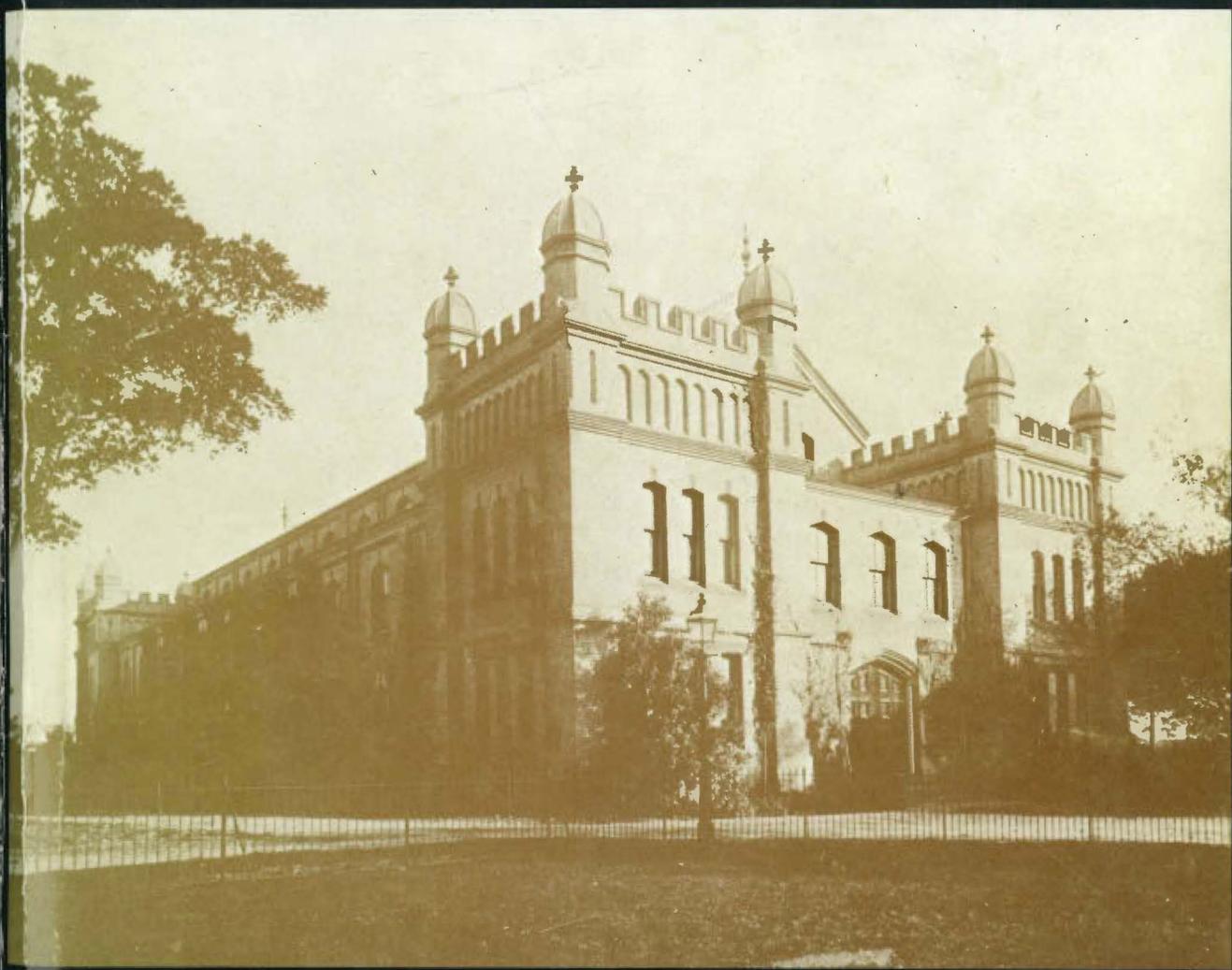


MR MACLEAY'S

CELEBRATED

CABINET



PETER STANBURY AND JULIAN HOLLAND



**MR MACLEAY'S
CELEBRATED
CABINET**

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ALEXANDER MACLEAY, ESQ. F.R.S.

Secretary of the London Society, Member of the Royal Academy of Sciences of Edinburgh.

Mr Macleay's Celebrated Cabinet

The history of the Macleays and
their museum

edited by Peter Stanbury and
Julian Holland

1988

The Macleay Museum
The University of Sydney

Alexander
Macleay; steel
engraving after
the portrait by
Sir Thomas
Laurence for the
Linnean Society
of London.

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Foreword

The Macleay Museum celebrates its centenary at the University of Sydney in 1988. The collections which came to the University a hundred years ago, had been gathered over much of the previous century. This book gives an account of the three Macleays who amassed the collections which remain the core of the Museum's holdings. Alexander Macleay started an insect collection near the end of the 18th century. Before he came to New South Wales as Colonial Secretary in 1826, his cabinet was considered one of the finest insect collections in Europe. It was expanded by Alexander's son, William Sharp Macleay, a distinguished naturalist. The collection was inherited and diversified by W.S.Macleay's cousin, William John Macleay, who gave the combined collections to the University, referring to it as 'The Macleayan Museum'.

The natural history collections have not received the recognition they deserve. Their rich diversity provides a fascinating and valuable record of aspects of the history of zoology and anthropology.

P. Stanbury
J. Holland
4 October 1988

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In gathering material for the Macleay Museum centenary and in writing this book, many debts have been incurred. The editors and authors gratefully acknowledge the assistance of the following individuals and institutions — June and Nigel Underwood; Annabel Imrie Swainston; Jane Gressier; Ken Smith (Sydney University Archivist); Peter Watts, Joy Hughes, Sue Hunt (Historic Houses Trust); Professor and Mrs. Kenneth Macleay; Caithness County Library, Wick; Guildhall Library, London; State Library of New South Wales, Sydney; Linnean Society of London; Linnean Society of New South Wales; Wick Heritage Centre; and the Tasmanian Museum and Art Gallery, Hobart.

The account of the Macleays in the first two chapters owes a great debt to the extensive researches of J.J. Fletcher, published as 'The Society's Heritage from the Macleays', *Proceedings of the Linnean Society of New South Wales* 45 (1920): 567-636, 54 (1929): 185-272. Although the first two chapters have incorporated material unavailable to Fletcher, readers wishing to know more about the Macleays and their collections will find many useful details in Fletcher's article.

The editors are grateful for the diverse assistance they have received from the staff of the Macleay Museum.

ORIGINS

**William John
Macleay 1740-1820**
Rosebank
Provost of Wick
married 1764
Barbara Rose
1740-1842

**Kenneth
Macleay**
1765(?)-1826
Keiss Castle
married 1811
Isabella Horne
d 1838

**Alexander
Macleay**
1767-1848
Linnean Society
of London
Colonial Secretary
Elizabeth Bay Hse
married 1791
Elizabeth Barclay
1769-1847

and four other
children

**William John
Macleay**
1820-1891
Linnean Soc. of
New South Wales
Kerarbury and
Elizabeth Bay Hse
married 1857
Susan Deas
Thomson

**John
Macleay 1821-1846**

**William Sharp
Macleay**
1792-1865
London, Paris &
Cuba
Elizabeth Bay
House

**George
Macleay 1809-1891**
Brownlow Hill
Pendell Court
married 1842
Barbara
St. Clair Innes
d 1869

and five other
children

**Frances Leonora
Macleay 1793-1836**
married 1836
Thomas
Harington d 1863

**Christina Susan
Macleay 1799-1866**
married 1830
William John
Dumaresq d 1868

**Margaret
Macleay 1802-1858**
married 1829
Archibald
Clunes Innes
1800-1857

and nine other
children

**Kennethina
Macleay 1805-1864**

**Rosa Roberta
Macleay 1807-1854**
married 1832
Arthur Pooley
Onslow 1804-1889

**Barbara Isabella
Macleay 1814-?**
married 1834
Pieter Laurentz
Campbell d 1848

moved to London to further his medical studies bearing a letter of introduction from Hope to Sir Joseph Banks who had recently become President of the Royal Society of London. Banks' scientific companion on Cook's first voyage to the Pacific a decade earlier, Daniel Solander, had been a pupil of Linnaeus. So when Linnaeus' son died the year Smith moved to London, Banks was offered the whole of Linnaeus' library and natural history collections for 1000 guineas. Banks declined the offer but with his encouragement Smith purchased the collections.

Smith was not yet twenty-five and had still to complete his medical studies when the Linnean collections arrived at his apartments in Paradise Row, Chelsea, in October 1784. The course of his life became increasingly devoted to botany. He was elected a Fellow of the Royal Society the following year, and having obtained a medical degree in Leiden, embarked on a continental tour visiting many scientists, herbaria and botanical libraries. On his return to London he joined with several of his naturalist friends to found the Linnean Society of London which met for the first time in April 1788. This was the world of natural history, with no clear distinction between amateur and professional, which Alexander Macleay joined in the early 1790s.

Alexander Macleay was born into an established family in Wick, a fishing town in the north of Scotland on 24 June 1767. His father, William, was Provost (Mayor) of Wick and deputy-lieutenant of Caithness. Alexander was educated for a commercial career and moving to London in 1786, took up a partnership with a wine merchant, William Sharp. He married Elizabeth Barclay at St Dunstan's Church, London, in October 1791. Their first son, named William Sharp after Alexander's partner, was born the following year.

The origin of Alexander's interest in natural history is unknown. Perhaps it was awakened by childhood excursions in the vicinity of Wick. At all events Alexander must have met some members of the Linnean Society in London, for he was elected a Fellow in 1794 and became much involved in its activities. Thomas Marsham, Secretary of the Society, was a keen entomologist, as was another Fellow of the Society, the Rev. William Kirby. Under their guidance Alexander Macleay developed his own interest in insects. Gentlemen at the time commonly set up cabinets of curiosities — assorted collections of antiquities, foreign handcrafts, seashells, birds' eggs, rocks and fossils, colourful insects — to complement their libraries as a manifest display of their learning and culture. Alexander may have begun in this tradition but soon became a serious-minded collector of insect specimens.

When Marsham vacated the secretaryship of the Linnean Society to become Treasurer in 1798, Macleay took on the position, serving conscientiously until May 1825 when he resigned shortly before departing for New South Wales to take up his appointment as Colonial Secretary. The organising of meetings and seeing successive volumes of the Society's *Proceedings* through the press necessitated

frequent correspondence between Macleay in London and J.E. Smith, the President, in Norwich. Smith was rarely able to attend meetings so his correspondence with Macleay was vital to his knowledge of the Society's affairs. Smith's friend, the Norfolk turkey, sent to Macleay for Christmas 1801, was a gesture of sincere thanks.

Meanwhile Macleay had left the wine business to become a civil servant. Perhaps under the patronage of Sir Joseph Banks, an honorary member of the Linnean Society and leading government advisor, Macleay became chief clerk in the Prisoners of War office in 1795. Following the outbreak of war with France the office was combined with the Transport Board. Macleay became head of the correspondence department and by 1806 was Secretary to the Board. Here he seems to have been helpful in Banks' schemes to release French prisoners in exchange for British scientists held by the French. Macleay often concluded his day at the Transport Office by attending to Linnean Society correspondence before returning home to supper at five.

Macleay's insect collection was growing rapidly by this time. The collection may have begun with gifts of insects from his Linnean Society friends or with specimens he collected himself. By the late 1790s Macleay had probably accompanied Marsham and Kirby, who lived at Barham in Suffolk, on several entomological excursions. Late in 1802 Macleay wrote to Kirby after returning from a visit to Caithness in Scotland reporting his 'being prevented from looking after insects by continued rains, snow, and high winds' during the whole of his stay. Worse than his entomological disappointment was the failure of the oat crop but in general he found Caithness improved far beyond his most sanguine expectations. He lost no opportunity of collecting insects through the whole of his travels — 'I collected almost every one that I saw.' Macleay offered Kirby any duplicates from the 250 or more specimens he had collected including a 'very few Hymenoptera'. Wasps, bees and ants (Hymenoptera) were Kirby's principal interest.

Macleay's interest in foreign insects may have been stimulated by Dru Drury, a goldsmith and author of a three-volume work, *Illustrations of Exotic Entomology*. Drury died in 1804 and his extensive collection of insects was sold over three days in the following year. Macleay purchased several lots. By 1805 his collection of insects was one of the more important in England. When Donovan, a Fellow of the Linnean Society, published *An Epitome of the Natural History of the Insects of New Holland, New Zealand, etc.* that year, he acknowledged the benefit he derived from inspecting several 'cabinets of celebrity' including that of Macleay. Donovan's book was largely given over to butterflies and beetles. This may partly reflect the interests of insect collectors at that time. More particularly, as the book was in English and therefore intended for a wider audience, specimens were selected for their pictorial appeal. Donovan depended on sales of the book for his livelihood. The one plate not showing beetles or butterflies

illustrates four flies from Macleay's cabinet, suggesting its comprehensiveness at an early date.

One of the butterflies illustrated by Donovan was from 'the cabinet of our worthy friend A. M'Leay, Esq. who received it with many others from New South Wales a short time ago.' These specimens were probably supplied by John William Lewin who had come to Sydney in 1800. Drury, and later Marsham and Macleay, advanced money to Lewin in expectation of receiving insect specimens from the recently established British colony. As Donovan wrote in the Advertisement to his book, 'There is, perhaps, no extent of country in the world, that can boast of a more copious or diversified assemblage of interesting objects in every department of natural history than New Holland...it bursts upon our view at the first glance like a new creation.'

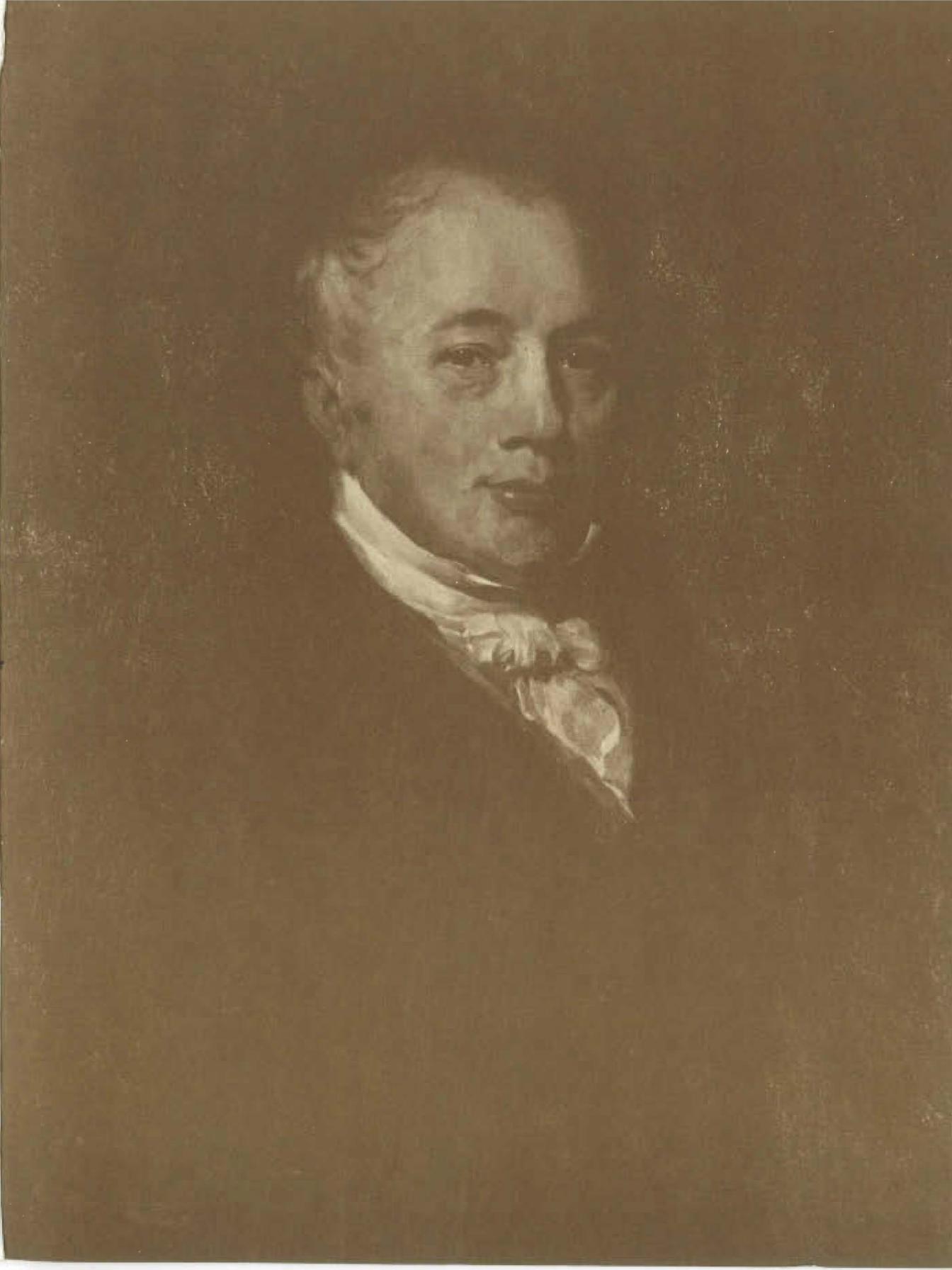
Lewin was a talented artist of natural history subjects. From butterflies and moths which he had collected, he engraved and printed plates while living in Parramatta in 1803. The engravings were sent to London where Lewin's brother saw *A Natural History of Lepidopterous Insects of New South Wales* through the press in 1805. The Lewins were not expert in entomological descriptions so Macleay's advice was sought. Macleay 'took some trouble about describing the Insects, but the Brother here became jealous of my interference and is now to publish the whole in his own way', which no doubt accounts for the peculiarities of some of the Latin names.

While busy with his duties at the Transport Office and as Secretary of the Linnean Society, Macleay's insect collection and entomological knowledge were both becoming increasingly important for other workers in the field. When William Kirby and William Spence decided to collaborate to produce an 'Introduction to Entomology' to be written in English, they were anxious not to offend Marsham who was engaged on a Latin work, *Entomologia Britannica*. Kirby wrote to Spence in December 1808, 'In order to break the matter [of a 'British Entomology'] gradually to Marsham, I have told him of our plan of an 'Introduction to Entomology.' With MacLeay, upon whose secrecy and judgment I can rely, I have gone further, having opened to him our whole plan, and requested his sentiments, as we would wish to do every thing as much as possible in a way not to hurt our friend Marsham's feelings.'

Macleay's cabinet was a crucial source for the scheme. To the insects he received from friends in the Linnean Society, and from correspondents abroad like Lewin in New South Wales, he added greatly to his cabinet through purchases of insects at auctions. Macleay and Donovan both enriched their own cabinets when Drury's collection, built up over thirty years, was sold in 1804, realising more than £600 for the specimens alone. When Sir Ashton Lever's famed collection was sold two years later, Macleay purchased insect specimens among which Kirby found several non-descript species, that is, species which had not yet been described in the scientific

Alexander
Macleay:
nineteenth
century oil,
painter
unknown.
(Private
collection)

Following pages:
William and
Barbara Rose
Macleay,
Alexander
Macleay's
parents; artist
unknown.
(Private
collection)







55 Alexander M^c Leay of the Parish of Allhallows the Great
London a Bachelor and Elizabeth Barclay of this Parish
Spinster were married in this Church by Licence this
15th day of October 1791

by me J^h Williamson M^c Vicar
This marriage was solemnized
In presence of us
James Sutherland
J^h Barclay
Between us
Alex^r M^c Leay
Elizabeth Barclay

Berridge } William Son of William Berridge and
Sarah his wife was the 15th July and
Baptized the 12th August } 1792

M^cLeay } William Sharp, Son of Alexander M^c Leay
and Elizabeth his wife was born the 5th July } 1792
and Baptized the 8th September }

Summers } George Son of James Summers and
Elizabeth his wife was born the 5th Septem^r } 1792
and Baptized the 30th of the same Month }

literature. Kirby mentioned this in a letter to Spence in March 1807, continuing, 'Another piece of entomological news I can tell you, — that M'Leay has purchased all Donovan's foreign insects — a most valuable addition to his collection, which in value falls not very far short of Francillon's.'

When in 1815 Kirby and Spence issued *An Introduction to Entomology; or, Elements of the Natural History of Insects: comprising an account of Noxious and Useful Insects, of their metamorphoses, food, stratagems, habitations, societies, motions, noises, hybernation, instinct, etc.*, they expressed their gratitude to Macleay in the Preface — 'To Alexander MacLeay, Esq. they are under particular obligations for the warm interest he has all along taken in the work, the judicious advice he has on many occasions given, the free access in which he has indulged the authors to his unrivalled cabinet and well-stored library, and the numerous attentions and accommodations by which he has materially assisted them in its progress.'

The Napoleonic Wars, which kept Alexander Macleay employed at the Transport Office and excluded the agents of continental museums from attending the auctions, were drawing to a close. Whether because Macleay foresaw the closure of the Transport Office, or simply to weed his collection of duplicates, he sold a number of specimens at auction. In 1804 Kirby had disposed of 1400 or 1500 duplicate specimens to various correspondents, so it is easy to see how a collector as committed as Macleay could accumulate large numbers of duplicates after fifteen or twenty years' collecting. Annotations on surviving auction catalogues tell the story. Eighteen lots of 'Skins of Birds' sold in an auction of 'Coins, Birds, &c.' by King & Loche at their Great Room in King-Street, Covent-Garden, on Friday May 6, 1814, seem to have been placed by Macleay. Many were foreign specimens including Humming Birds, a Titmouse of Paradise, a Foreign Goat-sucker, and Parts of 2 different Toucans. The eighteen lots made £28.8.6 which, after various charges and commissions, left Macleay with £25.15.0. On 14 June, King & Loche held a sale of 'A Valuable Collection of Insects, Chiefly Foreign, Many of them rare, the property of a Gentleman, Well Known for his Knowledge of Natural History'. The price of each lot was noted in pencil but it is not clear whether Macleay was buying or selling.

The sale on 9 July 1814 is certainly for Macleay: 'A Valuable Collection of Insects, containing many of the rarest specimens, Being the Duplicates of a Gentleman, Possessing the most extensive Entomological Museum in Europe'. The 122 lots, including an excellent mahogany cabinet, with 23 glazed drawers, for insects, realised £82.4.0. On the back of the catalogue Macleay's sums show that of the £103.12.6 raised in the sales on May 6 and July 9, he was left with a balance of only £77.17.6 after commission and other expenses.

The Transport Office was abolished in 1817. This had long been expected. 'Notwithstanding what you have seen in the papers,'

Top:
Marriage record
of Alexander
Macleay and
Elizabeth
Barclay, 15
October 1791,
from the Parish
Register of St
Dunstons in the
West, London.
(Guildhall
Library, London,
reference 10354
Vol. 3)

Bottom:
Baptism and
birth record of
William Sharp
Macleay, 8
September 1792,
from the Parish
Register of All
Hallows the
Great, London.
(Guildhall
Library London,
reference 5162)

Macleay informed Smith in December of 1816, 'this Office still remains in Status quo. — Governments find more difficulty in abolishing the Office than they ever dreamed of, and we are now in as much doubt as to the turn of Abolition as we were twelve months ago'. The government overcame the difficulty a few months later and Macleay retired on a pension of £750. The reduction in his income must have been unwelcome as he had eleven surviving children, the youngest born the previous year. Even so he continued to add to his insect collection.

As Kirby had noted in 1807, Macleay's collection fell not very far short of Francillon's in value. After John Francillon's death, his 'very superb and celebrated collection of Foreign Insects . . . Being undoubtedly the most magnificent Cabinet of Insects that has ever been brought to Sale in this country; containing many unique and remarkable Specimens, and generally in a high state of Preservation' was sold at auction in London over nine days in June 1818. If the annotations in Macleay's copy of the auction catalogue indicate his purchases, then he acquired some 1200 specimens representing only a small fraction of the insects sold. There are no annotations for three days of the sale so he may have been unable to attend, but specimens may have been purchased on his behalf. By this time though, his collection must have been so comprehensive that he could be very selective. On the seventh day of the sale a drawer of Lepidoptera (moths and butterflies) was noted as containing 'many nondescript and excessively rare insects'. A pencil mark against each of the three lots in the drawer suggests that Macleay bought its entire contents.

In 1816 Thomas Marsham, whom Macleay had succeeded as Secretary of the Linnean Society, resigned as Treasurer under very unhappy circumstances. Marsham had been very dangerously ill and was then found to have misappropriated Society funds. Despite the sympathy and indulgence of Smith and Macleay, Marsham failed in his commitments to repay the money. Thomas Marsham had been one of the three founders of the Linnean Society along with Smith and Samuel Goodenough. When Smith moved to Norwich and Goodenough was appointed Canon at Windsor, Marsham remained a mainstay of the Society. In September 1819, shortly before he died, Marsham sold his collection of British and foreign insects. A price is marked against every lot in Macleay's copy of the catalogue of Marsham's collection, suggesting that Macleay was attending the sale either on his friend's behalf or to restore the Society's funds. Once again he seems, from additional annotations, to have purchased only a small fraction of the collection.

Macleay continued in his duties as Secretary of the Linnean Society and in 1823 spent five months in Scotland. Late the following year he was offered the position of Colonial Secretary in New South Wales, and considered for a fortnight before accepting it. 'I felt that in duty to my Family I was bound to accept it ... 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 Connections.'

And so, at the age of 58, Alexander Macleay packed up his possessions, including his library and the insect collection, and took his wife and six daughters to the far side of the world.

The insect collection was by now without parallel in England. After a quarter of a century Macleay had assembled a collection remarkable not merely for its size but also for its range and the importance of its specimens. Many of them were the specimens from which the first published descriptions were made. These are now known as type specimens, the ultimate reference specimens when taxonomic disputes arise, but in the early 19th century biological systematics was just beginning and the concept of a type specimen had not yet been formalised.

In coming to Sydney, Macleay withdrew not only his unrivalled collection from access by other entomologists of the day but his extensive knowledge also. There was justice as well as flattery in Kirby's words to Macleay twenty years before — 'I am almost angry with you for lending your abilities to Donovan, Lewin &c, when you ought to give the world something yourself — nobody is better able.' Macleay's long experience in correspondence and committee work, and in seeing successive volumes of the *Proceedings* of the Linnean Society through the press, and his congenial and diplomatic nature, meant that his departure for New South Wales was a great loss to the Society. Curiously, Macleay's successor as Secretary of the Linnean Society, Bicheno, was subsequently appointed Colonial Secretary of Van Dieman's Land.

As Alexander Macleay set off with his wife and daughters for the far side of the world, his eldest son, William Sharp Macleay, was soon to depart abroad for a country not so remote but more foreign to an Englishman — Cuba.

William Sharp Macleay, philosophical naturalist

William Sharp Macleay was born in London on 21 July 1792. From Westminster School he went up to Trinity College, Cambridge. Science was not prominent in the English universities in the early 19th century. There were professors of several sciences at Cambridge, but not of zoology or natural history. W.S. Macleay received a classical education of Greek, Latin, mathematics, moral philosophy and logic, which he always thought was the best training for the mind to observe and reason. As he reflected in later years, 'I think the old studies of mathematics and logic, with the critical study of a good stiff passage from a chorus in one of the old Greek plays, to be a better preparation for even the mind of a naturalist, than any chemical experiments.' He favoured the tutorial system, and regarded lectures as so much entertainment: 'a young man instead of reading novels might as well attend a mineralogical lecture. The late Dr Clarke, the traveller, could make such a lecture very amusing.'

(Edward Daniel Clarke, Professor of Mineralogy at Cambridge, was seemingly no relation of W.S. Macleay's future friend, the Reverend W.B. Clarke.)

After graduating with honours, W.S. Macleay went to Paris. His stay there was cut short by Napoleon's escape from Elba and the resumption of war. Following Napoleon's final defeat at the Battle of Waterloo, W.S. Macleay resumed his position as Attaché to the British Embassy in Paris, becoming Secretary to the Board for liquidating British claims on the French Government.

His time in Paris enabled W.S. Macleay to meet many of the leading scientists there, including some such as Latreille with whom his father had corresponded over many years. Linnaeus's *Systema Naturae* had set the systematic description of plants and animals on a clear path. In the half century after the tenth edition was published, collections of specimens — both local and foreign — had grown enormously. Many volumes of new names were pouring from the presses in several European countries every year. The highest objective of the naturalist was to discover the natural order, the 'plan by which the Deity regulated the creation', by comparing the affinities between different species. Cuvier, working in Paris, sought to determine these affinities, not merely by the comparison of one or two key characters but by a comprehensive assessment of each species, its outward structure, its anatomy, its diet and habitat. Having already published a series of important works, in 1817 Cuvier issued the *Règne Animal*, a massive work in which the entire animal kingdom known then was presented in a hierarchy of affinities.

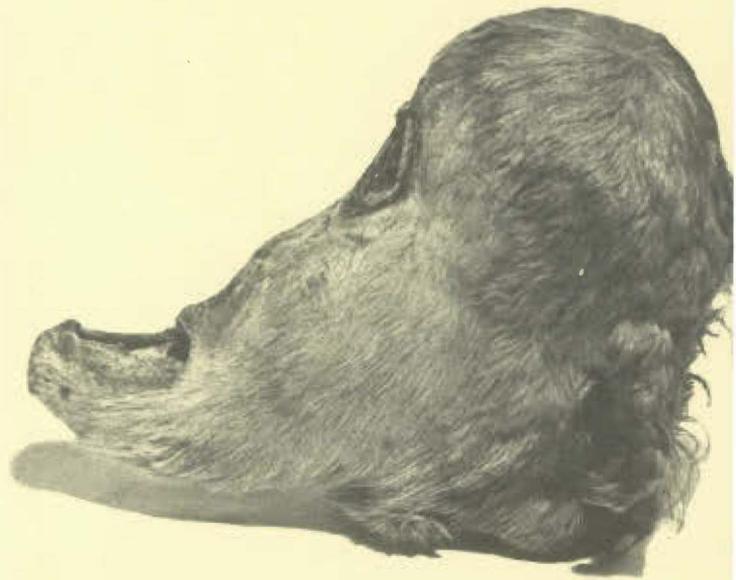
Cuvier's work was immensely influential. W.S. Macleay could not have been in Paris at a better time. French science had been greatly fostered by Napoleon, the collections of the Muséum d'Histoire naturelle (the former Jardin du Roi) were growing rapidly, and the romantic spirit brought a new energy to the wider view of nature. Before returning to England, W.S. Macleay visited many of the major cabinets of natural history in Europe.

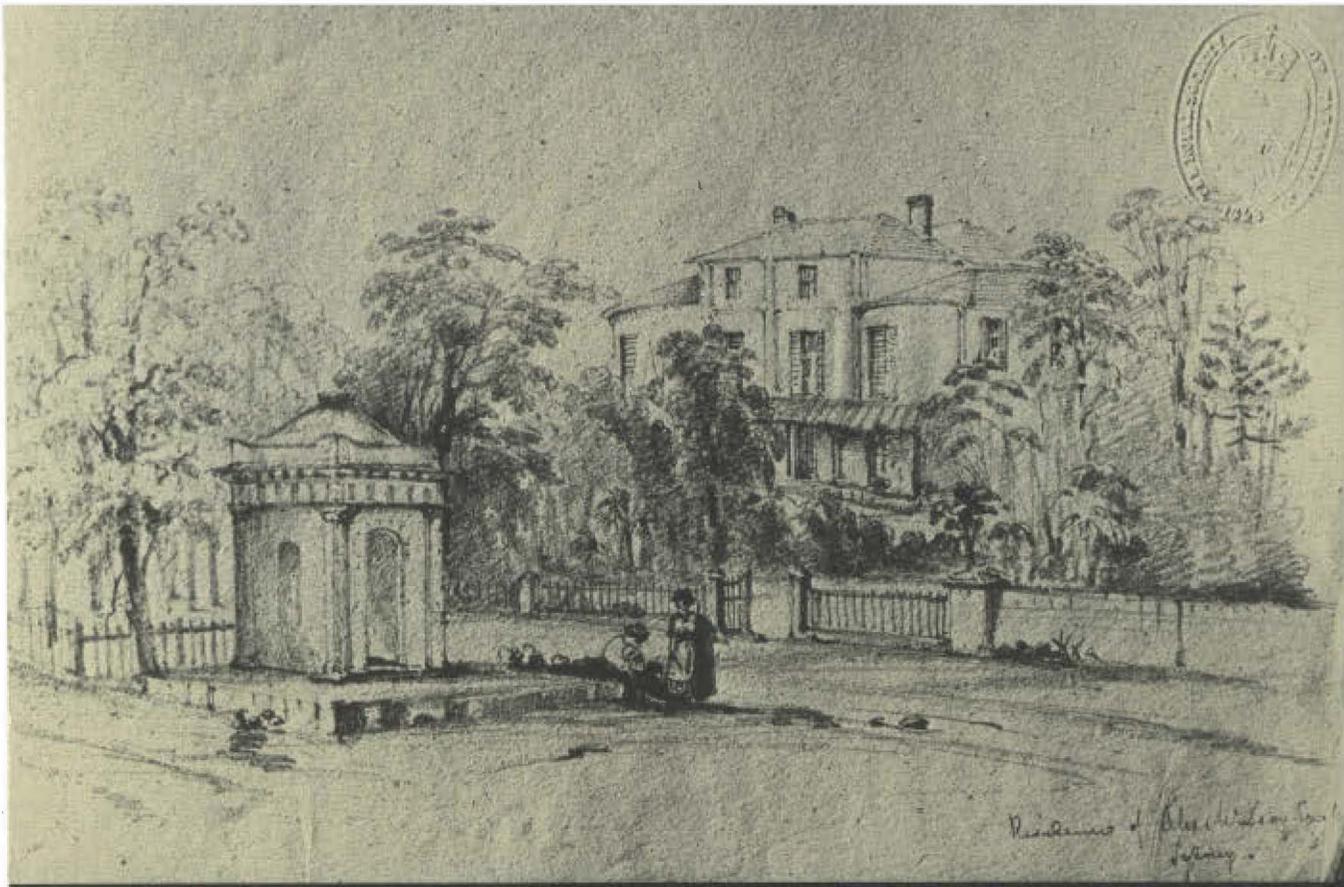
Returning to Cambridge, W.S. Macleay obtained his MA in 1818. He embarked on a revision of the genus *Scarabaeus*, the scarab beetle, of which there were nearly 1800 species in his father's cabinet. This work, *Horae Entomologicae: or Essays on the Annulose Animals*, appeared in two parts in 1819 and 1821. In the second part Macleay elaborated a philosophical idea about the affinities and analogies of nature which he had first expressed in the first part. He believed that at any level of taxonomy, groups could be linked by a sequence of affinities into a circle of five elements, and that the elements of one circle could be linked by analogy to the five elements of another circle. This became known as the Circular or Quinary System, and was for a time very influential in England, being adopted by several notable naturalists including Vigors and Swainson.

Today the concept of evolution, loosed upon the world by Darwin in 1859, provides the unifying principal of biology. Although some

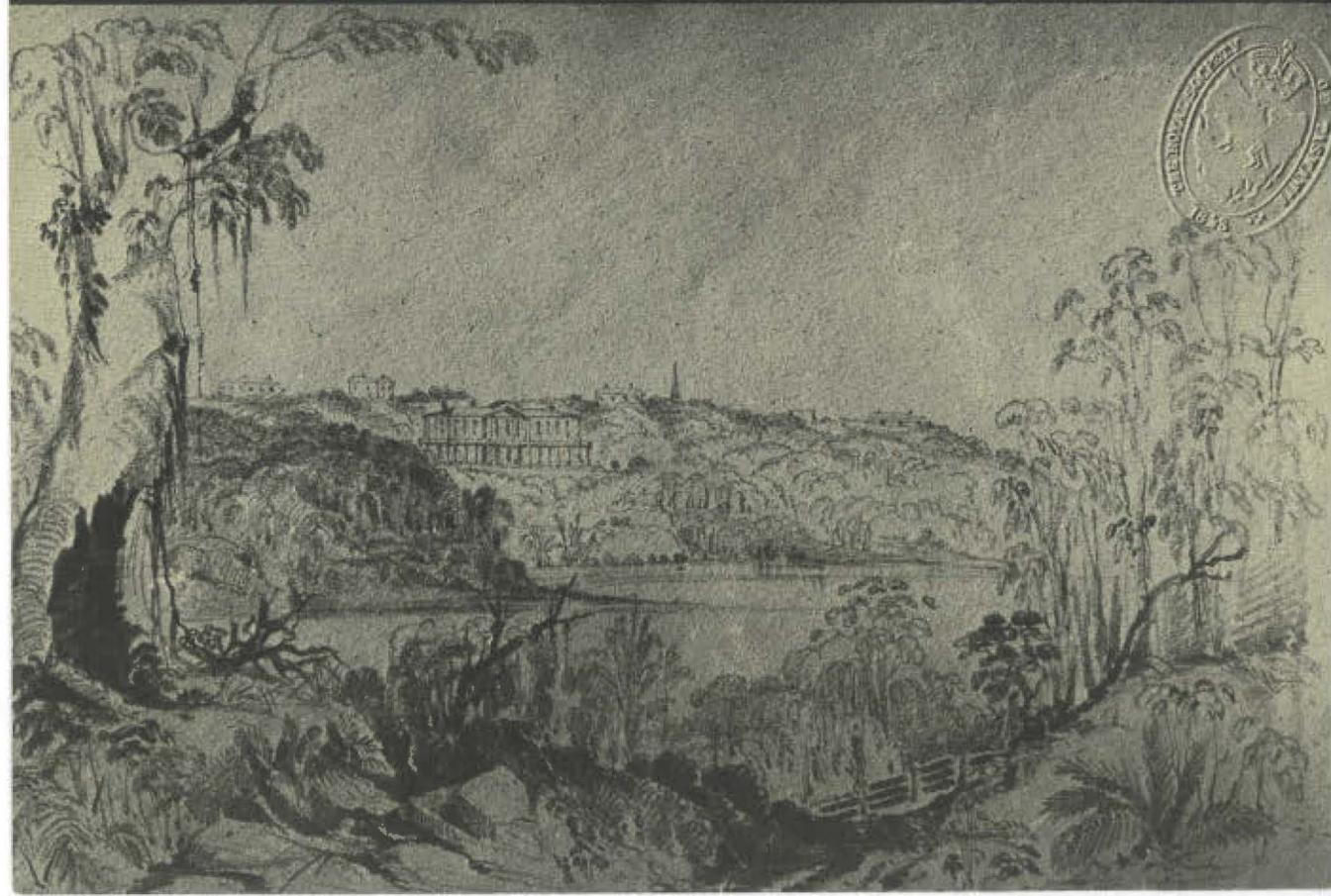
Top:
The skull and prepared head of the foetus of a mare found floating in the Hawkesbury River in 1841. This deformed head was prepared by Dr Stuart and subsequently given to W.S. Macleay. (Macleay collection)

Bottom:
Rosebank, 20 Bank Row, Wick; now demolished; Alexander Macleay's boyhood home. (Collection of the Wick Heritage Centre)





Residence of Alexander Wilson
July 1893



had espoused a notion of evolution before this, notably Lamarck in Paris in 1809, they lacked the panorama of evidence which Darwin spent most his life collecting, and the idea was not widely adopted. The general belief was that species were fixed in their form, and that the affinity of forms in the pattern of Nature was a reflection of the wisdom and order of God. It is in this context that W.S. Macleay's Quinary System must be viewed. The most important part of it for the development of biology was his clear presentation of the distinction between affinity and analogy. As more and more specimens were collected from all over the world, species which seemed very similar by a comparison of general form, were found by the more comprehensive approach exemplified by Cuvier to belong to quite separate groupings.

