatemala.
	4549	(?saurian)	Two vertebrae. 10 ft. below ground-level in clay (Kimmeridge) in pit no.76 on the Hartwell estate, Buckinghamshire. Found by C. Poole, Joseph Hughes, and J. Blake, in July, 1862.
	4554	ammonite	Barrow-on-Soar, Leicestershire (Lias). Acquired in 1862.
	4555	Lima gigantea	Barrow-on-Soar, Leicestershire (Lias). Acquired in 1862.
	4557	Dapedium sp.	Two large impressions of (?counterparts). Barrow-on-Soar, Leicestershire (Lias). Acquired in 1862.
	4558	Plesiosaurus sp.	Portion of vertebra with ribs. Barrow-on-Soar, Leicestershire (Lias). Acquired in 1862.
	4635	(mammal)	Bone. Dorney Court brick-kiln. Presented by Mr Palmer in 1864.

REFERENCES AND NOTES

1 Williamson, E.R. 1833. A short account of a fossil skeleton of a Plesiosaurus, lately discovered near the town of Bedford. Mag. Nat. Hist. 6, 422-423.

2 Cameron, A.C. 1889. The clays of Bedfordshire. Proc. Geol. Ass. 10, 453. See also Anon. c.1870. Bedfordshire. In The National Gazetteer of Great Britain and Ireland, 1, p.221a. London; and Anon. 1893. Bedfordshire. In Cassell's Gazetteer of Great Britain and Ireland, 1, p.203b. London.

3 Anon. 1833-1834. Accessions List. Proc. geol. Soc. Lond. 2, 28.

4 According to Lee, Mr Longley had a fossil-collecting relative named Captain Longley. The fate of this collection is obscure.

5 William Devonshire Saull (1784-1835). In view of Saull's demise in 1835, the acquisition date given for this specimen by Lee must be erroneous (see Geol. Curator, 3, 247-248 for additional details). Alternatively, Lee may have

obtained these bones, and also other fossils allegedly 'presented' by Saull, before the bulk of Saull's collection was (after his death) placed in the Metropolitan Institute of London.

6 Almost certainly James Scott Bowerbank (1797-1877).

7 Not found when the collection was examined in 1956.

8 A drawing of a vertical section of this pit, showing the various fossiliferous levels, was made by John Charles May on 26th January, 1842 (vide John Lee).

9 No place bearing this name appears to exist in Buckinghamshire.

10 A more precise location for this place is not given: places called Hartford exist in Cambridgeshire, Cheshire, and Somerset, while there is a Hartford East in Northumberland, and Hartford End in Essex. Fossiliferous alluvium occurs at or near all these places.

11 Joseph Bancroft Reade (1801-1870).

12 Probably Jeremiah Simmons, a well-known Victorian collector and preparator of Cretaceous fossils (see Dibley, G.E. 1911. Geol. Mag., dec. 5, 8, 96).

13 Specimen went to Sands School.

14 Christopher Erle (1790-1871), rector of Hardwicke.

15 Presumably from Beer Head or vicinity: no chalk exists at Torquay.

16 Zachariah D. Hunt: proprietor of these and other local brickyards, and a collector of fossils in his own right. His collection is now in the Buckinghamshire County Museum, Aylesbury.

17 Presumably Malting End, Suffolk: significantly, these specimens were given to Ipswich Museum (Suffolk) in October 1956.

18 There was a James Yates who became president of the Sheffield Literary and Philosophical Society; a Rev. James Yates of Highgate who was a geologist and archaeologist; a John Ashton Yates of 33 Bryanston Square, London, who was 'antiquarian' minded; and a Joseph Brook Yates who became president of the Liverpool Literary and Philosophical Society. All were contemporaries of Lee and any of them could have been the J. Yates who presented this specimen.

19 No 'Blue' Lias occurs in Buckinghamshire, but Upper Lias occurs on the R. Tove at Castlethorpe, at Stoke-Goldington, and at Weston-Underwood.

20 Professor John Morris (1810-1886).

21 Probably one of the Claydons near Winslow.

22 A note against this entry states that specimens 3766 and 3767 were from the 'Drift'.

23 Presumably a species invented by Lee. No Ichthyosaur species of this name has yet been described.

24 Almost certainly William Vicary (1811--1903) of Exeter.

25 Very probably W. Ingram: see entry for specimen 4481. Discovery recorded by anonymous writer signing himself as 'Q' 1860. Fossil bones at Frogmore. The Geologist, 3,420-421.

Justin B. Delair
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Typescript received 31 January, 1984.

LOST AND FOUND

COMPILED BY MICHAEL D. CRANE AND HUGH S. TORRENS

INDEX TO VOLUMES 1-3

We feel that this is an appropriate time to look back on the wealth of information that has been exchanged through the medium of this column since it appeared in the first issue of the Newsletter of the Geological Curators' Group in September, 1974.

Note: Vol.1 of the Newsletter of the Geological Curators' Group was only so designated retrospectively, hence its 10 component issues are referred to below by part number alone.

The numerical listing and alphabetical index to the personal, ship, and institutional names which follows is complete for all entries in 'Lost and Found' up to the end of Volume 3 of The Geological Curator. We hope this index will help to avoid the duplication in future, which it demonstrates has occasionally happened in the past!

Please send all material for inclusion in future issues of 'Lost and Found' to M.D. Crane, City of Bristol Museum & Art Gallery, Queens Road, Bristol BS8 1RL (Tel. 0272 299771)

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GEOLOGICAL CURATORS' GROUP

11th ANNUAL GENERAL MEETING

Friday 7th December 1984 at the National Museum of Wales, Cardiff.

There were 45 members present.

1. Nomination of acting Chairman

Geoff Tresise was nominated as acting Chairman for the meeting and there being no other nomination he accepted.

2. Apologies for absence

Phil Doughty (Chairman), Tim Pettigrew (Editor), Mike Bishop and Hugh Torrens.

3. Minutes of 1983 AGM

Unfortunately the minutes of last year's AGM had not been circulated to members. However, the minutes were taken as read and it was agreed that they be signed as a true record.

4. Matters Arising

There were no matters arising.

5. Chairman's Report - from Phil Doughty

This report was read to members by Geoff Tresise in the absence of the Chairman.

(i) A successful year. Good meetings programme, well attended, rising membership despite problems in producing Geological Curator which the editor will discuss further.

(ii) Principal additional work Guidelines into which a great deal has gone and is still going. It will now not appear until 1985 but, bearing in mind the size and importance, it has to be thoroughly done.

Since the Manual of Curatorship has turned out to be something other than a manual, as we understood from the start, our foresight in proceeding with the Guidelines is now evident.

In my own Manual contribution I made every effort to steer clear of Guidelines contents.

(iii) As a small group we can only really take on one major project at a time but we are already examining what to do next. The text of my paper (The next ten years) read at the Ludlow meeting has yet to appear but most if not all of the major options seen by Group members are included in it, as well as many lesser ones. Since we should become politically active soon I would like to see a development and widely understood collection philosophy, preferably shared with BCG, as a basis for our campaign.

(iv) Could members with strong opinions on the emphasis of work contact me, or other committee members as soon as they have read the Ludlow paper.

6. Secretary's Report - from Geoff Tresise

GCG meetings in 1984 consisted of the 10th anniversary meeting at the Leicestershire Museum on Wednesday 15th February; a meeting on the 'Geological Heritage' at Ludlow Museum on Friday 8th June, followed by a field day; meetings on 'The computerised museum' at the Sedgwick Museum (Cambridge) on Thursday 6th September and on 'Pleistocene vertebrates' at the Castle Museum, Norwich on Friday 7th September; a visit to the exhibition 'A new look at the dinosaurs' at the Yorkshire Museum, York on Friday 2nd November; and the Annual General Meeting at the National Museum of Wales, Cardiff on Friday 7th December. Seven days of meetings in one year have set a new high to mark the Group's 10th anniversary.

Meetings scheduled for 1985 consist of 'A conservation strategy for geological material' at Winchester on Friday 19th April; 'Specimen documentation and data standards' at Brighton on Friday 7th June, to be followed by a field day; a palaeobotany session at Bolton on Wednesday 18th September; and the annual general meeting at Dudley on Friday 6th December, to join Black Country Geological Society in celebrating their 10th anniversary. Also the Group hopes to take part in the 'Review of the year' session at the Museums Association conference in Birmingham on Wednesday 17th July.

The Chairman and Frank Howie contributed the chapters on geological research and conservation and storage methods to the Museums Association's Manual of Curatorship, published by Butterworths in October. Final revisions to our own publication, Guidelines for the curation of geological material, are now being made by Howard Brunton, Tristram Besterman, and John Cooper. It is hoped that this will be published by the Geological Society in the spring of 1985.

Tristram Besterman also produced a draft leaflet giving guidance to the young collector. The inclusion of a list of museums providing geological services led to the proposal to produce an Iguanodon logo for approved museums, plus a separate leaflet with a grading system using symbols to show the services that each museum provides.

The Group's comments were requested on the academic review document produced by the Department of Museum Studies, Leicester University. We welcomed the proposals to increase the length of the graduate certificate course from one to two years since this would allow the specialist training content to be substantially increased. We did not support the proposal that the Museums Diploma should be replaced

with a University-based qualification administered by the Department of Museum Studies.

In January a joint working party with BCG submitted a report to the Office of Arts and Libraries on the detrimental effects to the museum services which were likely to follow the abolition of the metropolitan counties in 1986. In April the Government published their revised proposals for museums services in the metropolitan county areas and these bore a flattering resemblance to the arrangements which the Groups had recommended. However, the Government have yet to specify how their proposals are to be implemented and in Tyne and Wear in particular the dismemberment of the present county service still looks all too likely.

In 1983, the Group submitted a report to the Museums and Galleries Commission working party which was studying the role of the Area Services. We commended the initiative of the South West Area Service in establishing a post for a geological curator/conservator and pointed out the need for such peripatetic posts on a country-wide basis. The Commission's report took up this point and it was encouraging that, when a sum of money was unexpectedly made available for conservation projects in the spring of 1984, temporary geological conservator posts were funded in both the East and West Midlands. At the Commission's request, the Group subsequently wrote to the Minister for the Arts urging that funds for conservation purposes should again be made available in 1985/1986.

