

Editorial

This issue contains accounts of two outstanding members of the Linnean Society: Thomas Bell our sixth President who revitalised the Society in the 1850's and his contemporary Alexander McLeay the Society's second secretary and chief founder and munificent benefactor of the Australian Museum and the Linnean Society of New South Wales. Moreover both McLeay and Bell were involved in the foundation of the Zoological Society of London¹ and Bell in the formation of the Ray Society ("*Societies exist for Science, not Science for Societies*"). Bell was also responsible for the fact that the Linnean Society and its collections are today housed with other learned societies at Burlington House².

Today Bell is unfortunately only really remembered for his comments at the Anniversary meeting of May 1859 – when he remarked

“The year which has passed..... has not indeed, been marked by any of those striking discoveries which at once revolutionise, so to speak, the department of science on which they bear; it is only at remote intervals that we can reasonably expect any sudden and brilliant innovation which shall produce a marked and permanent impression on the character of any brand of knowledge, or confer a lasting and important service on mankind. A Bacon or a Newton, an Oersted or a Wheatstone, a Davy or a Daguerre, is an occasional phenomenon, whose existence and career seem to be specially appointed by Providence, for the purpose of effecting some great important change in the conditions or pursuits of man”.

Bell we are told, remained hostile to the idea of evolution to the end of his life. However, we must remember that at the epic meeting of 1st July 1858, Bell as President, was in a difficult position. He was professor of Zoology in a Church of England founded College (King's) while the Linnean Society itself included one Bishop, the Dean of Westminster and the Archdeacon of St. Albans as well as some thirty other ordained members of the Church of England. As Foxen (1971) remarked – we are left to choose between two points of view, either Bell realised what was afoot and that he had the duty of keeping the matter out of the Linnean Society (in support of this view is the fact that Bell believed that –

-
- 1 Bell and McLeay together with other members of the original committee of the Zoological Club of the Linnean Society (viz. Joseph Sabine, Nicholas Vigors and Thomas Horsfield) took an active part in the early deliberations of the Zoological Society of London and both were present at the initial meeting of 22 June 1825. Bell was one of the originators of the Scientific meetings and for 11 years one of its Vice-Presidents.
 - 2 In 1854 on the purchase of Burlington House by the Government - Bell the President together with Robert Brown, the Treasurer William Yarrell and Secretary John Bennett, petitioned Lord Aberdeen for a share in the accommodation which was ostensibly set aside to provide rooms for the learned Societies. Bell also persuaded the Royal Society to join us in this request, inveigling the President (first the Earl of Rosse and later Lord Wrothesley) to similarly petition the Government. On June 11 1856 an offer was made to Lord Wrothesley from the Secretary to the Treasury (James Wilson) for temporary accommodation in Burlington House for the Linnean, Chemical and Royal Societies on the understanding that he (Wrothesley) would assign suitable accommodation for the Linnean and Chemical Societies and that all three Societies would share a common library.

“all the various races of dogs have descended from a common stock of which the wolf is the original source” (see Lyell 1853)

and his refusal to eject Darwin from the Society following the publication of the *Origin of Species* in 1859) – or he really did not know what was going on (which is the view perpetrated by Gage (1938) who suggests that Bell’s attitude was “pontifical” and that “he had little or no idea that he was presiding over the start of a revolution in ideas of life in general, and of human life in particular”).

Also in this issue is an account of a co-founder of the Society – Thomas Marsham whom McLeay recalled had done more than anyone else to keep the Society in being but who eventually resigned the Treasurership under somewhat unfortunate circumstances in 1816. As Gage (1938) remarked: “of the three founders of the Society one was knighted, one became a bishop and the third died sick in the world’s regard, wretched and low”.

FOXEN, G.E.H. 1971. Some teachers of biology at Guy’s Hospital and its medical school.

Guy’s Hospital Reports, 120, 1, 57-87.

GAGE, A.T. 1938. *A history of the Linnean Society of London*. Taylor & Francis, London.



Society News

The image which appears above this item is a picture of the Linnean Plaque, which was presented to the Ulster Museum by the Society to mark our successful Annual Regional Meeting there in August 1996. It was made in porcelain, *pâte-sur-pâte* by Patrick O’Hara FLS in 1995, and generously donated by the John Jefferson Smurfit Foundation. Courtesy of Mr. O’Hara, it will be a standing item in *The Linnean*.

Dr. Peter Goodfellow FRS, now with SmithKline Beecham, is unable to lecture on Thursday, 23rd January and his place will be taken by Dr. Nigel Spurr, also of SmithKline Beecham.

The joint meeting with the Malacological Society on Thursday, 6th February will be followed by a tasting of Chilean wines provided by Mrs. Helen Verdcourt. In the earlier part of the decade, and for some years previously, the Society’s vinous requirements were met by robust French village wines, but latterly Australian wines have filled the bill at a somewhat greater cost. After the President’s trip to Chile to

present a full size copy of the Darwin portrait to mark Darwin's epic Andean journeys, Chilean wines were tried, but were not a success. Mr. John Barker FLS, a noted oenophile, has persuaded us to try again. A modest charge will be levied for "a sit-down tutored tasting of 9 or 10 Chile wines" of approximate duration one and a half hours "for an adventure with lamas (*sic*), volcanoes and snow covered mountains".

A debate has been arranged for the evening of 6th March, starting at 4.30 (tea at 4pm). The motion is "that this house believes that Linnaean classification without paraphyletic taxa is nonsensical". For the motion will be Dr. R.K. Brummitt and Dr A.J. Paton, both of the Royal Botanic Gardens, Kew, against Professor C.J. Humphries, Botanical Secretary and Dr. P.L. Forey FLS, both of the Natural History Museum.

The Palynology Specialist Group will meet in the Society's Rooms on Thursday, 17th April under the title *Talking About Pollen and Spores*.

The Society is grateful for a donation from Paul Alan Cox FLS (Brigham Young University, Utah) of £1000.

The bank of Miss B.A. Blofield FLS reported to us that she had died, which we duly noted in the previous issue of *The Linnean*. The report, it transpires, was greatly exaggerated and we do apologise to Miss Blofield for the mistake. Sadly, the Society has lost the following members, to whose relatives and friends we extend our sympathy:

Alasdair Graham Burman	(1978)
Edred John Henry Corner Hon FLS	(1931)
Derek Goodhue	(1968)
Derek McVitty	(1973)
Edgar Wolston Milne-Redhead	(1941)
Denis F Owen	(1984)
Rober Barton Park	(1989)
Endre Elel Sandor	(1975)
Kenhelm Welburn Stott	(1980)

The external woodwork of the Society, mainly doors, has been cleaned, sanded and revarnished during the summer. The Society has also made some improvements to the basement, installing a modest kitchen with dishwasher, and fitted cupboards in *inter alia* the Publications Room and the open space through the swing doors. Members may also recall that during the cleaning of the Meeting Room in 1995, one of the lampshades was broken. After a number of false trails, a firm has been found to make a replacement which should be in place by the time this issue appears.

Observant visitors will have noticed the proliferation of electronic wizardry in the office in the shape of new computer and telephone systems. These are not bought as the result of light and airy caprice; the old computer system, which worked well, was simply getting too old to service after five years, and British Telecommunications plc gave notice that, beyond last July, they were no longer prepared to service the previous telephone system, which again had done what we asked of it over its twelve years. Scrutiny of the Society's investments reveals a recent purchase of shares in that very same British Telecommunications plc. If you can't beat 'em, join 'em! A modest bonus of the new system is that there is now an answerphone on the 0171 434 4479 number.

The Society's Meeting Room contains projectors and an amplification system for public address, which are maintained to a high standard, but we do try to ensure that the organisations which use our facilities find our equipment easy to use to avoid the costs of projectionists. The system works well. There is an old acronym – KISS – Keep It Simple, Stupid. We have acquired a videoprojector, to which it does not apply, but it is there for those needing it, complete with technical support, which has, regrettably, to be paid for.

One autumn day, the Executive Secretary found himself playing host to a former cabinet minister and the chief executive of one of our larger banks. They had arrived under the impression that they were to address a meeting at the Society that morning. A cup of coffee and a biscuit alleviated their pain of discovery of the postponement of a meeting of, yup, the *Strategic Planning Society*.

The Society's Grants

Some 100 applications were received for the Society's grants. Awards were made as follows:

NERC Grant for Taxonomic Publication. 5 applications were considered, multiple applications being submitted by some. It was agreed with the NERC to support the following:

Prof. Denis Owen (dec'd), Oxford Brookes University, *Taxonomy, and Colour and Pattern Polymorphism in Bivalves of Sandy Beaches and Colour and Pattern Polymorphism in Butterflies* £1800

Ms. Josefina Schneidt, University of Aberdeen, *A Taxonomic Revision of the Genus Tylophora (Asclepiadaceae) for Flora Malesiana* £845

Dr. Andrew Smith, The Natural History Museum, London, *A Monograph on the Cretaceous Echinoids of Britain* £990

These grants took the total commitment of the NERC Fund to £3635

The Appleyard Fund. 3 applications were received and the following were recommended for support:

Dr. Jennifer Edmonds FLS, University of Leeds, *The Rejuvenation of Research in Systematic Biology in the University of Leeds*. £1800

Dr. John Spearing FLS, Cumbria, *A Study of the Seedlings of the Tribe Stapelieae (Asclepiadaceae) in Relation to Taxonomy and Phylogeny* £270

These grants took the total commitment of the Appleyard Fund to £2070.

The Bonhote Fund. 2 applications were received. It was agreed to support the following:

Prof RS Thorpe FLS, University of Wales, Bangor, *Genetic Sampling of Venomous Snake Species in South India* £780

The Omer-Cooper Fund. 1 application was received, but not supported.

The AG Side Fund. 41 applications were received and it was recommended that the following be supported:

Mr. MEA Alex-Saunders, University of Plymouth, *A Revision of the Systematic Classification of the Mesozoic "Porostomate Algae" of South-West Sarawak* £750

Drs. JA Allen FLS, LR Noble & P Tattersfield, Universities of Aberdeen and

Southampton, *Systematics of East African Land Snails: Gulella and Limicolaria in the Rwenzori Mountains, Uganda* £590

Dr. CM Berry FLS, University of Wales, Cardiff, *A Systematic Study of Cladoxylopsida* £800

Dr. ML Blaxter, University of Edinburgh, *Molecular Phylogenetic Tools to Understand the Radiation of the Nematode: the Free-Living Dorylaimida* £1290

Dr. Andrew Brierley, British Antarctic Survey, *Systematics of Deep-Sea Grenadiers* £450

Dr. NC Hughes, Cincinnati Museum of Natural History & Science, *Systematics of the Dikelocephalidae (Trilobita) and its Implications for the Cambrian Evolutionary Radiation* £850

Mr. Lu Shan, Nanjing University, *Systematic Studies on the Bamboo Genus Phyllostachys Sieb. et Zucc* £600

Mr. James Minter, Hampton School, Middlesex, *Scanning Pencilled Pictures of Fungi Collected by Spegazzini* £350

Mr. AG Punt, University of Edinburgh, *Cephalodiscus gracilis as an Aid to Understanding the Fossil Group, the Graptolites* £1050

Dr. Roderic Page, University of Glasgow, *Cospeciation between Seabirds and their Lice* £950

Ms. Karen Sidwell, University of Oxford, *Illustrations for a Monograph of Brillantaisia* £325

Miss Nikky Thomas, Harrison Zoological Museum, *Systematics of Five Species of the Family Rhinolophidae (Mammalia: Chiroptera) in Africa and Eurasia* £1000

These grants took the total commitment of the AG Side Fund to £9005.

The Dennis Stanfield Fund. 42 applications had been received. Awards were made as follows:

Mr. Gabriel Ameka, University of Ghana, *Biology and Ecology of Podostemaceae in Ghana* £1200

Dr. Gamal EB El Ghazali, Medicinal & Aromatic Plants Research Institute, Khartoum, *Modern Pollen Spectra and Contemporary Vegetational Belts in the Sudan* £650

Mr. Geoffrey Mwachala, National Museums of Kenya, Recovery Programme for the *Rare and Endangered Plants in the Thika Area of Kenya* £600

These grants took the total commitment of the Dennis Stanfield Fund to £2450, which included money from that left to the Society by Mr. Jan Gillett in 1995.

Picture Quiz

The July Picture Quiz featured the T.H. Maguire portrait of Thomas Bell (1792–1880), produced in 1851 as one of the Ipswich Museum Portraits when the British Association held its annual meeting in Ipswich³.

³ For the purposes of the 1851 British Association meeting at Ipswich all the more important members of the Linnean Society were made honorary members of the Ipswich Museum by the Secretary George Ransome FLS who commissioned a series of portraits of them (45 in number), which were published through the Museum's auspices.