In hindsight the Quinary System seems to owe much to the Romantic movement, the German *Naturphilosophie* of the early 19th century as distilled by the French naturalists whom W.S. Macleay met in Paris. The embryologist Lorenz Oken, who was a leader of the philosophical movement in Germany, also proposed a taxonomy by fives. But it is Schelling and Goethe who best exemplify the idea that nature is guided by simple laws which can be revealed through creative intuition. W.S. Macleay was too much the proper English gentleman to give himself over to such a philosophy, but was undoubtedly influenced by it in seeking to find a larger pattern of nature out of his particular investigations of beetles. It is only with the evolution of forms, explained by Darwin a few years before W.S. Macleay died, that the significance of a hierarchy of affinities can be understood, and that analogies can be explained by mimicry or convergent evolution.

W.S. Macleay was accepted into the scientific circle of the Linnean Society of London and took an active part in its Zoological Club, forerunner of the Zoological Society. Besides his own researches he published descriptions of other collections. His description of the *Annulosa* (insects and other segmented invertebrates) which Captain P.P. King had collected during a surveying voyage of the inter-tropical and western coasts of Australia between 1818 and 1822 was published as an appendix to King's *Narrative* in 1826.

W.S. Macleay's services to the British Government in Paris had shown his value as a representative abroad. When Alexander Macleay was appointed Colonial Secretary in New South Wales, he sought to obtain an appointment there also for his eldest son. In the event of his own death, the presence of his son would be a great comfort to his wife and daughters. W.S. Macleay was however sent to Cuba to represent the government on the Mixed British and Spanish Court of Commission for the Abolition of the Slave Trade in Havana. Having assisted his parents and sisters in their departure for Sydney, he prepared for his own departure in October 1825. It was to be eleven years before he was to return to England and nearly fourteen years before he would see his family again.

Conrad Martens' pencil sketches of Alexander Macleay's houses in Sydney; in Bridge Street (above) and at Elizabeth Bay. (Collection Tasmanian Museum and Art Gallery)

New lives in a rising colony

Alexander Macleay arrived in a town founded not forty years before. Sydney had a population of about 10,000 living in neatly laid out streets to the west and south of Sydney Cove. Exploration of the surrounding country had led to outlying settlements, bringing the population of the whole colony to more than 30,000. Increasing numbers of free settlers were coming to New South Wales, originally founded as a penal colony, leading to conflict between the emancipists — former convicts — and the well-to-do immigrants who benefited from government land grants. A military government was no longer appropriate to the growing colony. Governor Brisbane had been replaced by General Darling with Macleay as civilian assistant.

Macleay's character and experience would be much needed in the years to come. Kirby, writing to W.S. Macleay after his father's departure from England, describes Alexander's character: 'The peculiar mildness and kindness of his nature aided by a sound judgment & firmness of purpose fit him particularly for the high official situation which has been devolved upon him, & things in that important & rising colony will proceed, I am confident, far more smoothly and prosperously than they appear to have lately done.'

Alexander Macleay and his family took up residence in the house behind the Colonial Secretary's Office in Bridge Street after their arrival in January 1826. Macleay received several land grants including one of 54 acres at Elizabeth Bay, a couple of miles east of the town. He had little opportunity for collecting specimens and studying the local fauna — he could find no suitable assistant for this — but in the little leisure time he could take from his duties he started to develop a botanical garden on his Elizabeth Bay property.

Macleay had a good working relationship with Governor Darling, and his salary of £2000 enabled him to add to his land grants and invest in their development. After years of financial uncertainty, Alexander Macleay could begin to feel confident of a secure position befitting a leading citizen of the colony. The Macleays mixed with other immigrant families who were developing sheep runs on extensive land grants. Macleay's daughters married into several of these families. Macleay began planning a grand residence at Elizabeth Bay, looking east over Sydney Harbour. The colony's leading architect, John Verge, designed a graceful two-storey mansion, and building commenced in 1835. The garden continued to develop with plants supplied by friends such as William Macarthur and seeds sent from abroad.

The political situation became more difficult as the emancipist faction aired their grievances in the press and held public meetings. These land grants to immigrants were depriving them of their birthright, they complained. The intemperate Wentworth stirred up the mob and the exclusives did not doubt their right to the advantages of the new lands being opened up. Governor Darling was recalled in 1831 to be replaced by Bourke who was much more

sympathetic to the emancipists. Macleay continued as Colonial Secretary but without the comfortable relationship he had had with Darling. Besides being Colonial Secretary, Macleay had been appointed a magistrate and a member of the Executive and Legislative Councils within months of his arrival. Macleay's opposition to several of Bourke's measures, including the National Schools bill, made his position as Colonial Secretary untenable. In expectation of Macleay's imminent retirement, Bourke in 1835 had notified the Colonial Office in London that a new Colonial Secretary would be needed. Alexander Macleay could see his debts mount as his harbourside mansion rose from its foundations, and insisted that he had no intention of retiring. But the Colonial Office selected Bourke's son-in-law, Deas Thomson, to succeed Macleay. Attempts to hold on to his position failed, and Macleay retired at the beginning of 1837. He was bitter at the way he had been treated, and was once more in financial difficulties, despite the several pensions he received. He did not, however, retire from public life, being returned in the first part-elective Legislative Council in 1843 and chosen as Speaker.

The botanic garden which Alexander Macleay created at Elizabeth Bay, and his horticultural development of the Brownlow Hill property near Camden, stimulated botany in the colony. In 1836 James Backhouse described the profusion of fruit-trees growing at Brownlow Hill. The seeds which Alexander received from abroad enabled him to grow rare plants and supply seedlings and cuttings to other colonists. He encouraged the nurseryman Thomas Shepherd, supplying him 'with numerous species and varieties of fruit, ornamental trees, shrubs, and flower-roots.' Mrs Lowe, visiting the garden at Elizabeth Bay a few years after the house was occupied, thought it one of the most perfect places she had ever visited: 'The drive to the house is cut through rocks covered with the splendid wild shrubs and flowers of this country, and here and there an immense primeval tree... In this garden are the plants of every climate — flowers and trees from Rio, the West Indies, the East Indies, China, and even England. The bulbs from the Cape are splendid, and unless you could see them, you would not believe how beautiful the roses are here. The orange-trees, lemons, citrons, guavas are immense, and the pomegranate is now in full flower. Mr Macleay has also an immense collection from New Zealand.'

Alexander Macleay's official duty and personal interest coincided in the promotion of scientific institutions in New South Wales, particularly the botanic garden and colonial museum. In 1836 'A Committee of Superintendence of the Australian Museum and Botanic Garden' was established, probably at Macleay's instigation. Alexander Macleay and his son George were members, along with Phillip Parker King, William Macarthur, Dr George Bennett and Edward Deas Thomson among others.

A official botanic garden of sorts had already existed when Macleay arrived in Sydney, but it was little more than a fruit garden. Despite

Newspaper advertisements issued under the name of Alexander Macleay. (New South Wales Government Gazette)

Following pages: Auction catalogues preserved by Alexander Macleay. In the 1814 sale, Macleay sold some of his duplicates; in 1818 he bought a selection of specimens. (Collection Linnean Society of New South Wales)

Macleay's close interest in the development of botany in the colony, and his role on the Gardens sub-committee of the Committee of Superintendence, the Botanic Gardens were not set on a course of steady improvement for several years. Following the untimely deaths successively of Richard and Allen Cunningham, both trained botanists, the Gardens suffered from a series of set-backs. Not until Charles Moore took up duty as Superintendent of the Gardens, a few months before Macleay died, did the scientific and picturesque institution so popular today begin to be formed with unhalting purpose. How the Gardens might have developed had Macleay supported rather than opposed the appointment of Ludwig Leichhardt in 1842 can only be a matter of speculation.

The early years of the Australian Museum were a little more successful. Moves to form a colonial museum in the time of Governor Brisbane had come to nothing. Early in 1827 the establishment of a museum was again proposed, and a keeper was appointed in June 1829. The origins of the museum are unclear but it is very likely that Alexander Macleay was the instigator of the plans. The museum was at first set up in the Old Post Office in Bent Street, very close to the Colonial Secretary's Office in Bridge Street, but soon moved to the Legislative Council building where it remained until 1836. Under the newly appointed Committee of Superintendence, the Australian Museum, with Dr. George Bennett and the Rev. W.B. Clarke as successive curators, was gradually enlarged and improved. Although the economic stringencies of the early 1840s brought the progress of the Museum to a halt, it was not long before plans for a permanent building were in hand. The close association of successive Macleays with the Australian Museum continued until the death of Sir William Macleay in 1891.

Cuba — London — Sydney

William Sharp Macleay arrived in Sydney in 1839. In his ten years in Cuba he had taken a keen interest in the natural history of the island, collecting many specimens of birds and mammals. He found the climate agreed with his constitution but was unfavourable to study. The insects which he collected were frequently devoured by ants. (Even so, an important selection of Cuban insects survives in the collection today.) W.S. Macleay also maintained his links with naturalists in Britain, resulting in several publications. Leaving Cuba in 1836, he travelled up the east coast of the United States, collecting specimens and visiting naturalists in Philadelphia and Boston, before returning to England.

On his return to England, W.S. Macleay took up residence in London and renewed his participation in scientific circles, being elected to the councils of the Linnean and Zoological societies. Charles Darwin, the young naturalist of the *Beagle*, had recently returned from six years of travel and observation with extensive collections and detailed notebooks. Inevitably the two met, and W.S.

COLONIAL SECRETARY'S OFFICE,
SYDNEY, JUNE 25th 1832.

HIS Excellency the Governor has been pleased to appoint Thomas Wills, Esquire, to be a Magistrate of the Territory.

By Command of His Excellency the Governor.
ALEXANDER M'LAEY.

COLONIAL SECRETARY'S OFFICE.
SYDNEY, 25th JUNE, 1832

HIS Excellency the Governor has been pleased to approve of the following alterations in the Police of the Colony.

To be Constables, under the Conditions of the Government Order, No. 12. of the 23d May 1831.
Campbell-town—John Bright, per Malabar, in the room of Thomas Clarke, dismissed, from the 1st instant.

Paterson's Plains—Arthur Kenny, per Sophia, in the room of Robert Cussen, resigned, from the 22d ultimo.

By Command of His Excellency the Governor.
ALEXANDER M'LEAY.

INSECTS.

A
CATALOGUE
OF A
VALUABLE COLLECTION
OF

Insects,

CONTAINING
MANY OF THE RAREST SPECIMENS,
Being the Duplicates of
A GENTLEMAN,
Possessing the most extensive Entomological Museum in
Europe; also
AN EXCELLENT MAHOGANY CABINET FOR INSECTS,
With Glazed Drawers:

WHICH
WILL BE SOLD BY AUCTION,
BY
KING & LOCHÉE,

AT THEIR GREAT ROOM,
No. 38, King Street, Covent Garden,
On SATURDAY, the 9th of JULY, 1814,
AT TWELVE O'CLOCK.

*May be Viewed on Friday preceding the Sale, and
Catalogues had at the Room.*

INSECTS.

A

CATALOGUE

OF THE

VERY SUPERB AND CELEBRATED COLLECTION

OF

FOREIGN INSECTS,

OF THE LATE

JOHN FRANCILLON, ESQ.

Being undoubtedly the most magnificent Cabinet of Insects that has ever been brought to Sale in this Country; containing many unique and remarkable Specimens, and generally in a high state of Preservation,

Which will be Sold by Auction,

BY MR. KING,

AT HIS GREAT ROOM, 38, KING-STREET, COVENT-GARDEN,

On Thursday, the 11th Day of June, 1818,

And Eight following Days (Sunday excepted),

Punctually at half-past Twelve o'Clock:

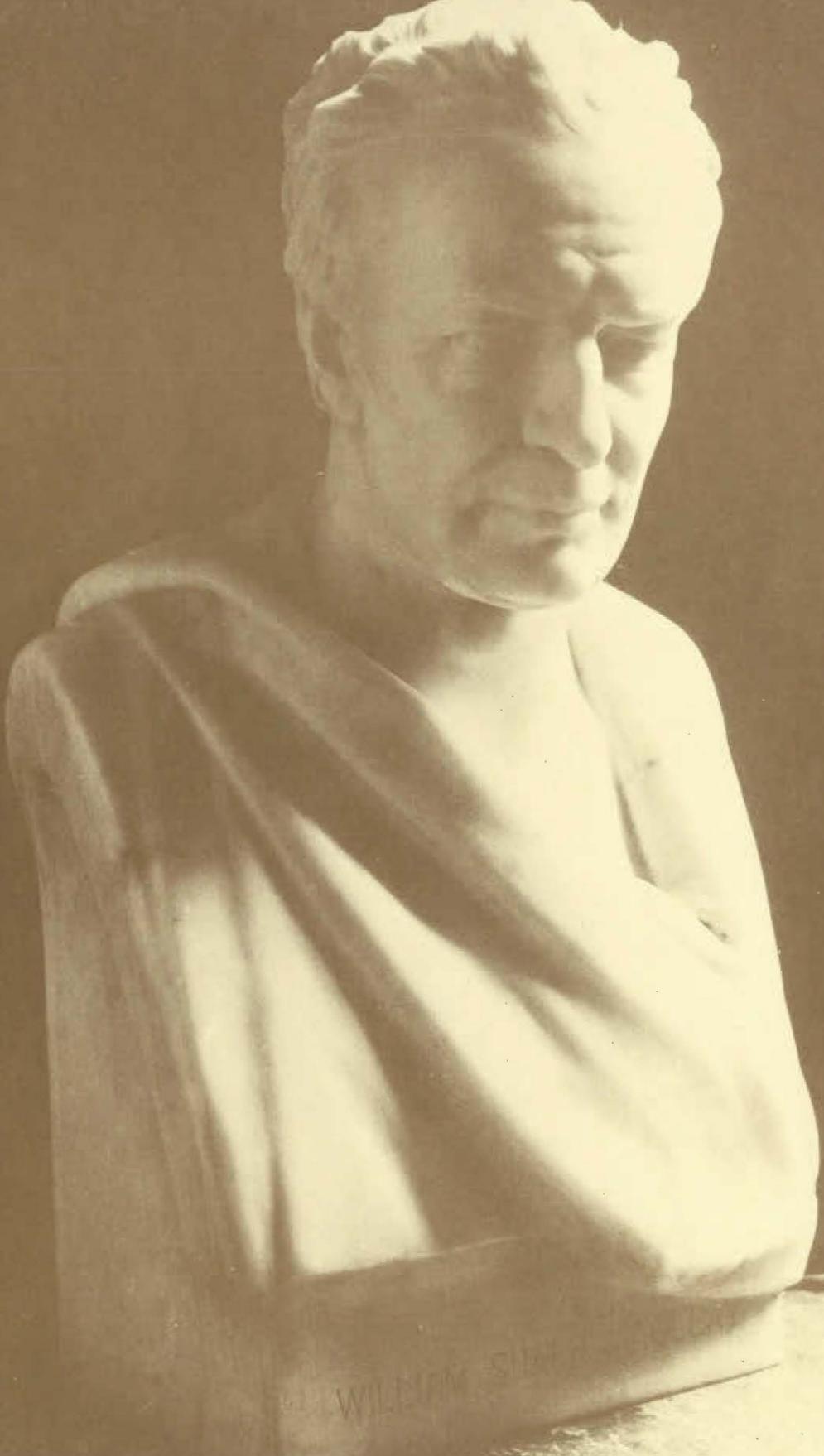
May be viewed Two Days before the Sale.

Catalogues (Price One Shilling) may be had at the Room.

LONDON:

PRINTED BY RICHARD AND ARTHUR TAYLOR, SHOE-LANE.

1818.



WILHELM STIEGLITZ

Macleay was among those who encouraged Darwin to publish an account of the zoology of the voyage.

The annual meeting of the British Association for the Advancement of Science was held in Liverpool in 1837. W.S. Macleay attended as president of the natural history section. He did not give a presidential address but exhibited specimens of wood penetrated by the destructive *Limnoria*, taken from the new pier at Southampton built only four years earlier. With the Rev. F.W. Hope, he described insects from a collection in Liverpool. The meeting was a chance to meet men of science from many parts of Britain, and it may have been here that W.S. Macleay first met the Rev. W.B. Clarke.

Back in London, W.S. Macleay published the *Illustrations of the Annulosa of South Africa*, the description of insects and crustaceans collected on Dr Andrew Smith's expedition in the mid 1830s. Macleay was already familiar with South African insects having recently acquired the very extensive collection and manuscript notes made by Verreaux who had lived for many years at the Cape. Macleay began with the Cetoniidae, a 'family' of beetles which he had himself named in the *Horae Entomologicae*, but which is now defined as the sub-family Cetoniinae, in the family Scarabaeidae. Macleay began with these beetles, 'not only because the Cape of Good Hope is the richest of all countries in the species of this beautiful family, but because every person who is in possession of the *Monographie des Cètoines* may, to a certain degree, have the power to study analytically the affinities and analogies which I am about to explain, and of observing the manner in which, I trust, the whole of organized nature will one day be wrought out.' In the detail of his work W.S. Macleay never lost sight of the higher goal of natural history.

Despite the opportunities for scientific discourse which W.S. Macleay found in London, the climate did not agree with him after so long in the tropics, and he made plans to join his family in Sydney. He sailed in the *Royal George*, accompanied by his orphaned cousins William and John, in November 1838, arriving in Sydney the following March.

William Sharp Macleay soon became active in the scientific life of Sydney which his father had done much to foster. He joined the Committee of Superintendence of the Australian Museum and Botanic Gardens in 1840, succeeding his father as chairman in 1849. As a distinguished man of science he inspired the interest of local amateur naturalists. His advice was sought on matters botanical and horticultural, as well as zoological. Visiting ship's naturalists invariably called on him and invited him to inspect their collections.

J.D. Hooker, assistant surgeon and botanist on the voyage of the *Erebus* and *Terror* under Captain James Clark Ross, visited Sydney in July 1841. Hooker found the garden at Elizabeth Bay a botanist's paradise, surprised by the natural beauties of the spot and impressed by 'the inimitable taste with which the grounds were laid out'. W.S. Macleay visited Hooker on the *Erebus*, spending all day looking over

William Sharp
Macleay. (Bust,
Linnean Society
of London)

the specimens collected in Antarctic waters. 'He is delighted with my drawings of sea animals, of which many are entirely new', Hooker wrote to his father.

Eighteen months earlier the United States Exploring Expedition under Lieutenant Charles Wilkes had visited Sydney. The expedition's geologist, James Dwight Dana, went on several excursions around Sydney with W.B. Clarke, with whom he formed a life-long friendship, but W.S. Macleay was unimpressed by the overall results of the expedition.

The depression of the 1840s did nothing for Alexander Macleay's fortunes. W.S. Macleay took over the mortgage on the house at Elizabeth Bay in 1845. Alexander was forced to sell his extensive library and much of his furniture. He then moved with his wife Elizabeth to Tivoli, the house of their daughter Susan and her husband William Dumaresq, several miles around the harbour to the east at Rose Bay.

Alexander Macleay's hopes for a prosperous life had once more been disappointed. He had served the British Government honourably, both in England and Australia. He had worked tirelessly for the Linnean Society of London for more than a quarter of a century. His contribution to the advancement of science was recognised by election as a Fellow of the Royal Society in 1809. But his life was also filled with crises and misfortune. He had lost one infant daughter and five teenage children before coming to Sydney, and saddest of all, his eldest daughter Fanny died only weeks after marrying Thomas Harington in 1836. Despite his diligence as Colonial Secretary, his views did not always match the aspirations of a rising populace, and his own circumstances did not match his ambitious plans for a comfortable old age. In 1844 Alexander Macleay had been included in a list of persons considered eligible for a Local Order of Merit: 'Mr McLeay is however, I regret to say, understood to be in pecuniary embarrassment'. Alexander's wife Elizabeth died in August 1847. The following year Alexander suffered a severe shock in a carriage accident and died a few weeks later on 19 July 1848, not long after his 81st birthday. The esteem in which Alexander Macleay was held is indicated by the very large attendance at his funeral, including the chief officers of the government and judiciary as well as 'a large number of old colonists of all classes'.

Elizabeth Bay House took on a more austere character as W.S. Macleay's bachelor residence, but continued as a meeting place for local amateur naturalists. William Branwhite Clarke was the pre-eminent geologist in the colony after his arrival in 1839, a few months later than W.S. Macleay. Clarke and Macleay debated the meaning of the fossils which the former found on his geological excursions, and provided a stimulus to the scientific interests of other amateur naturalists. The Rev. Robert Lethbridge King, son of Captain P.P. King — for whom W.S. Macleay had years before described specimens collected on a surveying voyage — introduced an amateur

botanist, the Rev. William Woolls of Parramatta, to W.S. Macleay. Woolls in turn introduced Louisa Atkinson of Kurrajong, a talented novelist, who corresponded with Macleay and collected specimens of local insects.

The Australian Museum, newly installed in its permanent home in College Street, was a growing centre of natural history in Sydney. As chairman of the Committee of Superintendence, W.S. Macleay was instrumental in preparing the Museum Act of 1853, drawing on his knowledge of British and Continental museums of natural history. The Committee of Superintendence, which had no statutory authority, was superseded by a Board of Trustees. W.S. Macleay served as chairman from 1853 to 1856, and again in 1858 and 1860. Ill-health caused him to resign from the board in 1862, three years before he died.

W.S. Macleay issued few publications after his arrival in Sydney. One which shows his interest in the variety of forms in nature was prompted by the discovery of the remains of a supposed bunyip. He had been asked to comment on an incomplete skull which had been found on the Lower Murrumbidgee River in 1846. He noted that the cranium was not a fossil, as parts of the membranes and ligaments were still attached. The anatomy of the skull was remarkable. 'On first inspection it seems very anomalous, differing from the skulls of all known *Mammalia*, and gives us the notion of some bird such as the Emu or Ostrich; which is owing to the breadth between the eye-orbits, which are close to the molars of the upper jaw, and also owing to the great development of occiput.' The animal was young, possibly a foetus. The teeth were like those of a horse. 'But in the immense development of the frontal and parietal bones, the elevation of the frontals, and in the depression of the jugals, so low as almost to touch the molars, this skull differs from that of the ordinary horse, and every other mammiferous animal whatever.' Macleay had in his possession another unusual skull, that of the foetus of a mare which had been found floating in the Hawkesbury River in 1841. (The skull and prepared skin are still in the Macleay Museum.) 'Now the great elevation of the cranium, and the extraordinary development of the frontal, parietal, and occipital bones, are even more remarkable in this foal's head than in the animal from the Murrumbidgee. The grand distinction between the two skulls is, that while in this the ocular orbits are as far as possible apart, almost touching the molars, in the Hawkesbury skull the eyes converge so as to unite and form one circular orbit in the middle of the forehead, the animal being thus a true Cyclops.' The two skulls exhibited opposite extremes of deformity, the new one also being very probably the mis-shapen foal or foetus of a mare. The animal was, Macleay considered, not a new species. The two skulls only served 'to show the extreme limits between which all monstrous variation of the place of the eyes in the horse can possibly occur.'

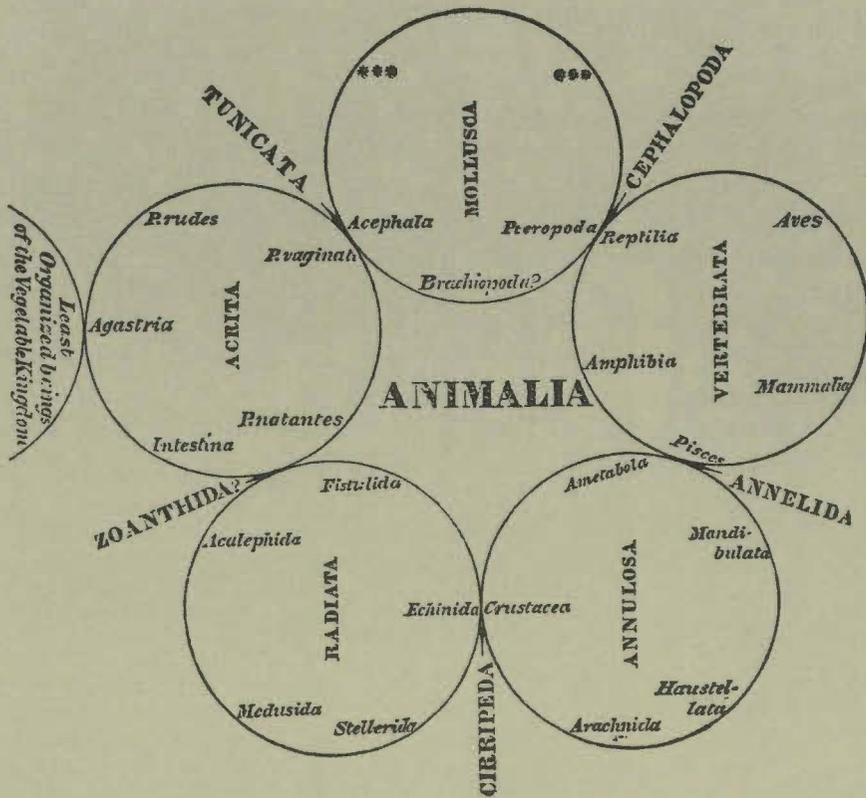
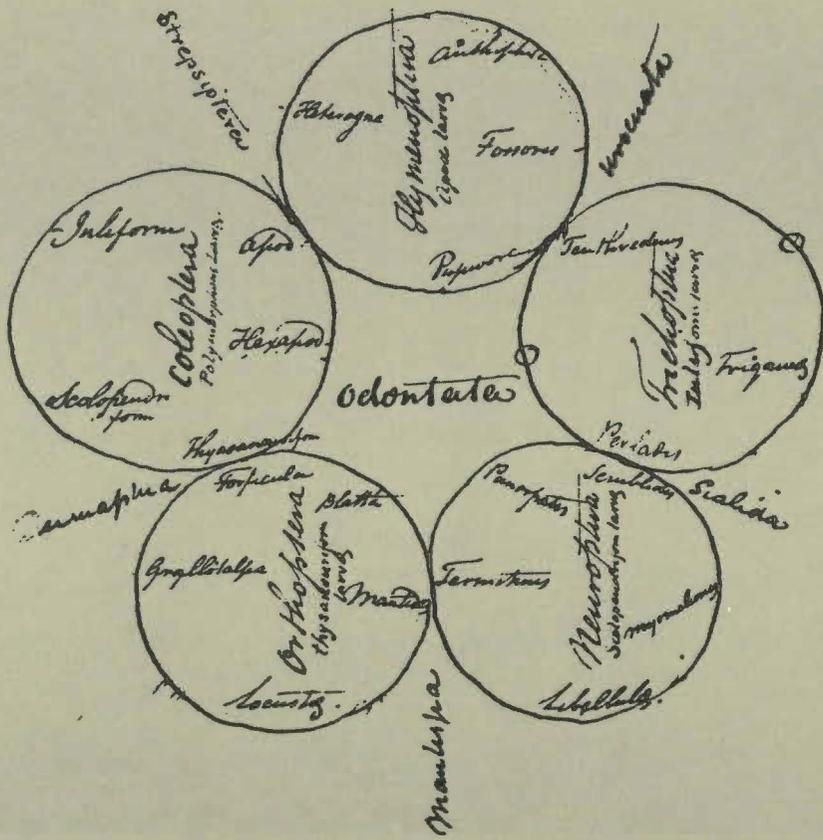
When Thomas Henry Huxley arrived in Sydney in July 1847 on the

survey vessel *Rattlesnake* he relished the life he found, but he must have been struck with the contrast between the serious discussions of marine animals at Elizabeth Bay House and the round of parties to which the ship's officers were invited. Huxley was barely twenty-two and had had little chance to experience society. To his sister: 'What think you of your grave, scientific brother turning out a ball-goer and doing the "light fantastic" to a great extent? It is a great fact, I assure you.' During the three years the *Rattlesnake* spent in Australian waters, Huxley stayed in Sydney a total of eleven months. He met and fell in love with Henrietta Heathorn, whom he eventually married, and prepared scientific papers in the hope of launching himself into a scientific career in England. Having already sent a couple of papers to London, he wrote a 'more important one' on Medusae which he submitted to W.S. Macleay, who was very approving. The paper was an important contribution to zoology, which led to Huxley's election to the Royal Society (by this time a reformed scientific body from the gentlemen's club it had been in Banks' day). Macleay offered to arrange for Huxley's papers to be published by the Zoological Society in London. Eighteen months after his final departure from Sydney, Huxley wrote to W.S. Macleay to inform him on the state of matters scientific in England. 'Believe me', he added, 'I have not forgotten, nor ever shall forget, your kindness to me at a time when a little appreciation and encouragement were more grateful to me and of more service than they will perhaps ever be again.'

W.S. Macleay also encouraged local residents with an interest in natural history, such as William Guilfoyle. The son of a local nurseryman, Guilfoyle eventually succeeded von Mueller as director of Melbourne's Botanic Gardens. Most important for the story of the Macleay Museum is the guidance W.S. Macleay gave to his cousin William John Macleay, who had come to Australia with him in 1839 and become a squatter on the Murrumbidgee River. W.J. Macleay never developed the philosophical basis for his natural history that informed William Sharp Macleay's research, but when his enthusiasm was fired he had the wealth to devote himself to the gathering of specimens and the fostering of scientific learning in Sydney.

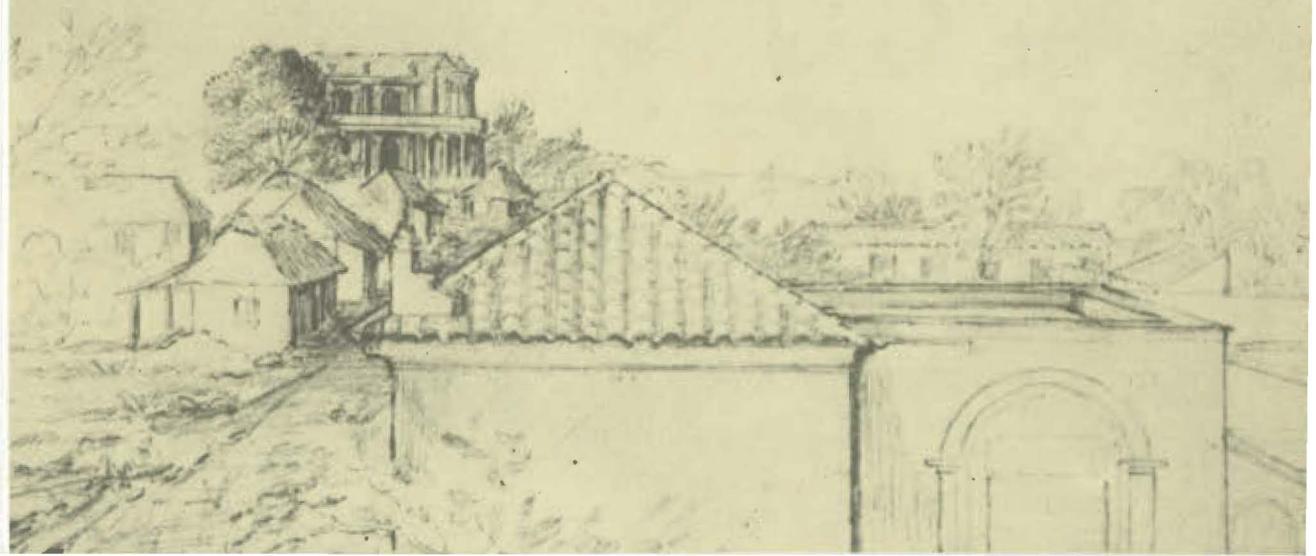
Darwin's *Origin of Species*, when it appeared in 1859, wrought a revolution in biology. To those with receptive minds, Darwin's ideas were compelling, but they threatened religious orthodoxy. The debate was strident. In Australia, news of Darwin's work received little enthusiasm. W.B. Clarke was one of its few proponents. W.S. Macleay had devoted most of his life to uncovering the system of nature. While unconvinced that Darwin had found nature's key, he welcomed the book. 'Charles Darwin is an old friend of mine and I feel grateful to him for his work. I hope it will make people attend to such matters, and to be no longer prevented by the first chapter of Genesis from asking for themselves what the Book of Nature says on the subject of the Creation.' Writing to Clarke in 1863 Macleay

Diagrams
illustrative of
William Sharp
Macleay's
quinary system;
one in his hand
from the MSS of
Horae
Entomologicae,
1819-21; the other
as printed.
(Linnean Society
of London)





Juanabacca is
built of my house in the
plantation. The last
I lived in. The wind is
from the upper window of
first house.



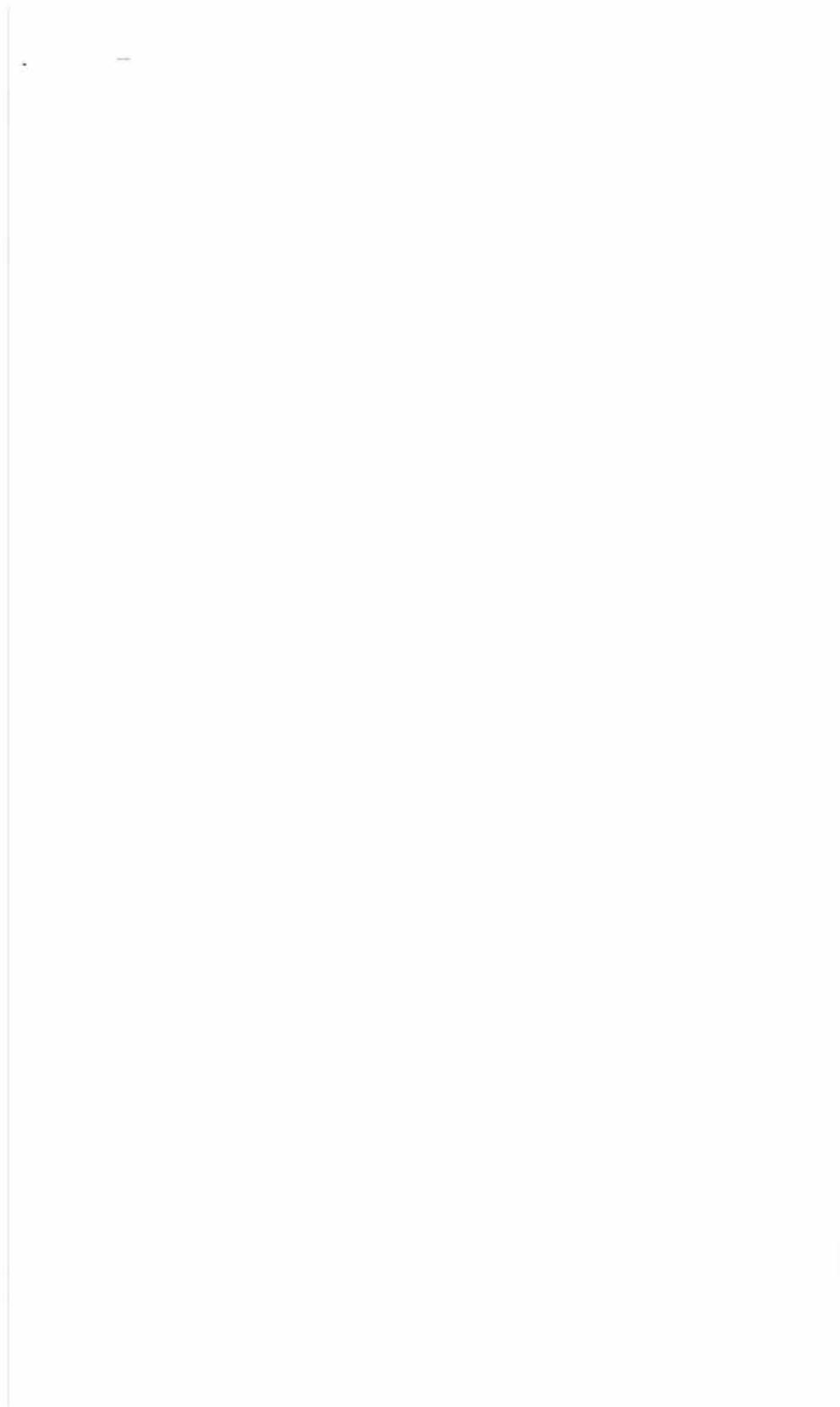
expressed his agreement with Huxley's classification of man zoologically with the apes, 'indeed ever since I have entered into the science of Comparative Anatomy [I] have had no doubt that *materially* Man is a member of the Animal Kingdom closely allied to the Anthropoid Apes.' This was not an acceptance of evolution but merely a belief that God had created Man and the apes on a similar pattern. Macleay was one of the first in Sydney to read the *Origin of Species* early in 1860. In writing to Robert Lowe, whose wife had sent him a copy of the book, Macleay gave a detailed response to Darwin's ideas, which he saw as largely derived from Lamarck and the *Vestiges of Creation*. 'This question is no less than "What am I?" "What is man?" a created being under the direct government of his Creator, or only an accidental sprout of some primordial type that was the common progenitor of both animals and vegetables.' Of the three modes of selection which Darwin argued for, Macleay only believed in 'human selection' which operated 'within certain limits assigned by the Creator. As for his other two kinds of 'selection' by which he accounts for all the species of animals and vegetables — viz. sexual selection and natural selection, I find them quite impossible to digest.' Macleay saw God in everything, believing 'that He is the constant and active sole Creator and all-wise Administrator of the Universe.' Nothing was too insignificant to escape God's attention. 'My notion of omnipotence is that it interferes with everything to the most minute atom of dust, and I see no difficulty in believing its constant and special management of all things and all events.' The two extremes of deformity in the skulls he had discussed thirteen years before can be seen not as preparing Macleay for Darwin's ideas, but as an example of the variability in Nature produced by an 'active sole Creator'.

In his old age, W.S. Macleay withdrew more and more from society, retaining a few close friendships in Sydney and corresponding with old friends abroad. He resigned from the Chairmanship of the Australian Museum's Board of Trustees in 1860, resigning altogether in 1862 due to ill health. In 1864, a few months before he died, he painted a sorry picture of himself: 'I never was what you would call a decided beauty; but if you were to see me now, you would not know the ugly, lanky, thin, scraggy, toothless individual who is now writing to assure you that the immaterial part of him remains still the same.' He died on 26 January the following year, his friend the Reverend W.B. Clarke conducting the funeral.

Elizabeth Bay House, with its garden, passed to W.S. Macleay's brother George, who had returned to England some years earlier. The insect collection of two generations of Macleays was inherited by William John Macleay, a wealthy pastoralist and politician who had become a keen entomologist under his cousin's guidance.

Sketches made by William Sharp Macleay in Cuba. Macleay has entitled the upper picture, 'Havana from Guanabacoa'; the other is 'Guanabacoa with a view of my house in the distance. The last house I lived in. The view is taken from the upper window of my first house.' (Macleay collection)





Districts of the Lachlan and the Lower Darling in 1855. With the establishment of self-government in the colony of New South Wales the following year, William was elected to the first Legislative Assembly.

As a politician, William Macleay took an interest in a wide range of subjects, but remained keenly interested in the development of his district, promoting the extension of the railway and telegraph to Wagga Wagga. Apart from parliamentary matters affecting his electorate, which he represented unopposed for five terms, he extended his economic activities by establishing the first newspaper in the district, the *Wagga Wagga Express*, in 1858, and developing a vineyard near Lake Albert in the late 1860s.