The Group have been in correspondence with four institutions where geological collections appeared to be at risk. In the cases of Trafford and Wolverhampton the situation has been satisfactorily resolved, but little progress has been made to date at either Chester or Dudley.

Although there is much urgent work still to be done, the record of the past year suggests that the Group can face its second decade in the knowledge that its efforts are neither unrecognised nor wasted.

7. Treasurer's Report - from Tom Sharpe

(i) Membership. The Group continued to reap the benefits of the membership drive launched last year, with 73 new members joining in the last twelve months (33 UK Personal members; 7 UK Institutions; 8 overseas Personal members; and 25 overseas Institutions). 9 members resigned (including 2 institutions). The net increase is therefore 64, giving a total membership of 395 (including 1 Honorary Member) as follows:

Personal members	261 including 27 overseas
Institutional members	134 including 40 overseas

A list of members is included with this issue of The Geological Curator.

(ii) The accounts for the period 17.11.83 to 15.11.84 appear below.

CURRENT ACCOUNT

Income

Subscriptions	2319.26
Sale of Backnumbers	789.15
Advertisements	105.30
Refund of VAT on postage	46.93
Contributions to Guidelines	70.00
Excess from June meeting	1.07
	3331.71
Transfers from deposit account	-
Balance 17.11.83	158.47
	3490.18

Expenditure

Printing 3(9), 1(5), leaflets	503.40
Postage	252.52
Stationery	74.12
Meetings expenses	104.84
Guidelines	194.73
Reprints	64.00
Corporation Tax 1983	24.06
Returned cheque	7.77
	1225.44
Transfers to deposit account	1950.00
Balance 15.11.84	314.74
	3490.18

Income due

Advertisements	85.00
Outstanding invoices	254.86
Unpaid subscriptions (46 members)	299.00
	638.86
Stocks of Geological Curator	c.2100.00
	2738.86

Committed expenditure

Geological Curator, 4(1),(2),(3)	c.1500.00
Postage	c. 400.00
	1900.00
Advance subscriptions	101.00
	2001.00

DEPOSIT ACCOUNT

Income

Transfers from Current Account	1950.00
Interest (estimate)	119.70
	2069.70
Balance 17.11.83	815.60
	2885.30

Expenditure nil

Balance 15.11.84	2885.30
	2885.30

Income. As with last year, new members tended to order backnumbers of the journal, income from such sales considerably exceeding that of 1983 (£512.82). Advertisement income was also up compared with last year (£42.00). Other income was derived from several organisations and individuals who have generously contributed towards the cost of preparing the Guidelines for Geological Curation.

Total income for the year (Current Account + Deposit Account) was £3,451.41 compared with £2,921.80 for 1983 and £1,567.93 for 1982.

Expenditure. Production delays with The Geological Curator have meant that our usual main items of expenditure, printing and postage, are much reduced this year. The money allocated to these for 1984 (about £1,900) will be carried forward into next year's accounts. Expenditure on these items this year comprised the production and postage costs of the last issue for 1983, a reprint of Vol.1 (5) to meet the demands of backnumber orders, and a programme for the June meeting.

Corporation tax for 1983 was about the same as that for 1982, but is likely to be greater for 1984. No cheap and simple method of avoiding this tax has so far been found, but approaches have been made to the Inland Revenue.

Total expenditure for 1984 is £1,225.44, compared with £2,589.38 last year. The surplus of income over expenditure for 1984 is therefore £2,225.97.

At present, the total cash in the bank to be carried forward into 1985 is £3,200.04. However, taking into account the amount owed to the Group (£ 638.86) and our committed expenditure (about £1,900), about £1,938.90 (including £101 of advance subscriptions) will be carried forward.

The financial position of the Group therefore appears to be comfortable, and it is suggested that there be no increase in subscription rates. However, 1985 promises to be an active year for GCG, with the production of the Guidelines and the 'Thumbs-Up' campaign, so if members wish to keep subscriptions down, they should pay promptly, find new members, and encourage potential advertisers.

Thanks are extended to Steve Howe and Bob Owens who audited the accounts.

Mike Bassett asked why the Group was being charged Corporation Tax. Tom Sharpe explained that it was based on the money kept in the deposit account and on the amount of interest that money was earning. Mike Bassett warned that the Group might soon be eligible for VAT and suggested that the Group apply for charitable status. Tom Sharpe explained that this was already being considered and he outlined some of the problems. He also mentioned that he has approached the Inland Revenue. Tristram Besterman pointed out that the Group's affiliation to the Geological Society might make a difference in some way to the application to become a charity.

Howard Brunton asked if the Group's overseas membership had increased. Tom Sharpe replied that it had, mainly institutions from USA, Australia, and New Zealand.

Paul Ensom mentioned that the Dorset Record Centre had taken out an insurance policy to protect individuals from being liable.

Geoff Tresise thanked Tom Sharpe and was pleased to see the accounts in such a healthy position.

8. Editor's Report - from Tim Pettigrew

Copies of this report were distributed before the meeting

1984 has seen the publication of only one issue of The Geological Curator for which fact I must apologise. There are several factors which have contributed to this unsatisfactory situation. The change to a new double column format has meant that all copy has now to be retyped using a standard type-face. As the typist concerned can only do the typing as and when 'official' museum work allows, this has caused delay. It is also now impossible to have art work undertaken by the Museum Service's Design and Display Unit as there is no spare capacity for outside work. However, as editor I accept full responsibility for the delay and I certainly have not been able to devote sufficient time to the editorial work. I had hoped that the situation might have improved enough to make it possible to at least catch up on the backlog of issues, but it is now obvious that this will not be possible and it is clearly in the best interests of the Group that I resign from the post of editor to enable a successor to remedy the situation as soon as possible.

Fortunately Peter Crowther has agreed to take over as editor (subject to election), with the Leicestershire Museums Service undertaking the printing, production and distribution of The Geological Curator. Apart from one issue, currently in press, all subsequent issues will be produced by Peter at Leicester. I apologise to Peter for the fact that he is inheriting a situation where there is a 'backlog' of issues to be made up.

I would like to take this opportunity to thank everyone who has given me such splendid support during my tenure as editor. The committee have always given tremendous encouragement and guidance and latterly have been very patient over the deteriorating situation. I would particularly thank Hugh Torrens who as well as producing the 'Lost and Found' column has also supplied a wealth of other interesting items on diverse topics. As many people have commented, 'Lost and Found' is one of the most important and valuable sections in the journal. I am also grateful to Tony Cross for producing the 'Notes and News' section and to Ron Cleevely

for preparing the contributions for the information series on Geological Collections Labels. Thanks also to Ken Sedman for his efficient management of the mailing and distribution. Last but by no means least my thanks to the many contributors who have ensured a steady stream of interesting items on an almost unbelievably wide variety of topics relating to geology in museums.

I hope that the Group will continue to give similar support to Peter. I know he has a lot of exciting new ideas for The Geological Curator both as regards content and format. I certainly wish him every success in undertaking the arduous but nevertheless enjoyable task of becoming the Group's new editor.

9. Recorder's Report - from Alan Howell

The Group can this year feel a little satisfaction at the outcome of some negotiations and lobbying concerning the state of certain endangered collections.

The collection of Anne Grosvenor which we were physically able to remove from Richmond Library some years ago, and which Bob King kindly undertook to curate, has now found a permanent home in the National Museum of Wales. Being the mineral and rock collection of an affluent Victorian lady, it is a useful social document and a rare survivor of this interesting genre. Bob must be congratulated for his dedication in sorting out this collection. It was in a frightful mess when retrieved from Richmond and even a labour of love must become a chore when confronted by so much grime and disorder.

The other success story which I have to report concerns some of the material from the old Altrincham museum. This institution (near to Manchester) had been closed since the war and its small but interesting collection completely neglected. Knowing of the scandalous sale of pictures from this collection by Trafford Metropolitan Borough at Sotheby's in January 1984 I attempted to raise general concern about the possible fate of their natural history and geological material. However, this did not stop a further sale in June 1984 where a quantity of stuffed animals and Egyptian and geological material were offered. This looked like the end of the story, but the business took a bizzare turn when Sotheby's bought back the Egyptian and geological material for £30,000. Given a second bite of the cherry, as it were, and in concert with Geoff Hancock, Chairman of the NW Collection Research Unit and a BCG committee member, we then disbursed information packages concerning the Altrincham situation to any parties we thought might be able to bring political pressure to bear on Trafford in an attempt to prevent further sales. Privately we also wrote to the Trafford M.P. pointing out that one of his predecessors had contributed material to the old museum and also that some of the material was known to have been loaned by other institutions.

The crux of the matter (and the only effective way to stop the sales) seemed to be to challenge the legality of the situation. Geoff Tresise and I therefore wrote to John Fox with a view to raising this with the appropriate government departments. Trafford's action clearly contravened the Museums Association's Code of Practice for Museum Authorities and, from reading the extract of a government report quoted in paragraph 5 of the code (see Museums Yearbook), they appeared to be breaking the law. I gather that these manoeuvres, together with our earlier revelations concerning the loaned status of some of the material, finally resulted in the Egyptological and geological material being transferred to Manchester Museum.

Clearly the matter has resolved itself satisfactorily from our point of view and we can take some credit for contributing to this outcome. However it is sobering to reflect that Trafford raised £109,000 at the sale of pictures in January.

Alan Howell now wishes to hand in his resignation and thanks the Committee for their help. Geoff Tresise thanked Alan for all his work on the Committee which he has been on for many years.

10. Geological Site Documentation Report - from Mick Stanley

[A detailed report appears elsewhere in this issue.]

11. 'Guidelines' Report - from Howard Brunton

The Guidelines are due to be Geol. Soc. Miscellaneous Paper 17, with a blue cover, and hopefully will be out in March/April 1985. The final draft is being checked for spelling mistakes etc. and will be with the Geol. Soc. by the end of January 1985. The price will be somewhere between £5 and £7. Howard expressed thanks to John Cooper and Tristram Besterman as co-editors.