He was born at Poole, Dorset on 11 October 1792, the only son of the surgeon Thomas Bell, who had married Susan Gosse. Philip Henry Gosse (1810–1888) was her nephew and thus a cousin of Thomas Bell. Bell followed his father's profession and after initial training with him, he entered Guy's Hospital, London as a student in 1813. Two years later, he became a member of the Royal College of Surgeons and eventually a Fellow in 1844. There is no evidence why he chose dentistry, only that he succeeded James Fox as the dental surgeon and lecturer at Guy's in 1817, as well as taking over his private dental practice that year. Bell soon acquired a high professional reputation and is now regarded as one of the pioneers of dentistry in Britain through his efforts to establish it as a separate branch of medicine. He was the first to apply methods of scientific surgery in the treatment of dental disease. His lectures, included many original observations, and were published as a textbook *The Anatomy, Physiology and Diseases of the Teeth* (1827, 1829). During his dental career, Bell was responsible for several innovations in the use and design of dental instruments, promoting the use of the 'elevator' for many purposes and adding a ratchet to forceps that allowed a tooth to be gripped mechanically, thereby allowing the full force of the hand to be used in manipulating the instrument. Upon his retirement in 1862, Bell's nephew James Salter succeeded to his lectureship in dentistry.

During his Dorset childhood, Bell's "boyish love for natural history" – especially zoology, was encouraged by his father. It is curious that in the proposal for his election to the Linnean Society, dated 7th May 1815, the signatories W.G. Maton, H. Comley and Edward Forster, emphasize Botany as being his particular interest rather than Zoology. For several years at Guy's, Bell lectured on comparative anatomy (1817–1836).

An unknown aspect of Bell's work during this period is to be found in one of his early publications: "*Kalognymia, or the Laws of Female Beauty, being the elementary principles of that science*" (1821), which might be loosely construed as 'comparative anatomy'. In the introduction, Bell explains that the purpose of this work was to enable readers to answer the question 'Is She beautiful?' by providing the necessary scientific knowledge of anatomy – that is the sole basis of assessing Female beauty. In order that they were not exposed to 'either Ladies or to Young persons' nine of the twenty-four accompanying plates were stitched up separately. A note adds that

"As the work is a scientific one, and calculated both by its mode of construction and by its price for the higher and more reflecting class of reader, and as the plates... are entirely scientific and anatomical, the Publisher might have dispensed with this precaution; but... anxious... to obviate... the careless exposure of such...plates, they are...detached...and may be locked up separately".

The book is divided into four sections and in the first Bell lists and describes the three species of beauty, considering that all the rest are simply varieties of these. It would appear that Bell categorised mood and nature with physical qualities, for his three 'species of beauty' are:

1. The delicate and elegant; 2. the soft & voluptuous; 3. The graceful intellectual.

The final catalogue ends with lists of the 'Defects of the Intellectual system in Women' (numbering only! 4); 'Defects in the Mechanical system of Women' (a mere



Clue: Had a beautiful gull named after him.

17); and 'Defects in the Vital system of Women' (just 9). Its 331 pages provide an arsenal of ammunition for to-day's women's liberation organisations, for they would surely discount Bell's claim that "the work gives an impassioned description and accurate notion of female beauty".

In 1836 he resigned from the anatomy lectureship at Guy's on his appointment to the new Chair of Zoology at King's College, London (virtually an honorary post as very few lectures were required). Nevertheless he continued to be a Dental Surgeon to the Hospital and also to give some lectures on comparative dental anatomy.

Most of his subsequent publications indicate a keen interest in Crustacea, Reptilia and Amphibia, but all were on zoological subjects. He began with a succession of popular works written for Van Voorst: the *History of British Quadrupeds* (1837; revised 1874), followed by *History of British Reptiles* (1839), and then *History of British stalk-eyed Crustacea* (1853). These compilations were open to criticism for their inclusion of domestic animals, or for important omissions, as well as for their lack of any original research. However, Bell's descriptions of Reptilia for the *Zoology of the Voyage of the Beagle* (1843) and of Crustacea in Belcher's *Last of the Arctic Voyages* (1855), together with contributions to monographs on Fossil Reptilia (1849), Fossil Crustacea (1857, 1862) and his *Catalogue of Crustacea in the British Museum* (1855) enhanced his scientific reputation.

The un-finished exquisitely-illustrated *Monograph of the Testudinata* (1836–42) was a considerable achievement, for he was forced to describe newly discovered turtles and tortoises and then ensure that their features were accurately drawn by Lear and J. De C. Sowerby. The lack of knowledge at that time on caring for these animals is apparent from correspondence with the latter. An un-dated letter presents the picture:

“Our tortoises are accumulating upon us. ... I have four now living, which must be figured and it is, of course, always of consequence that it should be done whilst the animal is living and in health”.

In another he writes:

“I send ... a remarkably fine lively specimen of *Hydraspis longicollis* which has been living in my little pond and feeding voraciously on live fish. I am very anxious that he should be immediately drawn”

the increasing problem is revealed by:

“I am anxious to take the opportunity of possessing this fine living specimen of *Chelonia imbricata* to have a drawing made – and as there is not much hope of any ‘length of days’ being granted him, may I request you do what is necessary as soon as you can”.

In the end he had to send its semi-putrid corpse to be drawn. Inevitably over months the tortoises and turtles with Bell at his home and in the Zoological gardens (Regent's Park) died and for a variety of reasons the work was never completed (see Cleavelly, 1976). From other letters that entreat Sowerby to be more productive, it is possible to realise Bell's frustration. In appreciation of Sowerby's drawings he even initiated an increase in fees, but finally declared:

“... I am driven to my wits end. I must confess it would be some disappointment to me to ... give up the book after so good a beginning”.

Bell revealed (Presidential address, 1859) that in 1815, he had been offered the appointment of naturalist on the ill-fated expedition to the Congo:

“I had a long conversation with Robert Brown ... who laid before me the difficulties, dangers and improbabilities of success, which in great measure were the cause of my declining the appointment.”

These prognostications proved to be true for both the leader Capt. J.K. Tuckey and

the naturalist John Cranch died without achieving their objectives. Bell's entry in the *Dictionary of National Biography* concludes: "*He was more at home in his study than the field*", which underlines that decision and probably explains why Bell became the first President of the Ray Society on its foundation in 1843. One result of his dental commitments and subsequent administrative roles, was that Bell seldom had time for detailed field observation and was entirely dependent upon collectors for the animals he described. Consequently, his understanding of their significant characters, or their behavioural traits that are now considered necessary for reliable classification, was often inadequate. Much of his descriptive work in herpetology and carcinology has not withstood the test of time.

Yet, throughout his life Bell consistently endeavoured to promote the study of zoology and improve its treatment in professional journals and societies. He was involved with the Linnean's Zoological Club and the short-lived *Zoological Journal* (1832–45) events which eventually led to the formation of the Zoological Society in 1826. His excellent administrative qualities were recognised early, for during its formative decade, he was made a vice-president of The Zoological Society. In 1828, he had been elected a Fellow of the Royal Society and was surprisingly appointed one of its secretaries in 1848 as a result of differences between internal factions, and held that office until 1853. In that year he became the sixth President of the Linnean Society following the resignation of Robert Brown. Gage (1938:48) acknowledged that Thomas Bell "*was one of the most stimulating Presidents the Society has ever had*" and re-established its scientific role. This is confirmed from glancing at his eight Presidential addresses. Each one contains thoughtful suggestions for improvements in the Society's organisation, meetings and its publications; the organisation of the study of natural science in Britain; the teaching and examination of these subjects at all levels; and indications of his influence on administrative government deliberations. In fact, it was largely through Bell's advocacy that the Linnean Society became recognised as one of the five major scientific societies of the country. It was also due to his involvement with and castigation of the Royal Society that it was resolved that these organisations should be accommodated in juxtaposition on premises provided by the government (in Burlington House). He achieved the re-vitalisation of the Society that his supporters had hoped and above all else, these improvements led to financial stability and freedom from the debts incurred with the acquisition of the Linnean collections. Consequently, it is surprising that apart from brief laudatory notices in the Proceedings of the Society, a normal obituary never appeared in the Society's publications. Bell's successor, George Bentham congratulated the Society on its state of propensity, but realised that this was due to the zealous superintendence of his predecessor.

In his later life, Thomas Bell was described as a short, thick-set man, with a cheery, chubby hairless face (Wilks & Bettany, 1892). Darwin always regarded him as a delightful kind-hearted man and believed that a more good-natured person did not exist, but that his overwhelming administrative roles and professional work prevented him from achieving very much. Huxley, to whom Bell had given considerable help at an early stage of his career, echoed that view but qualified it by suggesting that Bell needed the qualities of originality and grasp of mind although conceding '*he has*

the learning and can write intelligibly” (1851). Gage referred to the attractive personal qualities that ensured a good relationship with all his contemporaries, which also enabled him to belong to distinctive, influential dining clubs, and perhaps even more remarkable, maintain a long-lasting friendship with Richard Owen. The esteem in which he was held throughout the natural history world is revealed by various dedications, not surprisingly one by his friend Sir W.J. Hooker in the 88th volume of *Curtis’s Botanical magazine*, but strangely also others in botanical works (viz. E.J.Lowe dedicated his *Beautiful leaved plants*, 1872: to Bell). The deep respect and sincere friendship for their President of many members of the Linnean Club was recorded in an address given on his retirement in December 1862 with the presentation of a bust by the sculptor P. Slater.

Approaching the age of seventy, Bell retired from practice and all his official positions in 1862 to reside permanently at ‘*Wakes*’. In Selborne, purchased in 1844.



Garden view of *Wakes* with the bay window and library added by Bell.

He became the natural successor to Gilbert White and occupied himself in collecting relics of that naturalist, as well as improving the house and producing a major edition of the ‘*Natural History of Selborne*’ (1877) containing numerous footnotes signed ‘T.B.’, with the addition of a new memoir, and publication of White’s correspondence. In a letter to Richard Owen (27th December 1871), he admitted that

“Amidst the jarring and discordant elements of which the present scientific atmosphere is almost exclusively composed, it is a relief to bring oneself into contact with such men ... who have not been led astray from the simple pursuit of Truth for her own sake, un-biassed by personal vanity and love of notoriety on the one hand, and the opposition of self-seekers on the other”.

He died at Selborne, Hants. on 13th March 1880 and was buried in the local churchyard. At that time he was the oldest Fellow of the Society.

POSTSCRIPT

Bell bought *Wakes* on the decease of White's grandnieces in 1844 for £1,600. During his occupancy of *Wakes* he used the garden and the pond to house and rear innumerable chelonians.

On Bell's death his widow eventually sold *Wakes* for £3,800 to Edward Bradford whereas the contents (including many of the relics of Gilbert White's occupancy) were disposed of by auction. Later the house was occupied by the Pears family (soap people) and then the Bibby family (shipping) who sold it in 1954 (following an unsuccessful public appeal to make it into a memorial to White) to Robert Washington Oates who was anxious to find a home for his family's memorabilia.

At the time Robert Oates was living in the family seat of Gestingthorpe Hall, Essex where he had accumulated a large library plus ephemera relating to his uncle Francis Oates' travels and exploration in Central America (1871) and Matabele Land (1873⁴) and his cousin Lawrence Edward Grace Oates exploration of Antarctica.

Francis Oates was accompanied during part of his exploration of the Zambesi (1873) by his elder brother, W.E. Oates (father of L.E.G. Oates) who made many of the drawings for the subsequent publication (see footnote). The Oates brothers are said to have been the first 'white men' to see the Victoria Falls while they undoubtedly sent back to England a large collection of natural history objects (the birds and insects of which are now housed in the Oxford University Museum).



Illustrations from Oates' book on Matabeleland.

Francis Oates (1840–1875) unfortunately died of fever, towards the end of the expedition, and is buried some 80 miles north of Tati (formerly an important gold mining centre).

Lawrence Oates (1880–1912) ironically served with the cavalry (Enniskillen dragoons) in South Africa (1901–02) before joining Scott's ill-fated expedition to the South Pole. On March 17, 1912, when they were returning and in dire straits, Oates crippled with frost walked out into the open and met his death in order to make the

4 *Matabele Land and the Victoria Falls: a Naturalists Wandering in the Interior of South Africa*. Edited and published by Charles George Oates 1881. (C.G. Oates was the father of Robert Oates and younger brother of F. Oates).

task of his comrades easier. Although a search party eventually found Scott, Wilson and Bowers no trace of Oates could be found.

Gilbert White and Thomas Bell, however, are both buried in Selbourne churchyard. There is a memorial window to White which shows St. Francis preaching to the birds and a memorial tablet to Bell on the south wall, inside the church.

Today *The Wakes* is a rather bizarre museum with its collections in two parts: those relating to Gilbert White are on the ground floor – which includes the original part of the house together with the library added by Thomas Bell and the Great Parlour which White built to entertain his countless friends and numerous relatives whereas the Oates memorabilia are housed mainly upstairs in the 19th century wing.

BRIAN GARDINER

Linnaeus Naming the Beasts

i

Carl von Linné walked in his Uppsala garden:
 A Scandinavian spring, tender and virginal
 And yet lascivious, breathed through the birch-trees.
 His flowers opened at his feet,
 Displaying their stamens and pistils, in shameless
 Sexual activity – forgiven,
 No sister disdaining its brother.
 A bugle-note through the clear air –
 Dragoons of the Vasa are drilling.