After his election to the Legislative Council, William Macleay spent long periods in Sydney, residing at first in Phillip Street. After fifteen years' residence on the banks of the Murrumbidgee, the busy life of the metropolis in the boom years of the gold rush must have been exciting for Macleay. Although his uncle Alexander had died in 1848, he could renew his friendship with his cousin William Sharp Macleay, and in Parliament he made new friends such as William Bede Dalley. In June 1857, soon after his 37th birthday, he married Susan Emmeline Deas Thomson, the eighteen-year-old daughter of Edward Deas Thomson. From then on William Macleay resided permanently in Sydney, setting up home with his bride at 153 Macquarie Street, a short stroll from the Parliament Building and the Australian Club where he spent much of his leisure.

With the encouragement of W.S. Macleay, William's interest in natural history soon began to grow. He began making an insect collection of his own. William Macleay met local amateur naturalists such as Rev. R.L. King, as well as the naturalists on the surveying vessel *Herald*, which made periodic visits to Sydney while charting Australian waters. One of the officers on the *Herald* was Lieutenant Arthur Onslow, a grandson of Alexander Macleay, with whom William Macleay was closely associated for many years. William Macleay went on collecting excursions with Dr Frederick Rayner, the Surgeon on the *Herald*. In addition to specimens of insects gathered on collecting excursions or given by friends, William Macleay started buying specimens. In 1860 Macleay bought specimens from W.S. Wall, the former Curator of the Australian Museum, who collected in the vicinity of Rockhampton. About this time, Macleay also acquired a comprehensive range of insect specimens collected by Edward Dämel at King George Sound in Western Australia.

Scientific societies

In 1861 William Macleay was elected to the Trust of the Australian Museum with which he was to have a long but not always comfortable association. The immediate effect of this was to bring him into closer contact with other scientifically minded residents of Sydney and nearby districts, particularly Dr George Bennett, W.J.

Top:

Letter from J. R. Garland, the overseer of *Wolongerie*, William John Macleay's vineyard at Wagga Wagga, commenting on the quality of the wines. (Macleay collection)

Bottom:

The *Chevert*, 1875. Photograph by A. Onslow. (Mitchell Library)

Following page:

Palmer, taxidermist of Hunter Street, from whom William John Macleay bought natural history specimens. (Macleay collection)

Wagon Wagon
10 April 1777

Dear Sir

I send you schedule of
Wines now in "Voloujerie" Cellars
including 1777 Vintage. The quantity
of Wine this year is greater than
we ever had before but still it
is less than it ought to have
been. The Malbec & Ancurot are
especially deficient in consequence
of the smallness of the berries.

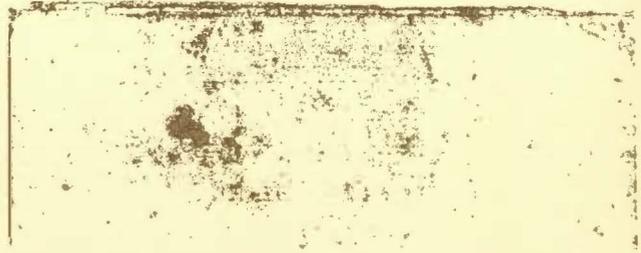
I think I ought manage to
sell some of the 175 Fouais at
4/6 per gal & this ought to pay
much better than taking it to
Sydney & selling it at 5/- . There
is also 250 gal of 1772 Shiraz, a
little tart, which it ought be
as well to get rid of if possible.

I note that you have put

The Ancurot & Malbec at the top
of the tree: do you find these just
the Sydney taste better than the
Shiraz. I feel sure that
you will find that all the
newest wines will be fuller
bodied & more popular wine
than the old ones, & especially
the 1776 Vintage.

Yours faithfully
J. R. Galbraith

W. Macleay Esq
Elizabeth Bay
Sydney







A. HALL,

CHARTERS TOWERS

**PAPUA
NEW GUINEA**



CORAL SEA

AUSTRALIA

Townsville

Cairns

Port Moresby

Hall's Sound

Binaturi River (Katow R.)

Bramble Cay

Sabai Is.

Warrior Reef

Warrior Is.

Evans Bay

Osnaburg Pt.

Somerset

Cape Grenville

Forbes Is.

Calamont Group

Barrow Is.

Turtle Reef.

Low Is.

Fitzroy Is.

North Barnard Is.

Palm Is.

Coconut Is.

Bet Is.

Long Is.

Dungeness Is.

Sue Is.

Adolphus Is.

Nepean Is.

Darnley Is.

Anchor Cay

Yule Is.

Stephens, A.W. Scott and Dr J.C. Cox, as well as the Curator, Gerard Krefft.

Macleay's growing interest in natural history led to the formation of the Entomological Society of New South Wales in 1862. A scientific society already existed in Sydney, the Philosophical Society of New South Wales, but it was of a general scientific character and produced no journal in which descriptions of new species could be published. William Macleay was elected President of the new Society and meetings were held at his house in Macquarie Street. Cox, Stephens and King were Officers or Members of Council as was E.P. Ramsay, a future curator of the Australian Museum. A formal meeting was held in May 1862, the first of a series of monthly meetings which lasted for several years.

Reflecting on the first year of the Society, William Macleay felt justified in saying that 'it has already been as successful as its most sanguine promoter could have desired'. Several gentlemen had met who otherwise might not have, an impetus had been given to collecting insects to an extent previously unknown in the colony, and at the monthly meetings several papers had been read and specimens exhibited. No-one felt the impetus which had been given to collecting more keenly than William Macleay himself. The *Transactions* of the Society, two volumes published in parts between 1863 and 1873, contained 37 papers by six authors. Although William Macleay only wrote fourteen of these papers, they took up three-quarters of the content of the two volumes. Macleay's papers are almost entirely devoted to the descriptions of species, sometimes with brief notes on habitat. This indicates the value of the Society to Macleay as a medium for expressing the development of his own collection.

The initial enthusiasm of the Society lasted for several years, and stimulated contact and exchanges of specimens with entomologists in other Australian colonies. By 1866, the Society's future was looking increasingly uncertain. R.L. King, giving the fourth presidential address in March, noted that although the number of members had increased, including several who resided in the country, what the Society needed most was an increased number of active entomologists. Meetings continued until July 1873, but 'the sole charge of keeping up the Society ultimately fell upon such a very few individuals that it was at length given up'. While it lasted, the Entomological Society of New South Wales showed what could be done to identify and describe largely unknown parts of Australia's fauna, the two volumes of *Transactions* being well received in Europe. But its focus had been too narrow to attract a sufficient number of active members.

Late in 1874, Dr Alleyne and Captain Stackhouse proposed the establishment of a general natural history society. William Macleay quickly became involved in drafting the rules for the Society. Although he was absent from the preliminary meeting of the Linnean Society of New South Wales, William Macleay was elected President

Places visited by the *Chevert*. (Map, S. Norrington)

Previous page: J. Archibald Boyd, one of William John Macleay's collectors (Fiji and Queensland), whose diaries provide information about specimens now in the Macleay Museum. (Roberts collection)

and remained a great benefactor of the Society for the rest of his life.

1874: Building a universal collection

1874 was a turning point in William Macleay's life. His involvement in natural history, and particularly the development of his private museum, expanded suddenly and rapidly. By the year's end, he had resigned from his parliamentary seat to devote himself entirely to natural history.

Under the terms by which William Macleay had inherited the combined collections of Alexander and William Sharp Macleay, he had to bequeath them either to Sydney University or to Cambridge University (where W.S. Macleay had been a student in the early years of the century). Late in 1873, he offered the Macleay collections to the University of Sydney, noting that it 'comprises very few specimens of vertebrate animals, and except so far as Australian species are concerned, it is not likely that I will attempt to add to it'. Clearly William Macleay was considering supplementing the predominantly entomological collection with some Australian vertebrates, perhaps to make it more useful for biological and medical teaching, but no major expansion of the collection was planned. This soon changed.

George Masters, Assistant Curator at the Australian Museum, had collected for Macleay on several occasions before and during his employment at the Museum. Early in 1874, Masters expressed to Macleay his dissatisfaction with the Museum and was soon employed as Curator of Macleay's private museum. When Masters had given notice to Krefft that he was leaving the Australian Museum, Macleay revised his intentions for his collection. On 23 January he noted in his diary: 'I shall take every opportunity of enlarging the Collection in all branches of Natural History, but I shall chiefly strive for excellence as a Museum of *Animalia invertebrata*'. Masters began work for him a fortnight later, and remained curator until his death in 1912.

Masters not only began to amalgamate parts of Alexander and William Sharp Macleay's collections with William Macleay's but assisted Macleay on frequent collecting trips around Sydney, catching snakes and lizards, and shooting birds. Before the end of January, Macleay had consciously started a bird collection: 'This the commencement of my ornithological collection numbers 35 species'. Most of the specimens had been 'purchased from West at a cheap rate'. By April, Macleay was writing to Boucard, a natural history dealer in London, to order 1000 species of foreign birds. Later in the year he put in a second order.

Macleay also began collecting fish and other marine organisms. The marine scientific exploring vessel *Challenger* was expected in Sydney in May or June. In January, Macleay had read a book on deep-sea research by Wyville Thomson, one of the scientists on the *Challenger*, and, perhaps in anticipation of discussions with these scientists, began a series of fishing expeditions around Sydney Harbour, as well

as asking local fishermen to supply him with any unusual fish. In March, Macleay and Masters began shore-collecting, sometimes in the Harbour, sometimes after storms at Bondi and other ocean beaches. The first 'fishing picnic' was held on 4 April, with several of Macleay's friends in attendance, including Dalley and Stephens, as well as Masters. Many species of fish, molluscs and crustaceans were collected. The *Challenger* arrived in Sydney Harbour the following day.

The *Challenger* stayed in Sydney Harbour for two months. The scientific staff made many excursions around Sydney, and the steam pinnace was used for dredging in the Harbour. William Macleay met Wyville Thomson, the leader of the scientific staff, on 7 April. Subsequently, Thomson and others visited Elizabeth Bay House for lunch, and William Macleay visited the *Challenger* to see the specimens. On 23 April, Macleay hosted a fishing party for Thomson and Murray of the *Challenger*. Stephens, Onslow, Cox and Masters were among the other participants.

By the time the *Challenger* left Sydney Harbour early in June, William Macleay was fired up to conduct his own dredging excursions around the Harbour. A successful venture on 17 June led Macleay to hire a steam-yacht for four weeks as well as purchasing a dredge and various equipment. With an interruption for bad weather, the sequence of dredging and shore-collecting around the Harbour came to an end in mid-August. As well as a multitude of specimens, Macleay had developed experience and a taste for marine collecting. He soon decided to make a fishing excursion to Jervis Bay, and on 6 October hired the ketch *Peahen* for two months. The *Peahen* sailed first for Jervis Bay, returning to Sydney on 6 November to unload a large collection of specimens before proceeding north to Port Stephens. Macleay paid off the *Peahen* early in December. His maritime enthusiasm stronger than ever, Macleay began to develop plans for a more ambitious expedition up the Queensland coast to the Torres Strait.

When Macleay had offered to leave his collection to Sydney University a year earlier, it comprised a rich diversity of insect specimens and a small assortment of other material. On 5 February 1875, Macleay reviewed his year's work. 'This day completes the first year of Mr Masters' curatorship, & I think that the additions to my Museum during that time have been very large indeed. I have now over 1000 species of birds, of them 395 are Australian. There is a fine collection of fish, the reptiles are rapidly increasing, a large number have been added from the Endeavour River, California, etc., to the entomological collections, while of shells & marine animals we have accumulated a vast number.'

William Macleay's father-in-law, Sir Edward Deas Thomson, had been associated with Sydney University since it was first proposed, becoming Chancellor in 1865. It is probable that Macleay was encouraged by Deas Thomson to offer his collection to the University and also to extend the range of the collection, making it more suitable

for use in courses on zoology and comparative anatomy. Deas Thomson formally acknowledged the offer of the Macleay Collection in his Commemoration Day Address on 28 March 1874, expressing his belief that it was one of the most extensive and valuable private collections of natural history in the world. He also noted that Macleay intended to leave £6000, 'the interest upon which is to be applied to the payment of the salary of a properly qualified curator, to be specially and exclusively employed in the care and preservation of the specimens belonging to the collection, or any additions that may be made to it'. The announcement that he was to leave his collection to the University only increased the rate at which Macleay received donations of specimens.

Throughout 1874, the collection grew rapidly through purchases, donations and exchanges, as well as the collecting trips of Macleay and Masters. In June, Macleay engaged Edward Spalding for six months to go to North Queensland and collect in the vicinity of the Endeavour River. Spalding sent five shipments of specimens to Sydney, bringing more on his return in December, comprising insects, bird skins, mammals, reptiles, fish and marine animals. Macleay was well satisfied. 'He has done well on the whole, particularly as regards the collection of insects.'

Despite the vigour which Macleay put into expanding the size and range of his own collection in 1874, he was also occupied with public and parliamentary activities. The year began with the Australian Museum in turmoil over the theft of gold from a display cabinet and accusations about the conduct of the Curator, Gerard Krefft. A Select Committee of the Legislative Assembly was set up in February to inquire into the management of the Museum. Macleay and Onslow, both Trustees, sat on the Committee, and Macleay was in the peculiar position of giving evidence from his seat on the Committee. Macleay defended his membership of the Committee saying that he had not sought to be on it. 'However, when the matter was brought before the Assembly and a ballot was called for, it was evidently the opinion of a majority of the members that I should take part in this inquiry; and therefore I have taken part in it.' The inquiry considered a wide range of matters relating to the management of the Museum and the suitability of the building, as well as specific accusations against Krefft. The evidence clearly pointed to a failure of the Trustees in supervising the conduct of the Museum and questions were raised of Trustees taking advantage of their positions for their private gain.

Macleay thought it desirable that Trustees should have private collections, not something to be criticised. Few of the Museum's Trustees regularly attended meetings. Men were needed 'who take an interest in their work, and who have already shown that they take an interest in such work; and they should be men who have — what is observed as a great crime here — collections of their own'. Such persons 'will know best what the Museum requires, and how best to obtain what is most valuable'. Curiously, Macleay himself was 'a very

irregular attendant at Board meetings' whereas Dr George Bennett, a Trustee who had no private collection, took a very active interest in the Museum's affairs.

Macleay also defended himself against implied criticisms that he had taken advantage of the Museum in the exchange of specimens and in his dealings with George Masters. Macleay had never donated insects to the Museum but had several times sent collections of insects, in expectation of receiving duplicates of Australian insects. The balance was definitely in the Museum's favour. Macleay had, besides, given large numbers of vertebrate specimens to the Museum. 'As far as donations are concerned, I believe that my donations to the Museum have been larger than those of any other person in the Country'.

Macleay had employed Masters as a collector many years before and then recommended that the Museum employ him as a salaried collector. As the Museum had few funds to purchase specimens, this would enable it to build its own collections by direct collection and the exchange of duplicates for foreign specimens. While working for the Museum, Masters had accompanied Macleay on three collecting trips into the country. Macleay paid the travel expenses on the basis that he could keep half the insects collected, the other half and all other specimens to go to the Museum. 'That was to the advantage of the Museum,' Krefft assured the Select Committee.

The Draft Report of the Select Committee found that 'The Trustees have been, as the evidence fully proves, inattentive to their duties,' and went on to allude to Macleay's appointment of Masters. The same paragraph also stated that the Trustees had 'given too much consideration to trivial matters of complaint against their Curator'. The whole paragraph was replaced in the final Report, the criticism of the Trustees being much toned down.

Subsequently, the Trustees held their own inquiry into the conduct of the Curator. Gerard Krefft, who had done so much to improve the collections of the Museum and raise the standard of scientific investigation of Australia's fauna, was forcibly evicted from his residence in the Museum.

As this eventful year of 1874 drew to a close, a political crisis arose in the Legislative Assembly. Parliament was dissolved on 28 November. Macleay had been a parliamentary representative for nearly twenty years and decided not to offer himself for a further term. 'I intend to give my attention henceforth entirely to Natural History, and the improvement of my Museum.'

The Chevert Expedition

Macleay began the new year in earnest. 'Neither Masters nor I made a holiday of it' on 1 January, but attended to routine work on various parts of the collection. On 25 January 1875, the Linnean Society of New South Wales held its first monthly meeting with William Macleay, President, in the Chair. Macleay displayed some

specimens of Entozoa from a sunfish which had been captured off Port Stephens during the cruise of the *Peahen* the previous November.

In the early weeks of 1875, Macleay's mind was increasingly occupied with the arrangements for his proposed expedition to New Guinea. On 5 January, 'Dr Cox called today with Captain Edwards, an old sea Captain well acquainted with Torres Straits & the South Sea Islands. I had a long conversation with him, he is to look out for a vessel for me suited to my proposed trip to New Guinea & I am sure he would like to go as skipper.'

Macleay went with Edwards to inspect various vessels on several occasions, but found nothing suitable. Then on 22 February, Macleay 'went out early & with Captain Edwards went across to Morts Dock & looked at the barque *Chevert*. She is large & strong & if the Surveyor's report is favourable I shall try to buy her.' With a favourable report, Macleay offered £3000 for the *Chevert*. The purchase was concluded a few days later.

Preparations for the voyage were taken in hand: modifications to the *Chevert*, purchase of guns and equipment, and the selection of crew. Macleay read Jukes' narrative of the *Fly's* survey of the Barrier Reef and New Guinea. After some difficulties, two new sets of false teeth were made for Macleay by Dr Belisario. The prospective voyage attracted many applicants but Macleay seldom answered their letters. On 2 April, Macleay 'had some letters from Melbourne of people anxious to go to New Guinea, one suggesting that I should take a cargo of women to present to the chiefs'. A steam launch was ordered to be built and provisioning of the ship continued for several weeks. Food and equipment was purchased and loaded aboard. Masters was busy preparing boxes and bottles for storing the specimens to be collected. Macleay's friend, Sir William Macarthur, sent two tons of pumpkins from Camden as well as 'a large quantity of wine & various other delicacies & luxuries'. T.S. Mort offered the use of an ice-making machine for the voyage, which Macleay gratefully accepted.

The *Chevert* set off down Sydney Harbour on Tuesday, 18 May 1875, in the midst of great farewells. This first Australian scientific expedition to a foreign country came in the midst of calls for the annexation of New Guinea. The public conceived their own notion of the glory and wealth this expedition would bring to Australia. Apart from the ship's crew of twenty men under the command of Captain Edwards, Macleay had with him his cousin, Captain Onslow; George Masters; Dr W.H. James, an American taken on as ship's surgeon and trained by Masters to assist in the preparation of specimens; three other zoological collectors, W.F. Petterd, John Brazier and Edward Spalding; two botanical collectors, Thomas Reedy and Mr Dingwall, later joined by Felix Knight, all three sent by Macarthur. Lawrence Hargrave, the future pioneer of aviation, went on the *Chevert* as engineer.

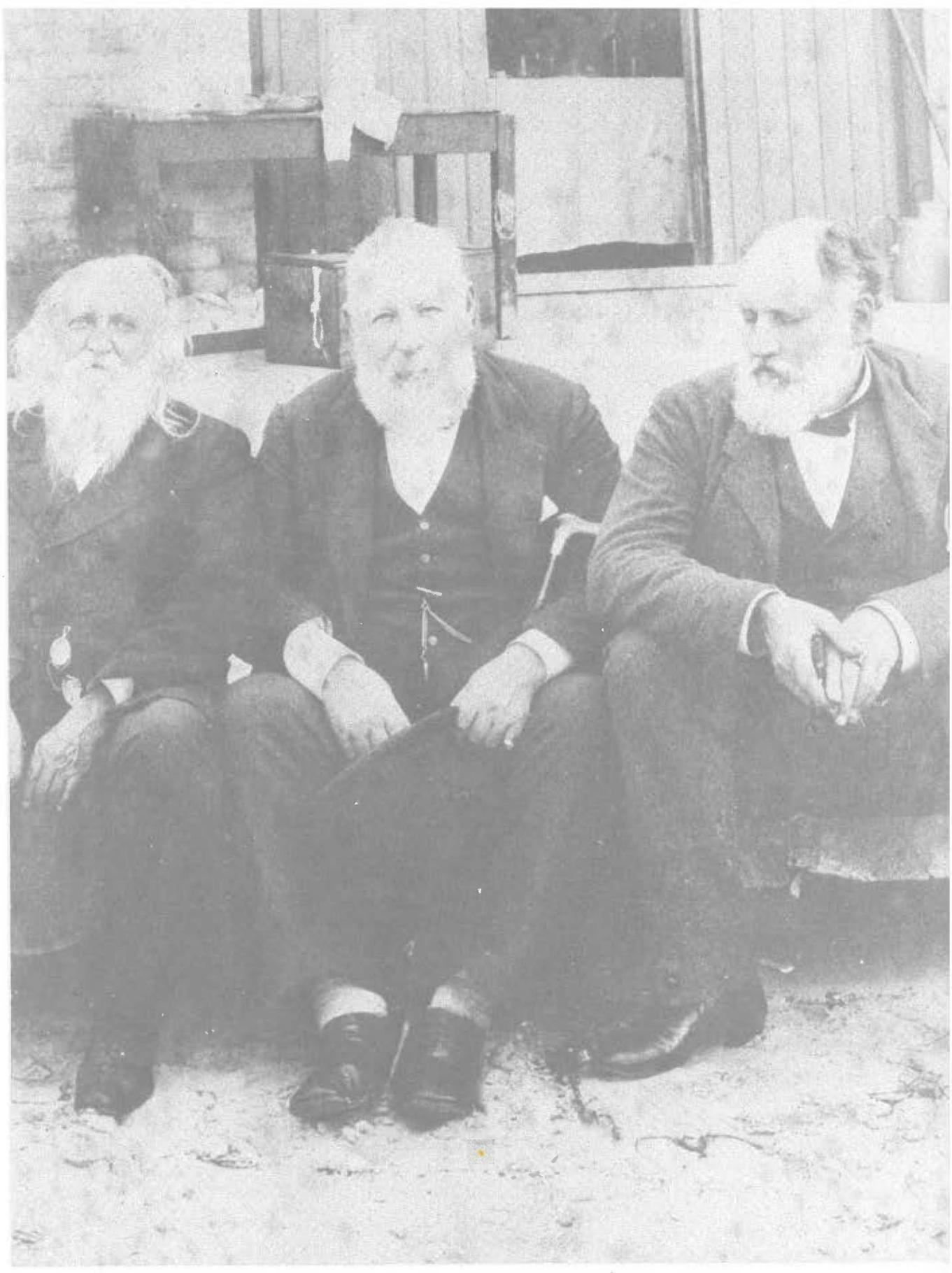
The *Chevert* proceeded up the east coast of Australia, making brief

stops at islands along the way. The first extended stop was at Cape Grenville on the Cape York Peninsula, reached on 12 June. Collecting began in earnest. Different parties collected ashore or on nearby islands, while Brazier dredged from the steam launch. The local Aborigines also joined in. 'They have found out my love of animals of all kinds & consequently have all become collectors.' Macleay did not spend all his time ashore collecting. 'The heat is becoming serious being constantly felt notwithstanding the strong trade wind. I bathed today on a shallow beach & enjoyed the luxury of lying in the water for an hour but I am not at all sure that bathing in salt water gives any permanent relief.' From Cape Grenville, the *Chevert* proceeded to Somerset on the tip of Cape York. The collecting there was indifferent while waiting for the mail from Sydney. On 26 June, the *Chevert* set off for the New Guinea coast. The mainland was distinctly visible two days later. Progress across the reefs was slow, and landfall was not made until 3 July near the mouth of the Katow (Binaturi) River. The *Chevert* stayed at anchor off the Katow for a fortnight and although shore parties collected specimens, attempts to go inland up the Katow failed.

For the next two months, the *Chevert* cruised among the islands of Torres Strait, collecting ashore and dredging at sea, and returned across open water to the New Guinea coast at Hall Sound and Yule Island. The *Chevert* arrived back at Somerset on 8 September. Macleay's expedition to New Guinea came to a close. Macleay returned to Sydney in the steamer *Singapore*, leaving the *Chevert* to follow.

On 25 October, Macleay addressed a meeting of the Linnean Society of New South Wales, giving a preliminary assessment of the zoological results of the cruise. He had collected about 1000 specimens of birds; numerous reptiles including two alligators; 800 fish; a 'very large collection' of marine molluscs, as well as land shells chiefly from New Guinea; insects chiefly from Cape York, Darnley Island and New Guinea, also spiders; Crustacea 'were got in great numbers and variety'. 'Altogether,' Macleay summed up, 'I have succeeded in getting together a vast and valuable collection . . . undoubted proof of the industry and zeal of my staff of collectors'. Not all the specimens collected were preserved: 'The only fish I met with, having a claim to recognition as an article of food, is a species of large-scaled mullet . . . and is really delicious.' Some account of the botanical results of the expedition were expected from Sir William Macarthur. Ethnology and geology were not neglected on the voyage either.

William Macleay had greatly expanded his collection, but the public was disappointed. Where were the practical results, where was the gold? Macarthur responded to the critics in the press. 'From the first I always understood that Mr Macleay's professed motive was to collect in various branches of natural history, for the promotion of science, and not 'exploration' except as subservient to his collecting.



It was the public who chose to make the 'exploration' of New Guinea the chief motive. It is surely unreasonable now to chide because the fitter out of the expedition has been seen to pursue his own course instead of the one the popular fancy seized upon.'

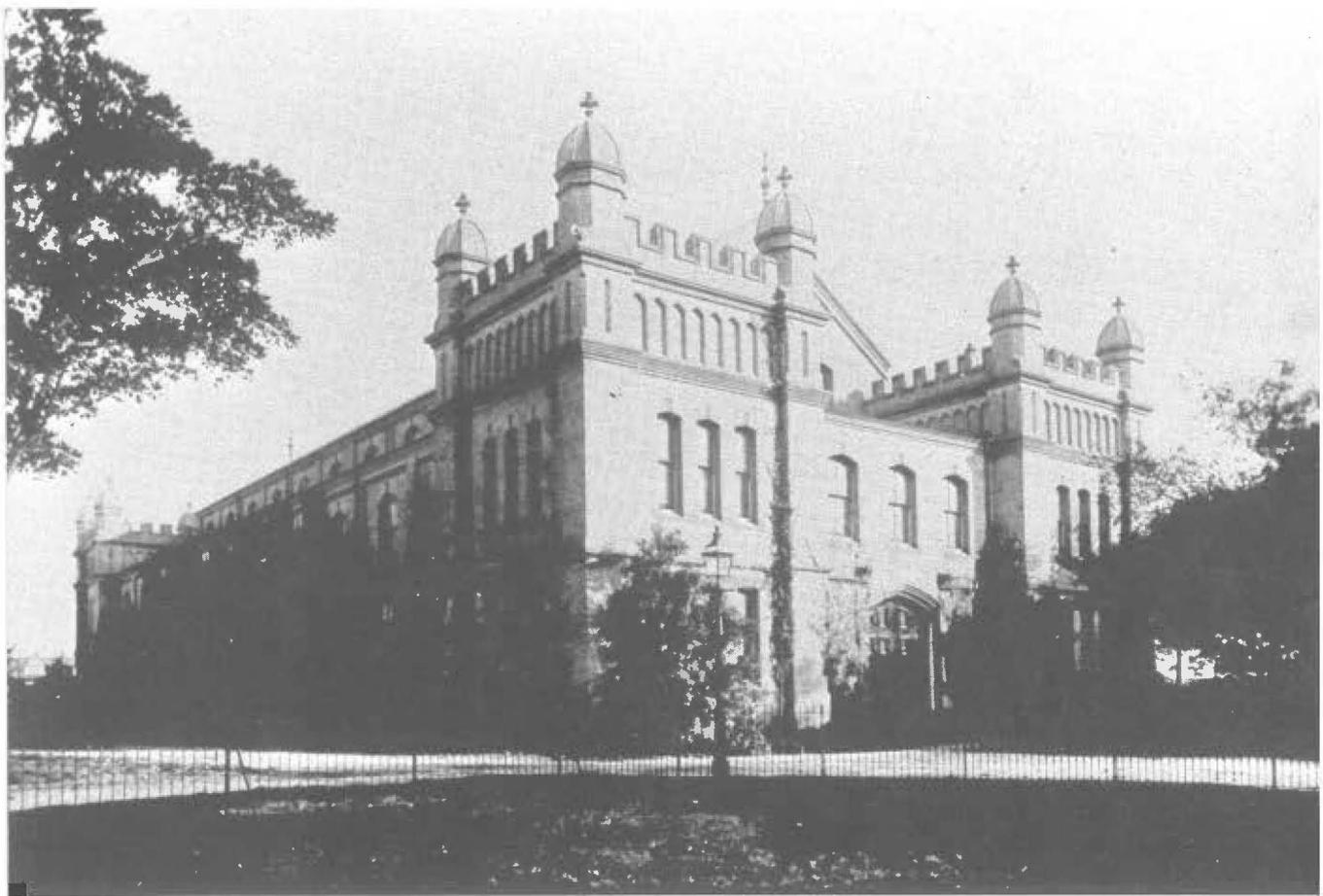
Private museum, public duties

Macleay's burgeoning collections had outgrown the capacity of Elizabeth Bay House to hold them. Macleay erected a museum building in the lower garden, and engaged Spalding and Brazier to prepare and describe the specimens from the *Chevert*. Masters continued his regular work. The first volume of *Proceedings of the Linnean Society of New South Wales* was largely taken up with reports of the different collections made on the cruise of the *Chevert*. For the last fifteen years of his life, Macleay directed his energies mainly towards his museum and the Linnean Society of New South Wales. In the years following the *Chevert* expedition, Macleay's interest turned from insects to fish and reptiles.

Nevertheless, although Macleay had retired from the Legislative Assembly in 1874, he served on several public bodies after this. A few days before departing in the *Chevert* in May 1875, he was elected a member of the Senate of the University, a position he held until his death. In 1879, the Senate appointed a Committee to report on the requirements for a proposed Medical School, Macleay serving with Canon Allwood and Dr Renwick. In 1877, Macleay was appointed to the Legislative Council, remaining a member until his death, and the same year chaired the Royal Commission on Oyster Culture. As a member of the Commission preparing the Sydney International Exhibition of 1879, Macleay served on three committees. 'I am on three but only one which will suit me, that of 'Animal Products', the others are 'Printing' & 'Scientific instruments & appliances'.' The following year, he chaired the Royal Commission to inquire into the state and prospect of Fisheries, later chairing the Fisheries Commission appointed under the subsequent Fisheries Act.

Macleay was also for many years a member of the Boards of Trustees for the Australian Museum and the Public Library. Macleay resigned from the Australian Museum Board in 1877. In his evidence to the Select Committee in 1874, Macleay admitted that he very seldom attended Board meetings. 'I expressed a wish to retire from the Board, but was put on again simply because the directors thought it desirable to have as one of their number one who could judge of the value of some of the invertebrate animals, articulata especially; and they thought I was a good judge.' In January 1875, Macleay took a close part in preparing the Museum's Annual Report, covering one of the most troubled years in the Museum's history. Having attended the monthly Board meeting on 6 May, he noted in his diary: 'it will probably be my last appearance in that place. I think things are now pretty safe there & I can well leave it.'

Sir John Robertson, Dr J. Cox and Sir William Macleay, 7th May 1891. Macleay's friend and colleague, N.N. de Miklouho-Maclay, married Robertson's daughter; Cox was to be the surgeon on the *Chevert* voyage, but was unable to take part at the last moment. (Macleay collection)



The 'Macleayan' Museum

Originally intending to leave the Macleay collections to Sydney University as a bequest, William Macleay subsequently decided to present them during his lifetime under the same conditions. The government was prevailed upon to provide funds for the erection of a building. (The history of the building is described in Chapter Three.) The 'Macleayan' Museum was built between 1886 and 1888. The collections were transferred from Elizabeth Bay between the latter part of 1888 and the beginning of 1890. George Masters, who had been associated with William Macleay for many years and had been Curator of his private museum since the beginning of 1874, continued as Curator of the collection in its new home. The 'Macleayan' Museum opened to the public in 1890.

William John Macleay, patron of science

William Macleay was an enthusiastic collection builder, but was he a scientist? He took an active part in the running of the Entomological and Linnean Societies of New South Wales, and gave papers to their meetings describing insects, fish and reptiles. For the most part, his scientific work was narrowly descriptive. In his presidential address to the Entomological Society of New South Wales in 1866, R.L. King described what made an entomologist. 'What is essential, and what alone can give one a right to the title, is actual study, careful observation, and accurate examination of the insects within his reach, and an exact comparison of them with each other so as to discover the particulars in which they are alike and in which they differ.' By these terms, Macleay was certainly an entomologist. But what vision informed Macleay's collection building? When asked by the Chairman of the Select Committee in 1874 'You believe that the purpose of a Museum is to instruct the people as much as possible?', Macleay replied, 'Undoubtedly, and the more complete and perfect the collection is, the more valuable it will be.' The Chairman continued: 'Do you think that the purpose would be better served by showing the development of insects, their habits, mode of feeding, and kind of food, than by simply putting the insects in cases and affixing scientific names to them?' 'You mean by breeding the animal — having it in a live state?' Chairman: 'No, by showing the transformations, and the kinds of plants upon which the different kinds of insects feed.' Macleay: 'No doubt there ought to be specimens of an animal in all stages of its existence.' Macleay's chief vision was for the completeness of each category of his collections. He had little interest in the processes of life. He perceived no biogeographical significance in the specimens he gathered in different parts of Torres Strait. He was unpersuaded by the growing acceptance of Darwinism by professional scientists. Addressing the Linnean Society of New South Wales in 1876, Macleay admired Darwin's 'patient and laborious investigation, coupled with synthetical genius of most remarkable power'. He went on to

Top:
The Macleay
Museum
building,
July 1893.
Photographer
unknown.
(Macleay
collection)

Bottom:
The rear of the
Macleay
Museum *circa*
1890. This
photograph
taken by John
Shewan, second
Curator of the
Museum, shows
gardens where
the Footbridge
Theatre now
stands. (Macleay
collection)

consider the 'evolution theory' which, 'under the superior fascinations of Darwin's admirable work, 'The Origin of Species', [has] become the fashionable faith'. Macleay continued:

But what may be generally believed is not necessarily true or worthy of belief.

The mass of the reading world are generally prepared to accept without much question, the views adopted by those whom they have been accustomed to look up to as authorities. The really scientific men who have become converts to the doctrine, and they are now very numerous, differ in reality a great deal more than they agree. While all accept the principle of evolution, they almost all differ as to the process. The consequence is, that we have theory after theory propounded, all founded no doubt, upon useful and laborious investigations, but which are useless in themselves, except as giving a motive for more extended observations.

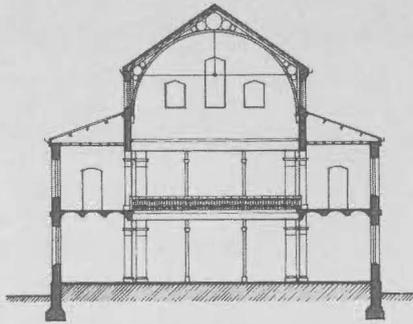
I believe myself, that the Scottish verdict of "not proven" would be the best way of meeting all these barren theories.

Furthermore, Macleay concluded, 'it must be admitted that the testimony of the rocks, so far from giving ground for a theory of a continuous modification of form, seems rather to afford proof that there have been many successions of distinct creations at long intervening periods'.

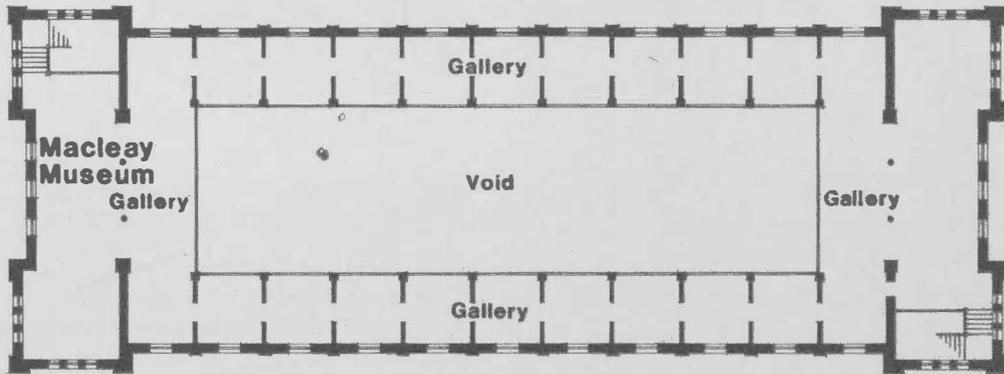
As a benefactor of science, Macleay's contribution was great. He had founded the Entomological Society of New South Wales, which for a time stimulated entomological study in Australia, and paid for the publication of its second volume of *Proceedings*. The success of the Linnean Society of New South Wales in its early years, owes much to Macleay's support and guidance. He built premises for the Society on part of the Elizabeth Bay garden after the destruction of its records and library in the Garden Palace fire of 1882. Macleay supplied the salaries of the paid officers of the Society, met much of the cost of publishing the Society's *Proceedings*, and added greatly to the Society's library, both before and after the fire. Macleay's patronage of science continued beyond his death. In his will, he left endowments for a bacteriologist and four Linnean Macleay Fellowships. Having transferred the combined Macleay collections to Sydney University, together with £6000 for the salary of a curator, during his life, he left a further £12,000 to the University for the appointment of a bacteriologist to undertake research. Macleay bequeathed £35,000 to the Linnean Society of New South Wales for the appointment of four Linnean Macleay Fellowships. Both bequests continue to support scientific research.

In recognition of Macleay's many public services and benefactions, the honour of Knight Bachelor was conferred upon him in 1889. Sir William Macleay died on 7 December 1891, confident that his collections, incorporating those of Alexander and William Sharp Macleay, would be well kept in their new home at the University, and always accessible to researchers and members of the Linnean Society of New South Wales.

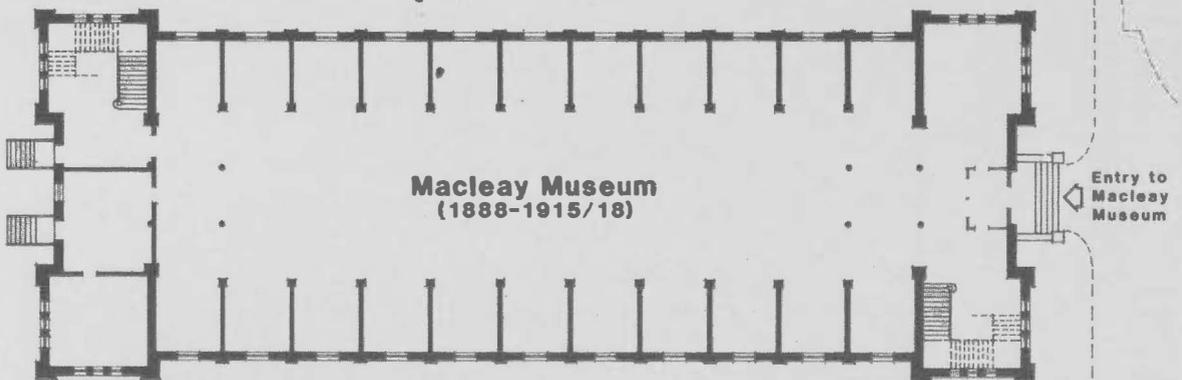
**THE MACLEAY
MUSEUM AT
SYDNEY
UNIVERSITY**



SECTION



FIRST FLOOR PLAN



GROUND FLOOR PLAN

Chapter Three

The Macleay Museum Building

Susan Clarke

In the Senate Report for 1884, a short paragraph records the proposal of the Hon. William John Macleay to present the Macleay Natural History Collection to Sydney University as soon as a suitable building was ready to receive it. His earlier intention had been to leave it as a bequest in his will.¹ Under Macleay's significant influence, the University was to gain a distinctive and architecturally innovative museum building.