Geoff Tresise thanked Howard and all those who have contributed towards the preparation of this document.

12. 'Thumbs Up' campaign Report - from Tristram Besterman

A report had been distributed before the meeting and Tristram asked for any comments to reach him before the next committee meeting in January, 1985.

Geoff Tresise thanked Tristram for all the work that has gone in to preparing the leaflet and the list of museums.

13. Election of Officers

The Chairman, Secretary, Treasurer, and Minutes Secretary are willing to continue in office so, there being no other nominations, they were re-elected;

Chairman — Phil Doughty, Ulster Museum, Belfast.

Ball and socket joints well displayed on shrinkage columns in Tertiary basalts. The Fan, Giant's Causeway, Co. Antrim, September 1887. Geology 04/67, R.J. Welch Collection of photographs, Ulster Museum (catalogue reviewed herein). Reproduced by permission of the Ulster Museum.

Secretary	Geoff Tresise, Merseyside Museum Service, Liverpool.
Treasurer	Tom Sharpe, National Museum of Wales, Cardiff.
Minutes Sec.	Diana Smith, Norfolk Museums Service, Norwich.

The Editor and Recorder have resigned and the Committee's nominations for these posts are;

Editor	Peter Crowther, Leicestershire Museums Service, Leicester.
Recorder	Don Steward, Stoke City Museums, Hanley

There being no other nominations, they were declared elected.

Continuing Committee Members are;

Paul Ensom	Dorset County Museum, Dorchester.
Mick Stanley	Derbyshire Museum Service, Matlock

The Committee's nominations for new Committee members are:

Mike Taylor	South West Area Museums Service, Bristol.
David Price	Sedgwick Museum, Cambridge.

John Cooper and Tristram Besterman have completed their term on the Committee at this AGM.

14. Any Other Business

Tristram Besterman reported that material had recently gone missing from Bath Museum and that John D. Whitehouse had been arrested in connection with this matter. Tristram asked for museums who had been visited by Whitehouse in the last 5 years to check that no specimens were missing. If anyone has information to please contact Sgt. Rushton of Avon C.I.D. Don Steward asked if the police would be interested in specimens which Whitehouse had donated to Stoke Museum.

Geoff Tresise proposed that Bob Owens and Steve Howe be re-appointed as auditors for 1985. This was agreed and they accepted.

The meeting closed at 5.05pm.

THE NATIONAL SCHEME FOR GEOLOGICAL SITE DOCUMENTATION

ANNUAL REPORT FOR 1984 BY MICHAEL STANLEY

This report summarizes the holdings and uses of site records at Geological Locality Record Centres for the period 1 January 1981 to 31 December 1983, and notes other important happenings during 1984.

It has been stated policy to solicit reports via a questionnaire from Record Centres on an annual basis. However, it has become apparent that the frequency of these returns does not allow for the variation in use or completion of records by Centres. Therefore it is proposed to forward questionnaires bi-annually commencing December 1985.

Records

A total of 19000 site records were held by the thirty-nine Record Centres at the end of 1983. This represents an increase of 16% since the last published annual report for 1980 (May 1981) when 16000 records were held. It is significantly lower than the increase recorded between 1977 and 1979 but follows the trend started in 1979-1980 for less site recording. It was always suggested that the initial spurt of recording would eventually reach a plateau, and this indeed arrived during 1980 with the slowing of MSC schemes. The total number of records is still increasing but at a much slower rate, i.e. 6.8% increase in 1981 and 9.5% increase in 1982 and 1983 (over two years). However, the four centres who used MSC staff during 1982-83 (Dorchester, Plymouth, Preston and Stoke-on-Trent) witnessed an impressive increase in holdings e.g. Stoke-on-Trent doubled their holdings and Dorchester added 40%.

The factors affecting the percentage decrease in new records appear to be those noted in the Annual Report for 1980, i.e. greatest part of time spent is devoted to detailed recording, small number of centres using MSC staff, staff reductions or frozen posts, and changes in work priorities.

Enquiries and Uses

The number of enquiries shows a slight decrease from previous years, with seventeen centres having less than ten, four with between ten and twenty, and five with more than thirty. These enquiries are often difficult to enumerate and they do not indicate the number of times the site files are actually used. However, Ludlow is meticulous in its reading of enquiries and registered over 200 in 1982. Perhaps surprisingly the majority were made by individuals rather than organisations or schools. Significant enquiries noted from questionnaires include:

Bolton - Greater Manchester County Council re stone extraction sites.
Doncaster - South Yorkshire County Council re opening of former brick pit for geological education.
Leicester - Leicestershire and Rutland Trust for Nature Conservation, County and District Councils regular liaison.
N Herts - East Hertfordshire District Plan.
Plymouth - Devon County Planning, Nature Conservancy Council.
Preston - Lancashire County Council re locations of disused lead mine shafts.
Sheffield - Green Belt Plan and Countryside Management Projects.
Stoke-on-Trent - Newcastle Countryside Project (Staffordshire County Council reclamation scheme).
Warwick - Nature Conservancy Council re Wolstonian stratotype submission.
Wilderness, Forest of Dean - Nature Conservancy Council re site clearance.

Most Centres are used by County Trusts for Nature Conservation and some Centre personnel sit on the appropriate management committees. Schools, colleges and planning authorities are the main users of records, with the Nature Conservancy Council a close second.

New Record Centres

Several new centres have been recruited to the National Scheme in the past three years:-

Kirklees, West Yorkshire - Bagshaw Museum, Batley (Director)
Sussex - Booth Museum, Brighton (John Cooper)
Surrey - Kingston Polytechnic, Kingston-upon-Thames (Dr R Stokes)
Angus District - Montrose Museum and Art Gallery (Margaret King)
Berkshire - Reading Museum and Art Gallery (Mr H Carter)

Conservation Committee, Geological Society of London

This committee was established in April 1980 and one of its remits was 'to promote the National Site Documentation Scheme'. Subsequently, on the retirement of John Cooper from the chairmanship of CGSD, Mick Stanley became Coordinator of the National Scheme and now sits ex-officio on the Conservation Committee. The GCG and the Committee both promote the National Scheme and to that end the CGSD publicity leaflet has been resurrected and updated. This leaflet formed the basis for the 'Record of the Rocks' article published in Earth Science Conservation (March 1984) and a forthcoming article in MDA Information on the

Site Recording Scheme. The intention is that both articles and the leaflet will stimulate further interest in the Scheme, from potential users and suppliers of data. Indeed the 'Record of the Rocks' article resulted in the establishment of Record Centres at Kingston-upon-Thames and Montrose, and enquiries from a further three potential Record Centres in Northamptonshire, Worcestershire and Humberside.

Many Centre staff will remember a two day conference held in London in March 1979 on 'The Future of Geological Conservation in Britain'. The proceedings of this important conference have now been published by the Geological Society of London, edited and updated by Roy Clements (Leicester University). Geological Conservation in Britain (Misc. Paper 16, 79pp.) is an A5 paperback which sells for £3.50 and is available from the Geological Society of London. Roy Clements is to be congratulated on the hard work of editing, especially five years later!

ATG Conference

The Association of Teachers of Geology held their annual conference in Leicester in October 1984 and Roy Clements kindly produced a small display on the National Scheme for the delegates.

Locality Applications Package

This development of GOS (the MDA software package), undertaken by Derbyshire Museum Service and MDA, is now nearing completion. Further details of its use and development may be found in the winter issue of MDA Information to be published early in 1985.

'Nature Conservation in Great Britain' NCC

The Nature Conservancy Council have recently published this account which does little to foster awareness of the problems of geological conservation. The Conservation Committee of the Geological Society of London replied to NCC's original document Objectives and Strategy for Nature Conservation in the strongest terms that geology was hardly mentioned. The Objectives .... document, the projected move of NCC headquarters to Peterborough, and the effective down grading of the Geology and Physiography Section within the line management of NCC produced an untenable position for George Black (head of the Geology and Physiography Section). Subsequently, George Black resigned from his post which is a great loss to geological conservation. (He has, however, formed a conservation consultancy company.) Fortunately the NCC did take note of the comments of the Conservation Committee, and did incorporate some of them into the final draft of Nature Conservation in Great Britain. Further to this, the Geological Society has asked the NCC to prepare a separate document covering objectives and strategy for geological conservation.

The letter from the Geological Society to the NCC is summarized to fill in some of the details for the above.

[Editor's note: references to specific numbered paragraphs in the draft NCC document have been omitted from the following transcript, since it is not generally available.]

Mr. R.C. Steele BSc FIBiol FIFor,
Director General,
Nature Conservancy Council,
19/20 Belgrave Square,
LONDON SW1X 8PY

13th December, 1983

Dear Mr. Steele,

OBJECTIVES AND STRATEGY FOR NATURE CONSERVATION IN GREAT BRITAIN

The Conservation Committee of the Geological Society has now had the opportunity to study Dr. Ratcliffe's [Chief Scientist, NCC] document, and discussed it at its meeting last Thursday. I am therefore now able to reply more fully as follows.

The committee welcomed the report and fully supported its analysis, and offers total support for the objectives stated. We could not help noticing, however, the preoccupation with matters biological, and were surprised and disappointed to note that geology played such a small part in the document. We realise that in terms of the relevant Acts, the term 'physical features' is a key word, but we were disappointed to note that this is practically the sole mention of geology throughout the document. Many of these sites, however, were designated for their palaeontological content, thus allying the approach to these sites with that for biological sites discussed elsewhere in the document - an important aspect that only comes out incidentally.

We would have welcomed mention of the establishment of our own committee, and to that end I enclose for your information a statement of our aims, and a summary of achievements over the past few years, as reported annually to our members, for your information. Our committee will continue to co-operate, as in the past, with officers of the NCC, with whom it has enjoyed mutually beneficial contact.