He had catalogued the plants, now he marshalled the beasts
 In ordered ranks – and first, Primates
 With Man in his own abstract image,
Sapiens, knowing, savouring, tasting;
 Shadowed by the mysterious and rumoured *nocturnus*,
 And also monsters, self-made – the Hottentots
 Who pin up one testicle to reduce fertility,
 ‘And the women of Europe, deforming their bodies
 By tight-lacing,’ said the pastor’s son.
 Then the apes with *Satyrus*, not fabled, at the head;
 And the ghost-eyed lemurs of the island of Malagasay;
 And the bat – it is certainly not a bird
 (Even Aristotle knew that) –
 ‘It has left the brain that won’t believe,’
 Whispered a voice,
 Prophetic, across the British ocean.

ii

*Fifty-eight centuries away, at the other end
 Of Archbishop Ussher's telescope, Adam,
 Standing in Eden's dawn, was naming the beasts,
 As the Lord brought each before him, after its kind.
 'You shall be Aleph,' he said, 'You with the curled front
 And the curved horns, bull-roarer, noblest
 Of those that divide the hoof and chew the cud.
 You shall open the gate of Spring for two thousand years,
 Till the Ram caught in a thicket, prefigure
 Another covenant, another two thousand –
 Then with the Fish we shall learn to skip
 And live a new life in the liquid element.
 And then? And then? One in my own form
 Pouring the Spirit's wine
 From the ritual water-jar upon all flesh.'
 Adam named the apes, his clowns, recalling
 The red clay he was evoked from;
 Wolves, lions, ocelots,
 As they roar and howl God's glory
 The fox in his subtlety, the hare and the eland
 For grace and for swiftness, and the sportive dolphin.*

*Then the birds flew down in a chirm, in a twittering cloud.
 'I name you,' said Adam, 'my music and minstrelsy.
 You are the nearest to those invisible angels,
 About me continually, that serve my Friend.'*

iii

Linnaeus reviewed the birds, the gamut
 From eagle to dove, – hawks, chattering pies,
 Geese, stilted waders, poultry, sparrows;
 Amphibious reptiles and serpents – and then the fish
 Arranged by the placing of their anal fins:
 Thoracic, subjugular, abdominal, and apodal eels;
 Insects by the texture of their wings,
 A polity the glass of Fabricus descried
 So like, and yet unlike, the human polity
 Seen in this age of reason. Butterflies
 He playfully made take sides
 As Greeks or Trojans. Now come the worms –
 The fluke and the leech, and glutinous hag;
 Soft-bodied, hyaline, cinctured with tentacles –
 These he named after sea-nymphs –
 Nereis and Doris, Clio and Aphrodite;

Shells, multivalve, bivalve, univalve,
 With or without a regular spiral;
 Lithophytes, corals, that verge on the mineral realm,
 As Zoophytes upon the kingdom of plants,
 He entered at last that infinitesimal world
 Leeuwenhoek's lens had revealed:-
Vorticella, a small whirlpool, *Volvox*,
 Globe with green globe ensphered, and *Furia Infernalis*,
 Bred in the upper air, that struck him down
 Those Lapland days, and finally, *Chaos* –
 Chaos of the infusions, chaos of the fungus spores.
 All things go back to Chaos and Night,
 With Dullness their daughter. An English poet
 Had written of that, evoking the Anarch.
 God had created them all in fixity,
 Species by species – or had He? –
 Was there not an unfolding,
 Evolution, to coin such a word,
 Perhaps by hybridisation.
 All one need postulate – a primal island,
 One male and one female animal upon it,
 And one two-sexed plant.

iv

*On Eden, islanded between the rivers,
 Adam and Eve stood under the two-sexed tree.
 'I name you, last come and subtlest of all,
 My beautiful Serpent – now dance for us,
 In token of this task accomplished.'
 Then the serpent raised his crest and danced,
 With a swaying, an Indian motion. Adam and Eve
 Clapped hands to the rhythm in mere delight.
 'What is not to believe?' said Adam.*

JOHN HEATH-STUBBS

Heath-Stubbs' Poem is a result of general interest in science and particularly Botany. Naturally he was interested in Linnaeus' *Systema Naturae* and deliberately adopted the 'evolving' pattern of its presentation for his Poem. The Poem was written in the 70s and was published in *Collected Poems, 1943–1987*. Carcanet, 1988 ISBN 1856357073. John Heath-Stubbs was born in 1918. At present he lives alone and writes actively. His address is 22, Aryesian Road, London, W1.

From the Archives

WHO, WHAT, WHY & WHEN

Botanical manuscript illustrations in the Library of the Linnean Society

About 3 years ago, I became one of the band of volunteers working in the Library. I have a B.Sc. degree in botany and zoology and have particular experience of botanical literature and illustrations of the Linnaean period. It was suggested that this expertise might be used to catalogue some of the miscellaneous botanical illustrations in the Linnaean collections.

The first project was to sort out, catalogue and index, the contents of a portfolio containing well over 100 assorted prints and drawings which had originally been sent to Linnaeus, in Uppsala, by his various correspondents. Though mostly botanical, there are also some illustrations relating to the animal kingdom. Many of the botanical prints are the proof plates for major works and were sent to Linnaeus to keep him up to date with the publications. Other prints and drawings were sent in order to consult him as to the name of the species depicted. The plates include 5 by G.D. Ehret, 6 by N.J. Jacquin, 8 by J.C.D. von Schreber, 13 by John Miller (Johann Mueller) and 24 by G.C. von Oeder. Catalogue cards were made out under the name of the plant or animal, and of the artist and author (often the same person) of the published work if traced. There is also a record sheet for each item.

The correspondence volumes had been checked for any letters relevant to these illustrations and, disappointingly, there are very few. On the other hand, many more prints and drawings were discovered amongst the correspondence. A search was, therefore, made through all 17 of these large folio volumes to record the illustrations hidden there. This proved a very useful exercise, revealing another 65 prints by Jacquin, plus 15 by F. de Sauvages and 19 by John Ellis. Of the animal kingdom, there are another 2 by Jacquin, 2 by de Sauvages and 6 by Ellis, plus 6 by Ml. Brännich, 6 by Thomas Pennant, 8 by J.E. Gunnerus and 9 by Antoine Gouan.

To complete this survey, a check was made in S. Sauvage's catalogue of the Linnean herbarium on those numbers that seemed to indicate a possible illustration. Amongst 50 or so illustrations kept with the herbarium specimens, there are a further 10 plates by Jacquin. Cards and record sheets were made out for the material in the correspondence and herbarium collections as before.

Next to be catalogued was an album containing the so-called "Mútis" drawings: 32 grey-wash plant studies sent to Linnaeus and cited by him as "Icones ineditae". Don José Celestino Mútis (1732–1808) was sent to Bogotá to take charge of the great Spanish expedition to collect the plants of the Nuevo Reino de Granada, modern Colombia. The expedition lasted from 1760 until 1816, when it was forced to withdraw through violent unrest in the country. The material collected is conserved in Madrid, and in 1987 a sumptuous multi-volume Flora was begun, illustrated with facsimiles of the drawings and paintings made by the 40 artists employed by the expedition.

As far as this incomplete work allows, the wash drawings have been compared with the published plates. Seven are virtually identical. Very fortunately, one of the facsimile plates bears the signature of J.J. Pérez, the master of the grey-wash technique, who spent 25 years with the expedition. In the Flora, the other 6 drawings in question are

given no attribution, but the style is identical and 4 of the plants belong to the same family as that of the signed plate. It can be reasonably assumed, therefore, that all the drawings in the "Mútis" album are the work of the Santa Fe artist, José Joaquín Pérez. Cards and record sheets have been made out accordingly.

Other more recent manuscripts include a group of small books of water-colours of wild plants painted by Edith F. Noel, FLS, in the 1920s and 30s in the West Indies, South Africa, Kashmir and Western Australia. They were donated by her in 1948. The illustrations lack any botanical detail, but the Latin name and family is assigned to each plant. A location is also given for some of them. The contents were listed to facilitate access, as was also done for a similar work presented to the Society in 1959 by Dr J.G. Cockburn, FLS. The 35 water-colours of South African plants are given only their common names.

At present I am working on a copy of Sir J.E. Smith's *Flora Britannica*, which belonged to the Rev. Richard Dreyer, FLS 1817, of Bungay, Suffolk. In the margins of many of the pages, there are well-painted water-colours of the flowers described. They are copies from Smith & Sowerby's *English Botany*. Until I have completed my researches, I must defer to a later date a more detailed account of this intriguing subject.

ENID SLATTER

THOMAS MARSHAM (d.1819) – AN UNFORTUNATE FELLOW

Thomas Marsham, entomologist author of *Coleoptera Britannica ...* (1802), more commonly called *Entomologia Britannica*, was one of the three co-founders of the Linnean Society in 1788. He was their first Secretary and wrote the Minutes in a beautiful clear hand, unlike the scrawls of his successors. He was employed in the Exchequer Loan Office and later in the West India Dock. Marsham was an amiable man, much respected by the Fellows, from whom, for many years, he successfully hid the fact that his personal and financial affairs were slowly drifting into the whirlpool which finally submerged him.

Towards the end of the century, the Society was failing badly and Marsham, who became Treasurer in 1798, in which post he remained for eighteen years, complained to the President that it had 'become a perfect lounge once a month for a few persons'. When the President decided to move to Norwich, Marsham told him that 'the Society is your own child and I am grieved to see the father leave his child to be supported by Aliens and Strangers'. In 1811 he was made Vice-President, following the Society's ruling that the Treasurer should always be given this post, which, according to Bishop Goodenough (1743–1829), a very influential Fellow, gave universal satisfaction.

For many years the Treasurer gave loyal service to the Society, and corresponded with the Secretary, Alexander McLeay (1767–1848), for twenty-seven years. By 1810, Marsham's health had begun to deteriorate and the first hint of financial embarrassment came in 1814, when he could not pay a bill and borrowed money from the affluent McLeay, who he thought, could spare it 'without much inconvenience ... I really considered you as possessing a handsome fortune, for I was told many years since that you were worth upwards of £20,000 besides your place, which I assure you was a great gratification to me'.

In the same year he had serious disagreements with his children, and finally wrote to inform them that they must leave home and that he would give each child £50 p.a., signing the letter, 'your discarded father'. Their response was to tell him 'to hold your methodistical cant', and they refused to leave unless he paid them a more handsome allowance. Goodenough was shocked that Marsham and his wife should visit their son and his mistress.

In 1815 McLeay was asked to lend him £500 and was told to draw on him at two months for £200. At the same time he 'borrowed' money from the Society, informing McLeay of his financial straits in a letter marked 'Burn This'. He assured the Secretary that he had not injured the Society, although for a time he may have used money that was lying idle. By mid-July he was in a state of panic, writing two letters in one day to McLeay, imploring him to stand by him. For the first time he showed some remorse, but soon was writing in his familiar resentful style. By August he had become fatalistic; he would submit to the Divine Will. In September, he not surprisingly became seriously ill with dropsy and his financial worries allowed him no rest by day or night.

His affairs reached a head in 1816 and he finally gave the Society his reasons for 'borrowing' money in the first place; none of his debt, now amounting to £400, had been paid back and the Council began to discuss the possibility of taking legal steps. Marsham expressed hurt astonishment at the Bishop's 'unchristian behaviour' in refusing to see him, although the latter had written to say that he had tried to start a subscription 'to clear away the misfortune', but could not find anyone to second it. In May he sent in his letter of resignation, giving as an excuse his 'constant residence' in the country. He promised the new Treasurer, a banker, Edward Forster (1765–1849), to pay what he owed by instalments, and the Council laid down conditions for the recovery of the debt. Marsham gave three promisory notes for £133.6.8, and his son William assured them that the money would be refunded; previously, deceitful drafts, which bankers call 'wind paper', had been paid.

Marsham was mortified that no one would lend him money. 'The time has been when I could borrow £100 in the time it would take me to borrow £10 now.' He continued to write aggrieved letters, harking on his twenty-eight years of zealous labour, and complaining of the groundless suspicions rapidly circulating amongst the Fellows of the Society of which he considered himself to be the Father.

In September 1817 his daughter married a clerk in the Victualling Office, and Marsham sadly realised that his son-in-law would be unable to maintain his parents-in-law. He borrowed money for her dowry from his place of employment, invested money unsuccessfully, and yet again the generous McLeay was asked for a loan. 'I know that I have erred, but my faults have not arisen from any proper attempt to serve or aggrandise myself.' In desperation he decided to sell his insect collection, but refused offers and began to write of ending his days in prison.

Only £50 had been refunded, and by now McLeay was asking the President if they were to requite such valuable service to the Society 'by throwing an old man into jail for the paltry sum of £350'. The President refused to allow any drastic steps to be taken, and finally, in 1819, the poor misguided man was saved from further ignominy by dying, and no part of the debt was ever paid. Of the three most important Founder

Members of the Society, James Edward Smith was knighted, Goodenough became a bishop, whereas Marsham died 'sick in the world's regard, wretched and low'.

MARGOT WALKER

References: MSS letters from Marsham, McLeay, Goodenough and Smith.