The donation of the collection was made on the clear understanding that it would be transferred as soon as a suitable building had been erected to receive it. As a man of considerable social standing in the colony, a retired member of the New South Wales Legislative Council, and a member of the University Senate, Macleay was well positioned to put a good case to the New South Wales Government to consider funding the immediate erection of a museum building for the University and to ensure that the new museum would be designed to his approval and would be located in a suitable prominent position within the University grounds.

When, in October 1884, the New South Wales House of Assembly was considering the Loan Estimates for the Colonial Architect's Branch, the proposed vote of £10,000 for the erection of a museum of natural history and zoological library at Sydney University aroused a short discussion.² It was argued that surely the University should spend some of its own money out of the £180,000 Challis bequest which it had just received. This bequest had however certain restrictions which meant that the money would not be available for at least five years and, further, the Government had no control over money bequeathed to the University. The vote of £10,000 was agreed to.

On 3 December 1884, William Macleay was present at the Senate meeting which appointed a sub-committee to consider the best means of utilizing the £10,000 just received.³ The sub-committee consisted of the Chancellor, Vice-Chancellor, the Professor of Natural History, Mr C. Rolleston, the Dean of the Faculty of Medicine, Sir John Hay, and Dr MacLaurin.

The first meeting of the new Macleay Museum Committee was held

The Macleay Museum upon completion in 1888, designed by G. Allen Mansfield.

Plans and section based on a drawing by G. McRae, Government Architect, 'University of Sydney, Macleay Museum, Alterations and Additions,' 1915, in possession of N.S.W. Government Architect's Branch (U2A.3434).

Following page: The Macleay Museum and Botany Building in 1945.

Plans based on drawings by the following:

- 1) George McRae, Government Architect and others, 'University of Sydney, Macleay Museum, Alterations and Additions,' 1915 and 1918, in possession of N.S.W. Government Architect's Branch (U2A.3434,5,6).
- 2) C. Parkes, Government Architect, 'University of Sydney, Botany and Macleay

Museum —
Record Plan,
1945, in
possession of
N.S.W.
Government
Architect's
Branch
(U2C.385,6).
3) L. Wilkinson,
'University of
Sydney,
Additions to
Macleay
Museum for
Department of
Botany,' 1924, in
possession of
University of
Sydney, Planning
and
Development
Department
(A12-1008,9).

Following page:
Top:
Plan of Sydney
University, 1910.
Based on a
drawing by
G. McRae,
Government
Architect, 'Block
Plan of Sydney
University,
showing portions
available for
Australian
Association for
the Advancement
of Science,' 1910,
in possession of
N.S.W.
Government
Architect's
Branch
(U2A.3137)

Bottom:
Sketch of the
University of
Sydney by John
Shewan, *circa*
1905. The
Macleay
Museum can be
seen in the right
hand corner.

fifteen days later.⁴ It was recorded that they discussed the site of the new building, the accommodation required for the Macleay collection, and the material of which the building should be built. No definite decisions were made and it was resolved that the Chairman should confer with Mr Macleay.

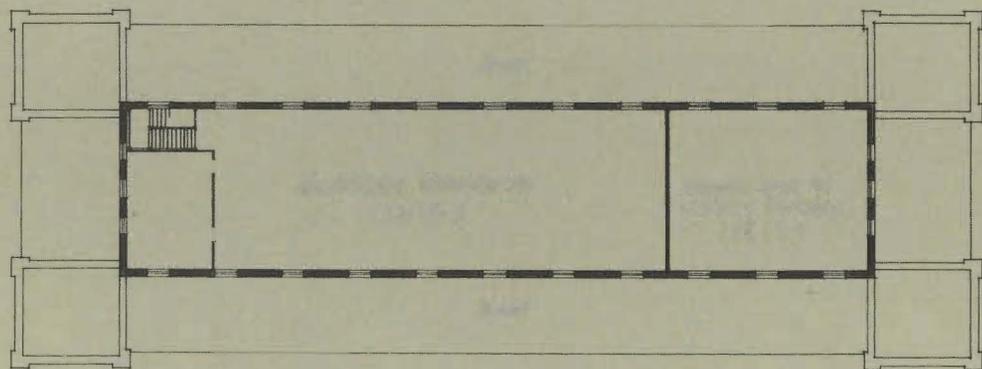
The consultation with William Macleay was productive. On 23 February 1885, the Macleay Museum Committee reported that after consultation with Mr Macleay, it had a most suitable plan.⁵ It was resolved 'that the building should be about 200 feet long by 65 feet width - and a gallery, and that no inflammable material should be used in its construction. It was also resolved that the building should be placed on the level ground at the North East corner of the Great Hall.' (North East may be a mistaken recording of North West, where the ground is more level and where the building eventually was located.)

Thus the proposed design of the new museum was formulated early in 1885. The building which was eventually erected was very similar in size to that proposed. The proposed location was endorsed by a special Senate meeting in the University grounds attended by William Macleay.⁶ The requirement of non-inflammable construction was possibly based on Macleay's personal experience of the Garden Palace fire on 22 September 1882 which had devastated the records and library of the Linnean Society of New South Wales.

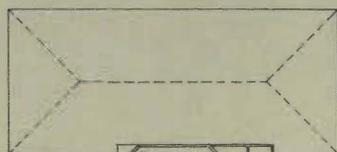
In May 1885, the Chancellor stated that the Ministers of Public Instruction and Works had favoured the expediency of employing a private architect for the Macleay Museum.⁷ The formal decision of the Department of Public Instruction agreeing to the employment of a private architect was announced to the Senate on 3 August.⁸ The Department stipulated that the Government would not agree to a brick building and that the plans and specifications of any proposed buildings should be submitted to the Department of Works for approval. The Senate, however, considered that if any but a brick building was erected, the cost of the building would exceed the Parliamentary vote. By 2 November 1885, the Department of Public Instruction had been persuaded to agree to a brick building.⁹

On 16 November, the Senate discussed the necessity of immediate action to secure a contract for the Macleay Museum building before the end of the year when the £10,000 vote would lapse.¹⁰ It was then resolved that the architect, Mr G.A. Mansfield, be appointed and that he be requested to prepare plans and specifications for the building without delay.

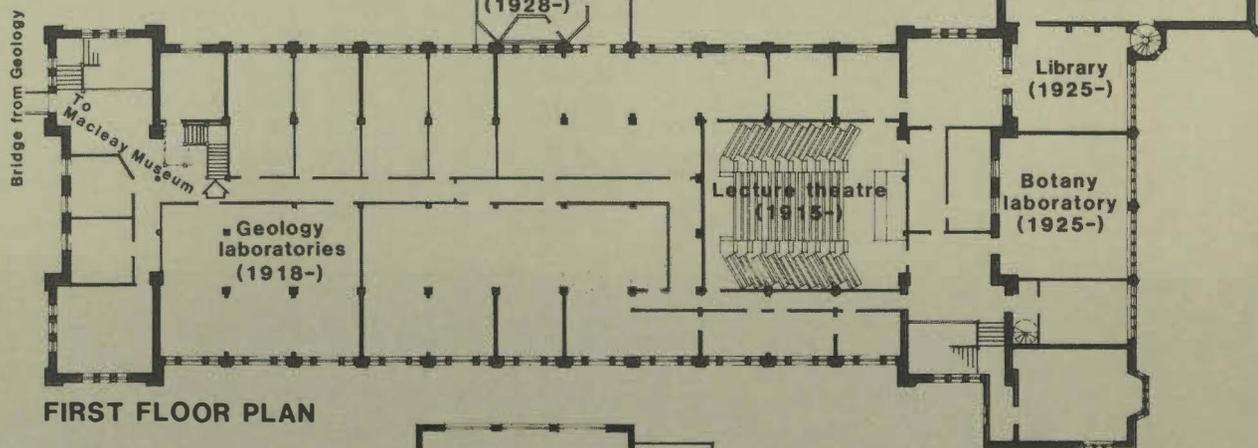
G. Allen Mansfield (1834-1908)¹¹ was a respected member of the Sydney architectural profession. Born in Sydney, the eldest son of Rev. Ralph Mansfield, a Wesleyan minister, and educated at Mr W.T. Cape's school, he was articled in 1850 to John Frederick Hilly, at that time one of Sydney's leading architects. On completion of his training in 1855, the two became partners. In 1859, Mansfield began a practice on his own. It was to be a long and prolific career which lasted until



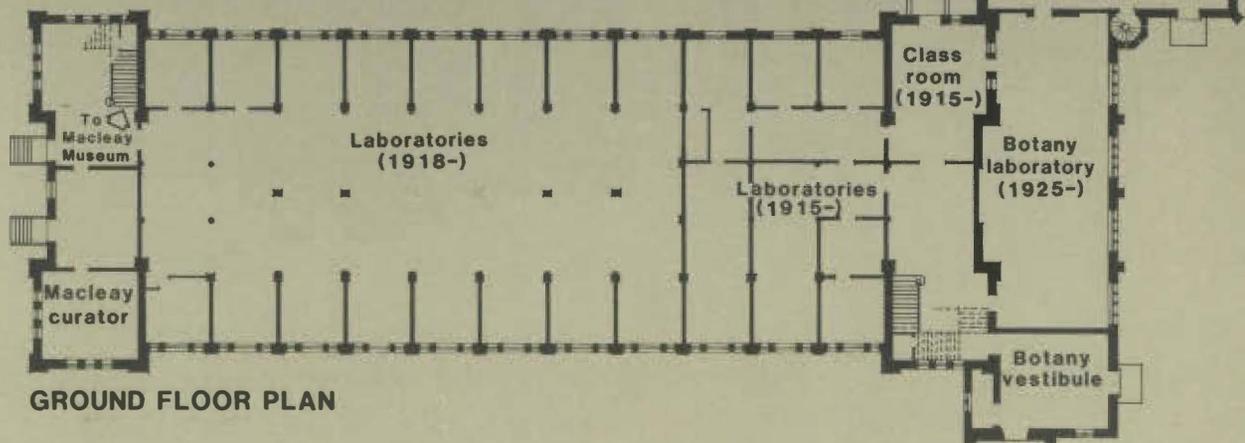
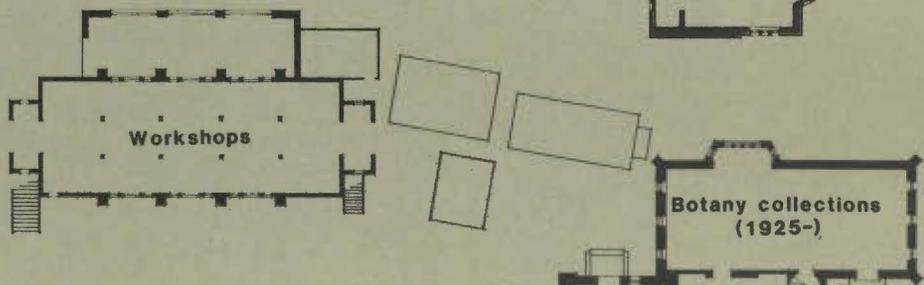
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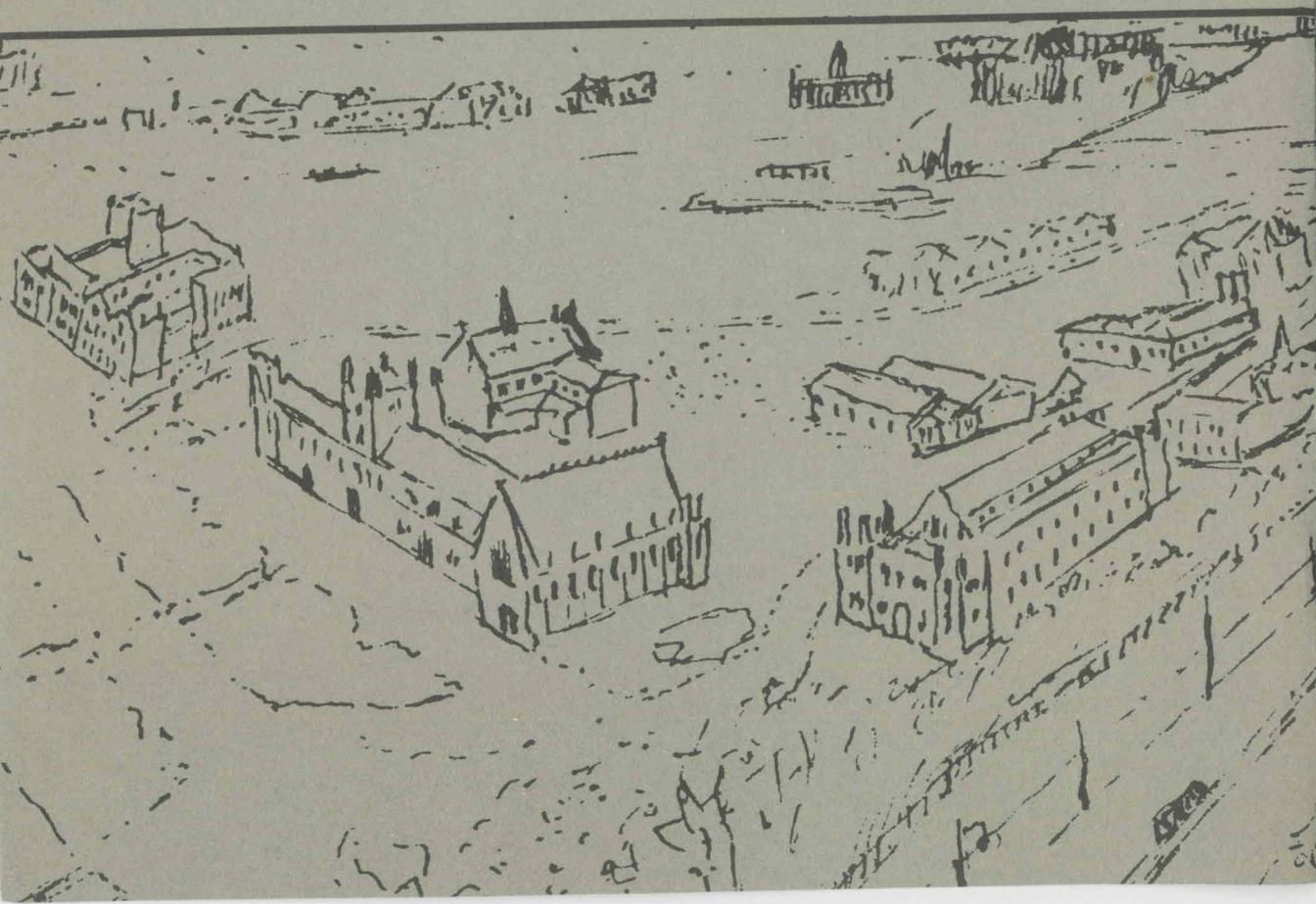
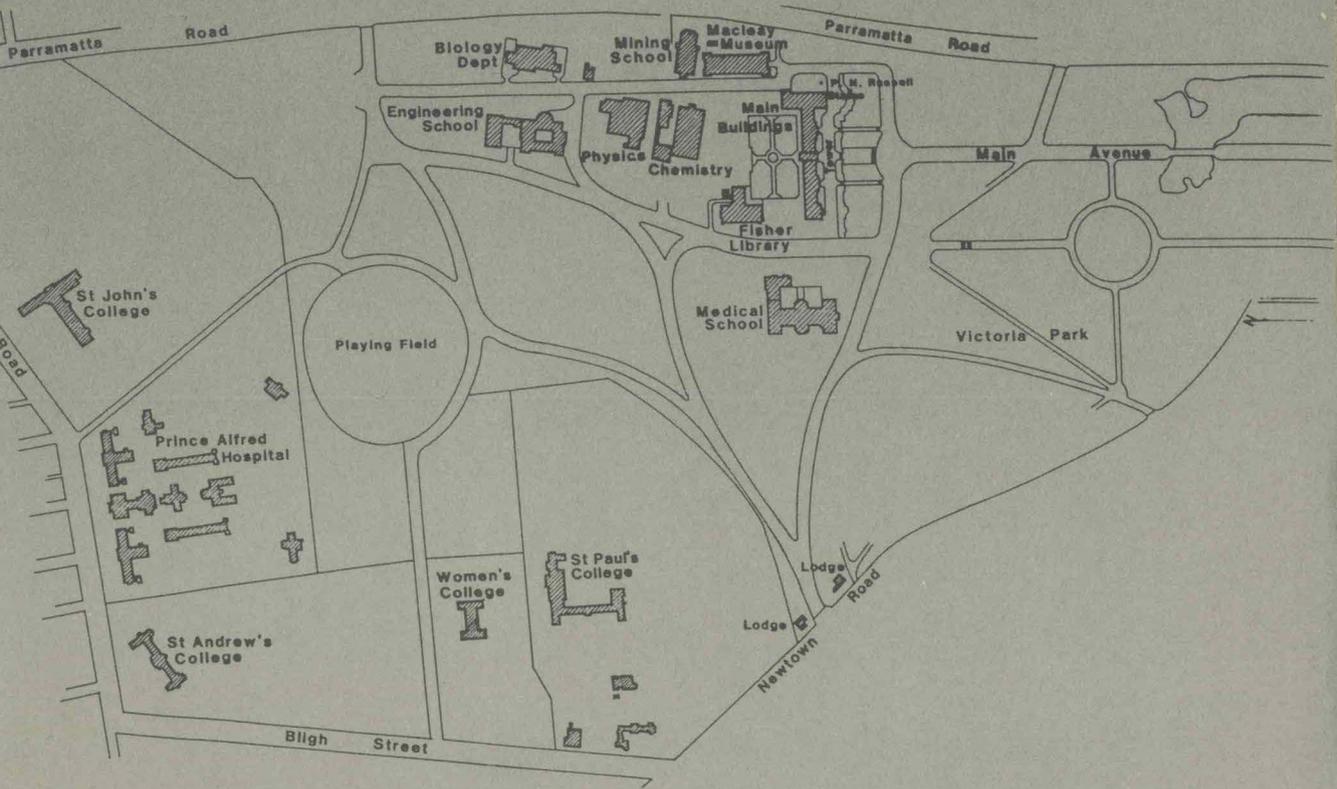
Green house
(1928-)

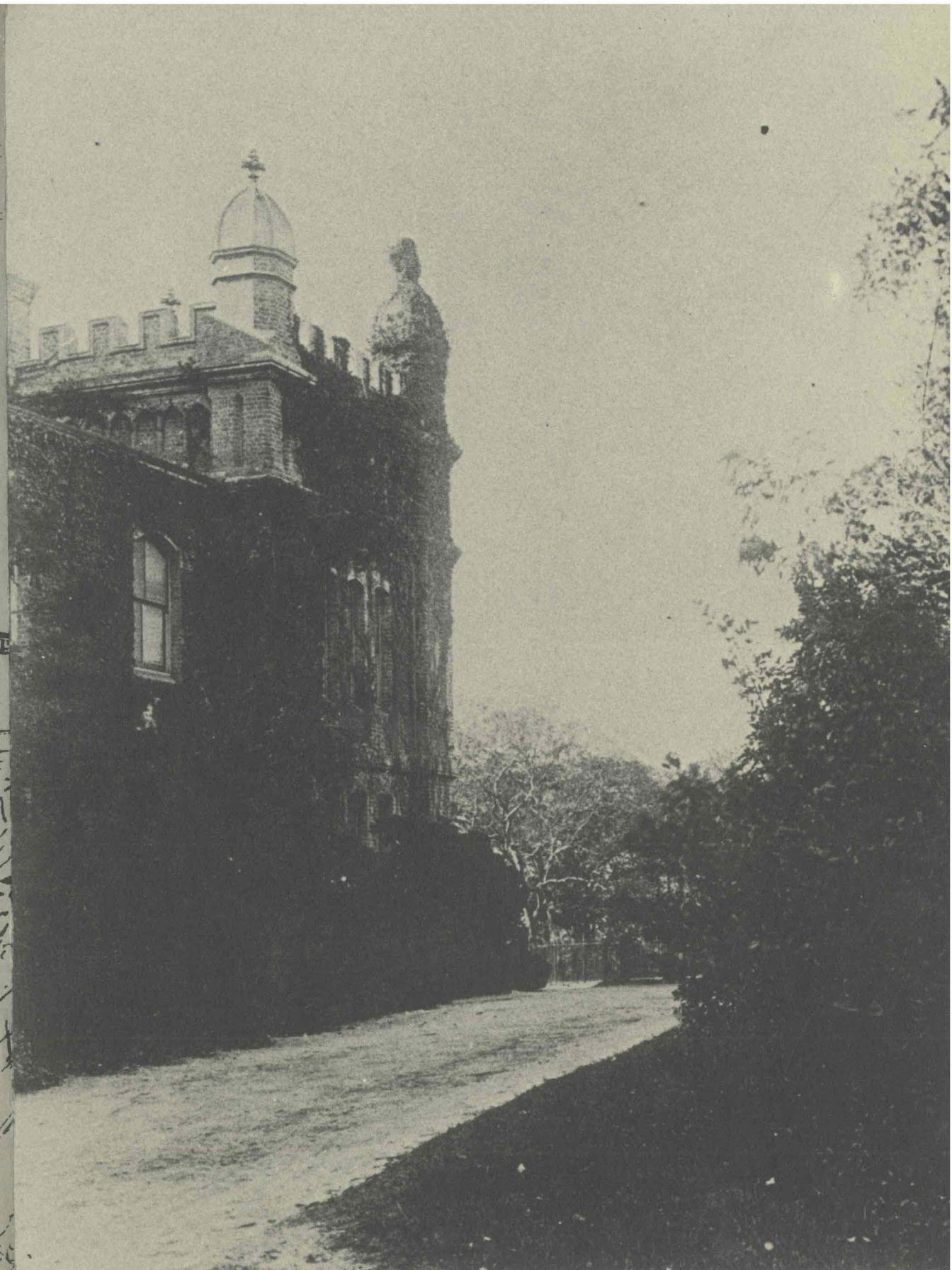


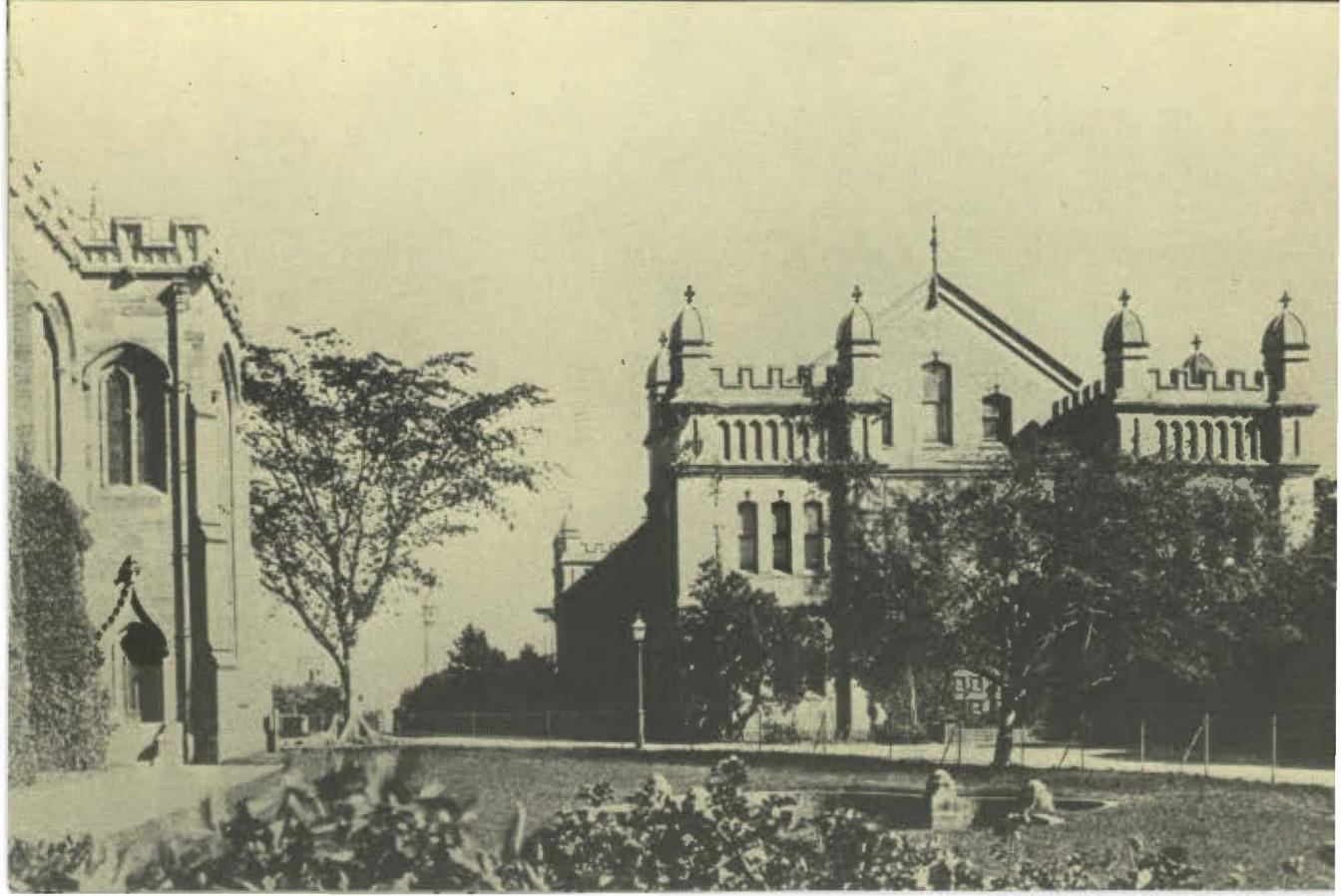
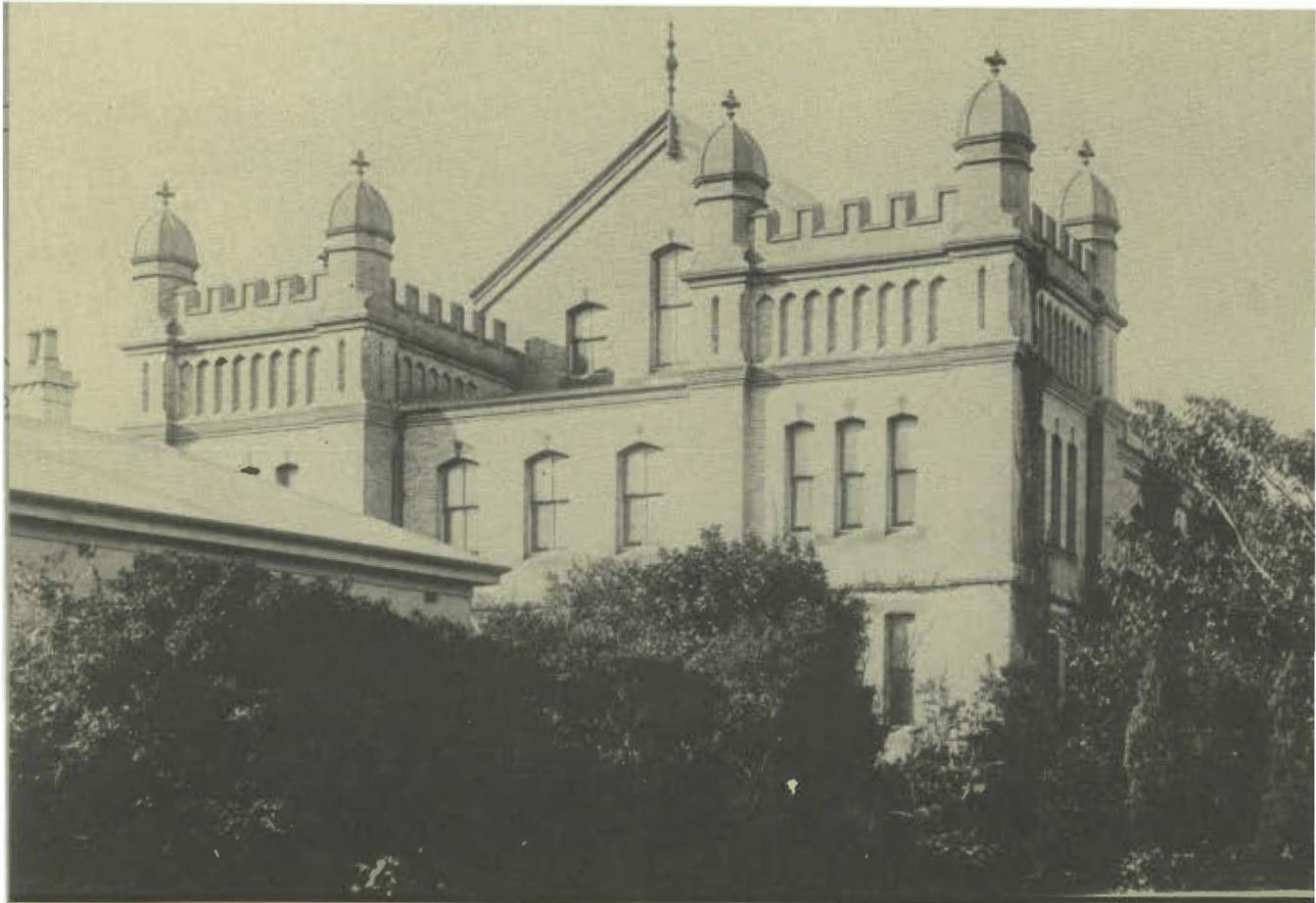
FIRST FLOOR PLAN



GROUND FLOOR PLAN







ill health forced him to retire in 1905.

There are several factors which make it likely that Mansfield and his architecture would have been well known to some of the members of the Senate and to the Minister of Public Instruction. In 1867, when the Council of Education was established under the Public Schools Act, G. Allen Mansfield was appointed as its architect. He assumed responsibility for all existing public school buildings in New South Wales and the design and construction of all new ones. Mansfield's schools were light and airy and built with considerable regard for economy. Examples of his larger schools were Crown Street, Surry Hills, Cleveland Street, Pyrmont and Sussex Street. In December 1879, when the Council of Education was abolished by Act of Parliament and a Department of Public Instruction established, it was a requirement that all the officers associated with it should enter the Civil Service. As this would have involved the loss of Mansfield's private practice, he resigned his position as architect for the Department.

Some of Mansfield's most noticeable commercial buildings included many banks for the Bank of New South Wales and Commercial Banking Co. Sydney. He designed the old City Bank in Pitt Street which was built in 1874, burnt down in 1890 and rebuilt by him in 1893. Other buildings included the A.M.P. Society, Pitt and Bond Streets (1877-88); John Fraser & Co.'s Bonded Stores, O'Connell Street (1874); Isaacs and Co. Stores, George Street (1876); and the New Zealand Insurance Co., Pitt Street (1876). Well known to the University Senate would have been the Royal Prince Alfred Hospital, designed by Mansfield and built on the western side of the University campus from 1876 to 1882. It consisted of six detached pavilions and was commended by English experts of the time as one of the most complete and perfectly arranged hospitals in existence. Buildings erected after the Macleay Museum included the Mercantile Mutual Insurance Co., Pitt Street (1886); the Daily Telegraph Building, King Street (1888); and the Australia Hotel, Castlereagh Street (1889).

Mansfield was held in high regard by his fellow architects. In 1871, when the Institute of Architects of New South Wales was founded, he was unanimously elected President. He held that position until 1876, and for a second time from 1902 to 1904. In 1873, he was elected a Fellow of the Royal Institute of British Architects, the first Australian-born architect to attain that honour. Mansfield's practice became Mansfield Bros. in 1874 when his younger brother Ralph joined as junior partner. In 1889, the firm was dissolved by mutual consent and reverted to 'G. Allen Mansfield, Architect'. During the 1890s, his son Wilfred Sydney Mansfield became a partner in the practice which became Mansfield and Son.

The extent of Mansfield's professional and social contacts can only be guessed. Politics was one of his life-long interests. For nine years he was an Alderman of the Borough of Glebe. On several occasions he was urged to stand for East Sydney, but he always declined, being

The Macleay
Museum
Building

Top:
The Macleay
Museum, July
1893. This rear
view shows the
single storey
building which
was later
incorporated into
a building for
Geology. Since
1918, when the
building was
altered
internally, the
entrance to the
Museum has
been from the
western end.
(Macleay
collection)

Bottom:
The Macleay
Museum, *circa*
1895. The
Museum is set
back from the
Great Hall,
which can be
seen on the left.
The main
entrance of the
Macleay
Museum (under
the tree on the
right) mirrored
that of the Great
Hall. (Macleay
collection)

Previous page:
South-east corner
of the Museum,
circa 1900.
(Macleay
collection)

of the opinion that a politician needed an independent income to properly serve his constituents. One such refusal followed a request and offer of support by Sir Henry Parkes in 1874. Mansfield was a JP and also occupied a seat on the Metropolitan Water and Sewerage Board. From September 1885 he was a member of the Australian Club. His first wife was Mary Emma Lucy Allen, the daughter of Sir Wigram Allen of Toxteth House, Glebe. Following her early death, he married his wife's first cousin, Lorne McDougal. Much of his married life was spent at 'Rothsay', a large home which stood at the corner of Elizabeth Bay Road and Roslyn Gardens, Elizabeth Bay. Here he was a near neighbour of the Macleays.

Within a week of officially being appointed architect for the Macleay Museum, Mansfield exhibited a ground plan of the proposed building to the Macleay Museum Committee.¹² It was agreed to shorten the building by 15 feet, the length of one bay, and then to adopt the amended design. Mansfield showed the completed plans to the Senate on 30 November 1885.¹³ They approved them immediately and asked Mansfield to call tenders as soon as approval was received from the Ministers of Instruction and Works. Government approval was granted¹⁴ and by Wednesday 2 December an advertisement calling for tenders for the erection and completion of the 'Macleayan Museum', Sydney University had been placed in the *Sydney Morning Herald*.¹⁵ Tenders were to be delivered to the offices of Mansfield Brothers, Architects, 121 Pitt Street, Sydney, before noon on 21 December.

On the afternoon of 21 December, with William Macleay present, the Senate examined the tenders.¹⁶ The lowest were those of Alexander Dean for the building, £12,345, and the Atlas Engineering Company for the ironwork, £3,429, making a total of £15,774. There was some concern that this amount was considerably in excess of the Parliamentary vote of £10,000 and that the University had no funds for the additional expenses. It was the general opinion of the Senate, however, that the Macleay Museum would be in a far larger sense a gift to the public generally than to the University, and that, considering that the plans had been approved by the Minister for Public Works, with instructions that the works should be proceeded with under tenders, it was extremely unlikely that Parliament would refuse to vote the additional sum required. It was also important that the collection should be housed without delay. Accordingly, the Senate decided to accept the lowest tenders and make application to the Government to cover the balance including the architect's commission.

The builder and contractor, Alexander Dean, had worked on at least one earlier job of Mansfield's, the Bradley Newton and Lamb Warehouse in Spring Street (1876). His work on the Macleay Museum must have been more than competent, because he was later to be the builder of one of Mansfield's most prestigious designs, the Australia Hotel, Castlereagh Street, built for the Anglo-Australian Investment

Co. at a cost of slightly less than £250,000.¹⁷

Building work started early in 1886. Senate minutes in March and June record two payments to Mansfield for professional services totalling £500.¹⁹

On 28 June 1887, the completed but empty shell of the Macleay Museum building was handed over to the University.²⁰ It was immediately put to temporary use for the holding of the Civil Service and Articled Clerk's examinations. Because the building had been erected entirely of fire-proof materials, the Senate decided that it was not necessary that it should be insured.

Meanwhile, the Museum still required furniture. In August and September, the Senate decided to consult the Professor of Natural History (W.J. Stephens), and the Colonial Architect about its design. The cost was to be defrayed from the Parliamentary vote for the purpose. The Professor of Natural History recommended that the Geological collections be moved to the eastern portions of the gallery to be arranged in various cases which were already available.²¹

On 1 October 1888, the Senate received a letter from William Macleay.²² He pointed out that the Museum building was now complete, that provision had been made for the necessary fittings, and that he intended to commence very soon the transfer of the Macleay collections to the University. He enclosed a cheque for £6000 for the endowment of a curatorship. One condition which he attached to his gift was for 'The Museum to be made easily accessible to students of Natural History and Members of the Linnean Society of New South Wales.'

No record of an official opening of the Macleay Museum has been found, but on 4 October 1888, the Premier, Sir Henry Parkes visited the University.²³ After a speech in the Great Hall, he was taken on a tour of the University and shown the new medical school and the newly completed Macleay Museum building.

The completed building was 65 metres (212 feet) long by 21 metres (70 feet) wide, and 18 metres (58 feet) in height to the ridge of the roof.²⁴ The two long sides were divided into a series of bays about 4.5 metres (15 feet) square, above which a gallery at first floor level ran completely around the interior court. Thus the interior space resembled a two-storey Victorian shopping arcade, similar to the arcades which were to be built in Sydney during the 1890s but much less ornate and more restrained as befitting the Museum's scholarly purpose. The linear plan enabled efficient cross-ventilation, and the large interior court was lit by a range of clerestory windows.

The building was constructed predominantly of brick and iron in a simplified Gothic style. Each elevation was symmetrical and the four corners were emphasised by towers which were finished with crenellated parapets and small domes on the corner piers. The bricks selected were an unusual light cream-grey with a dark speck, a colour possibly chosen to blend with the main University buildings which were of sandstone. The bricks of the exterior walls were laid in

**The Macleay
Museum
Building**

Top:
Views of the interior of the Macleay Museum prior to 1915, showing some display cases in the upstairs gallery. The design of the spacious hall minimized the temperature variations. The centre of the ground floor appears to be occupied with geological specimens and trestle tables. (Macleay collection)

Bottom:
Interior of the Macleay Museum *circa* 1893, showing plaster casts of Egyptological casts chosen by Sir Charles Nicholson, which were allowed temporary space among the natural history exhibits. The large square cabinets containing kangaroos and deer were offered to the Australian Museum in 1921. (Macleay collection)

Flemish bond and the interior in English bond. Early drawings show that the external walls have two 230 mm (9 inch) brick skins with a central cavity.²⁵ The Museum therefore is a very early example of brick cavity-wall construction which was at that time evolving in Australia as a means of preventing the penetration of damp.

The long walls between the towers were divided into eleven bays each containing, at each floor level, one large double-hung window with a pointed arch head of brick. One horizontal rendered string course ran around the exterior of the building. The external and internal brickwork was unrendered.