As far as action that we shall be taking to achieve the objectives set out in your document, our committee thought as follows.

1. Our organisation has currently taken over responsibility for the Geological Site Documentation Scheme, and intends to publicise this work that is well under way, in the very near future. This work is very much supplementary to the Geological Conservation Review, and in no way supplants it.
2. Our committee has already offered advice, and attempted persuasion, on a number of issues of geological conservation that have arisen. This is one of the committee's remits, that it proposes to continue, actively.
3. The Society numbers the majority of geologists in the UK in its membership (4,500 of the total membership of almost 6,000 geologists reside in the UK).

This gives our committee free access to the existing information, which it then disseminates through the bimonthly Newsletter of the Society. The Geological Site Documentation Scheme is relevant here also.

4. The Committee has revived and is about to publish, through the Miscellaneous Papers of the Society, the papers delivered at a large symposium resulting from the 1979 conference on Geological Conservation, which brought this matter to the attention of the Society's Fellowship and thence, beyond. Some time ago our committee also took the decision to prepare and publish a guide to practical conservation of geological localities, a 'ways and means' document, which would particularly explain how to negotiate hurdles that might be encountered in this field. The preparation of this has been delayed by changes consequent on the 1981 Act.

5. Our Committee will continue to argue the case for the need for greater legal recognition for geological sites, and materials collected from them, as it has done in the past.

6. As an international organisation, with its own Foreign Secretary (and 1,500 overseas members), the Society, through our Committee, will continue to be vigilant on relevant international issues. In the past, for example, it has contacted leading geologists in Germany to take action to curtail illicit collecting expeditions to geological SSSIs. We have also been approached for advice on such matters by, for example, the University of Melbourne.

7. Several of our Committee have been involved in site maintenance and management projects , which have subsequently been given much coverage by various media, as well as being of value to teaching and research. Such actions very much follow the lines discussed in your [document].

8. We very much feel that a Geological Records Centre is needed with its own professional organiser, similar to the Biological Records Centre at Monks Wood, or to the BSBI project. We would expect such an organiser to hold the reins of an enlarged, hopefully Manpower Services Commission-sponsored scheme, for accelerating the work of the Geological Site Documentation Scheme. Our own representative of this Scheme is draughting skeleton recommendations for regional branches for such recording, that might be acceptable to MSC. Without entering into details here, this would respond to your comments [elsewhere in the document]. Any such scheme would clearly integrate closely with the existing voluntary work done in this area.

9. Finance. We agree with the general tenor of the document that the conservation movement has been far too backward in coming forward, especially to make use of the National Heritage Fund, formerly the Land Fund. It can be argued that had conservationists utilised this fund more often and with more 'firmness and conviction', it might not have had its remit enlarged to purchase other categories of material. It would be wise, when seeking to enlarge the portion of land area to be conserved with the UK, to remind the public of the initial high ideals of the establishment of the Land Fund, and of the alteration to its remit, in the post war period.

10. Finally, by way of a general comment that arises from the document, we should reiterate that the interests of geologists may be antipathetic to those of the ecologists, as is evident from a statement [made in your document] where mining, quarrying and peat-winning are clearly seen as conservation problems (for whom? - the ecologist; for the geologist these activities may well be opening up new and scientifically important sites). A second difficulty which the wildlife ecologist finds in geological conservation is his unwillingness to recognise that geological sites must occupy a high category of site conservation because so often they are unique and once overworked will not recover as may happen when remedial action is taken on behalf of a wildlife site. It must be stated, however, that as a rule geological sites are very much smaller than ecological sites and although there may be many of them (as detailed in the Geological Conservation Review survey) their total land area is not large when compared with other types of conserved site. The opposition to the designation of nature reserves and SSSI's cited [in your document] by Dr. Ratcliffe is very real and there tends to develop a tension between those interested in ecological sites and those in geological sites as to which may be notified, since there is a fear that notification of numerous geological sites may prejudice the acceptance of important ecological sites and vice versa. The NCC therefore requires to reconsider its own organisation for geological conservation and should create a separate Conservancy Committee for geology to which Dr. Black's organisation should be answerable. This Committee might be a sub-committee of the Conservancy Committee. Only by creating such a Committee with powers (not an advisory committee on geology) will the interests of the conservation of the geological and physiographical features of Britain be given a proper weight within the thinking of NCC.

Yours sincerely,

Dr. W.D. Ian Rolfe,
Chairman of the Geological Society
Conservation Committee.

[Editor's Note: Those able to compare the geological content of NCC's draft Objectives and Strategy .... with the final version, published in 1984 as Nature Conservation in Great Britain, will note that some appropriate additions were made to take account of the Geological Society Conservation Committee's opinions, though the 'improvement' was limited. A meeting between the Geological Society of London and the Nature Conservancy Council was held on 12 September 1984 to discuss further the status of geological conservation within NCC in the light of Nature Conservation in Great Britain. A report of that meeting, together with the related circumstances which led to Dr George Black's well publicised resignation from NCC, and NCC's response to the many points raised, will appear in the next issue of The Geological Curator.]

RECORD CENTRE	Number of Records 1983	1979	Enquiries
1. TAYSIDE REGION Mr D.S. Henderson, Museum & Art Gallery, Albert Square, Dundee DD1 1DA	91	72	10-20
2. NORTHUMBERLAND (North of Tyne) Director, Hancock Museum, The University, Barras Bridge, Newcastle upon Tyne NE2 4PT	457	403	20-30
3. NORTHUMBERLAND (South of Tyne) DURHAM Mr T. Pettigrew, Museum & Art Gallery, Borough Road, Sunderland SR1 1PP	2000	1200	30+
4. CLEVELAND Mr K. Sedman, Cleveland County Museum Service, Cleveland Gallery, Victoria Road, Middlesbrough	290	130	-10
5. CUMBRIA Mr S. Drinkwater, National Park Centre, Brockhole, Windermere, Cumbria LA23 1LJ	252	116	-10
6. NORTH YORKSHIRE Miss B. Pyrah, The Yorkshire Museum, Museum Gardens, York YO1 2DR	2000	1500	-10
7. LANCASHIRE Mr J.D. Blundell, Lancashire Museum Service, Stanley Street, Preston PR1 4YP	1400	597	10-20
8. BRADFORD DISTRICT (West Yorkshire) Miss A. Armstrong, Cliffe Castle Museum, Spring Gardens Lane, Keighley BD20 6LH	423	423	+30
9. LEEDS DISTRICT Mr J. Nunney, City Museum, Municipal Buildings, Leeds LS1 3AA	650	650	10-20
10. PERTH DISTRICT Mr M.A. Taylor, Museum & Art Gallery, George Street, Perth PH1 5HR	85	?	-10
11. KIRKLEES (West Yorkshire) Director, Bagshaw Museum, Wittong Park, Batley, West Yorkshire WF17 OAS	?	?	?
12. BOLTON BOROUGH Mr A. Howell, Museum & Art Gallery, Le Mans Crescent, Bolton BL1 1SA	396	113	10-20
13. GREATER MANCHESTER Dr R.M.C. Eager, The Manchester Museum, University, Manchester M13 9PL	670	125	-10
14. DONCASTER BOROUGH Miss A. Pennington-George, Museum & Art Gallery, Chequer Road, Doncaster DN1 2AE	92	85	-10
15. MERSEYSIDE, CHESHIRE, CLWYD, LANCASHIRE Dr G. Tresise, Merseyside County Museum, William Brown Street, Liverpool L3 8EN	N.W. Data Bank		-
16. SHEFFIELD DISTRICT Mr T.H. Riley, City Museum, Weston Park, Sheffield	480	480	+30
17. SUSSEX Mr J.A. Cooper, Booth Museum, 194 Dyke Road, Brighton BN1 5AA	Not yet fully operational		
18. STAFFORDSHIRE Mr D.I. Steward, Museum & Art Gallery, Broad Street, Hanley, Stoke-on-Trent ST1 4HS	834	300	10-20
19. DERBYSHIRE Mr J. Crossling, Museum & Art Gallery, The Strand, Derby DE1 1BS	600	442	20-30
20. LEICESTERSHIRE Mr J.G. Martin, Leicestershire Museums, 96 New Walk, Leicester LE1 6TD	1200	1160	
21. PETERBOROUGH DISTRICT Director, Museum & Art Gallery, Priestgate, Peterborough PE1 1LF	-	-	-
22. NORFOLK Ms D. Smith, Norfolk County Museum Service, Castle Museum, Norwich NR1 3JU	1320	1200	+30
23. SHROPSHIRE Mr J. Norton, Shropshire County Museums, Old Street, Ludlow SY8 1NN	1000	-	+30
24. WARWICKSHIRE Mr T. Besterman, Warwickshire Museums, Market Place, Warwick CV34 4SA	1500	1150	+30
25. FOREST OF DEAN Mr B.V. Cave, Royal Forest of Dean Centre for Environmental Studies, Mitcheldean, Gloucestershire GL17 OHA	332	314	10-20
26. NORTH HERTFORDSHIRE Mr B. Sawford, North Hertfordshire Museum Service, Paynes Park, Hitchin SG5 1EQ	38	-	-10
27. BUCKINGHAMSHIRE Miss J. Royston, Buckinghamshire County Museum, Church Street, Aylesbury HP20 2QP	252	252	10-20
28. SOUTH HERTFORDSHIRE Director, City Museum, Hatfield Road, St. Albans AL1 3RR	44	31	20-30
29. AVON, SOMERSET, GLOUCESTERSHIRE, WILTSHIRE Dr M.K. Curtis, Museum & Art Gallery, Queens Road, Bristol BS8 1RL	541	541	+30
30. ESSEX Mr G.R. Ward, Passmore Edwards Museum, Romford Road, Stratford, London E15 4LZ	151	139	

Precambrian quartzites exposed on mountain tops with members of Belfast and Dublin Naturalists' Field Clubs collecting alpine plants near the summit of Benlettery during the 1895 Irish Field Club Union Conference at Galway. Benbreen and Bengower from Benlettery, Co. Galway, July 1895. Geology 12/22, R.J. Welch Collection of photographs, Ulster Museum (catalogue reviewed herein). Reproduced by permission of the Ulster Museum.