The 'Botanical Establishment' Relents: Five years on

The concerted move by members of the 'Botanical Establishment' to block the appointment of Mrs. Agnes Arber as President of Section K (Botany) for the 1921 meeting of the British Association for the Advancement of Science at Edinburgh has already been described (*The Linnean*, 1995, Vol.II, pp. 26–37). That most of those involved felt fully justified in their stand is evident from the attendant correspondence. Some senior botanists, however, expressed a modicum of concern. Dame Helen Gwynne-Vaughan had to tread a careful path between respect for Scottish feelings over the affair, and the wish to see a woman President installed. There had been two previous woman occupants of the Presidential Chair, Miss. E. Sargent at the Birmingham meeting in 1913 and Miss E. Saunders in Cardiff in 1920 – the latter the prime cause of the 1921 dissension. Whilst agreeing with the general sentiment of the unsuitability of Mrs. Arber's appointment for Edinburgh, Dame Helen had nevertheless proposed that Mrs. Arber would be a suitable candidate for the next occasion when a woman President was under consideration. D.H. Scott, who had accepted the 1921 Presidency in place of Mrs. Arber, had expressed his disquiet over the affair. F.W. Oliver, Quain Professor of Botany at University College, London, had opposed the general view, and the pressure put on Mrs. Arber. The question remains – did Mrs. Arber receive a later invitation?

The answer is to be found in a footnote to a letter from D.H. Scott to F.O. Bower, dated 13 November 1926. The letter was in response to one of congratulation from Bower on the award of the Darwin Medal of the Royal Society to Scott. The footnote reads:

'I am sorry to say that Mrs. Arber resolutely refuses to accept the Presidency of Section K, in spite of my special efforts to induce her to reconsider the matter. One can't altogether wonder!

The Section K Presidency invitation was in preparation for the 1927 meeting of the BAAS, to be held in Leeds. Mrs. Arber had clearly put her foot down – to some effect. Well done, Mrs Arber!

A.D. BONEY,
3 Myrtle Close, Dousland, Yelverton, Devon PL20 6NZ.

“this plan of a museum”
The Linnean Society and the Founding of the
Australian Museum

The early history of the Australian Museum of Sydney is fragmentary and elusive, reflecting as it does the uncertain nature of scientific and cultural development in 1820s New South Wales. Over the last few years, it has become increasingly evident that Linnean Society members, both in the Colony and in England, played a vital role in the founding of this great institution. The involvement of the Linnean Society was to continue to markedly influence the development of science and museums in New South Wales over the course of the nineteenth century.

The history of museums in the Colony can be seen as an extension of British scientific interest in the radically different flora and fauna of the Continent. They constituted a major challenge to the prevailing scientific orthodoxies. As Sir James Edward Smith put it in 1793:

‘When a botanist first enters on the investigation of so remote a country as New Holland, he finds himself as it were in a new world. He can scarcely meet with any fixed points from where to draw his analogies... The whole tribes of plants, which at first seem familiar to his acquaintance, as occupying Nature’s chain... prove, on a nearer examination, total strangers’.⁵

Lacking any locally-based scientists or scientific institutions, the best way to study these specimens was to send them back to England and Europe. The traffic in specimens was immense. James Hardy Vaux in 1819 stated that his ship was so loaded down with kangaroos, emus and the like that it resembled Noah’s Ark.

Sir Joseph Banks sent out botanical collectors at his own expense, the fruits of their labours joining the growing stream of objects going back to the museums and private collections of England and Europe. All the Governors with a Naval background knew Banks, sending objects back to him⁶. This traffic was destined to be an important stimulus for museum development in the Colony, as a major function of the Australian Museum (especially prior to 1850) was to act as a clearing house for objects to be sent back for examination by British scientists.

Exploratory trips into the interior, sponsored by the Governor, began to open up exciting new possibilities. The importance placed on the commercial possibilities of the interior can be gauged by an instruction issued by Earl Bathurst, (later to recommend the establishing of a Colonial Museum) to Governor Macquarie. Entitled ‘Groundwork of any Instruction which you may give to future Travellers’, it emphasised, the need for ‘a detailed Journal’, in which would be recorded ‘all Observations, and occurrences of every kind’ and descriptions of ‘the general appearance of the country’⁷. Care was to be taken to investigate plants likely to have economic significance, especially in

5 A McLeay, *Miscellaneous Papers to the Colonial Office Relating to New South Wales*, (Mitchell Library (ML) microfilm CO 201/179 pp.179-182.

6 P. O’Brien, *Joseph Banks, A Life*, London, 1987, p.260.

7 L. Gilbert, *Royal Botanical Gardens: A History 1816-1985*, Melbourne, 1986, p.22.

the areas of medicine, dyeing and ship building. Specimens should be collected to be sent back to England for evaluation. These instructions set the pattern for official exploratory parties for the next fifty years.

A major advance in the scientific evaluation of the country was the establishment of a collection and research centre on New South Wales soil. The Botanic Gardens in Sydney were instituted in 1816 – only the third enterprise of its kind in the southern hemisphere. It demonstrated that there were now enough surplus resources in the Colony to sustain an institution not directly related to day-to-day survival needs. The Gardens were part of a world-wide network of botanic gardens established by Kew Gardens, which exchanged plants to determine where they might most profitably be grown. This is demonstrated in the duties of the Colonial Botanist – ‘... the culture of such Exotics as are from time to time introduced into the Garden.... The propagating of all Sorts of Fruits and Grasses that are interesting. And the forming of a general Collection and arrangement of plants’.

The actual idea for a museum in New South Wales came from the Colonial Secretary, Alexander McLeay (1767–1848), member and former Secretary of the Linnean Society, in response to a request by Lord Bathurst, (then Secretary of State for the Colonies) for particular animal specimens. McLeay’s detailed plan for a Scientific Society and ‘Museum of the Natural Productions of the Colony’⁸ can be seen as a response to the problems inherent in satisfying the natural history requirements of scientists in Britain. However, McLeay was also passionately concerned to promote science in the new land. While ever mindful of his responsibilities to Britain (both professionally and scientifically), it is clear that in the short time McLeay had been in the Colony he had come to believe that the needs of a Colonial Museum were as important as the demands of “Home”. McLeay’s long association (until his death in 1848) with the Australian Museum ensured that his vision for it would become a reality – an institution housing the unusual specimens of local natural history, to service the demands of Britain’s naturalists, as well as catering for the scientific curiosity of New South Wales gentlemen.

The history of museums in the Colony prior to McLeay’s arrival, can best be described as inauspicious. The first museum in New South Wales was a central initiative of the Philosophical Society of Australasia, inaugurated in February 1821⁹. The museum reflected the eminently practical aims of the Society – the attempt to understand the unfamiliar antipodean flora and fauna both for scientific curiosity and to allow for better utilisation of natural resources. As Society members themselves put it:

...we are almost inclined to believe that Nature has been leading us through a mazy dance of intellectual speculation, only to laugh at us at last in this fifth continent.

Members included the explorer John Oxley and Barron Field, Judge of the Supreme Court of Civil Judicature. The Museum was housed in a small, specially fitted up

8 *Historical Records of Australia*. Series 1 Vol.13, pp.210-211.

9 Minutes of the Philosophical Society of Australasia, in *J&P of the Royal Society of New South Wales*, LV, 1921, Appendix, pp.lxvii-cii.



ALEXANDER McLEAY F.L.S. (1767 – 1848)
Founder of the Australian Museum.

room in the Colonial Secretary's Office and contained mineralogical specimens and donations from outlying settlements. Grandiose plans were made to exchange specimens with other Philosophical Societies. To this end, a letter was produced by the Secretary, which was intended to be sent to Museums and Scientific Societies around the world, including the Linnean Society. The letter clearly states the aims and ambitions of the fledgling Society:

'...The Society have opened a Museum at Sydney, in which they intend to deposit specimens of the results of their researches into the different Kingdoms of Nature; and of these I am desired to say that duplicates shall from time to time be transmitted to your care. It would be desirable to compare these specimens with others resulting from

the same natural kingdoms in other parts of the world; and therefore the Australasian Society would feel much gratified in receiving from the [BLANK] duplicates of such specimens as they may possess; an interchange that may tend to further and elucidate the objects of enquiry of each body’.

Unfortunately, there is no record as to whether the letters were actually sent.

The Society mainly concentrated on collecting mineralogical and geological specimens. Society members were excited to hear at one time of an animal sighted in Lake Bathurst, supposed to be a manatee or hippopotamus. It was resolved that funds be made available to obtain the ‘head, skin or bones of this animal’, including reimbursement for any aboriginal labour that might be required. There is no evidence as to whether the attempt to locate such a creature was successful.

Unfortunately, the Museum was unable to survive the demise of its parent society only a year later, it having ‘expired in the painful atmosphere of distracted politics, which unhappily clouded the short administration of its President [Governor Brisbane]’¹⁰. The poisonous divisions between, and tiny number of, educated gentlemen in the colony, made it impossible to sustain the kind of society initially envisaged. Successful museums would have to wait for a kind of administration less dependent on the input of individuals for their existence.

The first direct step in the foundation of the Australian Museum was the arrival, in December 1825, of the new Governor, Ralph Darling, to take over from the unfortunate Brisbane, who had been recalled¹¹. While less scientifically minded than Brisbane, his improvements to the civil service proved vital to the long term success of museum development in the Colony. In the colonial context, museums were to rely on the existence of well educated, scientifically minded career bureaucrats, who had the contacts and long term presence to facilitate the growth of such ‘non-practical’ institutions. Darling’s initiatives, including the centralising of administration, with more power to the Governor and senior bureaucrats, better pay and the employment of free clerks rather than convicts, meant that institutions such as museums had a better chance of actually coming to fruition. Darling placed great emphasis on the selection of his staff, writing ‘Surely there is no colony under His Majesty’s Government where attention to the selection of Individuals is so important...not only the Character of the Government, but, the real improvement of the people mainly depend on it’¹².

Darling was fortunate in the choice of the new Colonial Secretary of the Colony, Alexander McLeay, who arrived shortly after Darling¹³. The consummate civil servant, McLeay was also the leading man of science to thus far settle in Australia. 58 years of age, McLeay had utilised his leisure hours in Britain to build up the finest private collection of insects in the world¹⁴. He became a Fellow of the Linnean Society in

10 B. Field, *Geographical Memoirs on New South Wales by Various Hands*, London, 1825, p.v.

11 B. Fletcher, *Ralph Darling: a Governor Maligned*, Melbourne, 1984, p. 79.

12 *Australian Dictionary of Biography*, Vol.1 p.283.

13 Fletcher, *op.cit.*, p.88. Darling was fulsome in his praise of McLeay: ‘There are few as competent as Mr.McLeay, his official experience enabling me to get through business with greater facility than almost any person I ever met with.’

1794 and its Secretary in 1798. He was also made a Fellow of the Royal Society in 1808. McLeay had risen to the highly responsible position of Secretary of the Transport Board (1806), where, among other things, he had supervised aspects of the transportation of convicts to Australia. At the age of fifty he had resigned to devote himself full time to his beloved insects¹⁵, an unlikely candidate, one might think, to leave for the Antipodes eight years later.

Indeed, it could be said that McLeay was reluctant to come, almost as much as the convicts whose passage he had previously supervised. As he said at the time, ‘...but I cannot think it any subject of Congratulations to be sent at my time of life with a large family to the very antipodes of all my Friends and Connections¹⁶. The reason was money, or the lack of it. With his bevy of unmarried daughters to support and his own undisciplined spending habits, he was finding his pension of £750 per annum hopelessly inadequate. Even then, he was induced to come out only when Bathurst allowed him to keep his pension along with the Colonial Secretary’s salary of £2000 p.a. This arrangement was later bitterly attacked¹⁷. McLeay brought out with him his prize collection of insects, thus momentarily redressing the one way flow of objects going between the two countries. Arriving in January 1826, he immediately set to work on the enormous task of administering the fractious civil service. Along with the myriad issues which occupied his time from dawn to midnight, he would soon have to deal with a private letter from Bathurst’s Under Secretary R.W.Hay, written just a few weeks after McLeay’s arrival in Australia.

Dated 18 February 1826, the letter clearly demonstrates the close links between natural history collection and government of the colonies at this time. Under-Secretary Hay states that Bathurst has been approached by a group of British naturalists, who informed him that there are ‘many objects of Curiosity to be obtained in New South Wales, which (it is almost a reflexion upon the Government), have not yet found their way to England’. The letter does not mention who the naturalists were, but the original of the letter was sent to ‘Mr Barnard’, possibly a friend of Barron Field. This is most likely to be Edward Barnard F.L.S. a senior civil servant in the Colonial Office. Barnard ‘became deeply immersed in Australian affairs’¹⁸ in the rapidly expanding infrastructure for administering the Empire. Like McLeay, Barnard was a civil servant

14 The first recorded instance of McLeay’s interest in collecting insects is contained in a letter dated 5 November, 1802, recording his disappointment that rain had prevented him collecting specimens while on a trip to Scotland. (A.B.Walkom, Presidential Address. *Proceedings of the Linnean Society*, Sydney, 1942, p.v.)

15 H. King, ‘Man in a Trap: Alexander McLeay, Colonial Secretary of New South Wales’, in *Journal of the Royal Australian Historical Society*, Vol.68, part 1, 1982, p.39.