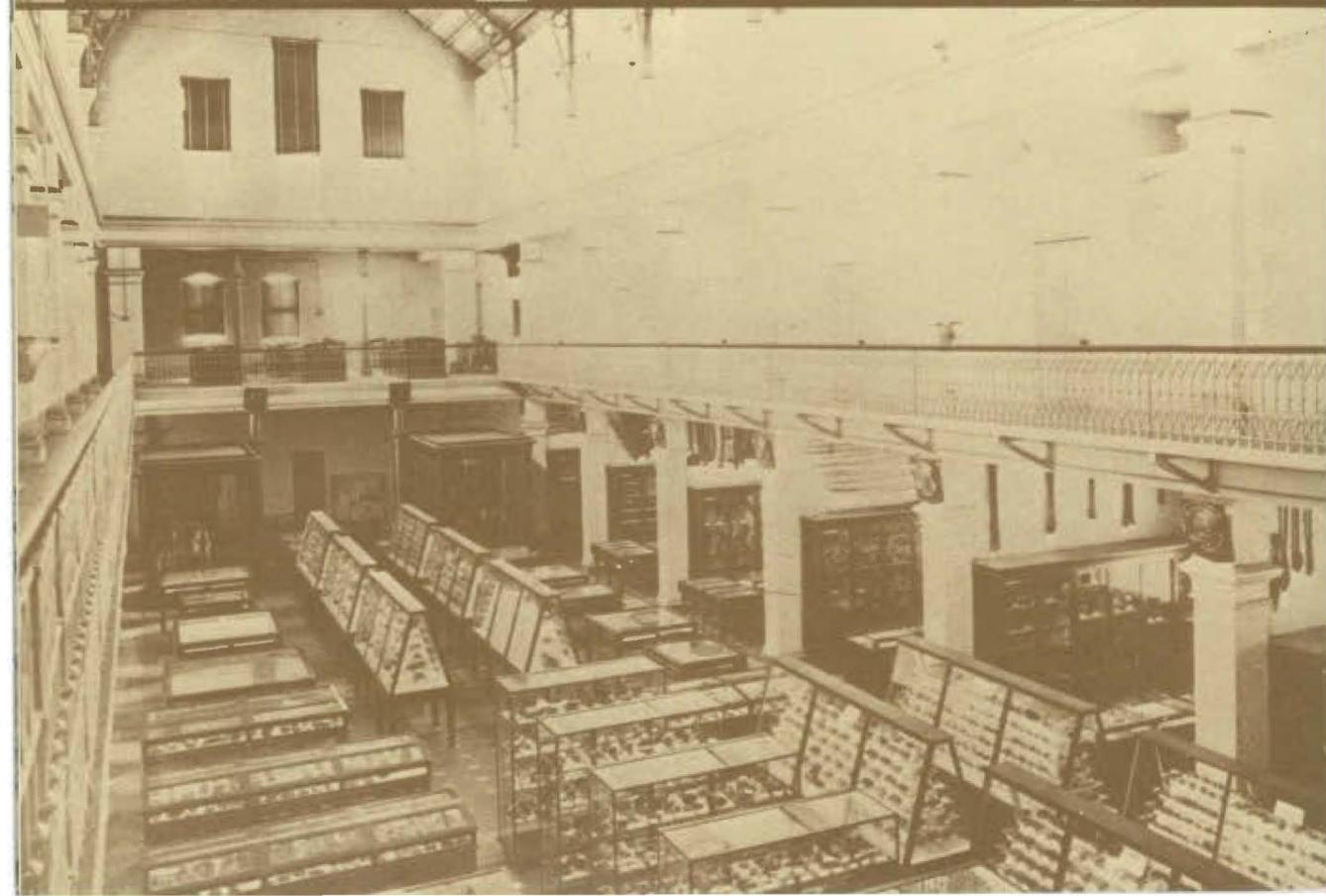
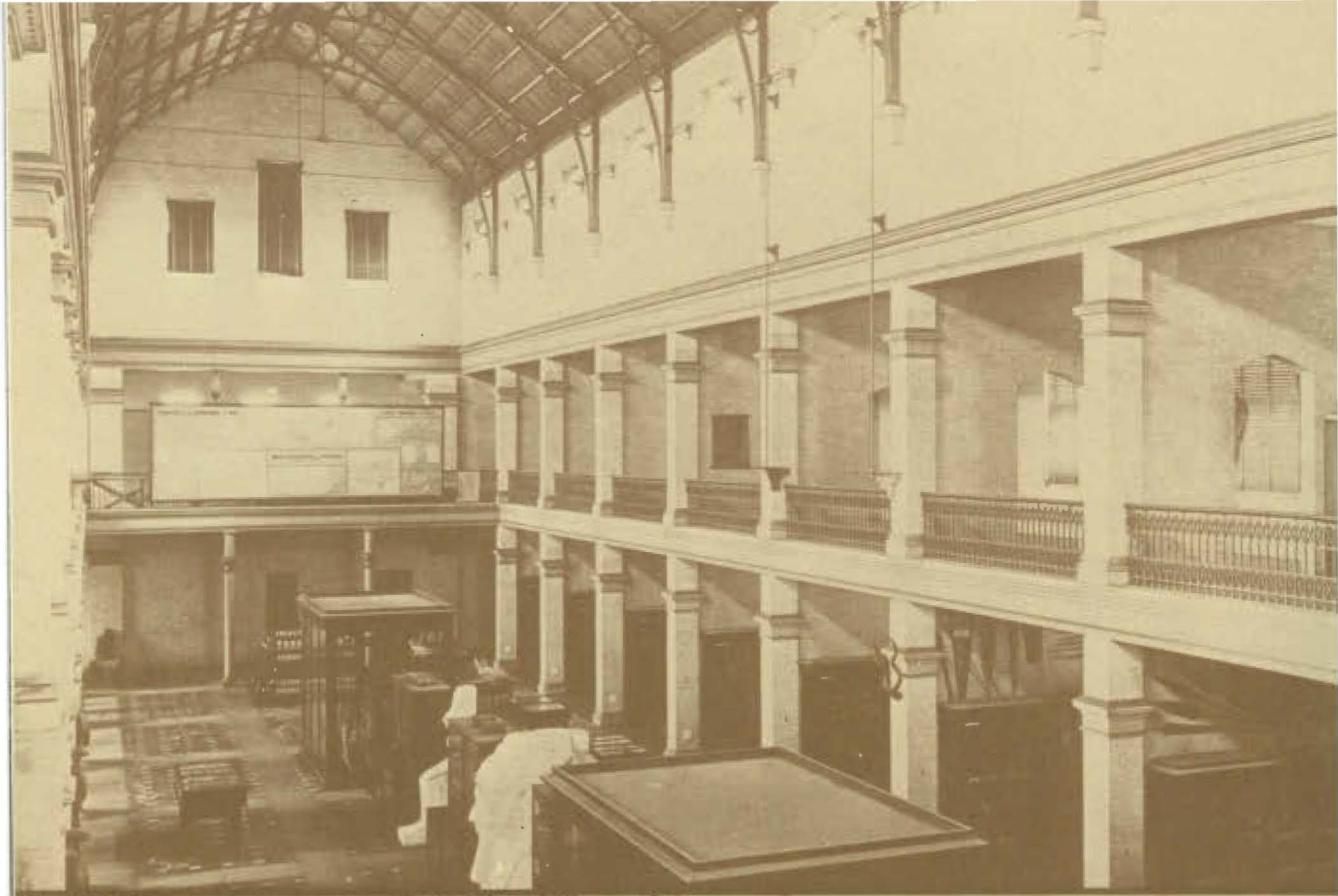
In two of the diagonally opposite corner towers there were sturdy cast-iron staircases fabricated in individual pieces and bolted together. The first floor was constructed of an early type of concrete forming arches between closely spaced iron beams. Most of the first floor beams were supported on the brickwork, but at the east and west ends of the building, a group of four cast-iron columns was used to carry large rivetted wrought-iron beams. Both ground and first floors were paved with terra cotta tiles. The balcony railing which surrounded the interior court was of iron in a simple design with verticals linked by two horizontal bands of diagonal crosses at top and bottom.

The gable roof was supported on a series of tied semi-circular arches formed of wrought iron T-sections. In the apex and corners of the roof structure were decorative wrought-iron circular hoops linking the arches to the wrought iron rafters. Above were purlins supporting the iron roof. The whole structure was designed by Mansfield to be non-inflammable, a factor which had only recently been given much consideration by architects.

Immediately following the completion of the Museum building, there was pressure for the use of its large, well-lit spaces by other departments. In 1891, the Professors of Biology and Geology were appointed to a committee of management.²⁶ In 1901 it was resolved that the Macleay Museum be placed at the disposal of the Professor of Engineering²⁷, but there is no evidence that this occurred. In 1902 the Macleay Museum Committee was asked to consider moving the collection to the galleries of the Museum so that the ground floor would be free for teaching purposes.²⁸ In 1906 a store room, stable and carpenter's shop designed by John Subman were erected in the open space to the north of the Museum.²⁹ In 1907 the Professor of Geology was asked if, in view of the proposal to erect a new building for Geology, it would not be possible to carry on work in the Macleay Museum without the erection of a connecting bridge.³⁰

Demands to use the building increased until 1914 when the University decided to alter the building at an estimated cost of £1820 to provide temporary accommodation for the Department of Botany. At that time, the building contained not only the Macleay Museum of Natural History, but was being used as an extension of the Geological Department and provided research accommodation for three Macleay





the Macleay Collection to the Australian Museum.³¹ The building alterations were carried out in 1915. On the ground floor eastern end, a new laboratory and a class room were added. Upstairs, a new cantilvered balcony was inserted so that some of the gallery could be used as offices. A new laboratory and a lecture theatre was added which required partial filling-in of the central court space.³²

The proposal to transfer the Macleay Collection to the Australian Museum was raised again in 1915³³ and once more in 1917³⁴ when the Professor of Botany asked for a new first floor to be built from gallery to gallery and for the whole of that floor to be reserved for his department. The Professor of Geology also asked for further accommodation in the building. A sum of £3,500 from the Challis Estate was set aside for the cost of the building work.³⁵ The alterations were carried out in 1918.³⁶ New pairs of windows with stone lintels were inserted each side of the pointed-arch windows. The 1915 balcony was removed and a series of two-storey-high columns was erected in the centre of the building and a new first floor was built from gallery to gallery. A new second floor was inserted and the Macleay Museum collection was moved there. Mansfield's elegant interior court was lost forever. The Macleay Museum collection, accessible only by a new timber stair was in effect being stored in the roof space. Very little consideration appears to have been given to the needs of museum staff or visitors, or to the conservation requirements of the collection itself. The space was very hot, and soon after the move, the Museum requested improved ventilation.³⁷ Later an effort was made to insulate the roof with a new ceiling, and in the process the decorative sections of the roof arches were partly hidden.

The last two major alterations to the Macleay Museum occurred in 1925 and 1959. A new two-storey sandstone building designed by Professor Leslie Wilkinson was added to the east end of the Macleay Museum in 1925.³⁸ In this addition, the University gained a fine, carefully detailed, sandstone Gothic facade, only one room deep, which provided a strong visual link with the Great Hall. In the process, the east front of the Macleay Museum was hidden, and its front door and separate identity were lost. The combined building including the east end of the Macleay building became known as the 'Botany Building'. The completion in 1959 of the War Memorial Gallery arch bridging Science Road to a design attributed to Professor H. Ingham Ashworth and Professor Leslie Wilkinson³⁹ provided a gateway to Science Road and served to emphasise the link between Botany and the main building of the University.

The Macleay Museum building has suffered over the years, possibly because it was so well built initially. Its large, well-lit, cross-ventilated rooms seemed ideal to accommodate growing university departments which were short of space. The destruction of the quality of its interior occurred from 1915 to 1918 during World War I, when

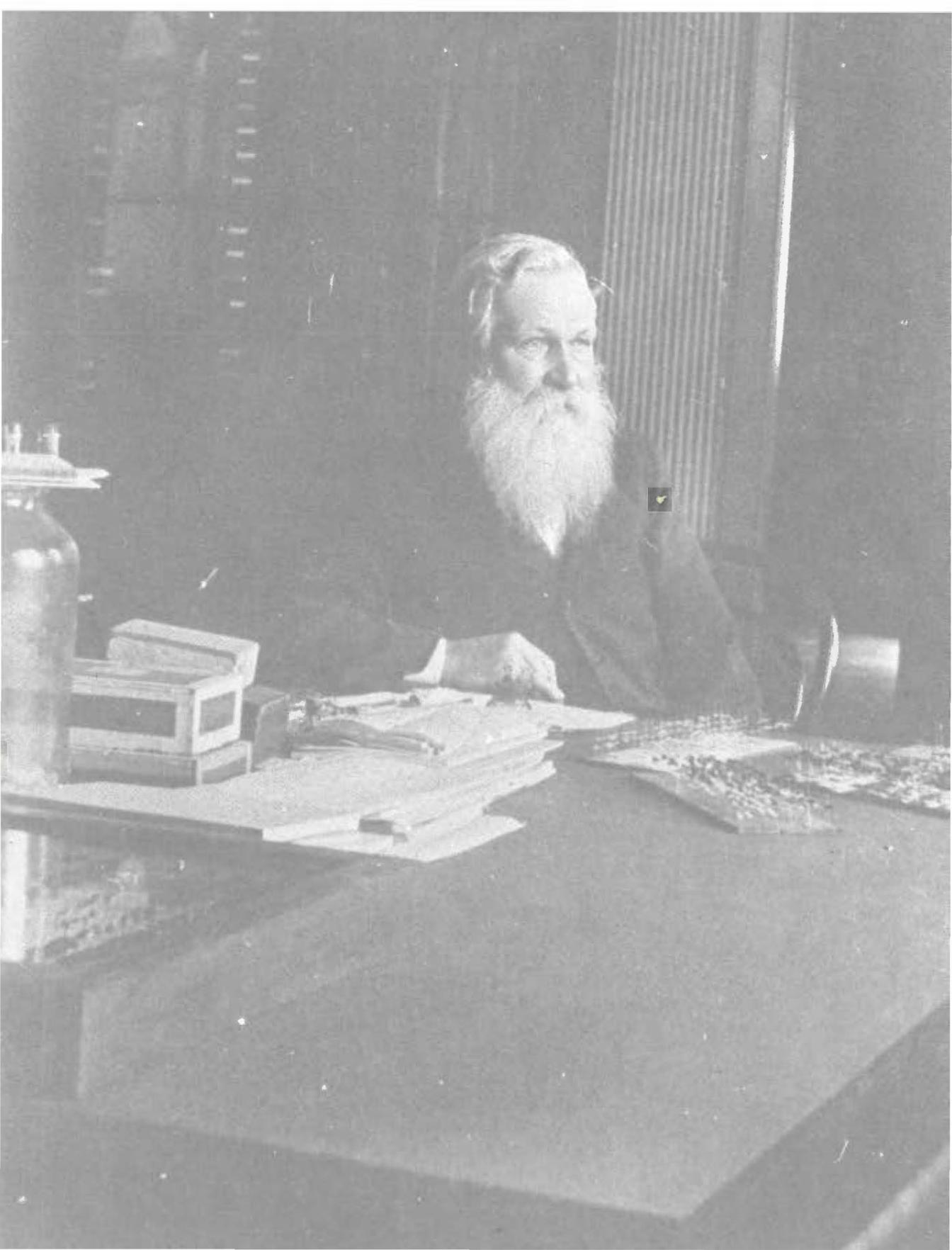
Top:
Interior of the
Macleay
Museum circa
1893

Bottom:
View of the
interior of the
Macleay
Museum
between
1915-1917. The
gallery has been
subdivided into
offices, and a
corridor
supported by
brackets.
Compared with
the interior
views taken prior
to 1915 more
geological
specimens
occupy the
ground floor.
(Macleay
collection)

Calendar, 1885, p.307

2. N.S.W. Parliament, *Debates*, House of Assembly, 9 October 1884, p. 5695
3. Senate Minutes, 3 December 1884, University of Sydney Archives (G1/1/7, p. 73)
4. Macleay Museum Committee Minutes, 18 December 1884, University of Sydney Archives (G1/11/1, p. 225)
5. *Ibid*, 23 February 1885 (G1/11/1, p.226)
6. Senate Minutes, 21 March 1885, University of Sydney Archives (G1/1/7, p. 105)
7. *Ibid*, 18 May 1885 (G1/1/7, p. 124)
8. *Ibid*, 3 August 1885 (G1/1/7, p.151)
9. *Ibid*, 2 November 1885 (G1/1/7, p. 180)
10. *Ibid*, 16 November 1885 (G1/1/7, p.192), and Sydney Morning Herald, 19 November 1885, p.4
11. The information on G. Allen Mansfield was derived from the following three sources: E. Digby (ed.), *Australian Men of Mark*, vol. 1, C.F. Maxwell, Sydney, 1889, p. 136
Cyclopedia of New South Wales, McCarron, Stewart & Co. Printers, Sydney, 1907, pp. 412, 428
J.T. Constance and V. Berk, 'George Allen Mansfield,' B.Arch. thesis, School of Architecture, University of New South Wales, 1969
12. Macleay Museum Committee Minutes, 23 November 1885, University of Sydney Archives (G1/11/1, p.227)
13. Senate Minutes, 30 November 1885, University of Sydney Archives (G1/1/7, p.199)
14. *Ibid*, 7 December 1885 (G1/1/7, p. 201)
15. Sydney Morning Herald, 2 December 1885, p. 4, and Sydney Morning Herald, 5 December 1885, p. 3.
16. Senate Minutes, 21 December 1885, University of Sydney Archives (G1/1/7, p. 211), and Sydney Morning Herald, 24 December 1885, p. 5.
17. J.T. Constance and V. Berk, 'George Allen Mansfield,' B.Arch. thesis, School of Architecture, University of New South Wales, 1969
18. Senate Minutes, 1 March 1886 and 21 June 1886, University of Sydney Archives (G1/1/7, pp. 232, 283)
19. *Ibid*, 1 February 1886 (G1/1/7, p. 221)
20. *Ibid*, 4 July 1887 (G1/1/7, p. 425)
21. *Ibid*, 2 August 1887, 5 September 1887, 7 November 1887 (G1/1/7, pp. 441, 460, 478)
22. *Ibid*, 1 October 1887 (G1/1/8, p. 50)
23. Sydney Morning Herald, 5 October 1887
24. H.E. Barff, *A Short Historical Account of the University of Sydney*, Angus & Robertson, Sydney, 1902, p. 119
25. G.W. McRae, 'University of Sydney, Macleay Museum, Alterations and Additions,' 1915, drawings in possession of New South Wales Government Architect's Branch

- of Sydney Archives (G1/1/8, p. 358)
27. Buildings, Grounds and Improvement Committee Minutes, 19 April 1901, University of Sydney Archives (G1/5/1, p. 5)
28. *Ibid*, 21 July 1902, (G1/5/1, p.9)
29. *Ibid*, 21 June 1906 (G1/5/1, p. 30)
30. *Ibid*, 7 November 1907 (G1/5/1, p. 42)
31. Senate Minutes, 2 November 1914 and 7 December 1914, University of Sydney Archives (G1/1/14, pp. 147, 162), and Buildings and Grounds Committee Minutes, 10 November 1914, University of Sydney Archives (G1/5/1, p. 102)
32. G.W. McRae, 'University of Sydney, Macleay Museum, Alterations and Additions,' 1915, drawings in possession of New South Wales Government Architect's Branch
33. Senate Minutes, 9 August 1915, University of Sydney Archives (G1/1/14, p. 235)
34. Buildings and Grounds Committee Minutes, 24 October 1917 and 12 November 1917 (G1/5/1. pp. 137, 141)
35. Senate Minutes, 10 December 1917, University of Sydney Archives (G1/1/14, p. 498)
36. G.W. McRae and others, 'University of Sydney, Macleay Museum, Alterations and Additions,' 1918, drawings in possession of New South Wales Government Architect's Branch
37. Buildings and Grounds Committee Minutes, 10 March 1919, University of Sydney Archives (G1/5/1, p. 157)
38. P. Johnson, 'Leslie Wilkinson at Sydney University,' in S. Falkiner (ed.), *Leslie Wilkinson*, Valadon Publishing, Woollahra, N.S.W., 1982, pp. 50, 71
39. *Ibid*, p. 53



the keys shall be in the charge of the Curator, and no specimen shall be sent away or destroyed without the sanction of the Committee.

5. All specimens set up or prepared shall be submitted to the Committee before being exhibited in the Museum.

6. All orders, requisitions and correspondence relating to the Museum shall be signed by one of the members of the Committee and countersigned by the Curator and all accounts presented for payment shall be certified to in a similar manner.

7. The keys of the office, workshops and cases shall not be taken off the Museum premises, but they shall be hung up in a case provided for the purpose.

8. The Curator shall attend daily, from 9.30 a.m. to 4.30 p.m. with an interval of one hour for luncheon, his place at that hour to be taken by one of the attendants; except on Saturdays when he shall attend from 9.30 a.m. to 12 noon.

9. Leave of absence on full pay for three weeks yearly, or such term as may be approved by the Committee, may be granted to the Curator.

(Letter forwarded with the Regulations)

November 23rd, 1891.

*Mr. George Masters,
Curator, Macleay Museum.*

Sir,

We beg to enclose herewith copy of the new regulations for the government of the Macleay Museum as approved by the Senate.

We desire also to call your attention to the following:—

Duties of the Curator

1. To attend at the Museum during the hours specified above (i.e. in the Regulations).

2. To afford every facility to Members of the Linnean Society and Students of Natural History in using the collections for purposes of study.

3. To keep the various collections in good preservation, and, when required to do so, to report to the Committee on this condition.

4. To name, classify and arrange the specimens, and assist in the preparation of a catalogue of the contents of the Museum.

5. To prepare sets of specimens for purposes of exchange.

6. To keep a register of all specimens received by donation, exchange or otherwise.

7. To certify the correctness of all accounts submitted for payment.

8. To be responsible for the safe-keeping of spirits and other materials belonging to the Museum.

9. To take charge of all the keys of the Museum.

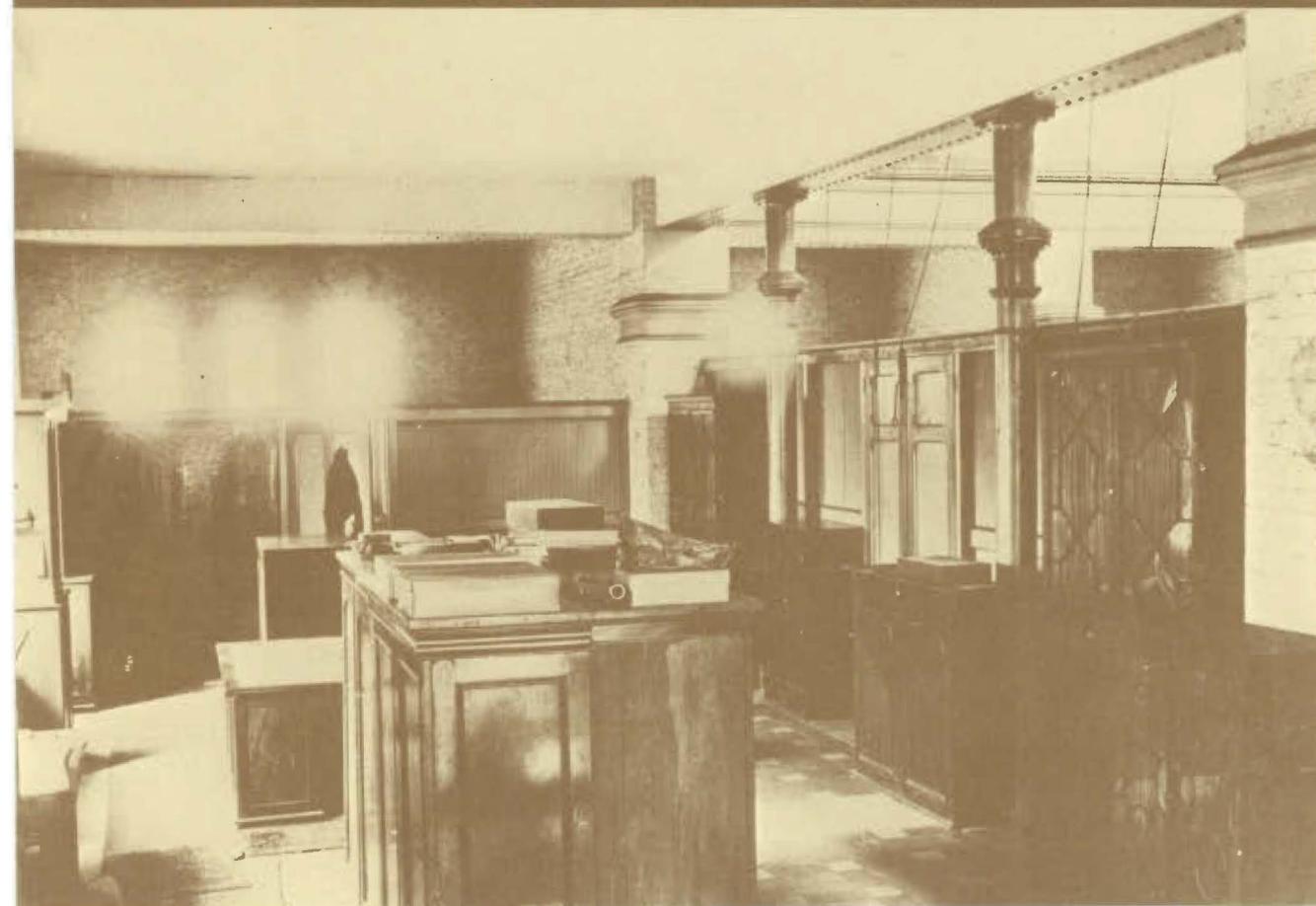
We are

Yours truly,

T.W.E. David, William A. Haswell Committee

George Masters with his wife (right) and their housekeeper-companion (left) in the garden of their house, 'Ithaca' in Elizabeth Bay Road. After his wife died, Masters married his housekeeper-companion. (Macleay collection)





in the preparation of a catalogue', as though someone more knowledgeable than himself was to instruct him; and on the other, during the luncheon time, 'his place at that hour to be taken by one of the attendants', as though Masters had a team of attendants. The Committee probably felt that they, as academics, should have the final say in the catalogue, while Masters, experienced but without a formal scientific education, should compile it. As for the lunchtime attendants, it is possible that these would be one of the general university attendants who would come to the Macleay as required. An assistant, as distinct from an attendant, had been appointed in October 1890 in the Geology Laboratory and the Macleay Museum at the salary of £200 per annum.²³ The person appointed was W.W. Frogatt, who had collected for William Macleay and was a noted entomologist.

By 1893, Masters had an assistant who worked solely in the Museum. He was paid £19.10s.0d, for six months.¹⁶ The Senate was careful to note that this did not constitute a precedent for maintaining the staff of the Macleay Museum out of general funds.

Sir William Macleay died a fortnight after George Masters had received his written instructions from the Committee. It was then entirely up to Masters and the Committee to fight for the Museum. In fact Macleay's influence had been lacking since August 1890 when, due to illness, he had requested leave from the Senate.^{24, 25}

At first the University was careful but inconsistent in its attitude to the Museum. In 1887 the Senate had decided that 'in as much as the building had been erected entirely of fireproof materials, it was not necessary that it should be insured,'⁹ but in July 1891 Masters was refused permission to have a gas stove in the Museum as it would be 'contrary to a regulation passed by the Senate to the effect that no fire is to be allowed in the Macleay Museum.'¹⁷ Later, in 1893, when a secondhand gas fire was available from the Medical School, the request was granted.¹⁸

An example of the University's parsimony towards Sir William Macleay's gift is shown by the amount of subscription to a Macleay memorial publication produced by the Linnean Society of New South Wales. The original motion in the Senate for £100 did not receive support; nor did the first amendment for the purchase of ten copies; finally it was decided to buy only five copies.¹⁹

The members of the Committee of Management of the Macleay Museum (Professor Haswell of Biology and Professor David of Geology) had a conflict of interest because they also had to seek funds for their own departments. With the limited budget of the University, the more the Macleay received, the less for their departments.

Professor Haswell attempted to make a stand. In 1893, when the Senate had allocated out of the £800 for scientific departments, £130 each for Chemistry, Physics and Engineering, Professor Haswell wrote to the Senate declining to serve on the Macleay Museum Committee

Top:

A sandstone front, one room thick, was built on to the eastern end of the Macleay Building in 1925, providing extra space for the Department of Botany. (Macleay collection)

Bottom:

The entomological collection of the Macleay Museum, circa 1913. This photograph shows that the cabinets were then located upstairs at one end of the museum, probably the western end. (Macleay collection)

of Management because he was 'anxious that there should be no risk of the Macleay Museum being charged to the Biology and Geology Departments as something done for the teaching of those subjects.'²⁷ The Senate did not accept his argument.²⁸ They regarded the Committee of Management as part of his duties and directed him to continue to serve on it, although someone must have taken notice of Haswell's objections, for by 1895 the funding for the Macleay Museum was separate, but dismally small. In 1895, it received £8 out of a budget of £1035, and in 1896 £8 out of a total of £1250 allocated to the scientific departments.^{29, 30}

There is no doubt that in 1893 the University was short of money. The Finance Committee pointed out to Senate that Sir William Macleay's £6000 was insufficient to support Masters' annual salary of £300.³¹ With an annual budget of £8, Masters must have sighed for the time when he was Sir William's private curator.

In 1895, the Committee of Management asked Senate to arrange for more publicity for the Museum. The Registrar was instructed to insert advertisements in the newspapers from time to time.³² The visitors' book for 1895 shows an average of only thirty visitors per month.

Year after year the same two professors were re-appointed to the Committee of Management. Initiatives in the Museum were few and far between.

Masters, required to attend the Museum daily, and perhaps feeling too old for extensive collecting, worked on his favourite groups of insects, including the beetles, re-arranging and re-labelling. He continued to remove some original labels and combined the three Macleays' collections with his own. This action had commenced in the 1870s, according to Macleay's diaries, and makes it difficult today to trace the source of some specimens and thus to recognise type material. Nevertheless, about 7000 types have been recently re-identified or located.

In May 1903, Masters gave to the Macleay Museum his private collection of insects with their cabinets, a collection of birds' eggs, and other zoological specimens.³⁴ Unless they were mostly amalgamated with the Macleay specimens already, it is strange that he did so then, because less than a year previously, Senate had asked the Macleay Museum Committee of Management 'whether the Natural History Collection could not be transferred to the galleries of the Macleay Museum so as to leave the ground floor free for teaching purposes,' the most potentially dangerous assault that had yet been made on Sir William's gift.³⁵

Use of the Macleay Museum for examinations by external bodies continued; for example, in 1908 a Drawing College was allowed to hold examinations in the Museum.³⁶

The visitors' book was not maintained by Masters during the years 1900-1911, despite the Committee of Management's direction in 1891. Perhaps the difficulty of preventing high-spirited students signing allegedly humorous names and, as rumour goes, diverting the

Curator's attention while others stole insects for their required class collections, led Masters to abandon the visitors' book. It is clear from the genuine signatures that many students, and scientists from other museums, made regular legitimate use of the Museum.

In March 1911, Masters admitted his ill health (nervous disorders and poor sight), and the Senate reduced his salary from £300 to £200, along with his hours of work, and appointed an assistant at £175 per annum.³⁷ The assistant (J. Shewan), appointed from the Department of Physiology, had just completed a year's leave on half pay because of ill health.³⁸ The appointment seems more designed to have solved a University staffing problem than to have benefitted the Museum. When Masters died on 23 June 1912 as the result of a carriage accident while on his way to Government House, the assistant was appointed as Acting Curator at £200 per annum.³⁹ There followed an era yet more disastrous for the Museum.

John Shewan

Shewan was fifty-eight when he was appointed Acting Curator. Like Masters he was largely self educated.

Shewan worked for twenty-five years in the Department of Physiology at the University of Sydney. He came to the Department under the patronage of newly appointed Professor Anderson Stuart; both had worked in the Department of Physiology and the University of Edinburgh.⁴⁰ Shewan prepared apparatus, kept lecture notes, drew specimens, and took photographs of the University's building activities. When he became ill in 1910, he was given a year's sick leave. On his return he was transferred to work with Masters, by then old and ill, in the Macleay Museum.

Shewan officially took up his duties as Acting Curator on 12 August 1912, six weeks after Masters died.³⁹ In December, the Senate received two letters; one from the Linnean Society of New South Wales, and the other signed by a number of professional entomologists, both letters asking for the appointment of a trained entomologist to look after the Macleay Museum.⁴¹

The Senate referred the letters to the Committee of Management; but Shewan remained in charge. Shewan must have felt compromised by these and other events outside his control. In 1913, he wrote letters informing correspondents that no funds were available for the purchase of specimens and that exchange of insects could not take place until a curator was appointed.⁴² Shewan did, however, reinstate the visitor's book which had been neglected by Masters.

In 1914, the Senate resolved 'that in view of the necessity for providing immediate accommodation for the large numbers of students in the Department of Botany, the Government be requested to defray the cost of making such alterations in the Macleay Museum Building as will provide temporary accommodation for that department.'⁴³ The estimated cost was £1820.

While waiting for the reply, the University decided that the

collections in the Macleay building (but not the building itself) were an embarrassment. The Building Committee and the Committee of Management recommended to Senate that in view of the accommodation required for the Department of Economics and Commerce, 'steps be taken for the transfer of the Macleay Collection to the Australian Museum on the condition that it be kept a separate collection and known as "The Macleay Collection"'.⁴⁴ Times had certainly changed, for in 1852, the University had tried to acquire the Australian Museum, writing to that institution with 'a view of ascertaining upon what terms the Museum and grounds might be transferred.'³

The end of Sir William's elegant, tall, galleried hall took place in 1917, when it was agreed by Senate 'that if satisfactory arrangements can be made for the proper care of the Macleay collection, the scheme submitted by the Professors of Botany and Geology be adopted and the work carried out, if possible, before the commencement of next academic year.'⁴⁵ The cost was estimated at £3500.

The scheme was to insert two extra floors in the hall, to use the two lower ones for teaching, and to house the collection elsewhere or on the top floor, close to the iron roof.

The fate of the proposal lay in the balance for two years. The trustees of the Australian Museum met and letters passed between that institution and the University of Sydney. Then, on Tuesday 20 November 1917, the decisive meeting took place, a day after a Senate meeting had again deferred the problem of how the Departments of Botany and Geology might be given more floor space in the Macleay Museum building.⁴⁶ It took place at the University Chambers, Phillip Street, Sydney, and included representatives of the University, the Australian Museum, the Linnean Society of New South Wales, and the executor and trustee of Sir William Macleay, J.J. Fletcher. Two accounts of what happened at the meeting appeared in the *Sydney Morning Herald*, one on 9 April 1921 (account of the Registrar, H.E. Barff), and the other on 11 April 1921 (account of J.J. Fletcher).^{47, 48}

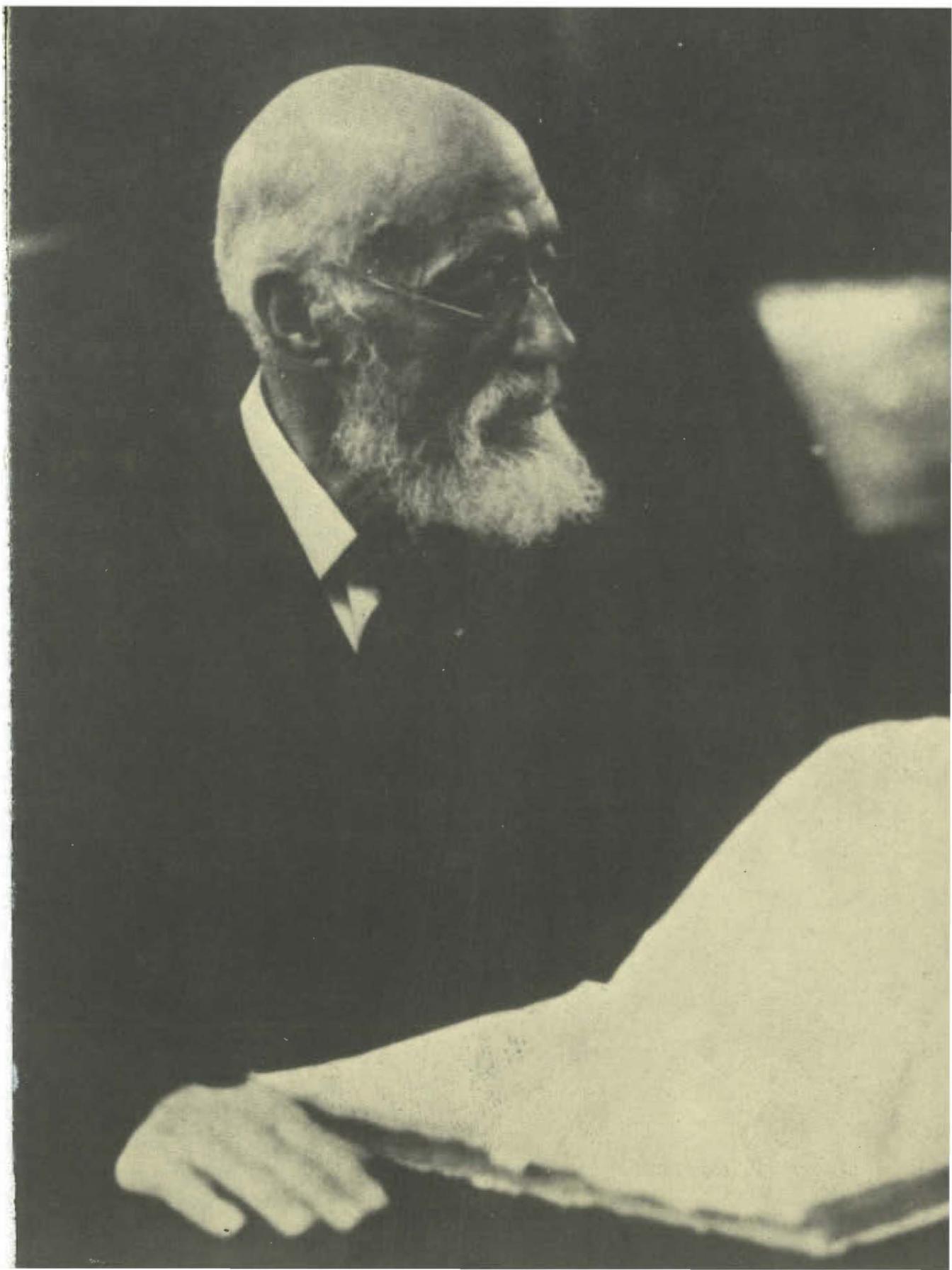
Mr Barff stated that the Chancellor 'pointed out that the building which had been provided by the Government to house the Macleay collection had been built on a very much larger scale than was absolutely necessary for the present purposes of the collection, and that certain portions of it had already been allocated by the Senate to teaching purposes by the insertion of two complete floors, thus providing accommodation for the departments of Geology and Botany. It was proposed that the greater part of the Macleay collection should be placed on the top floor . . . Some discussion took place as to the possibility for the transfer of the collection to the Australian Museum . . . Mr Fletcher . . . offer[ed] . . . no objection to any changes that might be made in the mode of display of the collection.'