31.	WEST KENT Department of Geological Sciences, Queen Mary College, Mile End Road, London	defunct	206	191	
32.	EAST KENT Mr R.J. Anderson, City Museums, High Street, Canterbury CT1 2JF		170	73	-10
33.	WEST DEVON Mr D. Curry, Museum & Art Gallery, Drake Circus, Plymouth PL4 8AJ		249	163	10-20
34.	EAST DEVON Mr K.J. Boot, Museum & Art Gallery, Queen Street, Exeter EX4 3RX		26	26	-10
35.	DORSET Mr P. Ensom, Dorset County Museum, High Street, Dorchester DT1 1XA		535	250	-10
36.	HAMPSHIRE Mr T. Cross, Hampshire County Museum Service, Chilcomb House, Chilcomb Lane, Bar End, Winchester SO23 8RD		-	-	-
37.	ISLE OF WIGHT Dr A.N. Insole, Museum of Isle of Wight Geology, High Street, Sandown, Isle of Wight		198		20-30
38.	NORTHERN IRELAND Mr P.S. Doughty, Ulster Museum, Botanic Gardens, Belfast BT9 5AB		67	50	-10
39.	BERKSHIRE Mr H. Carter, Museum & Art Gallery, Valpy Street, Reading RG1 1QH		Established 1983		
40.	SURREY Dr R.B. Stokes, School of Geology, Kingston Polytechnic, Penrhyn Road, Kingston upon Thames KT1 2EG		Established 1984		
41.	ANGUS DISTRICT Margaret King, Montrose Museum & Art Gallery, Panmure Place, Montrose, Angus DD10 8HE		Established 1984		

BOOK REVIEWS

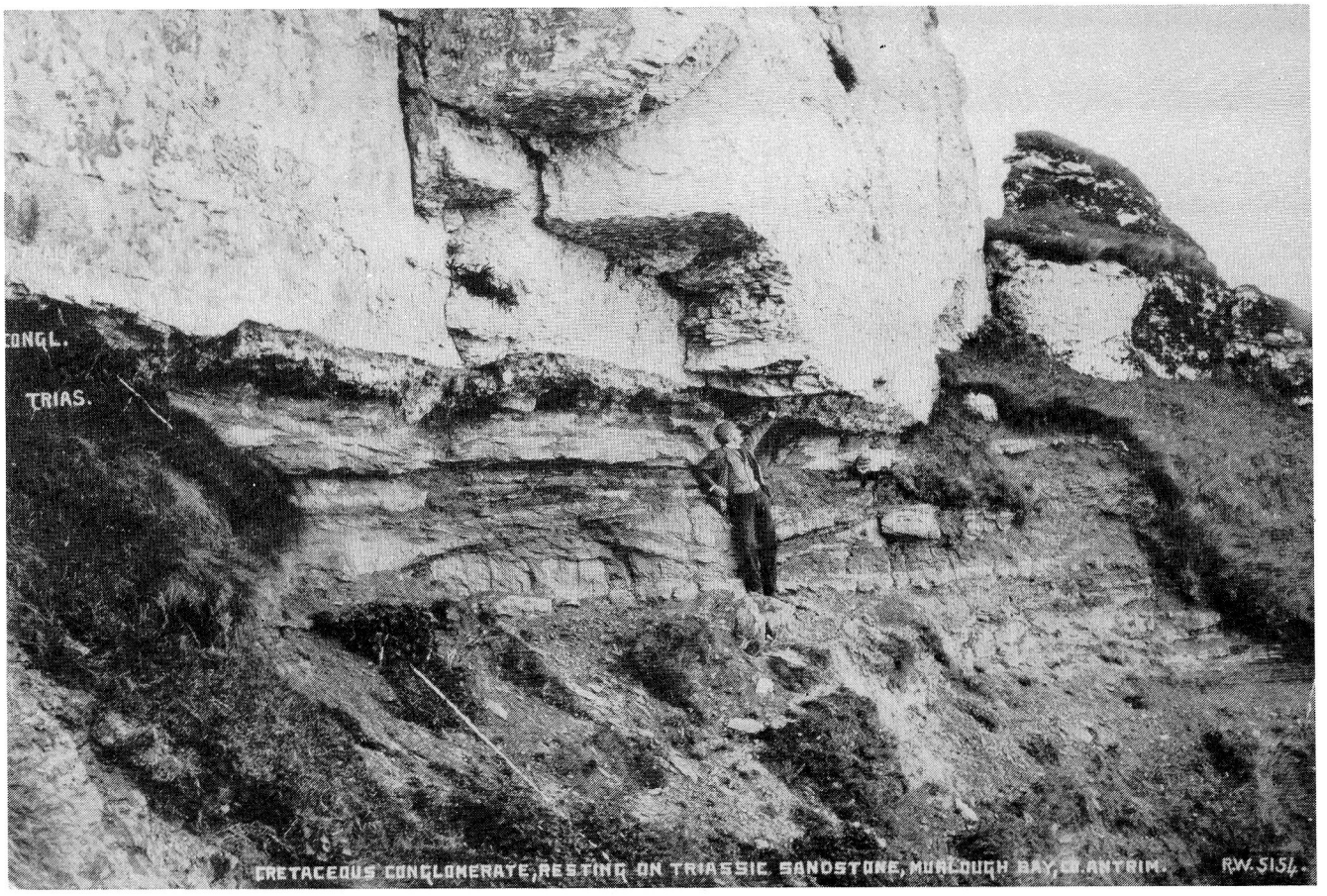
Hackney, P., James, K.W. and Ross, H.C.G. 1983 A list of the photographs in the R.J. Welch Collection in the Ulster Museum. Volume 2. Botany, Geology and Zoology. Ulster Museums, 36pp.

Robert John Welch (1859-1936) was a naturalist and scientific photographer who left his shell collections and his Irish photographs to the Belfast Naturalists' Field Club, whence they passed to the Ulster Museum in 1940. Catalogues have been published to fulfil the conditions of this donation.

The present catalogue covers the 1200 or so photographs dealing with geological, botanical, and zoological subjects; each photograph is listed with a brief description of its subject matter. The geological photographs cover a wide range of igneous, metamorphic, and sedimentary rocks, tectonic and structural features, examples of weathering, coastal and glacial erosion, and economic geology. (Many of the photographs are also represented in the Irish Section of the Geological Photograph Collection of the British Association for the Advancement of Science, also held by the Ulster Museum.) This catalogue should admirably serve the purpose of enabling scientists and picture researchers to assess the relevance of Welch's collection to their needs.

Susan Cross's review of this publication for MPG News is, I feel, rather harsh, criticising it for a "total disinterest in marketing the product to the general public" and for failing to convey "the excitement and vitality of the photographs". However, this more general view of Welch's work should perhaps be sought in publications such as Ireland's Eye: The Photographs of Robert John Welch by Evans and Turner (1977). The present catalogue should not be seen as an end in itself, but as a tool which will enable a wide range of researchers to make the best use of the collection for research, exhibition, or publication. It avoids linking the collection to any passing fad, as could have happened if it had been tailored to appeal to the general public; every photograph is treated equally, so that the reader is encouraged to consider the whole collection.

Publication, to a suitably high standard, of a wide selection of photographs from this collection is almost certainly not



The Triassic sandstone - Cretaceous conglomerate unconformity at Murlough Bay, Co. Antrim, May 1897. Geology 16/28, R.J. Welch Collection of photographs, Ulster Museum (catalogue reviewed herein). Reproduced by permission of the Ulster Museum.

commercially viable; the best future for collections such as this - and there are many in museums and private hands - is to make them easily accessible to picture researchers, so that they stand a chance of being used in 'coffee-table' books for their photographic beauty, as well as being studied by researchers for the historic scientific data which they record.

A copy of this catalogue must be essential for anyone interested in Irish natural history, or requiring photographs of geological structures. My copy is marked at £1, a very reasonable price. An insert states that prints of any of the photographs up to 10" x 8" can be obtained from the Ulster Museum for £2.

References

Cross, S.A. 1985. Review. A list of the photographs in the R.J. Welch collection .... Museum Professionals Group News, 17, p.7.

Evans, E.E. and Turner, B.S. 1977. Ireland's Eye: The Photographs of Robert John Welch.

Barbara Pyrah
Yorkshire Museum

Bishop, A.C., Jones, V., Moore, D.T. and Woolley, A.R. 1984. Catalogue of the rock collections in the British Museum (Natural History). Second edition. British Museum (Natural History), London, viii + 148pp. Price: £17.50.

Over the years, the Geological Curators' Group has spent a great deal of time identifying the curatorial problems posed by fossils (and to a lesser extent minerals), and has recognised solutions (or at least potential solutions) to many of these. The same has not been true for rocks. We have hardly begun even to ask the right questions. Do we need rock collections? What for? What are the basic requirements for establishing a well-found rock collection? How should it be organised? What special problems are posed? What is the demand likely to be? etc. etc. Rock collections undoubtedly have a unique set of curatorial problems.

That rocks are the great unloved is not confined to curatorial circles. The attitude pervades the whole geological profession, and beyond. I suspect that the differences in attitude are fundamentally aesthetic: rocks may have colour and texture, but they are essentially formless; not so fossils and minerals. I think it is also true to say that the basic scientific methodological skills required for collecting, documenting and conserving geological materials are only badly taught, if taught at all, at our colleges and universities. Most of the skills we have are self-taught, are incomplete, and inevitably reflect the initial aesthetic bias.

It follows from all of the above that, whatever criticisms there might be of the Catalogue of Rock Collections, its publication must be most warmly welcomed as a political/publicity gesture, if nothing else. The catalogue generally, and the criticisms in particular, illustrate some of the problems already alluded to. That there are indeed criticisms should not be taken to detract too seriously from the Catalogue, but more to reflect the high expectations we have of the British Museum (Natural History) as our 'market leader'!