16 A. McLeay, quoted in P. Stanbury & J. Holland, *Mr McLeay’s Celebrated Cabinet: the History of the McLeays and their Museum*, Sydney, 1988, p.19.

17 ‘Extract from a Despatch of the Right Honorable the Secretary to His Excellency Major Bourke’: ‘The only Gentleman whose emoluments greatly exceed what I should be inclined to assign as an adequate remuneration for the duties of his Office, is the Colonial Secretary, whom I find to have been induced to accept his present situation by the particular request of the Secretary of State (Bathurst)’, in *New South Wales Governor’s Despatches Jan-Dec 1831*, 29 September 1831. (ML).

18 J. Eddy, *Britain and the Australian Colonies 1818-1831: The Technique of Government*, Oxford, 1968, p.30.

with a marked bent for scientific pursuits, his particular scientific interest being horticulture. Why this lack of energy in sending objects back to England is seen as a 'reflexion', is in relation to the natural history collection efforts of other countries. This laxity in the study of natural history could be seen in political terms – that of not properly studying the economic and scientific possibilities of New South Wales resources. Certainly McLeay's reply has a streak of competitive nationalism running through it. Specific items to be collected are eggs of the platypus, an echidna and a kangaroo foetus in the womb. McLeay was requested to send these items to Lord Bathurst as soon as practicable.¹⁹

McLeay was further requested to consider employing 'some one person, conversant in these matters, being intrusted [sic] with the duty of collecting articles of this description' so that items 'thought curious and interesting to Naturalists may be regularly sent home for the purpose of being submitted to their Examination'.

On the face of it, these requests do not seem particularly onerous for McLeay to attend to. The specific items mentioned would have been readily obtainable, at least on the fringes of white settlement and surely amongst the many convicts and settlers in the colony, there would be at least one who knew something of natural history. McLeay's reply clearly states his personal situation, and the Colony's, at this difficult time, making 'non practical' pursuits such as natural history well nigh impossible. However, it also illustrates McLeay's optimism, love of natural history and vision for the future.

McLeay's reply is dated 16 September 1826, written soon after he would have received Hay's letter. McLeay begins on a positive note, stating he would be happy to comply with Bathurst's request, he being 'fully aware of the importance' of these objects. The prospect of increasing the knowledge of Natural History 'was no small inducement for me to come to this colony'²⁰.

However, he was not immediately able to do anything about Bathurst's request, nor indeed about anything else not specifically connected with his duties:

'There is not a day that I am not engaged with Public business from Daylight in the morning till 12 at night, and often later. – but of this I do not complain, for my excellent Friend, the Governor works fully as much as I do, if not more.'

McLeay mentions this in case his 'Naturalist Friends' should be disappointed at his lack of activity in this area. Such lengthy hours indicate the style of administration the workaholic Governor was establishing, along with an initial lack of assistance. There were constant requests from the various departments for more clerks.

McLeay was also unable to find any assistance in the pursuit of natural history:

'but at present there is actually not a single person in the Colony who is capable of affording me the least assistance'.²¹

As already stated, McLeay simply did not have the time to go off collecting on his

19 Letter, R.W. Hay to A. McLeay, 18 February 1826 (ML).

20 Letter, A. McLeay to R.W. Hay, 16 September 1826 (ML).

21 Letter, A. McLeay to R.W. Hay, 16 September 1826 (ML).

own. The particular items requested would require considerable effort in location – while kangaroos and platypus would have been relatively easy to find, their young would be far more difficult to procure. In relation to the request that interesting objects be sent back when located, it was now some forty years after Banks' initial collecting expedition. Many of the main flora and fauna species within the colony's boundaries had already been sent back 'Home' for study.

While the practice of science in this period was largely empirical, the practitioners of science operated very much in a particular social context. Field collecting at this time was something to be directed by gentlemen scientists, but actually carried out by assistants of much lower status, armed with enough scientific knowledge to carry out their tasks of collecting, recording and collating. Now, men such as Banks' botanical collector, George Caley were gone and McLeay was alone. McLeay noted with regret that his son William Sharp had not been successful in gaining a post here²² (despite Barron Field's enthusiastic backing)²³, as 'we could have done much in investigating the Zoology of this Country'²⁴. In time, to be sure, field collectors would become available, with the conflict between gentlemen scientists and lower status professional workers to bedevil the Australian Museum in later decades.²⁵

McLeay also makes mention of what he sees as the lack of government assistance to be had in England in regard to natural history:

'I have felt, like most other British Naturalists, that it is a disgrace to our Country, which has more in its power than all the rest of the world together, that which other Countries are doing so much, our Government does nothing for Natural History'²⁶

This is why McLeay is pleased (and just a little surprised) at Bathurst's interest. British naturalists' efforts in relation to other European powers were obviously a matter of no little concern to McLeay, something he perhaps emphasises to stir Bathurst into action. He noted with dismay that sometime before his arrival a 'French Ship of Discovery' had purchased many objects from the 'different little Collections in the Colony', without regard to whether similar objects had already been sent to England. The French ship referred to may well have been the 'La Coquille', which arrived in the Colony in January, 1824. Scientists from the ship had been warmly received by

22 Letter, A. McLeay to R.W. Hay, 16 September 1826 (ML). Bathurst stated in a letter dated January 6, 1825, 'I have written to Mr. McLeay accepting his services & declining those of his son'. (*Letters of Lord Bathurst 1824-27*, (ML).

23 Letter, B. Field to S. Marsden, 18 May 1825, *Marsden Papers* (ML). Field states that 'Barnard and I' were trying to get a position for McLeay's son, William Sharp, as 'Clerk of the Council' in New South Wales. William Sharp did come to Sydney to live some years later, where he was to have a marked influence on the Australian Museum.

24 Letter, A. McLeay to R.W. Hay, 16 September 1826 (ML).

25 R. Strahan, with D. Branagan, *et.al.*, *Rare and Curious Specimens: an Illustrated History of the Australian Museum, 1827-1979*, Sydney, 1979, op.cit., pp.27-35. The most notable conflict that took place between professional workers and gentleman Trustees occurred in the 1870s. One of the main points of difference between the Curator, Gerard Krefft and the Trustees (led by McLeay's nephew, William John) was his position in the Institution - to be head of the Museum, responsible only to the Minister, or to be directed by the Trustees. The issue was finally resolved with Krefft's forcible ejection from the Museum.

26 Letter, A. McLeay to R.W. Hay, 16 September 1826 (ML).

Governor Brisbane at Parramatta: 'M. Garnot, entrusted with the ornithology in our expedition, received from the Governor a case of birds, destined for the museum, among which were some rare and curious pieces²⁷. It is interesting to speculate that the specimens of the Philosophical Society Museum, generally supposed to have been the nucleus of the Australian Museum, may actually have ended up in Paris!

McLeay goes on to further attack the lack of government support while giving an example of his interest in Australian natural history prior to his arrival. It was, he declared, his own initiative to use a subscription to purchase a large collection of Australian natural history objects for the Linnean Society which had originally been offered to the British Museum, but refused. It would then have been sold to the Berlin Royal Museum, but for McLeay's action²⁸.

Having thus enumerated the many problems he faced in acceding to Bathurst's request, McLeay went on to suggest how they might be overcome. His main solution was for the establishment of a society 'for the pursuits of such subjects'. McLeay was confident he would get vice regal patronage for the venture. With Darling's blessing, McLeay felt certain he would be able to attract sufficient members (though not, significantly, to actually go out on collecting trips themselves) to enable the offers of rewards 'for the ascertaining of such particular Objects as may be pointed out'.

A major object of the Society would be to form a 'Museum of Natural Productions of the Colony, so that strangers may see all at once'. McLeay's concern for the welfare of the Colony is evidenced by his suggestion that the best specimens would be kept for the local Museum, with only duplicates being sent back to England. The hierarchy of institutions to be blessed with objects clearly demonstrates McLeay's personal contacts and preferences. The first institution to receive specimens would be the Linnean Society Museum 'as it already possesses the most perfect collection'. The next lucky institution would be the British Museum, then the College of Surgeons to be followed by the English, Scotch and Irish Universities, 'taking care that the Museums in our own country are provided before any specimens be sent to the Continent of Europe'.

McLeay obviously did not feel the need to demonstrate any kind of educative function for the proposed Museum. The promotion of science was his aim, not the possible cultural benefits to be gained for the convict based mass of the population. Having thus laid out 'this Plan of a Museum' McLeay ventured to request that Hay request Bathurst's permission for the erection, by convict labour, of a building large enough to house both a museum and public library. McLeay stresses the importance of properly presenting to Bathurst this proposal – perhaps because it was not a strictly practical aim, and likely to incur considerable expense. Indeed, much of this letter could be seen as providing 'ammunition' for Hay to use to promote McLeay's plan – the lack of suitable people to act as collectors, and the threat of other European countries stealing a march on England.

27 O. & W.L. Harvard, 'Some Early French Visitors to the Blue Mountains', in *Journal and Proceedings of the Royal Australian Historical Society*, Vol.24, 1938, p.262.

28 Letter, A. McLeay to R.W. Hay, 16 September 1826 (ML). McLeay had also presented the Linnean Society Museum with some bird skins in 1818.

McLeay ends the letter with a flourish, stating that, if Hay would commend the idea to Bathurst's attention he would be rendering 'an essential service to science...this colony...and...Your faithful and very humble servant Alex McLeay'²⁹.

Hay must have done an excellent job in representing the proposal. Received in London on the 1st of March 1827, Bathurst's dispatch to Governor Darling is dated 30 March:

EARL BATHURST TO GOVERNOR DARLING
(Despatch No.16, per ship *Manlius*: acknowledged by Governor Darling,
1st December, 1827).
Downing Street, 30 March, 1827.

Sir,

It having been represented to me that it would be very desirable were the Government to afford its aid towards the formation of a Publick Museum at New South Wales, where it is stated that many rare and curious specimens of Natural History are to be procured. I do myself the honour to acquaint you that, although I feel a difficulty in authorizing the commencement of any Building for that purpose, until an Estimate of the expense shall have been first submitted to my consideration, yet I am disposed, in the meantime, to allow a Sum, not exceeding £200 per annum, to be disbursed for the purpose of assisting in the accomplishment of this object; and, as one of the first steps towards ensuring its success seems to be the sending out some proper person to assist in collecting and arranging such specimens, as it may be possible to procure in that quarter, I have been further induced to consent to the appointment of a young man to that particular duty, who has been recommended to me as peculiarly fitted for it; and who will, therefore, be immediately sent out to the Colony in the capacity of Zoologist with the same rate of Salary and allowances, as appear to have been given to Mr Frazer, the present intendant of the Botanic Garden at Sydney. I have, &c.,

BATHURST³⁰

While this dispatch was undoubtedly written because of McLeay's suggestion, Bathurst has ignored large parts of his proposal, which, with the wisdom of hindsight, can only be seen to have benefited the development of museums in the colony. Principal among these was Bathurst's recommendation to have the Museum wholly funded by the government, and independent of any scientific society. One thing was certain in pre-1850 New South Wales museums; museums that relied solely on members of the community did not prosper. Both the Museum before the Australian Museum (the Philosophical Society Museum) and the one established after (the Museum of the

²⁹ *ibid.* There is a postscript to this letter, which refers to the Botanic Gardens. 'The Superintendent of our Botanic Gardens is a very zealous man and highly deserving of encouragement; but I have ---[?] disappointed in not finding an arranged collection of our indiginous plants, and therefore I have recommended that a part of the Garden may be immediately appropriated for the formation of a systematic arrangement of all our native plants. This will soon be done, and then we shall have in Botany, what I am so anxious to have in Zoology. I hope you will pardon the length of this letter'.

³⁰ Earl Bathurst to Governor Darling, 30 March 1827, in F. Watson (ed.), *Historical Records of Australia*, Series I, Vol.13, Sydney, p.210.

Sydney Mechanics' School of Arts in the 1830s) failed within a short time of their conception³¹. There is no real reason to suppose that the few scientifically minded gentlemen in the colony would have got along any better in a society that Alexander McLeay might set up, even if it were sufficiently well heeled to offer 'rewards' for objects found by crafty settlers.

As well, Bathurst repeats his desire of the earlier letter that someone be specially designated to act as collector. As we have seen, it was not McLeay who requested that 'a yong man' be sent out. Obviously other men in England were consulted on this matter, and they recommended a particular man. These changes, making the operation of a Museum of Natural History a wholly governmental operation, set the course along which successful museums would operate. While the Australian Museum would very often go through difficult times, enough funds would always be provided to meet the bare minimum of survival requirements.

Other elements of McLeay's proposal do, however, survive. While it took two years to come to fruition (Bathurst left his position some weeks after writing the letter; Darling obviously felt no compulsion to act on it) the Museum was ultimately instituted in 1829, with the appointment of its first Curator, William Holmes³². The original site of the Museum is not known. By 1830, however, it was located in a shed attached to the Judge Advocate's Old Office at Macquarie Place³³. The Museum, at first known as the Sydney, or Colonial, Museum did concentrate on the 'Natural Productions' of the new land and despite a difficult beginning, actively participated in increasing the knowledge of natural history, by collecting specimens for display and sending duplicates to England. Alexander McLeay had a close association with it until his death in Sydney in 1848.