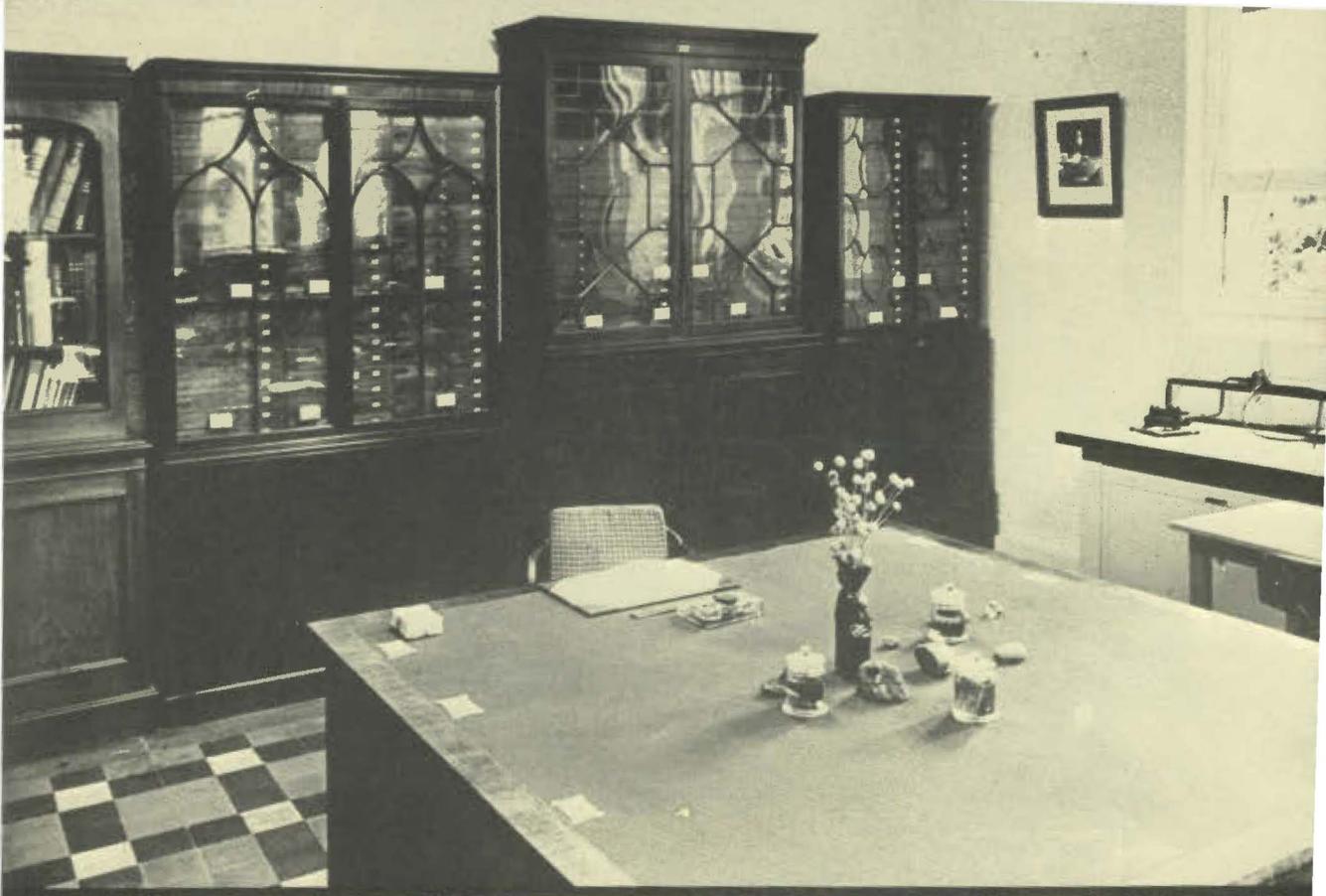
Mr Fletcher, in his letter, stated that he thought Mr Barff's account 'one sided — to some extent an inaccurate — and altogether a

John Shewan,
Acting Curator,
1912-1934.
(Macleay
collection)

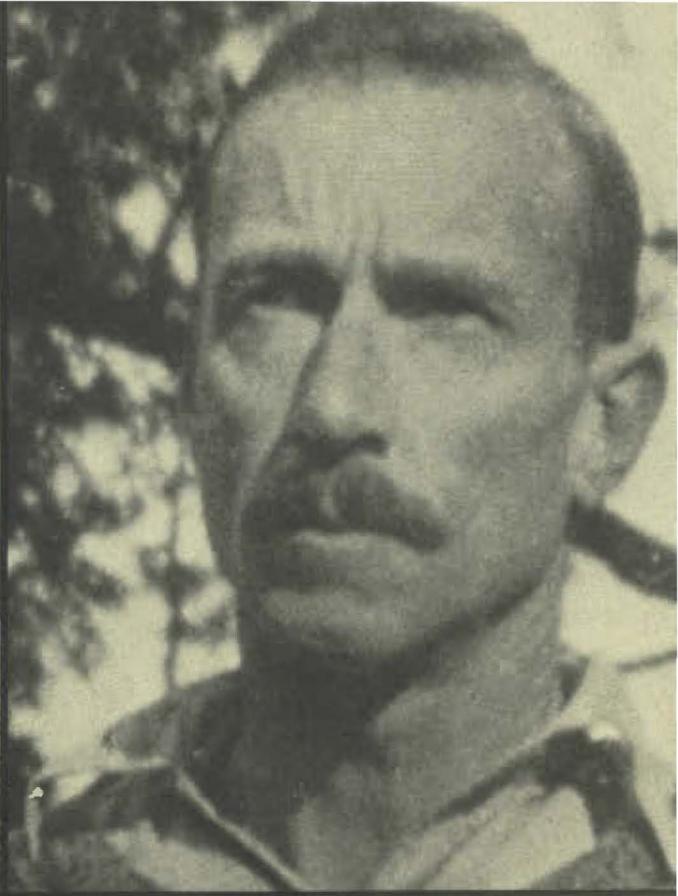
Following page:
Top:
Some of the
early insect
cabinets made
from mahogany,
and the
Australian red
cedar desk which
contains 100
drawers for
insects. This
photograph
shows the
Curator's office
in 1965. (Macleay
collection)

Following page:
Bottom:
The Macleay
Gallery in 1965.
(Macleay
collection)









wonderful document.' According to Fletcher, the Australian Museum had already declined the offer of the Macleay Museum. Furthermore, he contended that the University had 'disturbed the arrangements [in the Macleay Museum] in order to hold examinations . . . and by so doing depreciated its value and importance . . . I am reported as saying that the representatives of Sir William would offer no objection to any changes . . . I objected to the disturbance of the collection . . . [The University] has landed the greater fragment of the collection in a blindless garrett, immediately underneath an iron roof, without a ceiling. The result is that delicate specimens of insects (some of them have been in the cabinets about 118 years), and spirit specimens are alternately in something like an oven, and then in something like a cool chamber . . . The University has also seriously interfered with the original 'fireproofness' of the Macleay Museum building. Tons of wood have been put into a building designedly planned as fireproof . . .' An account by a *Herald* journalist on the appearance of the Macleay Museum building in 1921 stated,

This building has now been diverted from its original purpose, and there is no sign of a mural tablet on it anywhere to show that it houses the Macleay collection. The main entrance, and about a third of the building, are utilized for the botanical classes and the housing of botanical specimens. The word 'Botany' is prominently displayed on the glass panels at the main entrance, where there should be the words 'Macleay Natural History Collection'. On going around to the back, there is a door on which the word 'Geography' is displayed . . . the only portion of the Macleay collection now in it [the ground floor] are the two large cases . . . which the University desires to get rid of . . .

A third storey, which is really an attic or loft, has been constructed and on this the main specimens of the Macleay collection are now stored rather than housed. Two-thirds of the main building has been diverted from its original purpose . . . by means of a special crane the cases were hauled from the main floor and gallery up to this attic, and when the attic was as full of cases as could conveniently be packed in there, the floor was filled up with concrete, so that the Macleay collection is, to all intents and purposes, hermetically sealed in an attic . . . The attic is badly lighted, and there are no blinds on the windows to keep out the sun from injuring the specimens. The Curator has temporarily placed pieces of muslin in front of the windows, but while this is evidently the best that he can personally do, it affords no real protection to either the cases or exhibits . . . The cases are packed so closely together that there is just sufficient space to walk between . . . it is absolutely impossible to carefully study the specimens.⁴⁹

Among Shewan's papers in the archives of the University are measured drawings of the museum cases and contents. The drawings were probably made at the time of the move. In March 1919, Shewan wrote to J.J. Fletcher informing him that the Museum was now accessible again, for since October last until ten days ago the only

Top left:
Keith Salter,
Curator,
1934-1945.

(Macleay
collection)

Top right:
Jim Henry,
Curator,
1945-1958.

(Macleay
collection)

Bottom left:
Elizabeth Hahn,
Curator,
1959-1963.

(Macleay
collection)

Bottom right:
Jenny Anderson,
Curator,
1963-1966.

(Macleay
collection)

Previous page:
The southern
side of the
Macleay
Building, circa
1970. The two
doors lead to the
telephone Private
Automatic
Branch
Exchange, which
has occupied
part of the
ground floor
since 1964.
(Macleay
collection)

Previous page:
The Macleay
Gallery in 1976.
The roof was
lined in 1935 in
an attempt to
reduce
temperature
variations,
hiding part of
the delicate truss
work supporting
the roof.
(Macleay
collection)

way up 'to the principal part of the Museum was by a long ladder'; and reminding him that the new 'entrance to the Macleay Museum is now at the West end of the Building and two stairs up.'⁷⁸ In April 1919, Shewan wrote to the South Australian Museum mentioning 'the recent removal of the Macleay Museum to new quarters.'⁴²

Public controversy had been started by J.J. Fletcher's remarks in his presidential address to the Linnean Society of New South Wales on 30 March 1921.⁵⁰ The address was reported in the *Sydney Morning Herald* and fuelled by letters from a Member of Parliament and D.G. Stead, a well known zoologist who had often signed the visitors' book of the Macleay Museum in its first ten years.^{52, 53, 54, 55}

Fletcher had been aware of the alteration of the Macleay Museum building for some time, as the changes had been carried out between June and November 1918.^{56, 57} The final blow which spurred him to mount his attack was when the University consulted him in February 1921, as a trustee of Macleay's estate, about offering two large display cabinets to the Australian Museum.⁵⁸

After the controversy faded from the newspapers, the Linnean Society tried to revive it in November 1921 by writing to the Senate 'that the Council of the Linnean Society . . . is of the opinion that the Macleay Collections are not easily accessible to the members of the Linnean Society.'⁵⁹ The matter was referred to the Committee of Management. It deliberated for two years before putting a request before the Senate, which promptly adopted it.⁶⁰ The report contained three main points: —

Pending the promise of adequate permanent accommodation, and to avoid the risk of further deterioration during the coming summer, the more perishable portion of the collection might be housed temporarily in the large first floor laboratory of the Department of Zoology which is not at present being fitted. The portion referred to would comprise the stuffed and mounted vertebrates, and the insects.

The Committee, while allowing that the Acting Curator, Mr J. Shewan, has carried out his duties with painstaking care and considerable ability, is of the opinion that a person trained in natural history, preferably a graduate, should be appointed to the office of Curator.

Since the entomological collection forms such an important part of the whole, the Committee thinks it would be a useful step if the Lecturer in Entomology be added to the Committee.

The report also contained a recommendation which indicated a growing acknowledgement that the University had not treated the Macleay's gift well. The recommendation read, 'Since it does not seem probable that the whole building will revert to its original purpose, consideration might be given to the question of erecting a simple and suitable building to contain the collections on some other site.'

This matter was referred to the Buildings and Grounds Committee

which in December 1923 successfully proposed to Senate 'that the entomology portion [only] of the Macleay collection be housed temporarily . . . in the Department of Zoology'; 'that a new Botany Laboratory be built in front of the Macleay Building at an estimated cost of £1500'; and 'that as soon as practicable a new building be constructed for the Macleay Collection, convenient to the Zoology Department.'⁶¹

News of the last proposal reached the Linnean Society, which, eager to see action, wrote 'urging that the proposed new building to house the specimens be commenced immediately.'⁶² The Society also asked to see the plans. Though the Committee of Management haughtily replied that if they showed the plans it would be 'an act of courtesy only', they were clearly delighted with the idea of the new building, considering 'that the provision of a new building is a matter of urgency, since the provision of a suitable building was an important condition when the gift was made.'⁶³

The extensive additions for Botany carried out in 1924 to the front of the Macleay Building changed the whole character of the building. No longer did it mirror and enhance the Great Hall; the entrance to the collections was now only through the back door. Oriental studies was housed in three rooms in the Macleay Building. The insects, mammals and birds went to the Zoology Building. A case of Japanese antiques were transferred 'temporarily' from the Museum to the Old Refectory room.^{64, 65}

In 1926, Professor Harrison suggested that Dr G.A. Waterhouse, a renowned entomologist, be offered the position of Curator of the Macleay Museum at £300 per annum, but the suggestion was turned down by the Vice-Chancellor and the Senate.^{66, 67}

The new building for the Museum did not materialise. Shewan, still Acting Curator, answered letters and went to and fro between the Zoology Department and the top floor of the Macleay Building, answering enquiries, but according to the subsequent curator, doing little or no maintenance to the collections.

In 1933, when Shewan was 77, he was granted three months sick leave to recover from a proctectomy operation. His letters to the University indicate he suffered considerable pain after the operation, and in November the Senate agreed 'to release him from the service of the University as from 1st March 1934', with a pension of £2.10s.0d. per week.⁶⁸

Keith Salter

Salter was appointed Curator of the Macleay Museum in 1934, less than a year after he had graduated in Zoology and Biology from the University of Sydney. He was appointed on the recommendation of a member of the Committee of Management (W.J. Dakin, Professor of Zoology since 1929), for a period of five years. His salary was to be from £250-325, 'subject to any prevailing reduction in salaries.'⁶⁹

As well as his duties as Curator, Professor Dakin expected Salter to

take a number of classes in Zoology. During 1934-1936, Salter gave four first-year practical classes per week, and in 1937-8 he gave three second- and third-year practical classes in addition.⁷⁰ This meant that over half Salter's time was spent outside the Museum, which was contrary to the Senate's regulations concerning the curator's duties, but it effectively increased the staff of the Department of Zoology (the Head of which was on the Committee of Management).

Salter's early years in the Museum were spent in housekeeping activities. He found that the fish, anthropological material, invertebrates other than insects, and the extensive library were crammed into about three-quarters of the top floor of the Macleay building.

The other quarter was partly divided by a timber and glass partition and had been used at some time in the past as a workshop.⁷⁰ The show cases and specimen jars were encrusted so thickly with dirt it was impossible to see through the glass. Salter had the partition removed, washed the glass, and arranged the 9000 fish and thousands of other specimens in a logical way.

At this time, the roof of the Museum had so deteriorated that it needed to be replaced. In 1934, the Senate decided 'that the roof of the Macleay Museum be replaced by a roofing of heavy galvanised-tank-quality iron; and that a ceiling be provided of Coletex [a fibreboard] or similar material.'⁷¹ The estimated cost was £730. Early the next year, the Senate was considering using Muntz metal, a long-lasting combination of copper and zinc, but it finally decided on accepting a quotation from R.C. Brown of £1177 for galvanised iron.^{72, 73} At the same time, £450 was spent on providing the Sports Union and the Students' Representative Council with a weatherboard building at the back of the Museum. They were at that time in rooms on the western end of the Macleay Building. The space to be vacated was needed because Zoology wanted the Macleay Museum's insects and birds out of their building, where they had been for ten years or more.

Salter carried the birds up to the top floor beneath the now lined roof. This provided some insulation, although variations in temperature of more than 60°F continued to cause deterioration of the specimens. The original design, a tall galleried hall, had relatively small temperature variations. Salter made a card index catalogue of the bird specimens.

The insects and their cases were taken to the space vacated by the Students' Representative Council and Sports Union on the ground floor, where the temperature variations were much less.

From 1937 on, Salter was giving classes in addition to the seven a week he already had. In 1937 he had fifty entomological practical classes; in 1938 he was also required to give invertebrate practical classes; in 1939 he took over Dr A.R. Woodhill's lectures while his colleague was on study leave, and in 1940 he was lecturing and taking the practicals of second- and third-year Zoology.

The increase in Salter's teaching load was due in part to his increased experience and in part to members of the Department of Zoology becoming involved with World War II. The Head of Zoology, Professor Dakin, still worked in the University, but was employed by the Department of Home Security to work on camouflage, and Dr Woodhill enlisted in an anti-malaria unit. In 1942, Salter had 675 hours of formal teaching, and arranged the evacuation of most of the birds and some of the insects to private residences in Pennant Hills. It seems that during this period the Macleay collection received little attention. Salter was appointed Acting Lecturer in Entomology in January 1943, and Lecturer in Zoology in November 1944, when he resigned from the curatorship of the Macleay.⁷⁴

Van Leeuwen has pointed out that it is ironic that while Shewan's lack of entomological qualifications gave rise to criticism and hampered his curatorial activities, it was Salter's entomological knowledge which was found useful outside the Museum and so left him with inadequate time to work on the collections.⁶

As Salter had been such a useful workhorse for the Department of Zoology, there were hopes and expectations from the Department that the dual duties would continue when the next curator was appointed.

Jim Henry

In World War II, James Reid Henry was a member of the First Mobile Entomological Unit of the Army Medical Corps, reaching the rank of Lieutenant. One of his tasks was to instruct soldiers in entomology with respect to hygiene. While serving, he met Dr Woodhill, the Zoology Department's Entomologist, who was instrumental in having him appointed as Curator from 1 August 1945. He had applied by letter for release from the army in March 1945 for the purposes of a civil occupation in the Macleay Museum. Henry did not have a degree, but had considerable practical knowledge of collecting. Born in Ceylon, he worked as an assistant for his elder brother in the Colombo Museum, collecting and preserving insects. When old enough to enlist in World War I, he went to England and became a cadet pilot. After the war, he worked for a time for the British Museum; in 1924 he migrated to Australia and collected bird skins for the National Museum of Victoria on a free-lance basis from 1937-1942. This Museum sent Henry to Western Queensland to accompany a member of the American Museum of Natural History in 1940-1941.⁷⁵

After his war work, Henry was appointed as Curator of the Macleay Museum and Assistant in Entomology in the Department of Zoology. In regard to Henry's appointment and duties in Entomology, a letter Woodhill wrote to another prospective curator some years later is illuminating: 'although there may be other applicants, I don't think anyone with your qualifications is likely to turn up, and I am pretty certain I could secure your appointment. The position is

actually part-time curator and part-time technical assistant in Entomology. The latter job consists of looking after my class material, setting it out for the classes and putting up blackboard drawings.'

Henry had some difficulties in adjusting to life after his discharge from the army, but was always happy in the field. He corresponded with Ernst Mayr of the American Museum of Natural History about the possibility of collecting in university vacations. 'The resulting collections would be practically entirely the property of the American Museum of Natural History — this University would require only a small amount of teaching material, chiefly insects; birds (subject to whatever conditions the permits require) would all go to you and any mammals also.'⁷⁶

This suggests that Henry was more concerned with his entomological duties for the students, which would be broken by fixed vacations, than with his duties in the Macleay Museum. The mention of the insects for teaching being required by the University supports this view, especially as the birds and mammals would have been of no use to entomology, but might have been useful in the Macleay. If the collections were to be paid for by the American Museum of Natural History, as they had been before the war on the Queensland collecting trip, there would have been some financial advantage to be considered. Henry's letters to Mayr do discuss the amount to be paid for specimens. Verbal accounts of Henry all suggest he was an excellent companion, a very knowledgeable natural historian and an accomplished painter of birds, but one who found his university duties kept him indoors more than he liked. Van Leeuwen has indicated that at this time the Macleay Museum was a meeting place for friends rather than a hall of stimulus for students of science.⁶

In 1949, the Professor of Geology, whose Department then occupied part of the building, wrote to the Registrar, 'Can you supply me with a copy of the terms of, or the essential details of, the conditions attaching to the Macleay Bequest? This matter is rather urgent, as it is vital that I should find additional research accommodation within this Department immediately.' The building was then occupied by Geology, Botany, and the Macleay Museum.

Henry's wife, Sheila, died in October 1957, and he resigned in April 1958, aged 58, to spend months at a time camping in the Royal National Park south of Sydney.

The next two curators, both women, ushered in a significantly different era for the Macleay Museum.

Elizabeth Hahn

Hahn was appointed in September 1958 as Curator of the Macleay Museum and Technical Assistant in Entomology. She was eighteen years old. Hahn had previously been a laboratory assistant in the Department of Zoology working for Keith Salter, Dr A. Bateman, and Dr A.R. Woodhill.

In 1957 Salter went overseas and she was asked to help Henry in the Macleay Museum. When Henry resigned in 1958, he suggested that Hahn might be a suitable replacement.

Hahn took stock of the situation in the Macleay, and formulated a plan of action. In her first year, she dusted, topped up specimen jars that had not been touched for years, put naphthalene in the specimen drawers, wrote about the Museum, started to compile a list of the type specimens, and called a meeting of the Committee of Management.

On 13 October 1959, the Committee of Management wrote a forthright letter to the Vice-Chancellor. After summarizing the history of the Museum and praising Hahn for her energy, it listed four possibilities for the future of the Museum:⁷⁷

1. *To reconstitute the Museum, within a little more than its present floor space, as an exhibition and study collection. The additional space could be obtained when either or both of the Botany and Geology Departments vacates the Museum building, or by transferring it to a new Zoology and Botany building to be put up on the far side of City Road, or, at a cost of about £2,000, by putting a new floor into the upper part of the Botany Lecture Theatre.*
 2. *To abandon the use of the Museum for exhibition purposes, and to limit it to its function as a study collection. This would be much less expensive, would probably be possible in less space than it occupies at present because some of its present material is of no use for serious study. To do this, however, is probably contrary to the terms of the Will.*
 3. *To hand over the entire Collection as it stands to the Australian Museum, which would almost certainly be willing to accept it. In the opinion of one of us (Professor Murray), this would probably be the best course, for it would protect the Collection against further neglect by the University, and would ensure that it would be in the hands of experts in museum work. One of us (Dr Woodhill) is opposed to this proposal on the ground that this is mainly a research collection and research is a University function. The proposal would doubtless require Court action to change the Will.*
 4. *To do nothing, which we trust no one would contemplate.*
- The letter ended by asking for:
One Laboratory Attendant, Male, for one year.
A capital grant of £1,140.0.0, Maintenance . . . £100.0.0.*

By 24 December 1959, the Finance Committee had approved the appointment of an attendant and provided money for most of the items requested. By contrast, no decision was taken on the four possibilities.

At this time, the University was expecting to have money for a new Geology building almost immediately, and for a new Biology building in about ten years time. The Macleay Building was expected to be demolished.⁷⁸

The University Archivist, who had recently completed a book on Sir

William's 1875 voyage to New Guinea, and who was perceived by Hahn as an ally, was added to the Committee of Management.

In February 1960, Henry Reade was appointed as Attendant in the Macleay Museum. His job was to do the cleaning and tedious work such as fumigation and filling up jars with alcohol. His work was satisfactory, and approval was given for his re-appointment in 1961.

In July 1961, the Committee of Management asked for a junior female laboratory assistant, but this was refused.⁷⁸

The Attendant, Reade, was replaced by Harry Keating, who by July 1961 was attending taxidermy classes at the Australian Museum. Hahn had finished listing almost 4000 insect types and was preparing stencils to print the publication in house, as the Linnean Society of New South Wales was willing to meet the expense. Hahn's publication was the forerunner of the many Macleay Museum publications of the 1970s and 1980s.⁷⁹

Hahn's annual maintenance grant in 1959 was £50. By 1962 she had obtained and was spending more than ten times this amount. Towards the end of 1962 she decided to resign in early 1963. The University provided funds for the new appointee and Hahn to work together for two months so that there would be a smooth transition. Woodhill wrote a fitting reference:

*Prior to Miss Hahn's appointment, the Museum had been considerably neglected but owing to her enthusiasm and hard work (many more hours than were officially required) it is now in excellent order and is well known and used by many research workers. All the records are accurately kept and the interior of the building has been renovated. Miss Hahn also published a record of some 4,000 type specimens of insects contained in the Museum. All this was done on her own initiative. We have a very high regard for Miss Hahn's general character and ability.*⁸⁰

Van Leeuwen rightly pointed out that Hahn 'had shown that the poor state of the Museum was not solely the result of low funds and neglect by the University . . . her achievement was impressive.'⁶

Jenny Anderson

Anderson (née Morris) was appointed on 1 February 1963 as full-time Curator of the Macleay Museum (with the salary and status of a demonstrator) in the Department of Zoology and part-time Demonstrator in Agricultural Entomology. The words, 'in the Department of Zoology,' underline the way in which the curatorship of the Macleay Museum and its collections had become a satellite of Zoology. Anderson was the fourth successive curator to have joint duties. She was well qualified, having the previous year graduated as a Bachelor of Science in Agriculture, specialising in Entomology, in which she obtained a Distinction.

Hahn and Anderson worked together in March and April 1963, ensuring a smooth transition, and enabling Anderson to implement

her own priorities without delay.

Some of the tasks Anderson tackled were cataloguing of the birds, anthropological specimens, fish, frogs, reptiles and mammals; pesticide fumigation; re-papering of all display cases; restoration of the Chippendale insect cases; negotiation with the University Library for the return of some of the Macleay library; relocation of geological specimens; and covering the windows with blinds and paint to prevent specimens fading. Like Hahn, Anderson wrote several articles and gave lectures about the Macleay Museum.⁸¹ She located historical material about the Museum and organised its archival papers.

Keating was promoted to Laboratory Assistant, Grade II, in October 1963. A junior female laboratory assistant was again asked for, and in 1964 Anderson argued, 'Surely a collection of this size and importance warrants three workers.'⁸² She noted that two-thirds of her time was spent typing letters and catalogue cards.

In 1964, the Vice-Chancellor, the Committee of Management, and members of the administrative staff held a meeting to consider the status of the Museum. A new Biology building was proposed within five years, and the questions raised were the fate of the collections and the fate of the Macleay Building. The ground on which it stood was prime land close to the administrative centre of the University, and the building, both internally and externally, was a hotchpotch of additions. The points made by Fletcher in 1921 were referred to, and some discussion took place about incurring undesirable publicity.

Anderson opposed the old standby of giving the collection to the Australian Museum. She was asked to prepare costs and estimates of space that would be necessary for the collections to be housed in the new Biology building. Anderson also worked out the costs involved in acquiring new cabinets for all the specimens (£19,986), but little thought appears to have been given to the question of space required for exhibition purposes.⁸³ If the collection had been moved then, it would have become a research collection only.

1965 saw the appointment of the long-wished-for female Laboratory Assistant, Miss Kerry Smith. The fate of the Macleay Museum was quietly ignored while the opposing factors of space and funds available for the new Biology building were debated and changed time and time again. Meanwhile, Anderson had more time for curation because she was not assigned demonstrating duties for the year.

Hahn's and Anderson's efforts at publicity were starting to pay off. Articles in the *Union Recorder* brought the Macleay Museum to the notice of students. The tone of the articles was somewhat humorous but they contained many of the facts assembled by the two curators.

A remarkable feature of the curatorships of both Hahn and Anderson was the number of outstanding loans they managed to recall from people and institutions all over the world.

Anderson gave notice in May 1966 that she wished to resign in October 1966. Her curatorship and that of Hahn's, in spite of their

relatively short terms, had revitalized the Macleay Museum. Their work was the most effective since the Collection had come to the University.

The incoming curator, who had been a lecturer in Biology since 1962, was assigned the job as a duty extra to his teaching and research activities. The demonstrator position which had been occupied by Anderson was utilized by the Department of Zoology.

Peter Stanbury

Appointed to 'carry the title of Curator of The Macleay Museum', Dr Peter Stanbury had additional duties as Lecturer in Biology. He had set up a number of displays in the hall of the Department of Zoology for the benefit of students and this, together with his general knowledge of the animal kingdom, appeared to be his main qualifications for his post in the Museum.

Stanbury was told informally that the collections were no longer relevant to the University and that schools would probably welcome them.

Stanbury assessed the situation for a year before making any decision. The top floor which housed all the specimens except the insects, and which was the only display area of the Museum, was in fact a store. Rows of jars and specimens in their cabinets stood close packed on the uneven concrete floor which had been inserted in 1917-1918. The edges of the hole through which the cases had been raised could easily be discerned. In order to clear some floor space, Stanbury had a catwalk and shelves built at each end of the gallery. He attempted thematic displays rather than taxonomic ones, and became familiar with the mammal collection by writing a survey of the group.⁸⁴

Before any decision could be taken on the disposal of the collection, it was necessary to ensure the long-term safety of the specimens. The huge number of insect types posed a special problem; Hahn had listed 4000 in her pioneering catalogue, but there were likely to be many more. The other groups of animal types were easier to tackle, and Stanbury asked experts in the field to co-operate with him in the publication of lists of the type specimens. Among those he consulted were scientists in the Australian Museum, who expressed interest in keeping the types if the collection were to be dispersed. The lists were published by the Linnean Society of New South Wales, and Professor Birch, then Head of the School of Biological Sciences, approved the transfer of the type specimens 'on permanent loan' to the Australian Museum. The Committee of Management was not consulted.

Birch wrote to Mr K.H.L. Key, Chief Curator of the Division of Entomology of the Commonwealth Scientific and Industrial Research Organisation, in April 1969, seeking advice about the Macleay insect collection.

It would seem appropriate that valuable material such as type specimens be located in the National Collection, where they can be adequately cared for. I would like to have your views on this. In the terms of Macleay's will we are not permitted to give the specimens to another institution but it would be in order to give them on indefinite loan. If the particular material that I refer to were to be transferred to the National Insect Collection, it would be necessary for much of it to be remounted on incorrosible pins. This is a job that we cannot do because we do not have the staff and, in any case, I expect it should be done under the supervision of competent taxonomists. If the material were to be loaned indefinitely to the National Collection, I think we would need to make a condition that the material should be appropriately mounted for safe preservation, otherwise it might as well stay here.

Key replied:

. . . the proposition is one that interests us very much . . . But I feel we should also have full authority to lend individual types to approved borrowers, subject to the same safeguards and procedures as we apply in our own loans. Moreover, to enable a particular type to be located when required, it would be desirable for all the Macleay types to be entered, along with our own, in our Register of Types, and to bear our standard coloured labels, which enable them to be picked out in a drawer of other material. In the light of the above, the expression 'indefinite loan' is one that could possibly give rise to difficulty. This expression is normally used with reference to material that one museum places in the custody of another for a long but indefinite term — perhaps for the period of active work of a particular specialist on its staff — but which is expected to be returned eventually. The arrangement that you are suggesting would, I think, be better described as one of 'permanent loan', an expression which (in spite of its internal contradiction!) is also in use in the museum field. If you agreed, I would propose that every specimen should bear the label 'On permanent loan from Macleay Museum, University of Sydney.' With regard to the remounting, I think it would be wiser to leave this to our discretion . . . As you see, I am making a plea for us to be given full discretion in administering the types, subject to the objective of 'safe preservation', which we share.

In May 1969, Birch wrote to Key agreeing in principle, but with two important provisos: that the loan could be recalled and that lists be published of the material to be transferred.

The term 'On permanent loan from the Macleay Museum, University of Sydney,' is also acceptable to us so long as it is understood that the terms of the Macleay's will do not allow us to give the specimens away and that there might be an occasion, however remote, when we would be bound to recall them. I cannot conceive of such an occasion.

The remounting, of course, we leave to your discession [sic].

With regard to publishing a statement about the types:

(a) A full list of types loaned will have to be prepared for your and our records.

(b) The Curator of the Museum, Dr. P.J. Stanbury, is anxious to see this list published in print; the roneoed list by Elizabeth Hahn has only had limited circulation and in any event needs to be revised and added to. Dr. Stanbury has published, or intends to publish, 8 lists of vertebrate and invertebrate types in the Proceedings of the Linnean Society of N.S.W. and to have the lists of insects published would complete the recording of the type specimens of the Macleay Museum. He suggests that the list of authors should include, as minor authors, D.E. Hahn, who prepared the first draft of insect types, and his own, as indicative of the fact that, under his curatorship, the type specimens were housed in responsible hands . . .

The result of this communication was that entomologists from the Commonwealth Scientific and Industrial Relations Organisation (CSIRO) came to inspect the Macleay Collection. Key told Birch,

Our people have returned from their visit to the Macleay Museum with a pretty fair assessment of what will be involved in transferring the types to Canberra. As you forecast, they have discovered a number of unlisted and unsuspected types by such early authors as Boisduval, Scott, Meyrick, and others, which it is most valuable to have located. Undoubtedly many more will be found as the work of transfer proceeds. This will certainly take several months to complete. I suggest that the specimens should be transferred in convenient batches by the specialists concerned, the Hahn and supplementary type lists being appropriately annotated to indicate what has been withdrawn at each stage.

It has emerged that there is a certain amount of important material other than types which it would be desirable to safeguard in the same manner by placing on permanent loan to the National Insect Collection. This includes specimens from classical collecting sites now destroyed, specimens of rare species, specimens from critical localities, and material that formed the basis of monographic works such as that of Mackerras on the Pelecorhynchidae. Indeed, there would be a case for lodging in the ANIC one specimen, or a pair where possible, of every species represented in the Macleay Museum but not in the ANIC. I would think that if material in all these categories was extracted, the total would be well below 10% of the present Macleay holding and no impairment of the collection for its anticipated future function would be entailed. On the contrary, judicious supplementation from the ANIC could substantially increase its usefulness. We would not want any exotic material...

There followed a lengthy argument about why the insects should not go to the Australian Museum, and Key closed the letter saying,

I assume it will be satisfactory now if our people make their individual arrangements with Stanbury to visit the Macleay Museum and proceed with the work of transfer.

Stanbury's initial forebodings about the size of the transaction grew; but with no entomologist on the Macleay staff or likely to be appointed, he asked Birch to confirm that the CSIRO would keep to the arrangements outlined above. In June, Birch again wrote to the CSIRO:

Would you be agreeable that the basis for extracting type and historical material from the collection of insects in the Macleay Museum be that every extraction should be recorded in an appropriate journal, such as the Linnean Society of NSW Journal?

We would be willing to exchange some specimens which do not fit the above general rules, but would like to keep such exchanges down to an absolute minimum, so as to retain the integrity of the collection as much as possible. We shall be most grateful for assistance in organising the insect collection after you have extracted the types. A reorganisation on modern principles will benefit many entomologists and entomologists-to-be, and I hope it will be of assistance to you to know exactly what our collection contains. We want the collection to be useful and at the same time it has an historic association with the University of Sydney which we need to preserve.

Stanbury had the 954 drawers of insects photographed and asked that each insect that was taken be circled on the photograph and its genus and species recorded. Unfortunately this was not always done and there is no complete record of which insects were transferred to Canberra. Stanbury also proposed to Birch that the Committee of Management might be called together, perhaps with the addition of a senior administrative person such as the Deputy Principal, another Professor of Biology, and the Curator. This was agreed to by the Senate on 6 April 1970.

On 25 March 1970, when three-quarters of the insect types had been transferred from the Macleay, Key wrote to Birch that '... we should perhaps consider further a matter raised in earlier correspondence, namely the way in which the transfer should be documented.' He went on to indicate that publication in a journal seemed 'excessive' and asked whether some form of duplicated typescript might be adequate.

At this stage, Stanbury went on sabbatical leave, and the matter went into abeyance. On his return, he initiated a series of special exhibitions and a publication programme, which has continued throughout the 1970s and 1980s. These projects brought new visitors to the Macleay Museum and made it well known in the museums community.

In 1970, the Director of the Australian Museum, Dr Frank Talbot, had asked for the Macleay shell collection (including many thousands of specimens obtained during the *Chevert* voyage) to be given to the Australian Museum. Stanbury did not look kindly on this proposal. The Head of the School of Biological Sciences, Professor Michael Pitman, wrote to Stanbury expressing his disappointment 'that the

members of staff you consulted did not feel that we should agree with Dr. Talbot's suggestions. Personally, I think we should negotiate some kind of recurrent loan of material from the Australian Museum, preferably in the form of display items; they would be useful in keeping a degree of variety in our own museum with a minimum of inconvenience to you and your staff . . .' although he added in a postscript, 'I accept your letter though.' In 1971, Pitman was appointed a Trustee of the Australian Museum.

One of the members of staff that Stanbury consulted was Lydia Bushell, who had previous experience in the Nicholson Museum. She had been appointed early in 1971, and was the first and the longest-serving of many dedicated and professional museum personnel appointed under Stanbury's curatorship.

At the Committee of Management meeting in December 1971, Stanbury sought additional professional staff, in particular an entomologist and a taxidermist, ways of attracting members of relevant departments at the University to work in the Museum, and space to exhibit the collections in a central ground-floor location. After considerable debate, the Committee supported Stanbury's earlier decision not to give the molluscs to the Australian Museum. The Committee resolved to meet once a year.

In 1972, the Registrar asked one of his staff to report on the Macleay Museum. The findings were summarized thus:

1. *It would appear, in my opinion, that the £10,000 given by the State Government was for the purpose of constructing a suitable building to house the Macleay Collection. It has not been possible spending only a reasonable time in research to locate either correspondence between the State Government and the University on the terms on which the grants were made or the full correspondence with Sir William Macleay.*
2. *However, it appears that the University, since 1917, has been using the building for purposes other than that for which it was provided.*
3. *The question of whether the University is under an obligation to use the particular building for the original purpose is not legally clear (further research might not clarify this) but there is certainly evidence that the money was given for a particular purpose and thus a trust may have been created.*
4. *There appears to be no doubt, morally and legally, [of] the obligation to house the Macleay Collection in a suitable building.*

This report and Stanbury's push for easily accessible exhibition space, may have had some effect when the Deputy Principal was planning the Capital Works Programme for the 1976-78 triennium. He wrote to a firm of architects proposing that part of the Macleay collections should be located on the ground floor of the building:

We propose to seek funds as part of the capital works programme for 1976-78 for the conversion of the Botany Building [i.e. the Macleay Museum]. There are two inhibiting factors. The original building was erected during the

1880s to house the Macleay Collection. As the needs of Botany grew, the amount of space available for the Collection was reduced. Where the building originally contained a gallery around a ground floor, subsequent internal alterations have roofed over the gallery to accommodate Botany. The Macleay Museum has retracted to the top floor.

In addition, the University switchboard has been located on part of the ground floor. Consideration has been given to the re-location of the switchboard but in view of the cost involved it has been decided that the switchboard should remain in its present location.

Re-development of level 1, therefore, should provide for the retention of the switchboard and for sufficient expansion to allow for an ultimate of approximately 2,400 extensions. There should be provision for improved toilet and messing accommodation for switchboard staff. The balance of the ground floor should now house the Macleay Collection. In your examination of the problem you should, therefore, have regard to the questions of access and security for the Collection.

It is envisaged that the upper floors could well be used for purposes of the University Administration.

This idea was followed up in more detail in a letter to the Architect dated 5 June 1973:

I am now writing to confirm that the University considers that the present Herbarium should become a Chapel and that on the eastern end of the present Botany Building there should be provided a Vice-Chancellor's suite and four (4) other executive suites . . . On the western end of the building, and making use of the western entrance, there should be a large office to house staff associated with personnel recruitment and administration . . . On level 1 on the eastern end of the building there should be provided two or three rooms (which may be used as interviewing rooms by Chaplains) in the area north of that allocated for the P.A.B.X. . . .

The scheme proposed that of the 2475 sq metres of floor space in the building, about one-quarter, or 614 sq metres, should revert to the Macleay; but it was an important decision for it was ground-floor space, not up two flights of stairs.

Stanbury was not consulted and did not hear of the plans until 1974. It is unlikely that he could have had much input, because in 1973 he was asked to co-ordinate an Open Day for the University, the first for more than ten years. It meant that he had little time either for his lecturing duties or for the Museum in the middle part of the year. After Open Day, he was appointed as Director, News and Public Relations, and he was relieved from his lecturing duties in Zoology, although he retained curatorship of the Macleay Museum. Lydia Bushell effectively stepped into the *de facto* position of Acting Curator whenever he was absent on other duties.

The building which had housed the Macleay Collection, and which since the 1920s had housed the Department of Botany, was at this

time called the 'Botany Building'. Stanbury was instrumental in the Senate resolving on 2 June 1973 that 'the building currently occupied by Botany and the Macleay Museum be named the "Macleay Building" in honour of Sir William Macleay.'

Stanbury heard of the 1973 plans for the future of the Macleay Building in June 1974, when he was engaged in preparing a submission to the Committee of Enquiry on Museums and National Collections. He suggested that the Macleay Building would make an excellent Museum Centre for all related activities within the University and as a point for the University to relate to and communicate with the public.

A consequence of this submission was that in 1976 the Australian Vice-Chancellor's Committee wrote to the Vice-Chancellor of the University of Sydney suggesting that he might care to approach the Government independently about the University of Sydney's museums.

Dear Professor Williams,

Report of the Committee of Inquiry into Museums

. . . The AVCC Executive has reviewed the position and believes that there is no further useful comment which the AVCC can make. Further, it feels that it might be appropriate for individual universities to present a case on their special needs. I placed before the Executive the comments of the University of Sydney which were prepared by Dr Stanbury and dated 11 May 1976. The Executive felt that your university may indeed have a special case to make in respect of its museums, and believes that you might wish to consider writing independently to the Government.