The present Catalogue is the extended, updated second edition of the one published in 1971. It is a pity that in this computer age the updating could only be correct to 1981. Coming new to the work, I found the title initially misleading. The items catalogued are indeed the collections (or suites) of rocks, not the rocks themselves. There are about 2,100 such entries in this catalogue, representing what I estimate to be of the order of 75,000 individual rock specimens. (The Museum's total holdings are said to be over 100,000 rock specimens - they are not all in the catalogue.) It is also a moot point as to whether this publication should properly be described as a catalogue or as an index. The tabulated data in the 116 pages of the main part of the Catalogue are perhaps less detailed and comprehensive than one would normally expect for a catalogue. The broadly geographical arrangements of the entries suggests that it will be used more as an index.

The data are listed under the following headings: locality; number of specimens; rock types; registration number(s); further information and references. This arrangement differs little from the first edition.

The basis for the geographical framework is said to be provided by the 1955-59 edition of The Times Atlas. However, country names have been brought right up to date. I am surprised that the UK county names have not been similarly updated - who now remembers Buteshire, let alone the fact that the Isle of Arran was in it? The list is not arranged completely geographically. This leads to various inconsistencies, including the fact that suites containing material from more than one major geographical division may only be listed once.

In a work of this size, there are obvious limitations on the amount of detail that can be given, particularly in the tabulated format that has been chosen. It is perhaps unfortunate, however, that in a random sample of 20 pages (representing 383 suites), in 14% of the entries rock identification was at the level of being metamorphic and/or igneous and/or sedimentary (or similar) without subdivision.

The accurate localisation of specimens in three dimensional topographic space and in multi-dimensional geological space/time is an essential prerequisite for most geological work. It is probably the paucity, lack of precision, and unreliability of such data

with specimens which is the most frequent cause of researchers avoiding making use of existing or established collections. The Catalogue gives no assessment of the quantity, the completeness or precision of the data on topographic and geologic localisation that may be available for the various entries. Indeed, in the same sample of the Catalogue referred to above, less than 8% gave any geologic localisation at all. Surely a potential user would regard this as basic information.

I suspect that another set of data a potential user of the collection would require at an early stage would be some general indication as to what types of material are available for him to study i.e. hand specimens only, thin-sections, polished sections, powders etc.

The miserly one page of introduction is something that could surely be improved in future editions. Surely it is not just the nosy curator who would appreciate some insight into the philosophy and objectives that lie behind the collection. A brief statement of the collection policy, the structure and management of the collection, a resume of the history and highlights of the collection, an outline of what can and cannot be done with the material, all would be of great value.

Publication of the Catalogue invites two further questions. Firstly, what is the function of the catalogue? Secondly, what is the function of the collection it seeks to document?

I do not propose to try to answer these questions but instead I leave you with some data which may be relevant. Whilst preparing this review I conducted an informal poll amongst the research students and staff of my Department. Just 34 responses from just one department may not be statistically too significant; they may be indicative none the less. 25 respondents knew that the British Museum (Natural History) had rock collections (as opposed to minerals, fossils, or meteorites), and eleven thought of themselves as potential users of these collections. Of these eleven, three knew there was a published catalogue (we do have a copy of the 1971 edition in our library). These three had also used the catalogue and found it useful. Six people (the above three, and three unaware of the catalogue) had actually made use of the rock collections. These six variously described the rock collections as being invaluable (four), very useful (one), and useful (one).

Looked at another way, eight out of the eleven potential users, and all of the users of the rock collections were igneous petrologists/geochemists. Amongst the four metamorphic petrologists who responded, two were potential users. Whilst six out of seven soft rock geologists were aware of the collections, none anticipated using them. Only about half of the six economic geologists and seven geophysicist respondents were aware of the collections, and only one (an economic geologist) was a potential user.

Curiously enough, the predominance of igneous and, to a lesser extent, metamorphic petrological interest in the collections reflects the actual content of the collection. Using the data from the same 20 randomly selected pages previously referred to, the following figures were obtained. Of the 383 entries, 84% record igneous rocks, 36% metamorphic, and 27% sedimentary rocks. Less that 5% however have obvious direct economic interest, although I suspect this may be an underestimate.

Although produced at a price which makes it much cheaper to photocopy than to buy, this catalogue is well-produced (I like the 'lay flat' plastic binding), and the simple but effective format. It would of course be nice if it were more up-to-date and informative, but nevertheless the Catalogue could potentially provide answers to many initial enquiries. The question is, will it?

R.G. Clements
Department of Geology, The University,
Leicester, LE1 7RH

28th February, 1985

LETTER TO THE EDITOR

Dear Editor

It was good to see the notice by Paul Edwards of the geological collections of Kingston upon Hull City Museums (The Geological Curator, 4 (1) for 1984). However, I would like to offer two corrections.

Whilst I am not certain of the official title of the job when David Spalding was first appointed to it, by the time he left at the end of 1963 it was already titled 'Keeper of Geology and Natural History' and was on a surprisingly good grade in comparison with most other museums in Yorkshire at that time. Certainly, it paid me to give up a special responsibility graduate teacher's post to move into the Museum on 1 January 1964! My successor, Brian Latham, was appointed with the same title and grade, and I suspect that the downgrading of the post to an Assistant Keeper, and the dropping of the title of 'Geology' post-dated local government re-organisation in 1974.

Second, the geology displays in a small Natural History Room in the Wilberforce House Museum certainly survived through to my departure, and I think into the 1970s. In fact, a considerable amount of money was spent on the development of both the collections and the displays, including purchases from the Kendal Museum and Churchill collections, specially commissioned models from Arthur Haywood, and painted reconstructions of the Yorkshire Jurassic and Yorkshire Pleistocene, researched by me, and painted by the now-famous artist, Norman Ackroyd, then a post-graduate student at the Royal College of Art.

One final point: my paper 'The geological material in the T B Parks Collection' dates not from 1964 as stated, but from 1968, when it was accepted for publication in the next issue of the Hull Museum Publications monograph series, started by Thomas Sheppard in 1901. However, contrary to the statement in the References to Paul Edwards' paper, this was eventually published. After waiting twelve and a half years for the Hull Museum Publications series to be resumed, I finally asked for the typescript back, and this was published in Humberside Geologist, 3 (October 1980), 8-11.

Yours sincerely

Patrick J. Boylan
Director, Leicestershire Museums, Art Galleries and Records Service
96 New Walk, Leicester LE1 6TD

Glaciated valley showing glacial ridges and moraines. Barnesmore Gap, Co. Donegal, no date. Geology 47/10, R.J. Welch Collection of photographs, Ulster Museum (catalogue reviewed herein). Reproduced by permission of the Ulster Museum.

CALLING ALL GEOLOGICAL TECHNICIANS!

Dear Colleague,

In Vol.4 No.1 of The Geological Curator, the Chairman of GCG, Phil Doughty, has written a report entitled 'The next ten years'. In it he reviews the original aims of the GCG and its achievements over its first ten years, before setting out certain views on the aims and developments of the GCG over the next decade. He suggests that the role of the Geological Technician, including the Conservator and Preparator, has not been sufficiently developed within the GCG. These specialist professionals have had no formal organisation to present their views, ideas, research etc., and have worked through other related organisations, such as the Institute of Geologists (who run the 'Geotechniques' Conferences), UKIC (who are mainly Arts and Archaeology based), and the GCG.

None of these bodies, however, completely represents the 'Geological Technician', in so far as acting as a vehicle for expressing views, publishing technical work, or serving as a core around which the group can develop, meet and discuss their subject. The GCG already has several conservators, preparators and technicians active within its ranks, and their role within the group has been widely discussed. The GCG therefore believe that they should broaden their role to encompass the 'Geological Technician', who they believe has an important role to play within their group.

As a Geological Technician myself, I conserve and prepare geological material, as well as running two laboratories and maintaining the geological collections. I am directly concerned with the role and status of the 'technician' within geology as a whole. I have been struck by the lack of coherent organisational structure for geological technical work; it is difficult to meet with colleagues to discuss the subject; we have few formal meetings to discuss geological conservation etc. (except those topics which are occasionally discussed at GCG meetings); there is little easy exchange of information; and most importantly, I feel there is no formal or even informal network of 'technical workers', through which any of these can be organised.

Such opinions are well recognised by GCG and two steps have been taken towards remedying the deficiencies mentioned. Firstly, I have been co-opted onto GCG Committee to try and encourage more technical workers in museums, universities and elsewhere to take an active role in the GCG. Secondly, I am co-ordinating the organisation of a Conference on the conservation of geological material, the dates and venue of which can be found in the 'Forthcoming Meetings" section of this issue. This means that potentially we now have a body through which our opinions and ideas can be expressed, and a publication, The Geological Curator (which is internationally read), in which to publish articles.

Perhaps in ten years time, an equal status for the geological conservator, preparator and technician with his or her arts or archaeological equivalent will be taken for granted. This is what we should work for through GCG.

I invite any 'Technician' with strong views on his or her role within geology, or who is interested in setting up networks for conservation, exchange of information etc., to write to me. With your help I can brief the GCG Committee on how the technical side of geology sees its role and relationships with GCG.

Yours sincerely,

Chris Collins
Technician, Earth Sciences
Leicestershire Museums, Art Galleries
and Records Service
96 New Walk, Leicester LE1 6TD

GEOLOGICAL HOWLERS

Mike Taylor (Keeper of Natural Sciences, Perth Museum & Art Gallery) found the following label in his collections 'LIMESTONE WITH LACCOLITHS - limestone with minute elliptical disc-shaped bodies of organic origin'

Alan Howell (Bolton Museum) spotted this in a recent New Scientist, of all places, forming part of an advertisement from their own wine club extolling the virtues of French wines: 'Vouvray (white). This appellation lies to the north-east of the town of Tours where the soil is of clay and limestones over a tufa chalk subsoil. Tufa is a chalk that has been boiled by volcanic action; it is full of holes like pumice, rich in minerals and holds water well'. Vous learnez quelque chose new every jour.