Perhaps the other legacy of these letters is the precedent they set concerning just who was to be involved in successful museum development – it was to be the senior bureaucrats liaising with equals and superiors in New South Wales and England who would oversee them. The 'Gentleman amateur' tradition would live on through McLeay's son (Alexander) and nephew (William John), ensuring progress, but in a particular fashion. These documents graphically illustrate the difficulties museums and other scientific institutions in the Colony faced in the early 19th century. They were eventually overcome with the efforts of locally based scientists and the assistance of British institutions such as the Linnean Society.

MICHAEL VAN LEEUWEN,
15 Allan Place Curtin,
ACT 2605 Australia

31 *Sydney Mechanics's School of Arts Annual Reports, 1835-51*. I have already investigated the short and unhappy life of the Museum of the Philosophical Society. The Museum of the Sydney Mechanics' School of Arts was formed by Charles Nicholson and others in 1835. Despite a brief flurry of activity up to the early 1840s, there is little mention of it after that time.

32 Strahan, *op.cit.*, p.10. Unfortunately, William Holmes accidentally shot himself dead two years later while collecting specimens in the bush.

33 *ibid.*, p.11. After several further moves, the Museum was located on its present site in the 1850s.

Robert Sweet FLS, 1783 – 1835.

Over one hundred and sixty years have elapsed since the death of Robert Sweet FLS, gardener, nurseryman, botanist and author, yet little has been written to honour this man of modest means and humble origins, who worked his way up the horticultural ladder to become highly respected by all those working in his field. Indeed, William Anderson (1766–1864), Curator of the Chelsea Physic Garden, described him as “the first practical botanist in Europe”.

Sweet was born at Cockington in Devon in 1783. His early life remains obscure. At the age of sixteen he was placed under his half brother James, gardener to Richard Bright of Ham Green, near Bristol. (James later became a partner in the nursery of Sweets & Miller in the same city). From there Sweet went to Woodlands, Blackheath, and was put in charge of the exotic collection of plants belonging to John Julius Angerstein. Many of these were recent introductions from Australia which inspired him to write his magnificent book on the subject *Flora Australasica* (1827–28).

In 1810 Sweet became a partner in the Stockwell nursery until its closure in 1815. He moved to Messrs, Whitley, Brames & Milne in Fulham where he held the position of foreman until 1819. In the same year he joined the famous nursery of James Colvill situated on the King’s Road, with an area of some 30,000 – 40,000 square feet under glass. It was renowned for its Cape bulbs and Pelargoniums.

In 1818 Sweet published his first book *Hortus Suburbanus Londinensis* (a catalogue of plants cultivated in the neighbourhood of London). Only one edition was printed.

It was sometime before his next book appeared *The Botanical Cultivator* (1821). This was well received and ran to six editions. In it we may glimpse the glories of Mr. Colvill’s extravagant displays. On *Amaryllis* Sweet wrote “In Mr. Colvill’s collection at Chelsea, many hundreds of distinct ones (*Amaryllis*) have been raised, and we have seen as many as two or three hundred flowering altogether in midst of winter”.

During this period of history there was a great demand for this type of book on practical botany. The wealth of exotic plants and fruit entering the Country, and the increasing number of glasshouses and conservatories in which to grow them, demanded many new skills of the gardener. Horticultural horizons seemed unending, almost overwhelming, and it was to these practical sorts of books that the gardener turned. The Linnean classes and orders accommodated the needs of the botanist much more so than that of the cultivator. He showed a preference for the Natural Arrangement as it brought together all closely related plants that generally required the same sort of management.

The union of botany and gardening was the hallmark of Sweet’s many books and publications, and his *Hortus Britannicus* (1826) was a fine example. Here was a work to suit all types of horticulturists. It listed some 34,000 plants complete with their English names and habitat. They were arranged according to their Natural Orders but with reference to the Linnean System.

During his six years at Colvills, Sweet developed a passion for Pelargoniums. Species varieties had reached the British shores in the early part of the 17th Century

from the Cape, and were popular conservatory and house plants due to their deliciously scented foliage. But it was not until the early part of the 19th Century that a breakthrough in hybridization occurred. *P. fulgidum* was perhaps the most important parent in raising larger and brighter flowers, particularly the red sorts. Huge numbers of exquisite cultivars were raised at Colvills under the supervision of Sweet.

Between 1820–30 he produced his monumental work on the genus. *Geraniaceae* ran to five volumes containing a total of five hundred hand coloured plates superbly drawn from living specimens by Edwin Dalton Smith. The majority of these were hybrids. Sadly, today, most are extinct.

Sweet lavished more time on the Pelargonium than any other plant, and it is thanks to him alone that we can realize the diversity and scale of these early varieties which became so beloved by the aristocracy.

Sweet relied upon the horticultural elite to subscribe to his many publications. He would reward them by naming a Stork's-bill in their honour. For example *P. darnleyanum*, The Earl of Darnley's Stork's-bill, *P. hardwoodiae*, The Countess of Harewood's Stork's-bill and *P. horreanum* after Sir Richard Colt Hoare, the most eminent Pelargonium admirer of all.

Colt Hoare lived at Stourhead in Wiltshire, the magnificent Palladian mansion built by his grandfather the banker Henry Hoare (II). He was a remarkable man whose breadth of knowledge included art, travel and archeology, subjects on which he wrote with voluminosity. In 1812 he became a Fellow of the Linnean Society, the same year as Sweet. This happy event is illustrated in a letter(1) to his great friend A.B. Lambert (1761–1842). He wrote "I am to become a LINNEAN" (large capital letters). The postscript stated "Mrs. Beedon has heard of a Geranium at Bath for which £500 has been asked. What do you think now of my genus?". His 'genus' like Sweet's genus was the Pelargonium, and their mutual devotion to it secured a high regard for one another. Sweet wrote in *Geraniaceae*, I, no.18 on *Hoarea corydaliflora*(2) (fumitory flowered Hoarea) "We have named it in honour of Sir Richard Colt Hoare, whose collection of Geraniaceae exceeds any other in this country, and to whom we are obliged for many useful observations, which will be acknowledged in the course of our publication".

It appears that Colt Hoare's predilection for Pelargoniums began in about 1810 (perhaps earlier). Wagons laden with them were regularly delivered to Stourhead from nurseries such as Colvills, Lee & Kennedy and Sweets & Miller. His vast collection numbered some six hundred varieties.

Many new hybrids were raised there, but by far the most exciting was *P. ignescens* the Fiery Flowered Stork's-bill. It was to play a vital role in the breeding of the larger flowered brightly coloured sorts later to be sold at Colvills.

He published a short manuscript(3) entitled *Geraniaceae* (date unknown but certainly during the 1820s). It contains advice on the best type of glass to be used in conservatories advocating scallop shaped panes, and also tips on the cultivation of Pelargoniums. But most importantly he gives an account of how he raised *P. ignescens*. "I had the good fortune to raise from seed of the original *fulgidum*, impregnated by the bee with New Oxford, and which will not be surpassed by the brilliancy of colour

and compactness of growth". Thankfully this sumptuous stork's-bill has survived to this day. Its bright coppery red flowers with their dramatic dark blotches stamped on the upper petals bear testimony to the great man who bred it. *P. ignescens* is illustrated in Sweet's *Geraniaceae* I, no.2, and the variety New Oxford I believe to be a variant of *P. oxoniense* which is illustrated in Andrews *Monograph of Geraniums*, 1805, Vol I. Plate 43. (Sweet names it as *P. cynosbatifolium* in *Geraniaceae* Vol. III No. 259.) Sadly it does not appear to have survived.

On 29 January, 1824, a tragedy was to befall Sweet which caused him enormous distress and embarrassment at a time when his career was flourishing. He was accused of having received a box of plants knowing them to have been stolen from the Royal Gardens, Kew. The box in question contained seven plants (value £7), and seven garden pots (value 6d.). They were classed as exotics and included *Banksia grandis*, *Jaquina mexicana* and two specimens of *Calamnis niger* (palms). There were no Pelargoniums!

It seems highly unlikely that Sweet would risk his reputation for such spoils. The fact that this property belonged to the King himself accentuated the severity of the crime, and it attracted considerable publicity.

An article published in *The Times* on 3 February 1824, described how the plot thickened. Hogan, a gardener at Kew stole the box of plants then handed it over the wall to a man named Noyce, who was instructed to deliver it to Mr. Robert Sweet at Colvills nursery on the Kings Road. Hogan then absconded without collecting his wages. Eventually, when Mr. Smith (an assistant gardener working under Mr. William Townsend Aiton, Superintendent at Kew), noticed his plants had gone missing, called for the police who quickly dispatched their most senior officer Ruthven to the scene of the crime. His investigations soon led him to Sweet's house.

To begin with Sweet vehemently denied knowing of such a box, as did his employer Mr. Colvill. But Ruthven was "not to be trifled with", and proceeded to the nursery with both Sweet and Smith in search of the missing plants. Eventually Smith recognized them on display in one of Mr. Colvill's hot houses whereupon Ruthven thought fit to handcuff Sweet. The trial paper records that his wrists were so small that he was able to squeeze out of them! Nevertheless he was promptly marched off to Covent Garden watchhouse complete with offending plants. Despite the substantial amounts offered by Sweet's eminent friends, bail was denied, and he was committed for trial.

From the floricultural haven of Mr. Colvill's nursery Sweet was suddenly to find himself behind bars for three weeks awaiting his trial. Fear, anguish and humiliation were almost too much to bear, and at the back of his mind there loomed the dreadful possibility that he may suffer the hangman's noose. Up until 1827 Grand Larceny (the theft of property over the value of twelve pence) was punishable by death, and Feloniously Receiving (knowing the property to have been stolen) as in Sweet's case, was often dealt with likewise.

And so, on 24 February 1824, the bizarre trial of Robert Sweet took place at the Old Bailey, before Mr. Justice Best. Never before had a courtroom been honoured by so many botanical gentlemen, all of whom had come to vouch for the integrity of their much respected friend. They included Mr. William Anderson, curator of the

Apothecary's Garden at Chelsea, Mr. Ridgway, the famous Piccadilly bookseller who published many of Sweet's books, and two of London's most prodigious nurserymen, Mr. Joseph Knight of the Exotic Nursery, Kings Road, and Mr. George Loddiges of Hackney.

Mr. Justice Best pointed out that it was somewhat extraordinary that Mr. Colvill himself was not also before him. Indeed it was. One of the jurors had Mr. Smith (Aiton's assistant) put in the witness box for a second time, and asked him if Mr. Sweet had not published some works on Botany. Smith acknowledged that this was so. The trial continued as follows.....

- | | |
|--------------------|----------------------------------------------------------------------------------------|
| Juror – | And is not Mr. Aiton also an author? |
| Witness – | He is. |
| Juror – | Is Mr. Aiton here today? |
| Witness – | I believe not. |
| Juror – | Has not Mr. Sweet severely criticised a work of Mr. Aiton's? |
| Witness – | I do not know. I have seen a recent publication in which Mr. Aiton is called a dunce. |
| Juror – | What publication is that? |
| Witness – | The Botanic Register. |
| Mr. Justice Best – | Who is the editor of that? |
| Witness – | I do not know. |
| Juror – | Do you believe that this box was sent to Mr. Sweet to entrap him for this prosecution? |
| Witness – | I have no reason to think so. |

It was afterwards stated by Mr. Ridgway that Sweet was not the editor of the Botanic Register.

He was acquitted and so it seems that Sweet had been the victim of a devious plot fraught with envy and subterfuge which left him deeply wounded.

In *Geraniaceae* 3, no 212 there is a small piece which perhaps holds the clue to the enmity between Sweet and Aiton, though no name is mentioned. Sweet wrote "We understand we are very much envied in a certain quarter for raising so many beautiful hybrid plants, and more so for publishing them. But we mind not their envy as long as we are so ably supported by our numerous subscribers to whom we beg our most grateful acknowledgements".

Sweet left Colvills in 1826 and moved to Parson's Green in Fulham where he devoted his time to writing *Cistineae* (1825 – 30), *Flora Australasica* (1827 – 28), *British flower garden* (1823 – 37) 7 vols., *Geraniaceae* (1820 - 30) 5 vols., and his charming book on florist's flowers of which he was so fond, *Florist's guide* (1827 – 32) 2 vols.

All of these ravishing works except for *Cistineae* were illustrated with hand coloured plates superbly drawn by the artist Edwin Dalton Smith whom Sweet greatly admired. He named *Dimacria smithiana* in his honour and wrote "The name is intended as a mark of respect for the merits of our Botanical artist" (*Geraniaceae*, 4, no 358). Sweet never allowed a plant to be drawn unless it was in perfect health.

It is only in his least known work *The British Warblers* (1823), also illustrated by

E.D. Smith, that we are able to glimpse something of Sweet 'the man'. He would contrive ingenious traps in Mr. Colvill's nursery grounds to catch these precious little birds. Once, while there, he caught a very rare Grasshopper Warbler (*Sibillatrix locustella*) in August, 1825.