The Committee of Inquiry referred to above had in 1975 praised the action of the Macleay Museum in loaning the insect types to the CSIRO, recommending that,

. . . if universities cannot care adequately for important collections, and cannot make them reasonably accessible to scholars, they — in the interests of scholarship — transfer them to a major museum. The recent transfer of the Donald Thomson collection of Aboriginal material from the University of Melbourne to the National Museum of Victoria, on a long-term loan, is a useful precedent. A welcome precedent in the natural sciences is the transfer of the valuable holotypes from the Macleay Museum at the University of Sydney to major collections in Sydney and Canberra.

In 1976, the Macleay Museum employed an ornithologist, Graeme Phipps. He re-catalogued the bird collection and re-housed them in hermetically sealed specially designed metal cabinets. This freed the former bird cabinets for the use of the anthropological specimens. Some wooden insect cabinets were purchased each year to re-house the insects in a modern way that would not disturb their historic integrity.

Up to 1976, the Museum's funding had come through the Department of Zoology or the School of Biological Sciences. Following a disagreement between Stanbury and the Head of the School of Biological Sciences over the allocation of funds, the University's administration decided to treat the Macleay Museum as a separate department as from 1977.

Stanbury left Australia on sabbatical leave in 1977 and John Hodge, Lecturer in Charge of Museum Studies, was appointed Acting Curator. At this time the CSIRO asked for more Macleay insect specimens, although they had neither published lists of the specimens previously taken, nor identified each specimen with a Macleay Museum label. The CSIRO asked for one hundred drawers at a time to be taken to Canberra for inspection by their entomologists, who would remove all Australian specimens of importance to taxonomic research, including,

- (i) Primary types or syntypes or specimens considered likely to be primary types on the evidence available,
- (ii) Paratypes, allotypes or paralectotypes
- (iii) Topotypes
- (iv) Specimens cited in the literature as being in the Macleay Museum,
- (v) Undescribed species, and
- (vi) [specimens] Considered to be of special taxonomic significance; this will be interpreted strictly and reasonably, the aim being to remove as little as possible consistent with this interpretation.

This proposal was unacceptable to Stanbury and he wrote to the Chief Curator in 1978 concerning the Committee of Management's agreement,

I think that the Committee were under the impression that some two or three hundred specimens were involved rather than 10-90% with perhaps an average of 40% of many drawers. I believe it is my duty to resubmit your proposal to them . . .

Until the above situation is clarified, one batch of up to 100 drawers may be taken for appraisal of the complexity of the situation. Further removal must await further discussion and the Committee's decision.

This letter caused considerable discussion and was referred to in Canberra as 'Stanbury's stay of proceedings on our agreement with the Board of Management.' Discussions continued for three years. A previous Curator wrote to the Premier of New South Wales suggesting that the insects should stay in his State. Questions asked in the New South Wales Legislative Assembly failed to provide a solution; neither did a visit to Canberra by Deputy Vice-Chancellor Taylor, who was then Chairman of the Committee of Management.

The University did however accede to Stanbury's long-standing request to appoint an entomologist to the staff. A selection panel, including one member of the CSIRO Division of Entomology, chose

Dr D.S. (Woody) Horning who was appointed on 1 June 1982. He was at the time Senior Biologist of the New South Wales State Pollution Control Commission, and had considerable experience in the United States, New Zealand and the Antarctic.

Horning's first task was to move the insect collection to air-conditioned quarters in the basement of the Badham Building. The Museum was then located in three buildings. He decided that the collection should be transferred into modern wooden cabinets that incorporated the unit tray system — each species of insect would be placed into its individual tray. This procedure is continuing and there are now fifty such cabinets, housing about 40% of the collection.

Stanbury resigned as Director of News and Public Relations in 1980 to work full-time in the Museum. Staffing in the Museum reached a high point: a Director, an Ornithologist (Phipps), an Entomologist (Horning), an Anthropologist (Bushell), a Photographic Historian (Davies), and a Registrar of Science and Technology (Leon). Alan Davies was originally appointed as a Technical Officer, but after a temporary exhibition on the history of photography, and its associated publication, had proved a success in 1977, Stanbury and Davies worked on a definitive history of Australian photographers to 1900.

In 1980, Stanbury was elected a Fellow of the Senate of the University and successfully moved that a Committee be appointed to report on the status and acquisition policies of the museums and collections of the University. Although the Committee found no easy solution to the problems confronting it and it lapsed after two years, the University later appointed Mrs P. Bell to curate the University's art collection.

Associated with the photographic activity was the establishment of the Historic Photograph Collection by two Historical Archaeology graduates, Barry Groom and Warren Wickman, which coincided with a state-wide printers' strike in 1980. The idea of collecting albums and collections of photographs received wide publicity in newspapers put to press by the management, because the unusual photographs filled space easily and quickly. As the images Groom and Wickman collected helped the Museum's other photographic research, their collection was given space in the Museum.

From 1983 onwards, the Macleay Museum acquired computers (the first being loaned and then donated by IBM Australia), with which the various sections of the collections were catalogued, including some groups of insects, the birds, sections of anthropology, mammals, archival Macleay letters, diaries and records, and part of the Historic Photograph Collection.



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Staff of the Macleay Museum at the opening of the exhibition, *Bushfire*, 1981. From left to right, Alan Davies, Lydia Bushell, Peter Stanbury and Judy Leon. (Macleay collection)

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Chapter Five

Macleay Memories

Elizabeth Hahn

Recollections of a Curator

I started work for the University of Sydney as a laboratory assistant in the Zoology Department, working for Alan Bateman (fruit fly research) and Keith Salter. Later I worked for Dr A.R. Woodhill, Reader in Entomology (Culicidae) and Keith Salter, Lecturer in Invertebrate Zoology (Thynnidae). I was fairly well trained in the care of entomological specimens, their setting and resetting. Keith Salter went overseas for 12 months' sabbatical leave and I asked Dr Woodhill what was to happen to the unoccupied part of my time.

It was decided I should help James R. Henry, Curator of the Macleay Museum. During much of my working time there, past events of the Museum's evolution were related to me and very many anecdotes. How I regret not having taken detailed notes. In later years (the late 1950s, in the 1970s and 1980s) I begged Jim to put his recollections in writing, apparently without success.

During Keith Salter's absence, Sheila (Jim's wife) died. He was quite distraught and withdrew very much. A short time later, on the steps to the Macleay Museum office, he told me he had submitted his resignation. I immediately tried to change his mind, but he said the process had gone too far. He was quite determined, told me the date he was leaving and then that he had nominated me as his replacement.

At eighteen years of age, I was speechless. I thought that the proposal was ridiculous and would be thrown out by whoever had to make the decision. It was so very flattering of Jim — and I would just forget about it. And I did. One day, without interview or fanfare, a short internal note arrived with the information that the Senate had appointed me Acting Curator for a trial period of six months. I was incredulous! Congratulatory remarks from staff seemed as if in a dream.

I was only vaguely aware that Keith Salter had had 'something' to do with the Macleay Museum in the past, but I had no way of knowing the extent of his involvement until fairly recently. How I regret the opportunities lost to talk about the collections and benefit

from his knowledge, but at the time I was working for him there was no inkling of what the future would hold. Nor was I aware at the time that the Macleay even existed. On Keith's return he did not volunteer any information — he certainly did not have the time and I was still in ignorance of his earlier role and the extent of his other demands while involved with the Museum.

I recollect one morning becoming official Keeper of the Keys (multitudinous) and taking up the Chair of Henry, a captain's chair with a low half-circle back and round seat, in front of the most magnificent 7-foot-square library desk in which insects were stored on three sides; awed, scared, tentative. The immensity of the place and just one small person seemed at odds . . . as was the task.

Quite some months later, confirmation of my appointment as Curator arrived.

Soon after my appointment, I was asked to appear on the very new medium of television — the afternoon programme of Channel 9 — and to be interviewed by the star of the day and the subject of the gossips in the afternoon newspapers every second day, Tanya Haylesworth.

It was marvellous publicity for the Museum but a petrifying experience for me, following an interminable time having orange make-up and purple lipstick applied for the black-and-white medium of the time. If one had a TV set, there was only one channel to watch and the novelty was still such that electrical stores had a set on in the window at all times, so groups of watchers could gather on the footpath both day and night.

Some time after my appointment, it occurred to me that I was still on a Laboratory Assistant's pay, and enquired if there would be a loading. I was awarded an extra two pounds a week.

A Voyage of Discovery Around the Macleay

To revert to the subject of the keys — rings and rings of heavy mortise keys, some with metal tags indicating the cabinet number. These did not always open the appropriate cupboard and there were many keys without any number. Eventually, in order to be able to undertake a mental inventory of what was stored in the wooden fronted cupboards, I resorted to the metal adze heads. I think they were the kind that William Macleay used to give the New Guinea and Island peoples he met on the voyage of the *Chevert* in 1875. Covered with a cloth, the cabinets, some of them cedar, all beautifully crafted, were gently forced open. Two objects therein are worthy of note. A white powder substance in an open paper bag (about 1 kilo). This was put aside and a few days later I discerned a pencilled name 'Arsenic' just visible on the bag. I and the bag promptly arrived in the Chemistry Department to hand it over for disposal. Another incident concerned some lower level cupboards in the large red cedar cabinets. Gently forcing a door one day I physically leapt back in fright. I do not want again to experience the sensations that went

through me then. There was a crouched body pushed into a back corner, knees drawn up under its chin, forearms overlapping. Shock subsided some time later, after I had told myself I was in a museum and ought not to ring the police. I discovered the 'body' was a mummified specimen from Peru.

Having taken occupancy of the Museum and absorbed its contents, my mind eventually had to come to the starting point of identifying the task. What does a curator do? Where does one commence? One could sit there all day, every day and really do nothing for all anyone would know in that cavernous place!

So I thought of a list (this was the first of many in my life). It quickly grew into several under various headings, and a plan of sorts began to emerge. The lists then had to be supported by information on how the various goals identified might be achieved and the required administrative procedures for each. Circumstances had forced me into the role of a planner for the first time. A period began of many visits to various sections of the University Administration and I still recall the efforts made to assist me by all, from the Principal, Mr Maze, across all departments including the trades.

I must mention Mr John Barr, Chief Attendant in the Zoology Department who was a constant source of information and help. I frequently consulted the lecturing and Haswell Museum staff in the Zoology Department, the various curators at the Australian Museum, the Director, John Evans, and the Chief Taxidermist. I must also mention Ken Walsh, Chief Attendant in the Geology Department, who was also most helpful.

For the first time, I had to plan ahead to spend (and not exceed) a certain amount of money by a defined date. I really had no idea of laundry, chemical or stationery requirements at the beginning, or even of working out what would be needed, leaving sufficient for items that might be required by the end of the budget year. All the little tasks then had to be broken down into their full procedure so some estimate could be established. This was very time consuming for me, educational no doubt, and all for the worldly sum of £50 in the annual budget.

I was not permitted to sign any requisitions for either internal stores or outside purchases such as the occasional hammer, screwdriver, chisel, or for maintenance work (painting and the laboratory facilities in the Gallery). Therefore, trips to the Zoology Department were made almost every day. It took some years to obtain permission to sign the requisitions, even though I alone had access to the budget statements and had to remain within those limits. These frustrations set me to thinking that the Committee of Management seemed to have some status, and certainly their members did, so I resolved to have it undertake the battles at higher levels, which I later realised was the designated role of the Committee.

As well as my duties as Curator, I was responsible for looking after

the collections for the Entomology practical classes in Zoology, preparing two practical sessions each week, and doing the board drawings prior to each class. This was not without some difficulty for I was not an entomologist. During my first full year as Curator, I arranged to sit in on the entomology lectures (for which I still have the notes) and practical classes. Eventually, as I learned about the subject, I redrew the illustrations in the Practical Sessions book used as diagrams for classes. Of great amusement to students, staff and visitors to the University early each year was the sight of the Curator/ Technical Assistant crawling around the base of trees, under bushes all over the university campus and colleges to collect live crickets for these entomology classes. I had to find at least one male and one female per student with a few spare. Shades of Konrad Lorenz and his playing 'mother' to his baby grey goslings, crawling through the long grass which obscured the purpose of the crawling. How I wish I could recall some of the comments of the passers-by!

The Committee of Management

It was through talking to lecturing staff in the Zoology Department that I learned of the existence of the Committee of Management — the Professors of Zoology and Geology and the Reader in Entomology. I understood from speaking with Zoology staff members that this was the composition of the Committee and they had not met for very many years. Having very limited status myself, the combined power of this body seemed the obvious vehicle to use to achieve change and improvement in the conditions suffered by the Museum. Following publication of the University Archivist David Macmillan's book, *A Squatter Went to Sea*, about the history of the Macleays, he was also appointed to the Committee upon my suggestion. I felt another sympathetic voice on the Committee might help. I also wanted access to the Macleay Will and particularly the records of the *Chevert* expedition so I might discover the details concerning many specimens in the collection. I was never able to achieve this permission; perhaps the authorities were worried about my interest. I tried several times. I was able to gain access to the Special Collections of the Mitchell Library for research! Strange! I had the distinct suspicion that having indicated my interest in the Will and the log of the *Chevert* early during my term, those doors were closed to me on the grounds of intense interest rather than any lack of status.

The enormity of the job and dealing with a totally different level of staff to my former Zoology Department colleagues at that age, did have some effects. I recollect, prior to the first meeting of the Committee of Management, being so nervous that I must have visited the washroom five times in half an hour, which meant that I could miss the first arrivals.

The Condition of Specimens

I sought advice from the Australian Museum about how to rescue

some very dried out spirit specimens. Of shattering consequence was the large number of earthenware jardinières with large cork stoppers. When these were investigated, the stench of some was absolutely intolerable and the sight revolting enough to make one really very sick. The contents of some were powdered remains of specimens, and others were about one-third full of sloppy disintegrated grease. Some of the residue had the portion of a number from a tag floating about in it, other jardinières had a card label tied around the neck only to have the important portion of the label ripped off or illegible. Very few of these specimens were salvaged even with the best advice on how to do so. Much of the early work in the Museum required dress for the day to be boiler suits, not lab. coats.

The insect collections were in need of fumigation. This was a very early job and it was programmed regularly from then on.

The specimens did not seem to be in much 'order' unless they were whole collections easily stored in one or two cabinets, e.g. bird eggs, crustaceans, and the Tenison-Woods palaeontology collection. As a result of all the moving I heard about, and as has been documented by Dr Stanbury — up to the Gallery, down to Zoology, out to pasture in private homes in war time and hopefully back again — it was small wonder.

One of the early jobs in the Gallery was to arrange some of this material in a logical sequence, so that even without catalogues anything could be found quickly.

The importance of my action was demonstrated within days of completing the fish. A Fulbright scholar who had been working in the Mediterranean as a marine biologist, had a particular interest in a certain specimen and had read the type was in the Macleay Museum, but that the collection was somewhat dispersed and in disarray. He allowed three days in Sydney, having made a detour on the way back to America, just to try and locate this species. Within 15 minutes of his unannounced arrival, including formalities, the 'missing' specimen was located. In amazement, the researcher completed the necessary details he required, had time to go over the collection and ascertain what was there for future research purposes, and had plenty of time for sight-seeing. He was quite delighted.

Orders were sorted into their genera, then into species if possible, and put in rows alphabetically. On the basis that any person familiar with their own field would immediately recognise 'old' names of types, the same procedure was decided upon for speedier publication of a list of types among the Insecta of the Museum. It was hoped that by producing this list, researchers would come to use the collections again and bring them up to date. Ethnographic material appeared almost entirely devoid of data, indicating the importance of archival material.

The Missing Collections

As I saw my curatorial duty, it was to care for the collection and

safeguard the material of the bequest. Having heard all types of stories about the wild movements of Macleay specimens over the decades, I could at least pin-point some outstanding loan material from the loan book. Some material had been lent years and years ago, so I commenced writing to the borrowers asking if the research purpose for which the specimens had been borrowed had been completed, and, if so, could they then be returned. If the work was still in progress, would the borrower confirm another short loan period and thereafter, if still required, further extend the loan. (The point was being made I hope, without actually stating this, that the specimens were not on permanent loan, nor had they been donated to the institution of the borrower.) I was quite amazed to hear that many recipients of such letters had been offended, their noses put out of joint, and I was asked to 'lay off' so to speak. However, all new loans were treated in this fashion, and when the period had expired follow-up letters were sent to borrowers.

Open Day

When the first University Open Day arrived after I became curator, I made enquiries as to what part the Museum had previously played, and had little option in the time available but to undertake a repeat token participation. Several drawers of the more spectacular insects were carried into one of the main Zoology Laboratories which were to be open to the public. Additionally, some of the more spectacular and robust specimens were added, such as the crocodile. Crocodiles travel well carried on one shoulder as one would a ladder. They also make for comment by those frequenting the route between the Macleay and Zoology Department as to the sanity of the carrier.

The public expressed great interest in the few exhibits on this my first Open Day, and I resolved to attempt to open the Gallery of the Museum the following year if at all possible.

A plan for reorganising the layout in the Gallery was prepared, and the Yeoman Bedell's staff had the massive task of swivelling some of the very heavy cedar cabinets around to new positions. The whole reorganisation was designed to bring some of the related displays together with minimum movement and so cabinets would not collide or have to be moved twice. A second reason for the reorganisation was to provide space for the benches and sinks to be installed in a corner of the Gallery for the easier care of specimens.

Friends and students who visited the Museum were fascinated by the mummy collected from Darnley Island by the Macleay Expedition of 1875, so it was resolved to make a feature of this specimen. 'He' was duly christened 'Fred', and a student doing Arts/Science, which included geology and anthropology, undertook the task of researching 'Fred's' history and the methods which produced his current demeanour. This was Warren Delaney's great contribution to the Museum!

On the next Open Day, the Gallery was open. I think Alan Gamble

must have noted the Macleay's intention to open in the publicity he sent out, as the stream of visitors was constant that day and at times it was packed. (The week prior to Open Day, some specimens of the Macleay collection and myself adorned three-quarters of the back page of a Thursday *Sydney Morning Herald* — a strange experience sitting in the bus looking at yourself on every second newspaper.) Some of the visitors included the press and radio reporters. Jim Henry came by to lend a hand and he was needed all day as well as some of my student friends. There was someone reciting the information about the mummy every minute of that day, despite the written details we had prepared and placed on and beside the case. One person took over at the mummy while I did an interview for Glenn (Gordon) Menzies featuring the history of 'Fred', some impromptu playing of the 'ring of beetle nuts' (musical instrument), and some short blasts (notes) on the didgeridoo. I felt somewhat a fool, but I was reassured it was 'such good radio'. This Open Day led to follow-up interviews for radio the following week on the history of the collection and the Macleays.

The Women's Committee of the National Trust

The newly formed (1961) Women's Committee of The National Trust of Australia (N.S.W.) asked the Macleay Museum to lend some of its fine furniture for their first exhibition, *No Time to Spare*, to be held in the David Jones Art Gallery. The furniture had to have some association with well-known figures of Australia's early history or buildings. Two women (one Mrs Helen Blaxland) inspected the Museum, were delighted at what they found, and chose an entomology cabinet in which each drawer was finely crafted from a different wood, and the upper portion's glass doors looked as if in leadlight with clear glass, but the divisions of the design were actually wood. Very careful transport was arranged by the Trust.

An invitation was extended for the opening of the exhibition, the contribution duly acknowledged in the catalogue, and I was pleased to observe the degree of interest being displayed in the cabinet, to be followed by conversations about the Macleays, Elizabeth Bay House (at that stage still quite run down flats) and the Museum. It was certainly good publicity among a market sector which was influential and would not have been reached otherwise.

Publications

Occasionally I was invited by the Secretary of the Union to contribute to *The Union Recorder*. I did so, but I dearly wish I could re-write those articles now. Nevertheless, they achieved their purpose of publicising the Museum among the readership.

The Type List of the Insecta

This was a necessary starting point in the process of cataloguing, because of the reputation of the insect collection of the Macleays and

the number of type specimens purported to be contained therein.

The system of publishing the names in alphabetical order had to be adopted to get the basic data out and available to researchers. With the assistance of Dr A.R. Woodhill, we went through every drawer in the insect collection and identified the families in each. Some drawers contained a great number of different families. With the entomology course, I was soon able to conduct the exercise alone. The recording of each specimen in each drawer was tedious and time consuming. When the job was completed, publishing became a problem as it was not exactly the kind of material a journal would accept. So it had to be typed on stencils, probably a worse task than the actual cataloguing.

ANZAAS 1962

Having produced the list of type specimens of the insects in the Macleay Museum by typing stencils, then putting publication in the hands of the Central Duplicating Service, I had no control over when the copies might appear. I felt the heavens were really shining when they were delivered to the Macleay Office, either the day before or the first day of the Congress. So I was able, as a delegate to several sections, to spread this news and quite a few copies were collected to be taken back to the various institutions. Word of mouth accounted for many copies after the Congress was over. It was gratifying to watch recipients open up the tome and exclaim — 'I thought that specimen was lost entirely, I'll get straight onto this as soon as I get back!'

'Fred'

At this time I spent many nights working on further research about 'Fred' to take advantage of the presence of Graeme Pretty of the South Australian Museum, who had discovered this specimen quite by accident before completing his studies and taking up a position with the South Australian Museum. Graeme eventually became Curator of Anthropology there. This was our second week-long stint with 'Fred' and involved Graeme spending many evenings at the Mitchell Library and others in the Museum itself. Our working group included also the post-graduate student Bob Donnelly (a crash hot choreographer and composer as well as a top-notch biologist). These evenings were mainly filled with deductive reasoning based on the information we had to date and writings of early visitors to the New Guinea/Torres Strait area imparting what they had been told by indigenous peoples. I recollect, in reinforcing our understanding of the way in which 'Fred' had been initially preserved, a group of us hanging ourselves, arms backwards, several steps up the scaffolding which had been erected for painting the Gallery, for we realised the odd hunched shoulders of 'Fred' were a result of his being mummified in a vertical position. It was not until he was collected that he assumed the horizontal position.

On another occasion, Graeme Pretty was in Sydney for a week specifically for the purpose of furthering his work on the Darnley Island mummy ('Fred'). The University archives were not available to us. Verification of some of the statements appeared impossible and this specimen was discovered to be the best preserved of five in the world. Only three were adult specimens. Any touching of the ochre covered 'skin' could not be contemplated due to its parchment-like nature and some minor carpet beetle attack.

Minute samples of the plant bands tied around 'Fred's' ankles and over his loins were sent to Jodrell Bank Observatory in England to have the species of the plants ascertained. To determine whether the processes of mummification as written were actually practised required internal examination. We asked Professor (Black Mac) Macintosh, Professor of Anatomy at the University, who had published a paper on the crania in the Macleay Museum (the collection given by Miklouho-Maclay), if he knew where a portable X-ray machine could be obtained so we could bring it to the Museum and cover the length of the specimen in sections.

A telephone call was made one evening shortly before 5 p.m. to Black Mac. Unfortunately there were no portable X-ray machines, only small ones which were fixtures. However, if we could stand by he would see what he could arrange. The return call created the most amazing scenario — if we could move 'Fred' (what a decision), the X-ray unit at Royal Prince Alfred Hospital would X-ray him the following morning about 9.00 a.m.! Put yourself in my position! An instant decision had to be made. We decided to proceed as there were only minutes left that afternoon to arrange transport through the Yeoman Bedell, Jim Brookes, who agreed to have a truck under the archway in Science Road the following morning. The prevailing opinion of Jim Brookes, Graeme Pretty and myself was that the tortuous stairway from the Gallery down to Gosper Lane was too risky and 'Fred' could easily be knocked, so he was to go out through the fire escape, through the Botany Lecture Theatre over the desk tops.

A very long night ensued. A firm wooden bier was constructed somewhat larger than 'Fred's' original, which had some considerable flexibility in its old lashings. A 'mattress' was made to cover our frame from reams of cotton wool between two layers of University of Sydney towels and tea towels. These were firmly attached across the bier to each side. Then further provisions were made to the sides above the 'rails' to avoid knocking. 'Fred' was lifted gingerly out of his cabinet, the new bier placed across the top before placing the subject of our labours onto it and securely lashing both biers together. Just locating the necessary timber and improvising as secure a protection as possible after hours was difficult and time-consuming. Then there was the measuring and design of our structure so no part of the specimen, especially the head, was actually touched and could not be touched during transport.

Next morning, two very nervous people verified the truck was standing in Science Road. We opened the fire door. I had not anticipated any confrontation with the public in the university grounds, but curious lecturers, students, and passing public in Science Road watched in amazement as we loaded 'Fred'. Graeme and I sat in the back of the covered truck in white coats like petrified relatives of a dying loved one. I felt sick.

The trip was to take place at about 3 miles per hour maximum. Such a procession does draw attention, and by the time we arrived at the main gates, heads were turning from everywhere into the back of the truck. Then we gained access to Parramatta Road (there were no traffic lights there then), and had to queue in the bus lane until the stop was clear for us to proceed. Now all the people alighting were turning and craning their necks. Ashen faced bus drivers called their conductors to the front of the bus for a look as it became their turn to move up behind the truck and pull out to pass. Many passengers also were craning their necks. Moving so slowly, many drivers pulled up behind us to swear and sound their horns, only to have the blood run out of the faces when they espied the cargo.

This was repeated at the next three bus stops. The truck driver did a wonderful job, having to halt often at these places and doing so without the slightest jerk. Missenden Road was very busy as could be expected and progress was slow until we finally turned into the 'Casualty' entrance and down the hill to where the ambulances discharge patients. Sickening relief was my feeling as I jumped down from the truck to the most amazing scene I could have imagined.

The receiving courtyard is sided by tall buildings almost all having balconies the full length of each floor. There wasn't a spare space on any of them and most were several people deep, craning and leaning over to sight the rumoured 'patient'. Like the tiers of the Opera or a football crowd. The receiving area itself was very full of staff — no patient ever had so many people on hand to unload and transport it to the relevant department. Our procession moved into the building and through 'Casualty'. I was amazed at this and could understand the shock on the faces of outpatients awaiting attention. Some old people appeared very upset.

When we arrived in the X-ray room, it too was very full. Technicians, doctors, neurologists, visiting fellows, consultants (some from the Children's Hospital) — they were all there!

We must have been there about an hour. The team poured over 'Fred' asking questions of origin, the preservation process, and of course, what information we were seeking. A visiting dental research fellow who was working on various aspects of dentition among the Pacific peoples and the effects of diet thereon was estatic. From memory there were seventeen X-rays taken. Eminent persons offered us written reports on the resulting X-rays when they were ready and were most anxious to give a contact for future reference.

Eventually the return trip had to be faced, although our hosts

seemed reluctant to see 'Fred' go. With him safely ensconced in the back of the truck, a more trying journey was attempted necessitating right-hand turns and remaining in the right-hand lane. This was extremely nerve-wracking for us, and no doubt the driver, who was sworn at and had many horns sounded because of his tardy progress along Parramatta Road. However, we only needed to travel a block along this road and turn into the University's Ross Street gates on the way back. By 10.30 a.m. 'Fred' was back in his case without so much as a speck of dust dislodged. The feeling of relief was so intense it magnified the extreme level of tension which had accompanied us on this adventure. It was hours before a feeling approaching normality returned.

When the X-rays and the reports became available, the consultants, true to their word, were most willing to answer questions and refer us on to other colleagues who had been present and could better answer our specific questions. At one stage, a neurologist from the Children's Hospital insisted on coming up to the Museum at once, to undertake a skull probe to clarify a point, with his various instruments. The specimen was a very exciting opportunity for practitioners in many fields.

Professor Macintosh had worked a miracle for us the previous afternoon within minutes, for which thanks are quite inadequate. We were certain the hundreds of interested faces at the hospital on the balconies were the result of the grapevine. We and 'Fred' were treated as celebrities, given great care and attention, including follow-up, for which we are indebted to the Royal Prince Alfred Hospital and the Children's Hospital.

May we be forgiven for the dreadful fright caused to some of the old people in Casualty Outpatients.

Frequent visitors and workers

Miss Kathleen English worked on the dipterous family Tabanidae and spent a couple of days a week at the University. Due to space problems she was transferred from the Zoology Department to the Macleay Museum. I was able to follow to some degree the development of her work — a very slow process occasioned by the long periods of pupation experienced by the Tabanidae along coastal regions. Miss English was certainly able to answer the few questions I still might have had at that stage on Museum matters and entomology in general.

Camil Dequet was originally from Belgium and had been a high-school teacher, but his consuming interest was the coleopterous family Buprestidae. He was an old world gentleman, very precise and with the charming manners of a European of the last century. He loved this country but although he and his wife had been here most of their lives, his wife remained desperately homesick. He resolved that they should return to Belgium for their few remaining years. This must have been very hard for him, but he was in his way returning

the compliment to his wife after all the years here. He would miss not only Australia but the Macleay buprestids without doubt.

A telephone call one morning from Alan Gamble, Publicity Officer for the University, requested that he could bring some visiting Russian journalists over the Macleay, especially to see the crania collection of Miklouho-Maclay. I was very nervous, but Alan Gamble was a most marvellous guide; between him and the translator asking questions of me, the trip went smoothly. Paul Maclay of the Australian Broadcasting Commission, one of Miklouho-Maclay's grandsons, escorted the party. The visitors were delighted and, I was surprised to note, almost reverent of the collection. Now knowing more about Miklouho-Maclay and his status in Russia, I understand their excitement.

Parliament and *the Sydney Morning Herald*

In recent years I was contacted by a free-lance journalist who was to do a feature article for a Saturday edition of the *Sydney Morning Herald* on the Macleay Museum to coincide with a series of questions to be asked in the New South Wales Parliament. I had several telephone conversations with her and was in possession of both home and work numbers which I had used successfully, as well as her home address. On one occasion I visited her at home. However, just after the questions were put to Parliament, I endeavoured to contact the journalist to suddenly find that no one had ever heard of her. The work number denied she had ever existed. I tried several times as there was another project with which I was involved in which she had expressed interest and a desire to assist. I was never able to contact her again. As a result of the questions in Parliament, I heard along the grapevine that the questioner had been 'sent to Coventry' as a result. What is it with the Macleay? Powerful blockages seem to exist. Who is protecting what or whom?

Resigning from the Macleay

This was probably one of the hardest things I have ever done. Two factors influenced me to take this action in 1963; a desire to travel and, more importantly, one of the items on the very earliest lists I had drawn up. That was to work toward the appointment of a graduate to the position of Curator, the better to protect the collections and give more weight to the struggle to improve the status and role of the Museum. Looking back at the material written by Peter Stanbury about the history of earlier curators, there is little doubt that was the right course to take. The collections were also being cared for and admittedly much cataloguing remained outstanding which I could have undertaken, but this would be handled more efficiently by a graduate who hopefully could find the time to undertake further research and study while in the position, and enhance the role of the Museum. I wonder at this initial clarity of purpose in my youth but even more that I actually carried it out.

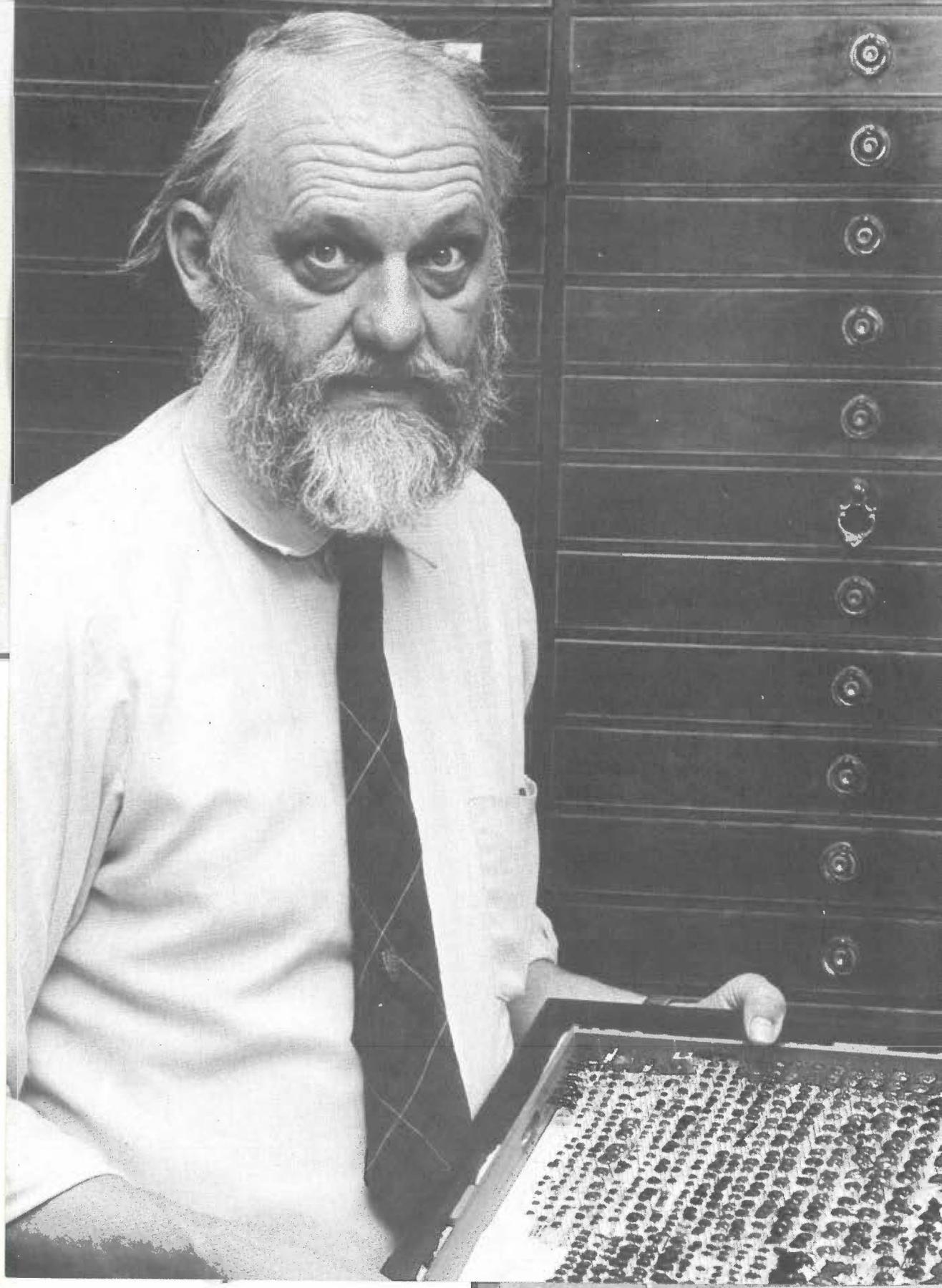
I like to remain aware of activities of the Museum to this date and do come to openings of various exhibitions held there when I can. During the 1988 ANZAAS Centenary Congress, I attended some functions there and found myself still in a position to be able to enthuse interested members of the public, who admitted they had not heard of the Macleays or the collection, how absolutely fascinating it all was, and that they had to come back to learn more about both.

If the happy (for me) accident of my appointment as curator helped the Museum to climb upwards in any way, justice was only beginning to be done to a fine collection and the intent of the Macleays.

Enormous strides have been taken by both Dr Anderson and Dr Stanbury since those days, and it is more than gratifying that they have both been purposeful about restoring the collections, the lost data and the role of the museum. They have set about implementing those early dreams of mine.



THE COLLECTIONS



The Macleay is a museum principally of natural history and ethnography. Accounts of the entomological, ornithological, ethnographic and historic photograph collections follow. The mammal collection contains about 1300 specimens, including type specimens, as well as mounted and skeletal material of the thylacine. The spirit-specimen collection contains many thousand amphibians, reptiles and fish. There are also world-wide collections of corals, arthropods and molluscs.

Numerically speaking, only twenty to twenty-five per cent of the Museum's insects, birds and molluscs are Australian. The high proportion of exotic insects is the result of Alexander and William Sharp Macleay's collecting overseas. Thousands of exotic birds were purchased by William John Macleay, although he also had one of the best collections of Australian birds in the country in the mid-1880s. The mollusc collection is high in exotic species partly because Brazier collected assiduously on the *Chevert* expedition to New Guinea.

The Historic Photograph Collection is a recent addition to the Museum's activities. It has attracted wide public interest, and photographs from the collection have been reproduced in many books and exhibitions.

The University of Sydney lacks an official university museum. The Macleay Museum acts as a repository for diverse artifacts relating to the University and people associated with it. A significant collection of equipment from various scientific departments is maintained in the museum store.

If the trend of improved management of the Museum over the last thirty years can be maintained, then all the collections should soon be readily accessible to researchers. At present, every effort is made within the resources available to assist scientific or historical inquiries.

Dr D.S. (Woody) Horning, Jr, with a drawer of specimens from one of the Macleay insect cabinets. (Macleay collection)

Chapter Six

Entomology

Woody Horning

The Macleay Museum holds the oldest and historically most important insect collection in Australia. There are more than a half million specimens in the collection dating from 1756 to the present, more than 60 percent of which are exotic, making it the largest collection of exotic insects in Australia. More than 9000 Australian and exotic type specimens have been recognised in the collection and there are many yet to be discovered.

Alexander Macleay started the collection in Great Britain before 1800, acquiring specimens by exchange or purchasing them from auctions of the collections of many significant entomologists of the day, such as Dru Drury, Edward Donovan, Thomas Marsham, John Francillon and General Thomas Davies. Much of this material contained type specimens. Dru Drury's and John Francillon's collections contained many Fabrician types, and some of Francillon's material had been collected by Surgeon-General White who came to Australia in the First Fleet in 1788. Sir Stamford Raffles, the founder of Singapore, gave Macleay many specimens from his travels. Another important addition to his collection was the 192 species of insects collected by Captain P.P. King during his survey of the intertropical and western coasts of Australia between 1818 and 1822.

The second Macleay to contribute to the collection's growth was Alexander's eldest son, W.S. Macleay. He worked for the British Government in Paris. There he became acquainted with prominent zoologists, including Cuvier and Latreille, from whom he received many specimens as well as a good understanding of taxonomy. He formed his own collection and during the period 1825-1836, while working in Havana, Cuba, he assembled a large collection. After leaving Cuba, he visited entomologists and collected in the United States. This enabled him to procure large numbers of North American insects, chiefly through exchanges. He inherited Alexander's collection in 1848 and at the time of W.S. Macleay's death in 1865, the combined insect collections of both Macleays totalled 480 drawers (100,000-150,000 insects).

The third and most influential Macleay to add to the collection was William John. He began his own collection in W.S. Macleay's lifetime,

but, becoming impatient with its slow accession, he hired six collectors who collected in Australia and Fiji. He also organised collecting expeditions inland to his property on the Murrumbidgee, and bought exotic specimens from India, China, South America, Europe, the East and West Indies and the Pacific Islands. Specimens that he sent from Australia included portions of his type series of more than 1,500 species of Australian beetles (Coleoptera) which he had described. Regrettably, he did not always indicate which specimens were from a type series, so some most significant material remains unidentified in museums in Europe and North America. Fortunately, some of this material can be recognised by the handwriting on the labels, and by the type localities. Many specimens from his *Chevert* expedition, the first scientific expedition to New Guinea to be organised from Australia, were added to the growing collection. In 1874, the collections of Alexander, W.S. Macleay and William John Macleay were amalgamated, and George Masters was appointed as Curator.

The appointment of George Masters as Curator of the Macleay collections was of the greatest importance to the improvement and enlargement of the collections. It also set the stage for one of the great tragedies to befall the collection. He and William John reorganised and added greatly to the collection between 1874 and 1890. In 1891, the collection was said to be 'in first-rate order'. George Masters continued in charge of the collection when it came to the University, and added to it by collecting and trading specimens until 1911 when his health failed. He died the following year.