NOTES AND NEWS

COMPILED BY TONY CROSS

COLLECTION SECURITY - A CASE IN POINT

Regular readers of newspapers in the west of England are already aware of it. So are the curators of a number of museums, not to mention the police in Bath. How about you?

The connection lies in the theft of geological material. When the case came before magistrates in Bath at the beginning of February, John Thomas Whitehouse, aged 38, of Flaxley Road, Ward End, Stetchford, Birmingham was fined £75 with £24 costs. The Court heard how visits to museums in Bath, Gloucester, Nottingham, Peterborough, Bristol,and Leicester and Oxford Universities resulted in the theft of forty-three specimens whilst he was allowed access to reserve material. Prompt action by Ron Pickford of Bath initiated the investigation which was thought by the prosecuting solicitor to be unusual "as it was impossible to put a price on the stolen items".

One wonders what might have transpired if someone stole forty-three priceless objects from an Art Gallery! In the meantime, if you consider your fossils are worth more than £1.75 each, please examine your procedures for allowing students and researchers access to your collections. If your institution has notes on the topic please send me a copy and perhaps we can highlight the most relevant points in a future edition, in an effort to help the geological community.

NATIONAL STONE CENTRE UPDATE

[Most of the following is reproduced from a press-release issued by Derby Museums prior to their staging a small exhibition about the Stone Centre at the Derby Industrial Museum, 12th January - 23rd February 1985. This exhibition was originally prepared to mark the launch of the National Stone Centre in November 1983 by Sir George Young, Parliamentary Under Secretary of State for the Environment.]

The Centre's primary purpose will be to demonstrate the geology, exploration for, extraction, processing and use of stone in the past and present, as well as its future potential. It will also explain the inter-relationships between the occurrence and working of stone, and our landscape, urban environment, ecology and history. It will include a museum, together with facilities for seminars, teaching, small conferences, field courses and professional and technical training. There will also be advisory services for lay and professional enquirers.

A Company limited by guarantee has now been formed to implement this imaginative scheme; it is anticipated that it will gain educational charity status. In addition to drawing in representatives from all sectors of the stone quarrying and servicing industry throughout the United Kingdom, it will also have the direct involvement of local, regional, and national authorities as well as academic and professional bodies. The first meeting of its Council took place in London on 22nd January 1985. Officers appointed were: Chairman, Dr B.C.L. Weedon (Vice Chancellor, University of Nottingham); Deputy Chairman, R.H. Morray-Jones (retiring President of the Institute of Quarrying); Secretary, I.A. Thomas (Secretary of the original Study Group); Acting Director, G. Mitchell (Chairman of the original Study Group).

The Centre is to be located on a 50 acre site at Wirksworth, amongst six abandoned lime-stone quarries. The site was purchased in 1984 by Derbyshire County Council, who will lease it to the Company, and surveys, including inventories of geological, biological, industrial archaeology and other features are already underway.

Detailed feasibility and marketing studies followed by design work will begin shortly and will lead to the sensitive reclamation of the area making the quarry faces, tips and shafts safe without destroying the inherent features of the site. Funds are now being raised to cover these preparatory studies which are likely to take 18 months. Following that, much larger sums will be needed to develop the whole scheme. The idea is unique and the project has already attracted interest from all over Britain as well as from Europe, the Middle East, USA and Africa.

Work on an adjacent area began in July 1984 to prepare the ground for two associated developments: The National Stone Trade Centre - a shop window for the industry and its servicing organisations (to be run by a separate trading company); and a small industrial estate, which will be able to offer limited workshop accommodation for related enterprises.

Access to certain parts of the area will necessarily have to be restricted on grounds of safety, particularly where contractors are working, but it is hoped to minimise any inconvenience. Requests for access permits should be addressed to I.A. Thomas, Company Secretary, National Stone Centre, c/o County Planning Department, Derbyshire County Council, County Offices, Matlock, Derbyshire, DE4 3AG. Tel (0629) 3411 ext. 7162. He would also be particularly interested to hear of views on how the site might be developed or of records, artefacts and photographs which relate to both the subjects being covered and to the site itself.

WORLD'S OLDEST MOTH REVEALED

[Press notice from the British Museum (Natural History), dated January 1985]

Whilst sorting the remains of a collection of rocks which had been purchased by the Museum in the late 1950s, entomologist Dr Paul Whalley of the British Museum (Natural History) split open one specimen to reveal a small brown mark. On careful examination this proved to be a moth-like wing, bearing scales and measuring 5.5mm long. It is 180 million years old and is thus not only the oldest moth found in Britain but also the oldest in the world. The previous British record was a specimen from the Isle of Wight which was 40-50 million years old, and from the rest of the world the oldest known moth was found in the USSR in rocks 140 million years old.

The amateur who collected these rocks and fossils from along the Dorset coast is now sadly dead and so will never know the surprise which was awaiting discovery in his material. The moth wing is too small and fragile for display in the public galleries, but full details will be published at a later date in Bull. Br. Mus. nat. Hist. (Geol.).

Black and white photographs available on request from Sue Runyard (Press Office, BMNH).

NEWS OF A MEMBER

Dr Peter Lingwood has been awarded a Winston Churchill Memorial Trust Travelling Fellowship to visit America to study waste disposal. Peter, who is responsible for the day-to-day running of South Yorkshire County Council's landfill and civic amenity sites intends to use this prestigious Fellowship to broaden his experience of waste disposal techniques, especially landfill, in a country which has a different legislative and organisational framework and which has, in many cases, been shown to have encountered problems several years before they have eventually appeared in Britain. The trip will cover various centres such as Washington DC, New York, Cincinnati, Los Angeles, San Francisco. He intends to see both the best and the worst that America has to offer in the waste disposal field.

He would very much like to hear soon from anyone who can suggest places that must not be missed or recommend helpful contacts.

Dr Peter Lingwood
8 Sorrento Way, Darfield
Barnsley, South Yorkshire S73 9RN
Tel. (work) 0226 242484.

EARTH AND ASTRONOMICAL SCIENCES RESEARCH CENTRES

According to a prepublication press-release from Longman, this new directory provides an international guide to official, industrial and academic organizations which conduct or finance research into earth and space sciences. The range of subjects covered by the directory includes: geology; cartography and surveying; ocean studies; meteorology and climatology; planetary and galactic observations; geochemistry; mineralogy and petrology; mining studies; earthquake control.

Where available, each entry includes the following information: title of establishment, address, telephone and telex numbers, names of senior staff, number of graduate research staff, annual expenditure, activities, and publications. The directory is fully indexed by title and subject. And now the bad news: Earth and Astronomical Sciences Research Centres, size 246x189mm, 742 pages, ISBN 0 582 90020 4, retails at an excruciating £110.00!

SAVE FOSSILS NOT PICTURES!

An extract from Notebook 15 of A. Shanks (Glasgow University Archives 804) forwarded by Ian Rolfe (Hunterian Museum).

Friday 26th November [1909] Dick Institute, Kilmarnock destroyed by fire

I met Mr John Smith (Dykes) on the Monday & he told me he had been just posting a letter to Dr Landsborough about the Dick Institute fire. He was of the opinion that the corals might still [be] saved. He remarked that "Had 'Jamie' (James Thomson who spent the leisure of a lifetime collecting the fossils) been living, this fire would have put him in the lunatic asylum" & that "This is enough to wipe the name of Thomson out as he never published a book on corals". I remarked "But his papers are to be seen in the transactions of various Societies" but Mr Smith seems to think that these are 'out of sight' to some extent. Mr Smith - "I see that the pictures have been saved, but it might have been better had they been lost - it would have given artists work, but it takes the Almighty tae mak' a fossil!".

'SEA FEVER?'

Colleagues may have noticed an entry in the personal column of the Museums Bulletin informing them of Tristram Besterman's new appointment as Curator of the City Museum and Art Gallery, Plymouth.

Tristram, aged 35, fun-loving cellist and father of three, has an interesting background and takes to the south-west a rich and varied experience (some of it in museums) gained in Australia, Sheffield, and Warwick.

Although I was concerned at the possible loss to the GCG of an active and committed member, I need not have worried. With a purpose-built Museum and Art Gallery, two historic houses, and an involvement with Buckland Abbey (one time home of Sir Francis Drake), understandably his time will be limited. It appears, however, that there are also some eight thousand mineral specimens in the collections, comprising the best selection of

Devon and Cornwall material outside of the British Museum (Natural History), and including the important historic collections of Sir John St. Aubyn and Sir William Serjeant. So there will be plenty of encouragement for him to 'keep his hand in' - provided the opportunity arises.

EXTRACTS FROM HARDWICKE'S SCIENCE GOSSIP

The two short pieces which follow were rediscovered by Hugh Torrens (Keele University)

MUSEUM CURIOSITIES. - I was lately visiting in a large town in the north of England, celebrated for its museum of geological and antiquarian curiosities. While walking round the different rooms filled with these wonders I was accosted by an elderly man, who apparently had the office of keeper, and general attendant on the visitors who might chance to go over the museum. Naturally wishing to gain information, I put a question to him relative to the finding of some huge Saurian monster I was looking at. "You perhaps are not aware, sir" he said, "how these creatures got into the rocks where they are found. Now, we read in Bible history that there were great convulsions of the earth, that the rocks were rent, and a great flood covered the face of the ground. Then it was that these creatures got washed into the cracks, and so we dig them out now." Thinking your paper may fall into the hands of those who superintend museums, I venture to lay this story before the public, both as a caution, and I hope a warning. To allow such subordinates even to dust the cases of museums is, to my mind, a connivance at flagrant desecration, not only of the specimens themselves, but of their scientific history. Surely some little education is needed!
LL.B. [1st December 1868, Hardwicke's Science Gossip, 4, p.283]