His tips on caring for them show tenderness and humanity. On Nightingales he wrote "They will succeed very well in a warm room in winter, or if convenient any part of a hot house would suit them admirably". But, many were kept in cages indoors "I have had a female Nightingale which built a nest in the cage in a little work-basket put in on purpose".

Great attention was paid to seeking out just the right sort of food for his beloved birds "The large species of flies may be caught in great abundance in Autumn, particularly the *Musca tenax* which at that season are very plentiful on Dahlias". And, he stresses.... "If by accident they happen to break off a claw or toe, it is best to soak it directly in Freeman's Bathing Spirit".

In 1830, Sweet moved to Jubilee Place, Chelsea, and also rented some land at Cook's Ground where he cultivated plants to sell to his friends. One such friend was the Rev. Henry Thomas Ellacombe (1790 – 1885) who established an exquisite garden at Bitton richly planted with rare and exotic plants. The two men corresponded regularly exchanging horticultural chit chat. Ellacombe frequently sent plants to Sweet for identification knowing him to be a master in nomenclature. Nothing annoyed Sweet more than wrongly named plants – every nurseryman's nightmare.

On 21 April, 1832, Sweet wrote to Ellacombe in reply to his letter regarding the genus *Iris* and its many cultivars "You mention *Iris falconerianum*, a stupid name certainly. Where is that foolish name described or mentioned, or who by? I suppose by that bragging fellow Denson – Loudon's clerk – who knows no more about naming a plant than a cow".(4) (Perhaps Sweet called Aiton a dunce after all!)

And Loudon's clerk was not the only one to be given a dressing down "There is no *Geranium barbatum* described that I know of. If there is it is of no use. Hooker has lately figured it for the *Botanical Magazine* and made it a new species, he is always making mistakes. I think he can never look at a Botanical book".(5)

It is recorded that Sweet's brain 'gave way' in June 1831, prior to these letters. In them he does appear to be cross and somewhat over-pedantic, but they are hardly the letters of a man who has recently suffered from a stroke or mental breakdown.

It was to be another four years before he died. During that time he was nursed by his devoted wife of whom we know little except that Sweet named a Pelargonium after her. Their marriage was childless, its void filled by tiny singing birds and exotic pot plants. Money had always been a problem, and when Sweet became ill they found life a struggle. In a letter dated 30 December, 1833, Mrs. Sweet wrote to Ellacombe ... "I am sorry to inform you that Mr. Sweet still continues very ill, and I fear there remains but little prospect of his recovery Mr.D. Don is going on with the third volume of the *British Flower Garden* for which at present does not pay us very well, having to pay an addition out of the profit". She goes on to plead with Ellacombe to procure more subscribers.(6)

By now Sweet was extremely frail and immobile. He remained in this tormented

state for two years until his death in 1835. The remnants of his nursery were acquired by Mr. William Dennis, a Chelsea florist who specialized in dahlias and pelargoniums.

There remains no portrait, gravestone or epitaph to remember him by, and the genus *Sweetia*, named in his honour by De Candolle in 1825, seems unbecoming. Through his books alone, written with such detail and conviction, we are able to reach out and touch the curious life of Robert Sweet FLS.

1. Smith correspondence – Linnean Society
2. *Hoarea* is a separate genus within the family Geraniaceae
3. R/C/H/ manuscript (undated). – County Record Office, Trowbridge, Wiltshire
- 4, 5 & 6. - Sweet's Letters – Kew.

Further reading: Dawson-Brown, P. 1996. Unique Origins. *The Garden*, 121: 694–696.

PENELOPE DAWSON-BROWN

Library

The teams of student helpers over the summer cleaned and reshelfed most of the “faunas” and the “expeditions and voyages”. These now form a geographical sequence in the First Gallery, North side, in two sizes: octavo volumes along the back shelves and larger quarto volumes under the gallery edge. Travel volumes are mostly in locked cases in the East Gallery. Access to the faunas can be arranged by the Librarian if you wish to browse. Although this sequence now has the main faunistic works located together it has not been possible to move up everything due to lack of space. More specialist works, especially for malacology and entomology, are still in the Reading Room or its Annexes. Because of space restrictions some things have been placed in temporary locations, these include the books of the Balfour Bequest Bird Library belonging to the British Ornithological Union which are held on deposit. It may take a little longer to find items from this collection as they are scattered in various locations. We hope that as the work continues we will find solutions to these problems.

The Library Committee has been looking at library automation systems which should help speed up ordering and accessioning new books and, eventually, provide an on-line public access computer search facility for readers. A limited search facility is already available for accessions from 1984 onwards which are also held in the card-catalogue. Ask if you want to use it.

Donations from July to September 1996

Apart from those listed below, we are also grateful to a number of people who have given us back issues of journals to fill gaps in our holdings or runs of journals not previously held. These include a number of titles received last summer from Prof. L.J. Audus. We have also received a number of gifts from the library of D.J. O'D Bourke, presented by his widow via Paul Tuley.

- | | |
|---------------|-----------------------------------------------------------------------------------------------------------------------------|
| Dr J. Akeroyd | Cobbett, William, <i>The English Gardiner</i> . 335 pp., Oxford, Oxford University press, 1980. |
| | Lloyd, David G. & Barrett, Spencer C., <i>Floral biology, studies on floral evolution in animal-pollinated plants</i> . 410 |

- pp., illustr., London, Chapman and Hall, 1996.
- Dr G.P. Chapman Chapman, G.P., *The biology of grasses*. 273 pp., illustr., Wallingford, CAB International, 1996.
- R.C. Clarke Clarke, Robert Connell, *Marijuana botany, an advanced study: the propagation and breeding of distinctive Cannabis*. 197 pp., illustr., Berkeley CA., Ronin Publications, 1981.
- R. Cleveley Cowling, Richard & Richardson, Dave, *Fynbos, South Africa's unique floral kingdom*. 156 pp., col. illustr. Vlaeberg, Fernwood Press, 1995.
- Prof. J.L. Cloudsley-Thompson Framp, Bob, Victor, Joe and Yoshi, Yateenda eds., *Biodiversity and conservation: forests, wetlands and deserts*. 153 pp., New Delhi, Tata Energy Res. Inst. & British High Commission, 1993.
- Gotch, A.F. *Latin names explained, a guide to the scientific classification of reptiles, birds and mammals*. 713 pp., illustr., London, Cassell, 1995.
- Mannion, A.F. & Bowlby, S.R. eds., *Environmental issues in the 1990's*. 349 pp., maps, Chichester, Wiley, 1992.
- Drs M.J. Balick & P.A. Cox Balick, Michael J. & Cox, Paul Alan, *Plants, people and culture, the science of ethnobotany*. 228 pp., col. illustr., maps, New York, Scientific American, 1996.
- Dr W.G. Evans Trease, George Edward and Evans, William George, *Pharmacognosy* (14th Edition). 612 pp., illustr., London, Saunders, 1996.
- Dr. H.E. Gee Gee, H.E., *Before the backbone, views on the origins of vertebrates*. 346 pp., illustr., London, Chapman and Hall, 1996.
- B. Harley Emmett, A. Maitland, *Moths and butterflies of Great Britain and Ireland, Vol.3: Yponomentidae-Elachistidae*. 452 pp., illustr., maps, Colchester, Harley Books, 1996.
- Prof. D.L. Hawksworth Hawksworth, D.L. ed., *Draft Biocode: the prospective International Rules for the scientific names of organisms*. 42 pp., Paris, IUBS, 1996.
- C. Hobbs Hobbs, Christopher, *Medicinal mushrooms, an exploration of traditions, healing and culture*. 252 pp., illustr., Santa Cruz, Botanica Press, 1995.
- Prof. A. Hollman Zhang Qitai, Feng Zhizhou & Yang Zenghong, *Rare flowers and unusual trees, a collection of Yunnan's most treasured plants*. 161 pp., col. illustr., map, Beijing, China Esperanto Press, 1992.
- Bent Johnsen Johnsen, Bent, *Skandinaviens Orkider: Orchids of Scandinavia*. 127 pp., 50 col. plates, Copenhagen, Rhodos, 1994.
- Prof. P-M. Jørgensen Jørgensen, Per-Magnus, *Rhododendron i det Norske arboret på Milde*. 264 pp., col. illustr., map, Bergen, Fagsbokforlaget, 1996.

- Sir C. Lever Lever, Christopher, *Naturalized fishes of the world*. 408 pp., illustr., San Diego, Academic Press, [1996].
- Maruzen Co., Thunberg, C.P., *Icones plantarum Japonicarum Thunbergii: C.P. Thunberg's drawings of Japanese plants edited by Y. Kimura and V.P. Leonov*. 594 pp., illustr., Tokyo, Maruzen, 1994.
- Prof. A.D.J. Meeuse Meeuse, A.D.J., *An analysis of interpretative floral theories*. 13 pp., (privately) 1996.
- Dr F.H. Perring PEKING, Academia Sinica, *Iconographia Cormophytorum Sinicorum*. 806 pp., illustr., Peking, Science Press, 1994.
- Dr Rohan Pethiyagoda Kottelat, Maurice (and others), *Freshwater fishes of Sri Lanka*. 221 pp., 84 col. illustr., map, [Jakarta] Periplus Editions, 1993.
- Dutta, Sushil K & Manamendra-Arachchi, Kelum, *The amphibian fauna of Sri Lanka*. 230 pp., col. illustr. maps, Colombo, Wildlife Trust of Sri Lanka, 1996.
- Royal Botanic Gardens, Kew KEW, Royal Botanic Gardens, *Authors of scientific names in Pteridophyta*, compiled by Rodolfo E.G. Pichi-Sermolli. 78 pp., Kew, Royal Botanic Gardens, 1996.
- KEW, Royal Botanic Gardens, *Compositae: biology and utilization* (Proceedings of an International Conference, 1994) edited by P.D.S. Caligari and D.J.N. Hind. 2 vols., 784 pp. & 689 pp, illustr., map, Kew, Royal Botanic Gardens, 1996.
- KEW, Royal Botanic Gardens, *Orchids of Samoa* by Phillip Cribb and W. Arthur Whistler. 141 pp., illustr. some col., maps, Kew, Royal Botanic Gardens, 1996.
- KEW, Royal Botanic Gardens, *Richard Spruce (1817-1893): botanist and explorer*, edited by M.R.D. Seaward and S.M.D. FitzGerald. 359 pp., illustr., maps, Kew, Royal Botanic Gardens, 1996.
- B. Sherwood Jones, P.S, Healy, M.G. & Williams, A.T. eds., *Studies in coastal management*. 292 pp., illustr., maps, Tresaith, Samara Press, 1996.
- P. Sowan Briant, Keith, *Marie Stopes, a biography*. 286 pp., illustr., London, Hogarth Press, 1962.
- Systematics Association Systematics Association, *The ecology of agricultural pests: biochemical approaches*, edited by W.O.C. Symondson and J.E. Liddell. (Special Vol. No. 53). 517 pp., illustr., London, Chapman & Hall, 1996.

Other recent Library Accessions to September 1996

- Arnett, Ross H. & Arnett, Mary E., *The Naturalists' directory and almanac (International)*. 308 pp., Gainesville, Sandhill Crane Press, 1990.
- Barreau, D., Rocher, A. & Alagnier, S., *Elements d'identification des cranes des*

- rongeurs du Maroc*. 8 pp. +16 pl., Puceul, S.T.E.P.M., 1991.
- Barua, D.N., *Science and practise in tea culture*. 509 pp., illustr., Calcutta, Tea Research Association, 1989.
- Baumann, Helmut, *Greek wildflowers and plants lore of ancient Greece*, translated by William T. Stearn and Eldwyn Ruth Stearn. 252 pp. illustr. some col., London, Herbert Press, 1993.
- Bodson, Liliane, ed., *L'Histoire des connaissances zoologiques...* (Conference report). 74 pp., Liege, Univ. de Liege, 1990.
- Boehmne, R.L. & Flint, V.E., *Dictionary of animal names in five languages: Birds*. 846 pp., Moscow, Russky Yazyk, 1994.
- BOULDER, Geological Society of America, *Geologists and ideas: a history of North American geology*, edited by Ellen T. Drake and William M. Jordan. 525 pp., illustr., map, Boulder, Geol. Soc. of America, 1985.
- Brandon, Robert, *Concepts and methods in evolutionary biology*. 221 pp., Cambridge, CUP, 1996.
- CALCUTTA, Zoological Survey of India, *Fauna of Orissa*, parts 1 & 2. 2 vols. (340 & 318 pp.), Calcutta, Zoological Survey of India, 1989.
- CANBERRA, Bureau of Fauna and Flora, *Fauna of Australia* Vol.1A. 339 pp., illustr. some col., maps, Canberra, Aust. Government Publ. Service, 1987.
- Committee for Fauna d'Italia, *Fauna d'Italia, Vol 35: Coleoptera: Staphylinidae, Leptotyphlinae*, by R.Pace. 328 pp., illustr., Bologna, Calderini, 1996.
- Cook, Christopher D.K., *Aquatic and wetland plants of India...* 385 pp., illustr., map, Oxford, OUP, 1996.
- Corbet, Gordon B. & Harris, Stephen, *The handbook of British mammals*. 588 pp., illustr., maps, Oxford, Blackwell Scientific, 1991.
- Corlis, William (compiler), *Biological anomalies, mammals I*. 286 pp., Glen Arn MD., Sourcebook project, 1995.
- Coste, H, *Flore de France; 7th Supplement (revised 4th Suppl.)*. pp 747–875, illustr., Paris, Blanchard, 1990.
- Daget, J., Gosse, J.P. & Thys van der Audenaerde, D.F.E., *Check list of the freshwater fishes of Africa*. 4 vols., Brussels, 1984–1991.
- Dawkins, Richard, *River out of Eden*. 196 pp., illustr., London Phoenix, 1995.
- Dawson, Terence J., *Kangaroos, biology of the largest marsupials*. 162 pp., illustr., map, Ithaca, Comstock, 1995.
- Dumont D'Urville, Jules S-C., *Two voyages to the south seas*, translated by Helen Rosenman. 304 pp., maps, Carlton, Melbourne Univ. Press, 1992.
- Edwards, Sue, *Some wild flowering plants of Ethiopia*. 61 pp., col. illustr., map, Addis Ababa, Addis Ababa University Press, 1976.
- Folch i Gullen, Ramon, *La vegetacio dels Paisos Catalans* (2nd ed.). 541 pp., illustr., maps, Barcelona, Ketres, 1986.
- Foundation for Flora Malesiana, *Flora Malesiana, Vol.12, part 1, Meliaceae*, by D.J. Mabberley, C.M. Pannell and A.M. Sing. 407 pp., illustr., Leiden, Rijksherbarium, 1995.

- Friedmann, Francis, *Flore des Seychelles: Dicotyledones*. 663 pp., illustr., map, Paris, ORSTOM, 1994.
- Gordon, David George, *Field guide to the geoduck*. 48 pp., ilustr., Seattle, Sasquatch Books, 1996.
- Goulding, Michael, Smith, Nigel J.H. & Mahar, Dennis J., *Floods of fortune, ecology and economy along the Amazon*. 193 pp., col. illustr., map, New York, Columbia Univ. Press, 1996.
- Hochberg, Michael E., Clobert, Jean & Barbault, Robert, eds., *Aspects of the genesis and maintenance of genetic diversity*. 316 pp., Oxford, OUP, 1996.
- Holmgren, Noel. H. & Angell, Bobbi, *Botanical illustration, preparation for publication*. 74 pp., illustr., maps, New York, New York Botanical Garden, 1986.
- Hoyo, Josep del ed. (and others), *Handbook of birds of the world, Vol.3: Hoatzim to Auks*. 810 pp., illustr., maps, Barcelona, Lynx, 1996.
- Jalas, Jaakko & Suominen, Juha, *Atlas Florae Europaeae 10: Cruciferae (Sisymbrium to Aubrieta)*. 224 pp., maps, Helsinki, 1994.
- JOINT NATURE CONSERVATION COMMITTEE, *Atlas of the dragonflies of Britain and Ireland*, edited by R. Merritt, N.W. Moore and B.C. Evesham. 149 pp., col. illustr., maps, London, HMSO, 1996.
- Kallola, Patricia J, *The fishes of Papua New Guinea*. 418 pp., (2 vols), Port Moresby, Dept. Fisheries & Marine Research, 1987.
- Kirschhofer, A. & Hefti D. eds., *Conservation of endangered freshwater fish in Europe*. 341 pp., illustr., maps, Basel, Birkhauser, 1996.
- Linnean Society of London, *Conservation of bees*, edited by Andrew Matheson (and others): Symposium series Vol.18. 254 pp., illustr. some col., maps, London, Academic Press, 1996.
- Magee, Mike, *Who lies sleeping – the dinosaur heritage and the extinction of man*. 169 pp., map, Frome, (privately), 1993.
- Mariani, M & Bianchi, I., *Grand livre des poissons d'eau douce d'Europe*. 165 pp., col. illustr., Paris, Vecchi, 1992.
- Martcorena, Cladomiro & Rodriguez, Roberto, *Flora de Chile, Vol.1: Pteridophyta, Gymnospermae*. 351 pp., illustr. some col., maps, Concepcion, Univ. de Concepcion, 1995.
- Martin, Laura C., *The folklore of trees and shrubs*. 221 pp., illustr., Old Saybrook, Globe Pequot Press, 1992.
- Matschke, Ann and Crozier, Jacqueline, eds., *Andorra flors*. 249 pp., col. illustr., map, Andorra, Assoc. per la defensa de la Natura, 1993.
- Miller, A.G. & Cope. T.A., *Flora of the Arabian peninsula and Socotra, Vol.1*. 586 pp., illustr., maps, Edinburgh, Edinburgh University Press, 1996.
- Morgan, Adrian, *Toads and toadstools, the natural history, folklore and cultural oddities of a strange association*. 208 pp., illustr. some col., Berkeley, CA., Celestial Arts, 1995.
- Nelson, E.Charles & Walsh, Wendy F., *Trees of Ireland, native and naturalised*. 247 pp., col. illustr., Dublin, Lilliput, 1993.

- New, T.R., *An introduction to invertebrate conservation biology*. 194 pp., illustr., Oxford, OUP, 1996.
- Olsen, Perry, *Australian birds of prey*. 256 pp., col. illustr., maps, Baltimore, John Hopkins Univ. Press, 1995.
- Osborn, Henry Fairfield, *Man rises to Parnassus, critical epochs in the prehistory of man*. 251 pp., illustr., maps, Princeton, Princeton Univ. Press, 1928.
- Ouellet, Henri, Gosselin, M. & Artigau, Jean-Pierre, *French nomenclature of North American birds*. 127 pp., Ottawa, Canadian Museum of Nature, 1990.
- OXFORD, University Museum, *A catalogue of the Monotremata and Marsupialia in the Zoological collections...* compiled by Christopher A. Norris and Jane Pickering. 63 pp., Oxford, Oxford Univ. Museum, 1995.
- OXFORD, University Museum, *The zoological collections of the Oxford University Museum...*, compiled by K.C. Davies and J. Hull. 136 pp., Oxford, OUP, 1976.
- Quammen, David, *The song of the dodo: island biogeography in an age of extinction*. 702 pp., maps, London, Hutchinson, 1996.
- Rabor, Dioscora S., *Guide to Philippine flora and fauna: Birds, Mammals: Vol.XI*. 213 pp., illustr., Manila, Nat. Resource Management Center, 1986.
- REUNION, Conservatoire Botanique de Mascarin, *L'Ile Reunion par ses plantes*. 96 pp., col. illustr., Lucon, Solar Press, 1992.
- Roosmalen, Marc G.M. van, *Fruits of the Guianan flora*. 483 pp., illustr. some col., Utrecht, Inst. for Systematic Botany, 1985.
- Rue, Leonard Lee & Rue, Len, *How to photograph animals in the wild*. 133 pp., col. illustr., Mechanicsburg PA., Stackpole Books, 1996.
- Schelhas, John & Greenberg, Russell, eds., *Forest patches in tropical landscapes*. 426 pp., illustr., maps, Washington, Island Press, 1996.
- Shrestha, Bom Prasad, *Forest plants of Nepal*. 215 pp., col. illustr., maps, Lalitpur, Educational Enterprises, 1989.
- Souza, Simone de, *Flore du Benin, Tome 1: catalogue des plantes du Benin*. 87 pp., Cotonou, Univ. Nat. Benin., 1987.
- Stansfield, Geoff, Mathias, John and Reid, Gordon, *Manual of natural history curatorship*. 306 pp., London, HMSO, 1994.
- Steyn, Marthius, *South African Acacias: identification guide*. 31 pp., col. illustr., map, Waltloo, Promedia, 1994.
- Stokes, Edward, *Hong Kong's wild places, an environmental exploration*. 198 pp., col. illustr., Hong Kong, OUP, 1995.
- Stumpel-Rienks, Suzette, *Nomina herpetofauna Europaea*. 271 p., Wiesbaden, Aula, 1992.
- Tikader, B.K. & Sharma, R.C., *Handbook of Indian Testudina*. 156 pp., illustr. some col., maps Calcutta, Zool. Survey of India, 1985.
- Tomas, Carmelo J. ed., *Identifying marine diatoms and dinoflagellates*. 598 pp., illustr., San Diego, Academic Press, 1996.
- Wagner, Warren L. & Funk, V.A., *Hawaiian biogeography, evolution on a hotspot archipelago*. 467 pp., maps, Washington, Smithsonian Institution Press, 1996.

Wessels Boer, J.G., *Flora of Suriname Vol.5, pt 1: Palmae*. 172 pp., Leiden, Brill, 1965.

Zaffran, Jacques, *Contribution a la flore et la vegetation de la Crete*. 615 pp., map, (loose tables in folder), Aix en Provence, Univ. de Provence, 1990.

Book Reviews

Borneo Log., the Struggle for Sarawak's Forests by William W. Bevis, publ. University of Washington Press., Seattle, USA 1995. 264pp., 8 illustr., maps, h/b ISBN 0-295-297416-8 Price \$US 19.95.

Borneo is the largest island in the East Indies, and now most of it is part of Indonesia. In the early nineteenth century the ruler of the island was the Malaysian prince Raja Muda Hassim. A rebellion occurred in the 1830's, and in 1840 this was put down by James Brooke and a handful of mercenaries. Raja Muda Hassim rewarded him by making him the first White Rajah of Sarawak, a state in the north-western part of the island. On his death in 1868 his nephew Charles became the second White Rajah; he was succeeded by his son Vyner in 1917. Vyner handed Sarawak over to Britain in 1946, and it became part of Malaysia in 1963.

Basically this is a travel book. The author journeyed from the town of Miri along the River Baram, which runs through the tropical rain forest near the north-east border of Sarawak. At the present time much of this forest (thought to be the oldest remaining in the world) is being extensively felled. The timber is made into plywood, largely used in Japan for shuttering in the building of concrete; it is used only once or twice, and then destroyed. The felling of the trees causes the total destruction of an increasingly rare natural resource, which seriously concerns a number of international organisations such as Friends of Earth. William Bevis is also greatly concerned by its effects on the natives who live in long-houses in the jungle. They obtain all that they need from the forest, except for oil for their lamps and, the reviewer was surprised to learn, batteries for their tape-recorders, which apparently all their communities possess. When the trees are gone they have to seek work (and wages) temporarily in felling camps in adjacent areas and later in towns. The author points out that felling could be reduced and made more selective, thus allowing some regeneration; he thinks that this might be done if it were carried out by the local people instead of by large corporations from Japan and other foreign countries.

Thus a book that sets out to describe an area of primitive jungle becomes a discussion of the struggle for Sarawak's forests. When the best of them are felled the timber companies will move on; they are already beginning to do so in Papua New Guinea and in Guyana in South America. The book is not a propaganda work, however; it is an interesting description of a comparatively small area of Sarawak, set clearly in a wider account of the continually increasing exploitation of the tropics.

Kew, the history of the Royal Botanic Gardens by Ray Desmond, The Harvill Press with the Royal Botanic Gardens, Kew, London, 1995, 466 pp; b/w illustr. 34 coloured plates, hardback. ISBN 1-86046-076-3. Price £25.

Although there have been other published histories of the Royal Botanic Gardens at Kew, this is the first to make full use of the available printed and archival resources. Given this wealth of material Ray Desmond has been amazingly concise. His twenty chapter narrative manages both to keep the reader's attention and at the same time adding a wealth of detail on Royal lifestyles, architectural trends, changing boundaries, landscaping and plantings over a period of nearly three hundred years.

The text has numerous black and white illustrations which generally reproduce well on the slightly creamy paper. Many, especially portraits, are printed in the margins adjacent to the relevant text, thus making it easier to visualise the persons concerned. The beautiful coloured plates are cited in the text but do take a little hunting for in this heavy volume, just over 3 cm (1.25 inches) thick. The reader needs at least three book-marks as well as a strong wrist because 15 appendices, a bibliography and notes and sources are constantly useful in reminding the reader of the chronology, biographical details or illuminating a source cited in the text. A 10 page index lists people, plants, places, buildings and subjects, illustrations being identified in bold type. The endpapers have an aerial photograph of the present gardens in colour with a black and white plan over a two-page spread at the beginning of the Appendices. Older plans appear elsewhere in the text. The attractive dust jacket adds two more colour illustrations.

The whole account is fascinating, throwing light on all kinds of unexpected matters such as the dress of the first female gardeners; the recycling of materials from the demolished Castellated Palace in the present Buckingham Palace; family dynasties of curators and directors and the growth of the Empire. The book's interest is certainly much wider than just the history of the world's most famous botanic garden. The last two chapters cover the period from 1887 to the present with the reader moving rather too rapidly from the resumption of publication of *Kew Bulletin* to Kew's present role in biodiversity and conservation matters. It is only here that the reader feels the author has been forced to compact his information so as to keep within predetermined limits.

The durable cased binding, fascinating content and illustrations make this an excellent buy, thoroughly recommended both as the definitive history of Kew and as an easy and compelling read. Take this with you for your next holiday reading but add some book marks and a cushion to rest it on!

GINA DOUGLAS

The Linnean Plaque [Porcelain. Pâte-sur-pâte. Patrick O'Hara. 1995.
(Collection: The Ulster Museum, Belfast)]