THE MANUFACTURE OF FOSSILS. - At a meeting of the Manchester Geological Society Mr J. Plant called the attention of the meeting to a serious fraud that had been going on for some time among excavators at the Macclesfield New Cemetery. The excavations had been made in gravels that belonged to the drift, and a number of fragments of shells belonging to a recent period, and occasionally a few nearly perfect, had been found by the workmen, and these had fallen into the hands of gentlemen interested in the geology of the locality. Encouraged by the pecuniary results of their discoveries some of the workmen had supplied spurious shells, obtained from their friends at Liverpool, Southport, or Ireland, and they had even robbed rockeries and garden plots that contained shellwork. The shells so obtained were subjected to the action of fire or acid, to deprive them of their epidermis, and to bring out a thin coating of white lime; to give them a true drift character they were afterwards shaken in a basket of gravel, and had imparted to them the necessary red tinge. Having no knowledge of species, some of the workmen had operated on West Indian and African shells, specimens of which Mr. Plant produced. But the most audacious fraud that they had attempted was the manufacture of a fossil. They had very cleverley set a mactra (stultorum) in a piece of Ketton oolite. The shell, which had the peculiar pink tinge of the species, was so cleverly cemented with the oolite that even an ordinary geologist might have been deceived. One of the workmen had said to a gentleman writing to Mr. Plant "that they had made a good thing of it. They had deceived the museums of London, Manchester, and Liverpool, and there had been a fine set of people asking them for the shells." Such a dispersion might lead to very erroneous deductions as to the origin of the diluvial drift of Macclesfield, and he (Mr. Plant) thought it right to mention the fraud to the society, so that it might be exposed.
Manchester Guardian [1st April 1865 - significant? - Hardwicke's Science Gossip, 1, p.91]

FORTHCOMING MEETINGS

Mon./Tue. 15/16th April 1985
Museums Computer Group
Leicestershire Museums Service

Computing systems and programs developed for Leicestershire Museums Service will be described and demonstrated.

Contact: Dr A. Fletcher, Keeper of Documentation and Information Retrieval, Leicestershire Museums, 96 New Walk, Leicester LE1 6TD (Tel. 0533 554100).

Wed./Fri. 17/18th April 1985
BCG/Biological Records Centre
Biological Recording Forum
Chelsea College, University of London

This forum will enable those concerned with the practical aspects of biological recording to discuss methods and problems, and to exchange views. It is a follow-up to the BCG seminar 'Biological recording and the use of site based biological information' held at the Leicestershire Museum in September 1984. Discussion will be structured around the following seven themes:

1. What is a biological record? - minimum standards for a record.
2. Validation of records - the status of records, the need for voucher material, and taxonomic vetting.
3. Networking - how records can be acquired.
4. Data storage - form, access and security.

5. Computing - a review of the present situation and a forward look.
6. Uses and users - the rationale of recording.
7. The problems being faced - possibilities for future developments in recording.

Contacts: Paul Harding (BRC), Institute of Terrestrial Ecology, Monks Wood Experimental Station, Abbots Ripton, Huntingdon, Cambridgeshire PE17 2LS (Tel. 04873 381).
Charles Copp (BCG), City Museum and Art Gallery, Queens Road, Bristol BS8 1RL (Tel. 0272 299771).

Fri. 19th April 1985
GCG - A conservation strategy for geological material
Hampshire County Museums Service headquarters, Winchester.

This seminar will include the following contributions:
Pyrite disease - a new approach. Adrian Doyle (BMNH)
A collections conservation initiative. Mike Taylor (AMCSW)
Conserving a site through excavation - the Swanage dinosaur tracks. Paul Ensom (Dorset County Museum)
The NCC role in site conservation. Keith Duff (NCC)
The cliff section at Barton on Sea - a case study. Brian Coles (University of Southampton) and Paul Trend (New Forest District Council)

Contact: Tony Cross, Curtis Museum, Alton, Hampshire (Tel. 0420 82802)

Fri./Sat. 7th/8th June 1985
GCG - Specimen documentation and data standards
Booth Museum, Brighton

Lecture and workshop sessions on Friday will be followed on Saturday by visits to the Chalk Pits Museum, Amberley, Sussex and several Chalk sections, led by Dr Rory Mortimore (Brighton Polytechnic). Friday's programme includes:
Brighton's geological collections and their documentation. John Cooper (Booth Museum).
'Guidelines' - implications and the way ahead.
Problems remaining - the MDA view. Andrew Roberts (MDA).
Case studies from Brighton, Leicester, Sunderland and Ulster.
General discussion on such action areas as documentation categories, data standards, and terminology control.

Contact: John Cooper, Keeper of Geology, Booth Museum, Brighton, Sussex (Tel. 0273 552586).

Wed. 18th September 1985
GCG - Aspects of palaeobotany in museums
Bolton Museum

Bolton Museum and its collections. Geoff Hancock (Bolton Museum).
James Lomax - a local palaeobotanist. Alan Howell (Bolton Museum).
Palaeobotanical classification for storage purposes. Cedric Shute.
A working palaeobotanists view of collections. Chris Cleal.

Contact: Alan Howell, Museum and Art Gallery, Bolton (Tel. 0204 22311 ext.361).

Fri. 6th December 1985
GCG - Annual General Meeting
Banqueting Hall, Dudley, West Midlands

Contact: Alan Cutler, 21 Primrose Hill, Wordsley, Stourbridge DY8 5AG.

Thu./Fri. 23rd/24th January 1986
GCG - Geological Conservation
British Museum (Natural History)

This major conference aims to present and discuss modern techniques and recent advances in the conservation of geological material in museums, and to relate the conservation techniques of other disciplines to geological conservation. Four half-day sessions are planned, covering Environment, Cleaning, Consolidation, and Documentation and Health and Safety at Work, to include both lecture/discussion time and practical demonstrations.

All those involved with the care and maintenance of geological collections will find the conference valuable, be they curators, technicians, or specialist conservators and preparators. Held under the auspices of GCG, the conference is being hosted by the British Museum (Natural History), and is being supported by UKIC and AMSSEE.

Top specialists are being invited to address the conference and proceedings will be published as a special issue of The Geological Curator in 1986.

Contacts: Chris Collins, Earth Sciences Section, Leicestershire Museums Service, 96 New Walk, Leicester LE1 6TD (Tel. 0533 554100).
Peter Whybrow, Dept. of Palaeontology, British Museum (Natural History), Cromwell Road, London SW7 5BD (Tel. 01 589 6323).

Fri./Sat. 30th/31st May 1986
GCG - Cornish meeting
Programme to be arranged.

Contact: Lesley Atkinson, Camborne School of Mines, Redruth, Cornwall.

THE GEOLOGICAL CURATOR

PUBLICATION SCHEME

Three issues of The Geological Curator are published each year; a complete volume consists of nine issues (covering three years) and an index. Because of recent delays in publishing, four issues will be published in both 1985 and 1986 to make up the deficit to members. The following timetable should be noted by those wishing to submit material for publication:

Vol.4, No.3 (for 1984) copy date 17th May 1985 for publication July 1985
Vol.4, No.4 (for 1985) copy date 16th Aug. 1985 for publication Oct. 1985
Vol.4, No.5 (for 1985) copy date 15th Nov. 1985 for publication Jan. 1986
Vol.4, No.6 (for 1985) copy date 14th Feb. 1986 for publication Apr. 1986
Vol.4, No.7 (for 1986) copy date 16th May 1986 for publication July 1986
Vol.4, No.8 (for 1986) copy date 15th Aug. 1986 for publication Oct. 1986
Vol.4, No.9 (for 1986) copy date 14th Nov. 1986 for publication Jan. 1987

NOTES TO AUTHORS

Articles should be submitted typed on good quality paper (A4 size) double spaced, with wide margin. Two copies should be sent to the Editor, Dr P.R. Crowther, Leicestershire Museums Service, 96 New Walk, Leicester LE1 6TD. Line drawings should be prepared in black ink at twice desired publication size. Photographs for halftone reproduction should be printed on glossy paper and submitted at final size. Both drawings and photographs should utilise either the full width of one column (85mm) or two (175mm). References in the text follow the Harvard system i.e. name and date '(Jones 1980)' or 'Jones (1980)'. All references are listed alphabetically at the end of the article and journal abbreviations should follow the World List of Scientific Periodicals where appropriate. Authors will normally receive proofs of text for correction. Reprints can be purchased at cost (details from the Editor). Major articles are refereed.

REGULAR FEATURES

LOST AND FOUND enables requests for information concerning collections and collectors to reach a wide audience. It also contains any responses to such requests from the readership, and thereby provides an invaluable medium for information exchange. All items relating to this column should be sent to Dr M.D. Crane, Department of Geology, City Museum, Queen's Road, Bristol BS8 1RL (Tel. 0272 299771).

NOTES AND NEWS contains short pieces of topical interest. Tony Cross, Curtis Museum, High Street, Alton, Hampshire GU34 1BA, is pleased to receive items for potential inclusion.

BOOK REVIEWS contains informed opinion on recently published books of particular relevance to geology in museums. The Editor welcomes suggestions of suitable titles for review, and unsolicited reviews can be accepted at his discretion. Publishers should submit books for review to the Editor.

INFORMATION SERIES ON GEOLOGICAL COLLECTION LABELS consists of loose A4 size sheets, issued irregularly, which carry reproductions of specimen labels usually written by a collector of historic importance. The aim of the series is to aid recognition of specimens originating from historically important collections.

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Quarter A4 page	£15 per issue)	

Further details from Diana Smith, Castle Museum, Norwich, Norfolk NR1 3JU (Tel. 0603 611277 ext.287).

Inserts such as publishers' 'flyers' can be mailed with issues of The Geological Curator for a fee of £35. 450 copies of any insert should be sent to the Editor by the required copy date shown above.

SUBSCRIPTION CHARGES

Ordinary Membership	£5 per year
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All enquiries to the Treasurer/Membership Secretary, Tom Sharpe, Department of Geology, National Museum of Wales, Cathays Park, Cardiff CF1 3NP (Tel. 0222 397951).

BACKNUMBERS

Backnumbers of The Geological Curator (and its predecessor, the Newsletter of the Geological Curators' Group) are available at £2.50 each (or £5.25 for the double-issues Vol.2, Nos.9/10 and Vol.3 2/3), including postage. Orders should include payment and be sent to the Treasurer (address above).

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