Unfortunately, sometime during the period of reorganisation, Masters decided to relabel the collection in his own handwriting, apparently to give the collection a more uniform appearance. In the process, he discarded many of the original labels, thus rendering difficult, if not impossible, the task of tracing early specimens of great historic importance, including holotypes and syntypes of early European entomologists. For instance, there should be six Linnean jewel beetle (Buprestidae) types in the collection, but it would take much research time and checking of old references and correspondence before these and other supposedly 'lost' historic types could be found, if indeed they are still in the collection. Happily, he did not finish the task and many original labels still exist.

After Masters' death, the state of the collections became grim indeed. Little was done with it until 1958, when Elizabeth Hahn was appointed Curator of the Museum. During her five year tenure, she put a tremendous amount of time and enthusiasm into restoring the collection. She fumigated the cabinets, filled the spirit collections and wrote a catalogue of all the type specimens she could find in the collection. Though she found less than half of the types, her catalogue immeasurably increased the value of the collection for research workers. The fortunes of the insect collection had turned for the better.

One of the more significant events for the insect collection occurred in 1969. In that year, staff from the Australian National Insect Collection, CSIRO, Canberra, were invited to inspect the collection, as the University was concerned at the deterioration of the specimens. They thought it 'appropriate that valuable material such as type specimens be located in the National Collection'. After photographing and documenting each drawer of specimens, thousands of types were recognised. Under mutual agreement, these type and historically significant insects were transferred to Canberra on 'permanent loan' on the understanding that lists would be published when the work of cataloguing them was complete. To date, two such publications have appeared, one on beetles (Coleoptera) and the other on bugs (Hemiptera). There is no record of all of the insects taken from the Macleay Museum by Australian National Insect Collection staff, but such a list could be compiled because all relevant specimens now deposited in Canberra under this agreement bear the label 'On permanent loan from the Macleay Museum, University of Sydney'.

Though the number of staff at the Museum had increased, it was only in June 1982 that the first professionally trained insect taxonomist was appointed to curate the insect collection. In mid-1982, the collection was transferred to a cramped, but air-conditioned laboratory in a building near the Macleay Museum, where it is in the process of being properly curated. The historic, taxonomic and bibliographic significance of the collection will be documented as the specimens become accessible to overseas and Australian entomologists.

But what is the significance of this collection that has occupied the lives of so many people? What makes it such a valuable resource? The basic function of the collection is to serve as a data bank for taxonomic and historic research on both Australian and exotic insects. The scope for this research derives from several important elements.

The collection contains many recognised and unrecognised type specimens, especially from Europe and Africa. To understand their significance, a definition of a type is useful. A type, or type series, is designated from a group of specimens by an author describing the species for the first time. Normally, one specimen is designated as a holotype and the rest of the type series are paratypes and each specimen has an appropriate type label. But in early days of insect taxonomy, authors sometimes did not label their types adequately. Often the original series were labelled as co-types (syntypes in modern terminology) or not labelled as types at all. Careful research into the literature and searching through old correspondence will often establish the full type series. A type is very important for future taxonomists. If the original description does not adequately define a species, then a taxonomist can compare their specimens with the original type specimen (or specimens) to confirm their identification.

The collection contains topotypic material from remote localities or

areas now seriously disturbed (or even built over). Topotypes are specimens collected from the same locality as the holotype and are generally designated as topotypes after the original description has been published. Topotypes can be most valuable in designating a neotype when the holotype has been lost or destroyed. Those from disturbed areas may represent species now extinct. Also, species of insects which were collected in the early 1800s from localities relatively undisturbed by human activities, now form the only record of their distribution in areas which have undergone significant environmental changes. Included in the collection are supposedly 'lost' types, especially those of exotic species. It is amazing that even though Alexander Macleay's collection was acknowledged as the largest private collection in the world at the time he came to Australia in 1826, it was subsequently forgotten. Due to Australia's remoteness at that time most European entomologists lost contact with his collection, and have remained largely unaware of its development in the ensuing 160 years. Many early types that have long been considered to be lost are actually in the Macleay insect collection. It will take years of careful research to find those that are still in existence, but it is possible to do this. For instance, the holotype of the butterfly *Papilio antinous* Donovan, 1805, was discovered in the collection. This specimen, previously thought to have been collected in Australia, is actually the holotype of a common swallowtail butterfly from North America. There remains a wealth of exciting 'detective' work to glean further such discoveries from the collection.

The collection primarily contains beetles (Coleoptera), bees and wasps (Hymenoptera) and moths and butterflies (Lepidoptera) from many places around the world. Interesting localities include Siberia, Outer Mongolia, Tibet, North China and the upper reaches of the Amazon River. They are interesting because the specimens were collected from the late 1700s to the 1870s, when very few entomologists visited these areas. A large collection from Cuba has drawn interest from entomologists in the United States who do not have access to Cuban material. Recently, about 400 Cuban parasitic wasps (Chalcidae) were identified. Not only were new species found, but some of the specimens have been included in a doctoral thesis.

The collection of Sir Ashton Lever contained insects presented to him by Captain James Cook. Alexander Macleay was among the purchasers when the collection was auctioned in 1806. In January 1984, two lice from an albatross taken during Cook's second voyage were found. A flea from Bahia Blanca, Argentina, collected from a hairy-nosed armadillo by Charles Darwin during the voyage of the *Beagle*, is also held in the Museum.

Perhaps as important as the scientific value is the worth of the collection as a data bank for historic research. This is the only collection in Australia that could document possible early introductions of pest and other insects into Australia; several pest species were taken aboard ships at sea or in Sydney. Moreover, the

collection has more than 530,000 pinned and spirit-preserved insects. Important information can be gleaned from the labels attached to the specimens. For instance, the travels of early collectors can be partially pieced together from labels that may give information on locality, date and collector. More importantly, associated with the collection are many old letters, diaries and catalogues. These documents are of great value in understanding the Macleays' contributions to Australian natural science in the nineteenth century, as is the large, though scattered, library of William John Macleay.

But what of the status of this valuable resource today? The present Curator has had to formulate a policy for the management of the collection. Most of the insects were unsorted and housed in old cabinets. This necessitated searching the entire collection to find any specific insect group. Currently, family groups are being transferred to new wooden 14-drawer cabinets which use the unit tray system on a 'need' basis. More than 50 of these cabinets are now being used to house sorted specimens. Several large families, such as the weevils (Curculionidae), longicorn beetles (Cerambycidae), jewel beetles (Buprestidae) and most of the bees and wasps (Hymenoptera), have been sorted and data from the labels entered into a computer to form catalogues of the holdings.

Because this is the largest exotic collection in Australia, it was decided that exotic acquisitions (by donations) would be incorporated. In the past five years about 15,000 specimens have come from Southeast Asia, the Pacific Islands, Europe (mainly Czechoslovakia) and the United States. Large quantities of Australian insects will not be incorporated into the collection because of space limitations. Small donations, especially of groups not well represented, will be accepted. Also, groups with few specimens, such as lice (Phthiraptera) and fleas (Siphonaptera), will be strengthened. There is at present no large louse collection in Australia but in a few years time the Macleay Museum will have a very commendable one, partially because of a joint project with the staff of Taronga Park Zoo.

The future of the Macleay insect collection is looking brighter than it has for the past 70 years. Many entomologists, mainly from overseas, are now aware of the collection and are using it. Insects are sent for study, and often new species and old types are discovered by an expert. With the co-operation of taxonomists and historians, the documentation of the Macleay Insect Collection will contribute to a fuller understanding and appreciation of Australia's first formal insect collection.

Chapter Seven

Ornithology

Graeme Phipps

The Macleay bird collection comprises some 9,000 study skins and mounted bird skins. Additionally, there are skeletons and eggs. The geographical scope of the collection is wide. As well as Australasian and Oceanian material, there is an excellent representation of American, Asian and European specimens. The only area under-represented is Africa.

The most valuable single piece of information on a specimen label is the collection locality. Reflecting museum practices in the past, the locality data varies from very good, such as that on *Chevert* expedition material which can be verified by consulting the ship's log and contemporary diaries, through acceptable localities, such as 'Sydney, N.S.W.', 'Port Denison', 'Moreton Bay', to the almost useless — 'South America', 'Europe', 'Australia'. Within this range there are also localities which are unreliable; for instance 'Bogota, Colombia', on many South American skins does not necessarily mean that the specimen was collected at Bogota but rather that it was purchased there, as Bogota served as an important trade centre. Some localities recorded on the bird labels, such as 'Java', are simply incorrect, as the species so labelled have never been seen in that area.

Another group of labels gives antiquated locality names. For instance, 'New Granada' harks back to a time when most of northern South America went under this name, when buccaneers sailed the Caribbean in the late eighteenth and early nineteenth centuries.

The collection spreads across the entire class Aves. All orders and 130 of the 159 families of birds of the world are represented. At the genus level, the collection boasts about half the named genera and 2637 species. There are specimens of 552 species of Australian birds (of the 756 recognised species). The collection is rich in exotic species because William John Macleay employed collectors or bought specimens from many parts of the world between 1875 and 1888. American birds are well represented as Macleay acquired specimens from Boucard in London and Gruber in San Francisco. Particularly noteworthy is a long series of humming birds.

The Macleay Museum has many irreplaceable specimens of extinct bird species such as the Paradise Parrot, *Psephotus pulcherrimus*, of

which the Museum holds perhaps the only complete skeleton in existence; Lafresnaye's Rail of New Caledonia, *Tricholimnas lafresnayanus*, one of less than a dozen in all of the world's museums; a group of nine Huias from New Zealand, *Heteralocha acutirostris*; a pair of Lord Howe Island starlings, *Aplomis fusca hulliana*; and two male Lord Howe Island thrushes, *Turdus poliocephalus vinitinctus*. Extremely rare species include the Night Parrot, *Geopsittacus occidentalis*; the Orange-fronted parakeet, *Cyanoramphus malherbi*, from New Zealand; and a group of nineteen Kakapo, *Strigops habroptilus*. The latter are perhaps more than the current living population and represent approximately 10% of the specimens in all the world's museums; a fact unfortunately overlooked by reviewers.

Two historically interesting specimens are: a mounted Chinese Ringnecked Pheasant, *Phasianus colchicus torquatus*, a common game bird brought to Australia in 1826 by Alexander Macleay; and a mounted Temminck's tragopan, *Tragopan temminckii*, a brilliant red Chinese pheasant presented to Dr Peter Stanbury in 1977 when he accompanied an Australian zoological exhibition to the People's Republic of China. The relationship between the two countries was fostered by the Chinese ornithologist, Hsu Weishu, leading to the establishment of an international treaty, the China-Australia Migratory Bird Agreement, protecting the environments of birds that migrate between China and Australia.

The quality of the bird skins in the Macleay collections is remarkably good. The great majority were stored in the dark for one hundred years and thus have good colour. Some specimens stand out as being very well prepared, such as those prepared by Pettard and Spalding, who accompanied the *Chevert* expedition.

The people who supplied specimens to William John Macleay were interesting. These specimens invariably have more data attached to them which can be verified by reference to contemporary publications or museum correspondence. Some collectors were commissioned by Macleay to go to certain areas, other collectors sold to the Australian Museum or to Macleay, or anyone else who would buy. Collectors and the areas in which they collected include:

Chapter Eight

Anthropology

Lydia Bushell

The first evidence of ethnographic specimens in the Macleay Collections comes from the time of William John Macleay, but there are only a few anthropological entries in his collection register. Those that are there seem incidental. His enthusiasm lay elsewhere. A comparison of his diary and his register shows by omission his perception of the value he placed on ethnographic artifacts. He recorded in his diary the arrival of zoological specimens and, as an afterthought, 'some native ornaments'. The zoological specimens were duly entered in the register, but without reference to the artifacts. That ethnology was not his prime interest is hardly surprising, as many colonists were too close to the memory of clashes with the Aboriginal inhabitants of the settled areas to have much desire to preserve that cultural identity. Yet William John Macleay acquired thousands of anthropological specimens from Australia and from overseas.

Public interest in the curious ways of the people of other lands was heightened by travelling shows like that of George Duniam, who in 1851 brought to Sydney two mummies from Peru. He illustrated his public lectures with a show of lantern slides. One of these mummies found its way into Macleay's museum. Many early missionaries and naval officers formed collections of the material culture of the peoples of the South Seas. Crowded displays of domestic utensils and implements of war in missionary societies' rooms served to publicise their success in the field of conversion and to attract subscriptions, but such displays rarely advanced the knowledge of the local culture.

One young naval officer who formed a collection of artifacts was Arthur Onslow, a grandson of Alexander Macleay. Onslow served on HMS *Herald* during several surveying voyages in Australian and South Pacific waters. He was an amateur photographer who took his camera with him and recorded scenes of the natives of Isabel Island in the Solomons Group in 1854, and King George Sound in Western Australia in 1858. Artifacts collected during this period found their way into Macleay's museum, but no record of their acquisition has been found. More of Onslow's collection was donated by a descendant, Lady Stanham, in 1963.

By 1874, Macleay was spending large sums on the purchase of natural history specimens. Hidden among long lists of birds, insects and mammals is the entry 'Purchased from Palmer, Hunter Street, on 27th March 1874 for £3, the skeleton of an aboriginal female.' Palmer was a taxidermist who provided Macleay with many specimens, mainly birds.

It was during Macleay's collecting voyage on the *Chevert* in 1875 that the real strength of the Macleay Museum's ethnographic collection was acquired. Macleay's diary, kept during the expedition, recorded some notes about the aboriginals encountered along the Queensland coast. On Monday June 14, 1875 Captain Edwards mustered 20 or more aboriginals who assisted very much in loading water casks (1000 gallons).

All the natives of this part cut the lobe of the right ear so that it hangs down in a thin strip two inches or more, some have both ears cut in that way. I cannot make out from this the meaning of the practice, they knock out the front tooth like other Australians & do not circumcise. Their canoes are of hollowed out trees with outriggers, & in the gale of today I saw one carry 10 in a rough sea.

He regarded them as an affable lot who desired to be useful and agreeable. They collected for him, bringing fish, shells and snakes. There was no mention of artifacts.

The expedition proceeded across the Torres Strait to Papua New Guinea, collecting wherever possible. On July 3 they anchored off the mouth of the Katow (now Binaturi) River and took the launch up river to the village of Mokatta. There Macleay described several longhouses on poles, six feet from the ground with open gable ends and thatched roofs 'exactly as described by Jukes in the voyage of the Fly.'

Four days later the launch returned to the *Chevert* with half a dozen natives, 'a boat load of bananas, coconuts & a miscellaneous collection of arms, implements, ornaments, snakes, shells, crabs, insects etc collected by the natives.' Arthur Onslow, who accompanied his cousin on the voyage, attempted to photograph some of the natives on board, but was unsuccessful.

Macleay was delighted with the result of his stay at Katow. He had let it be known to the local inhabitants his fancy for all living things, and more snakes, insects and ornaments were brought, 'so that I made a really good haul.' He pronounced, with much satisfaction, that the first Papuans they had met were a 'most peaceable and amicable lot of savages.'

The artifacts from the *Chevert* voyage may be seen in the Museum; cassowary-feather dance ornaments, bunches of arrows with delicately carved foreshafts, wooden carvings, carefully painted masks and ritual objects. At Darnley (now Erub) Island, where the *Chevert* stopped on Friday 6 August, Macleay wrote that the first mate,

Robert Williams, 'has gone around in the boat to the village today to get me a complete mummy which has been promised him.' More artifacts were acquired, including an ornate turtle-shell mask. Onslow had more success with his camera. Photographs show villagers gathered before their huts and a widow wearing mourning dress of long plant fibres dangling from the neck, almost to the ground. Two similar garments from Darnley Island are in the collection.

At Yule Island, Macleay again reported success in collecting. The locals were anxious to get knives, tomahawks, mirrors and colourful fabrics in exchange for specimens and fresh produce. 'I have got some of their stone adzes & spears & a few bags of string, not very well made. They manufacture also strong nets for fish, kangaroos etc.' Of the tools and trinkets taken for bartering, not all were used, and two boxes of metal adzes, mirrors, beads, buttons, thread and ribbon survive in the collection.

One of Macleay's collectors at this time was a fellow Scot, J. Archibald Boyd. He was educated at Sydney Grammar School and became a planter at Ovalau in Fiji in 1865. He kept Macleay supplied with specimens, both zoological and anthropological. There were oil dishes, stone weapons, and elaborately carved clubs, burnished to a fine finish. In 1882 Boyd joined his brother in a sugar plantation at Ripple Creek, near Ingham in Queensland. He continued to send specimens to Macleay.

A steady supply of weapons, including shields cut from the buttress roots of banyan trees and painted by the rainforest Aborigines found their way south to Elizabeth Bay House. With long experience in supplying museums with specimens, Boyd was very much a keen and well read naturalist.

Macleay continued to be ambivalent about matters ethnographic. In 1885 he wrote to Boyd about a recent consignment, 'I have valued the spirit specimens at about £7 and I take all the other things (arms etc.) at £3, but I confess I am quite ignorant of the value of native weapons, etc.'

From 1888 onwards, those listed in the Donations Book read like a Who's Who of the time: Rev. William Wyatt Gill, N.N. Miklouho-Maclay, Dr James Cox, Sir William Windeyer, Sir Charles Nicholson, Theodore Bevan, T.W. Edgeworth David, as well as professional collectors such as Walter Froggatt, Edward Spalding, Alexander Moreton, William Poole and Luigi D'Albertis.

In 1889, Miklouho-Maclay's widow gave the Macleay Museum most of her husband's anthropological material that remained in Australia after his death, including seventy-four human skulls from Oceania and Australia and three important pieces of pottery from New Guinea.

One of the more intriguing donors was Donald Mackay. Born in 1870, Mackay was one of the first to use an aeroplane for Australian inland exploration and map-making on a large scale. He established a bicycle record in 1899 when he rode around Australia in 240 days.

Between 1909 and 1915, he donated a number of artifacts which he had acquired after an exploration of Central Papua. A newspaper report described the gift as 'a very valuable collection of moths and butterflies and also a number of ethnological specimens, including bows, arrows, lances, bone daggers, etc.'

John Shewan, curator from 1915 to 1933, was interested in both anthropology and photography; he corresponded with John Beasley in England and sent him photographs of the fish hook collection. Although the Macleay Museum lost so much of the space in its own building in the early years of this century, other ethnological collections in Australia had also been consigned to a state of oblivion according to Arthur Vogan, correspondent for the *Illustrated London News*. Writing to Shewan in 1923, he deplored the fact that an artifact collection he had given to the Australian Museum had been 'put in a store house with other curios that have been there thirty years.' Vogan's letters to other prominent museums in Australia revealed the same story. Shewan's reply to Vogan's request for more anthropological displays was sympathetic, but he wrote, 'the museum has one third the space available ten years ago.'

The anthropological collection remained largely inactive for many years after Shewan's curatorship.

It was not until 1964 that the collection was systematically numbered. Elizabeth Hahn sorted the jumbled mass of specimens and Jenny Anderson gave them an alpha-numeral identification. In 1980 Lydia Bushell instigated a numbering system using a tertiary numerical system in keeping with international accessioning procedures.

In 1988, a century after Sir William Macleay moved his museum to the University of Sydney, the ethnographic section may be divided into two major collecting periods.

The significant 'Old Collection', was acquired from Australia, Melanesia and Oceania between 1858 and 1925. The majority of the two thousand or so artifacts of this period were obtained on Macleay's collecting expedition to the Torres Strait and New Guinea in 1875, and added to by collectors in various parts of Australia, Fiji, the Solomon Islands and New Hebrides (Vanuatu).

With the exception of a few items added under the old system during the 1970s, the 'New Collection' began with the new numbering method in 1980. In the eight years since then, nearly 2500 objects from Australia and the South Pacific have been acquired, bringing the total for the entire ethnographic collection close to five thousand items. The impetus to change the established accessioning method was the acquisition in 1980 of the Mitton Collection, about 500 objects collected from Irian Jaya between 1969 and 1971.

The Museum has two significant groups of Aboriginal bark paintings. Ten barks collected by Morton between 1838 and 1879 from Port Essington, Northern Territory, are among the earliest now in existence. Another group of 112 paintings on bark, masonite,

plywood or linoleum were collected by R. Berndt between 1946-7 from Arnhem Land, Northern Territory. Wandjuk Marika, an Aboriginal elder and artist, gave detailed information about each of them in 1975.

New acquisitions for the anthropological collection now stem from the Taxation Incentives for the Arts Scheme, which enables the Museum to acquire valuable collections at a time when purchasing funds are low or non-existent.

Every item of the anthropological collection is catalogued in detail and over half the specimens have been photographed in colour. As Sir William Macleay wished, the collection is 'open to the inspection of students of the University and the general public', and is growing in importance year by year.

Chapter Nine

Historic Photograph Collection

Leigh McCawley

The Historic Photograph Collection began in May 1980. Its holdings have grown quickly in number and diversity, and attracted wide recognition as an important repository of photographs. The processes and materials represented in the collection include examples from almost all of the methods and techniques used since photography was introduced into Australia in the 1840s, and reflect the relative popularity of those processes in use. The Collection has no budget for purchasing photographs and relies nearly exclusively on donations.

The initiators of the Collection were Barry Groom and Warren Wickman, who in 1980 were Historical Archaeology students under the supervision of Dr Judy Birmingham. Their endeavour was originally called the 'Sydney University Historic Photograph Resource Project'. This Project was started when photographic documents as historical source materials had only recently begun to be considered with the seriousness they deserve. A public appeal for old photographs was mounted, directed toward the elderly, as they were the most likely custodians of family photographs, and may have wished to find a home for their images if there were no surviving family members to pass them on to.

The response was overwhelming. In April 1981 a conference on 'Conserving Historic Photographs' was held at The National Trust Centre in Sydney, by which time the collection held approximately 15,000 images. When the conference proceedings were published in 1982 the holdings had increased to 20,000. The surprising and very gratifying early growth of the collection had prompted Judy Birmingham to contact the Macleay Museum's Director to request advice about storing and managing the now unwieldy mass of material, which subsequently became incorporated into the Museum as the Historic Photograph Collection. The photographs were allocated space in the annex adjoining the John Woolley building.

The Macleay Museum already had some experience of historic photographs. In 1977 the Museum mounted an exhibition, 'The Mechanical Eye'. The associated publication of the same name included an inventory of early photographers in Australia. The book

was a useful reference and soon sold out. A totally revised edition, with a greatly expanded inventory, was published by Oxford University Press as *The Mechanical Eye in Australia* in 1985. The arrival of the Historic Photograph Collection in the Museum built on this existing interest, and led to several exhibitions and publications.

There was no other repository or expertise within the University for the management of historic photographs of a general nature. The University Archives collect images of official University history, but do not wish to retain photographs which have a material value apart from their informational one, such as images made using fragile and precious early processes. The Historic Photograph Collection houses two sets of lantern slides from teaching collections, one numbering more than 1000 slides from the Geology Department, and a large group of daguerreotypes and glass plate negatives from the Department of Chemistry showing Professor Liversidge's teaching aids. Recently the collection of John Shewan, a former Macleay Museum Curator, has also been transferred to the Collection from the University Archives. It contains about 80 glass plate negatives, of both the collodion wet plate and gelatin dry plate processes; more than 100 prints; and some of Shewan's writings. Some of the prints are made on salted paper which Shewan sensitised himself from good quality writing paper, and the image content includes many scenes of University grounds and buildings, both from inside its boundaries and distant views.

As well as fulfilling the function of a repository for images falling outside the province of the University Archives, but which still relate directly to the University and its personnel, the Historic Photograph Collection's acquisition policy encompasses images of importance to Australia and Australians anywhere. The people represented fall into many categories: those with Museum or University ties, such as scientists and past students; notable Australians including people such as Norman 'Wizard' Smith, the land speed pioneer; professional photographers — William Hetzer, Alexander Brodie and Charles Kerry; serious amateurs — Robert Hunt and Judge Ernest Docker; and 'ordinary' Australians, whose collections of albums and family snapshots contribute so much to our knowledge of the everyday concerns and activities of our past. The geographical range of the collection can be described by a series of concentric circles radiating outwards from the Museum and the University as far as Antarctica and the South Pacific.

Due to the special difficulties encountered in safely storing coloured photographic materials, the Collection limits its holdings to black-and-white processes, for which it has adequate storage facilities. At present, images up to and including the 1950s are collected, but this limit may be revised in the future. There are exceptions to each of these rules. Some colour transparencies are held, as are a few images from the 1960s, which have come as part of larger groups of pre-1960s black-and-white work.

Since it was established, the Historic Photograph Collection has always kept its donations as intact units. In the past, many collecting bodies were in the habit of splitting donations on receipt and re-filing them in strict chronological or subject order. This practice unfortunately continues, but the Historic Photograph Collection began when it had already fallen out of favour. By the time a group of images has reached a repository such as this, it has usually gone through several stages of selection: which images to capture; which to print; whether to keep the negatives; what to place in an album or keep in a family collection when moving house; what to offer to a museum. The intention of the photographer and the context of the image may have been affected or lost at each of these stages, so it is very important that they are not obscured any further, but instead enhanced in whatever ways are available. Some donations come with full documentation, some with none. We can often interview the donor, who is sometimes the photographer or a contemporary of the photographer, but who will almost always be able to expand our knowledge of the circumstances in which the pictures were made.

The daguerreotype was the first photographic process to be widely used. The Collection has a very impressive half-plate daguerreotype portrait by J.W. Newland of the Sydney publican Edward McDonald in 1848, and several stereo daguerreotypes, notably still lifes from the collection of Professor Archibald Liversidge, who held the Chair of Chemistry and Mineralogy in the University in the 1880s. The Collection also holds thousands of glass plate negatives, both of the earlier wet collodion and later dry gelatin processes. More than 3000 glass plate negatives, some stereo, come from the studios of Charles Kerry and Henry King and were taken in the period from 1880 to 1900. The Collection also contains nearly 1500 dry plate negatives by John Park showing Leichhardt in the 1920's, and many negatives from Burns Philp & Co of their plantations in the South Pacific.

Ambrotypes, which used wet collodion negatives with a black backing to form a positive image, are also well represented. A collodion print on oil cloth from about 1860 is a rare example of the technique. Several salted paper prints are held, as well as large numbers of images on the most popular of the late 19th century printing materials, albumen paper. Albumen prints were usually mounted as Cartes de Visite, Cabinets, or Paris Panels, and often also in pairs on stiff card for viewing through a stereo viewer to give them an impression of depth, and enhance the illusion of take-away reality. Increasingly in this century the most common printing material has been the silver gelatin photograph, represented in the Collection in very large numbers. Also held is a wide variety of cut film negative sizes of the kind used in early box and pocket cameras, reflecting the range in common use before standardisation on to 35mm and the drop-in cassette.

The subjects covered by our donations also reflect the topics of

importance to those who formed the images. Early processes were costly and intricate, and their subject matter often reflected the concerns of the class who employed them: formal portraits, cityscapes and grand houses. Many early practitioners were learned amateurs concerned to use their leisure constructively, such as Professor John Smith, who was Professor of chemistry and experimental physics at the University of Sydney between 1852 and 1885, and who took many images of the University under construction in the late 1850s. The Collection also contains work by contemporaries of Smith, and fellow members of the Philosophical Society of New South Wales, Robert Hunt, Chief Clerk of the Bullion Room of the Royal Mint, and William Stanley Jevons, an assayer there. The Hunt pictures document exploration and survey of the Grose Valley about 1860 among other subjects, and Jevons stereoviews show gold mining operations at Jembaicumbene, near Braidwood, in 1860.

The Collection also contains pictures by William Hetzer from the 1850s and 60s and Alexander Brodie from the early 1870s. Both of these professional photographers produced popular sets of stereo views of Sydney streets and buildings for sale in series or singly. John Paine was another professional who took saleable views of Sydney and its environs in the 1870s and 1880s, some of them hand coloured. The holdings of his work came in reference-numbered stockbooks which enabled clients to order reproductions.

Other collections include photographs of scientific expeditions and excursions, for instance the Horn expedition to Central Australia in 1894-95, and two albums compiled by Dorothy Powell, a participant in the 1926 ANZAAS conference held in Perth. From this century also there are two collections of photographs by John Simeon Pierson Ramsay, a renowned bird photographer, who was the first in Australia to use and advocate the new 'miniature' 35mm film and Leica cameras. The first Ramsay collection covers his work to 1932, and the materials are glass and cut film negatives, while his later images, from 1933 to 1943, were taken on 35mm roll film. Catherine Snowden, one of the Historic Photograph Collection's past curators, is writing a history of Ramsay's life and work, basing her research in part on these collections of photographs.

After the introduction of the first roll-film camera in 1888 photography became an activity within everyone's ability, and so the collections increasingly reflect a decline in the formality of the images. Pets, cars, homes and holidays are well represented, usually with a family member in evidence to personalise the scene. Family collection holdings include two albums by William Barrett, who had been an associate of Harold Cazneaux, of skiing holidays and scenes of Sydney and surrounding areas from 1918-19. Another example is the large collection of negatives and prints taken by C.S. Harnett over the period 1915 to 1923. Sydney, Brooklyn, Terrigal, Woy Woy, city scenes, beach excursions and boats are depicted among the wide range of topics characteristic of a family collection.

A donation by Ward Swadling in 1983 contains many pictures taken during the land speed record attempt by Norman 'Wizard' Smith on the North Island of New Zealand in 1931. From the late 1940's are photographs and clippings gathered by Mrs. Lesley Oldershaw, documenting her service with the United Nations Relief and Rehabilitation Association in China. Twelve albums from one collection span the period 1930 to 1950 and show a family enjoying leisure at home and on holiday over those twenty years. Thomas Crooks worked in Wyndham and the Kimberley region of Western Australia during the 1930s and 1940s, and the pictures he took, donated by his wife, include seaplanes and planes of the Flying Doctor service; pearling operations; Aborigines; Aboriginal rock paintings; donkey and camel transport and local wildlife. Several donations have come to the Historic Photograph Collection under the Taxation Incentives for the Arts Scheme.

Curators, exhibitions, publications

During their curatorship, as well as progressively registering and storing the accessions, Groom and Wickman mounted two exhibitions and prepared accompanying publications: *Leichhardt, An Era in Pictures*, sponsored by Leichhardt Council, was displayed at the Government Information Centre during Senior Citizens Week in March, 1981. It described the work of a professional photographer of Leichhardt, John G. Park, around 1920. *Sydney — The 1850s, The Lost Collections*, partly sponsored by the Commercial Banking Company of Sydney, was shown in the Martin Place Branch of the CBC Bank during Heritage Week in March, 1982.

Catherine Snowden, an historian newly graduated from the Museum Studies Diploma course at the University, was appointed Curator of the Historic Photograph Collection in December 1982. She initiated research on the collections in depth. Her first exhibition, 'Rediscovering Historic Photographs', held in 1983, was accompanied by a publication of the same name. This exhibition served both to display the Collection's contents, and to guide the public towards an understanding of what was desirable and possible in the area of recognising and preserving valuable historic photographs. Snowden also substantially completed a catalogue of the John Smith collection, the originals of which are held in the University Archives, before leaving the Museum.

In 1983 an Assistant Curator, Alison Lea, was appointed to work with Snowden. Three exhibitions were mounted during their period of service, and a catalogue completed on the first part of the J.S.P. Ramsay Collection. In 1984 the exhibition 'John Paine, Landscape Photographs, c.1880', a retrospective show and monograph using the collection of albumen prints by John Paine, was mounted by Snowden, Lea, and Christa Ludlow. Two exhibitions were mounted the next year: 'Health, Wealth and the Wilderness — the Camera in the Blue Mountains, 1860-1930' which described early excursions

by photographers to document and survey this beautiful and increasingly accessible region; and 'Men Rule — OK?', a witty and radical look through photographs at how one sex has expressed its dominance. Snowden ended her service with the Historic Photograph Collection in 1985 and Lea continued until mid-1987.

Leigh McCawley was appointed as part-time Curator in early 1987, and was joined by co-Curator Rebecca Thomas, also part time, in early 1988. McCawley and Thomas, like Snowden, are graduates of the Museum Studies course. To coincide with the University's Open Day weekend in July, 1988, an exhibition and booklet, 'Popular Photography', was mounted in the Museum foyer. This display described photographic practice and processes from the introduction of the first roll-film Kodak in 1888, to the present. The exhibition was also able to use to good advantage the small collection of cameras and photographic equipment which the Museum has acquired.

Other publications which have drawn on the Historic Photograph Collection include: *Waterfront Sydney, 1860-1920*, by Graeme Aplin and John Storey and the *Australian Album, Australia In Photographs 1860-1920* by Daniel O'Keefe. Images from the Collection have been used recently in 'Demolished for the Public Good', an exhibition curated by James Broadbent and Joy Hughes of the Historic Houses Trust, which catalogued the destruction of many fine buildings in the region for the sake of progress. The Collection contributed images of Drummoyne House and Fairlight House among others. Early pictures of children from various collections, and the Aveling & Porter steam wagon from the John Park collection are being used in exhibitions at the Powerhouse Museum.

Between late 1987 and early 1988 all original negatives, prints and albums were transferred to a new storage space in the Badham Building. The new store is provided with reverse-cycle air conditioning and compact shelving, making this space into an efficient and safe storage environment for the estimated 40,000 objects which now make up the Collection. The store has been named the 'John Shewan Room' in honour of the former Macleay Museum Curator who was also an enthusiastic amateur photographer.

The next major phase planned for the Collection is the establishment of a Visitor Centre in the Woolley Annex. Modifications and additions are still required to the room before the Centre can be fully established, and these await funding and scheduling. It is good management policy for photographic collections to have original images, whether negative or print, copied as soon as possible after acquisition, thus reducing the need to handle them and the risk of damage. Copies of original images will be made as funding allows, and kept in the Visitor Centre for research by enquirers, along with catalogues and other finding aids, and modern copy negatives for reproduction when required.

The purpose of collecting photographic objects, as for any objects collected by museums, is not only to preserve them from harm, but

to make them as available to the public as possible, both to professional and private enquirers. The more comprehensive and easily accessible the cataloguing system is, the more autonomously and flexibly researchers can work. Users of the Collection fall into two general categories: those doing scholarly historical research, using photographs as primary sources, and those searching for illustrations for books, magazines or advertising text. The Historic Photograph Collection is investigating the use of laser disc image systems, which are a very fast, efficient and economical storage and retrieval method. Nearly a thousand images from the Collection have been included on the first of the New South Wales Government Printing Office's four planned laser storage discs.

This decade and the next are critical for the gathering of original early photographic material. The very earliest images have survived for nearly 150 years, but they were precious and robust. Many more flimsy paper and film objects are stored in inadequate environments and the risk of their irreversible degradation increases as time passes. Apart from the risk to the photographic material, there is also the increased risk of loss of documentary information with every passing year, as those with first-hand or proximate knowledge of the images are no longer with us. The Historic Photograph Collection was established to slow such loss by increasing public awareness of the importance of conservation and documentation of photographic images, and continues to welcome support from all sections of the community, whether through donation of photographs, assistance with identification, or financial sponsorship.

Following page:
Headstone in
Wick churchyard
recording the
death of
Alexander
Macleay's
mother, Barbara
Rose; father,
William; two
sisters and a
brother. (Macleay
collection)

HERE REST THE REMAINS OF

WILLIAM MACLEAY.

FOR MANY YEARS PROVOST OF WICK
WHO DIED JUNE 1820.

OF HIS WIFE

BARBARA ROSE

WHO DIED MAY 1842
IN THE 105TH YEAR OF HER AGE
AND OF THEIR CHILDREN.

JOHN MACLEAY, OF KEISS,

WHO DIED FEBY 1821.

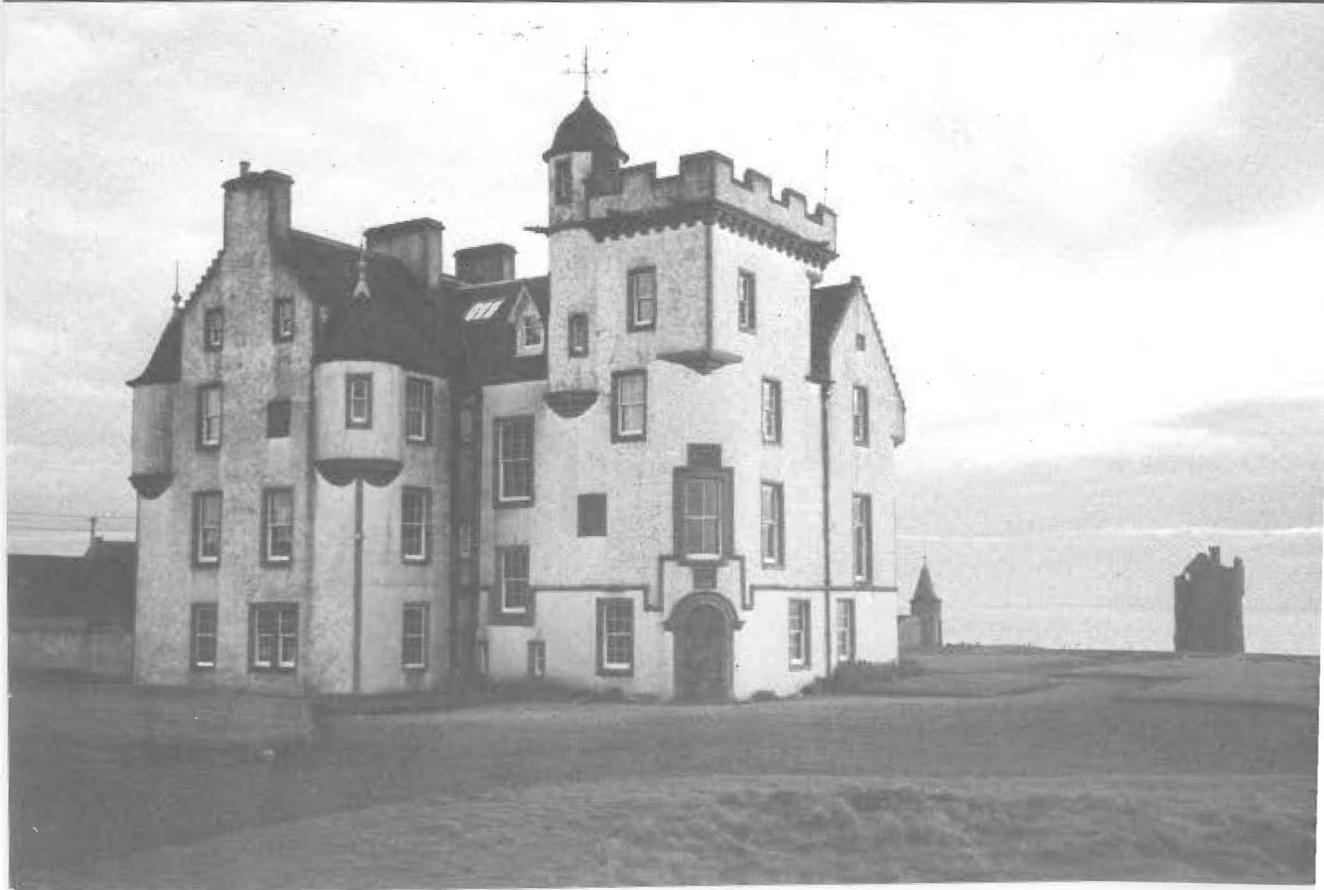
BARBARA MACLEAY

WHO DIED DECE 1836.

CATHERINE MACLEAY.

WHO DIED APRIL 1849.

APPENDICES



Chapter Ten

Chronology of the Macleays

The material in this appendix summarises events in the lives of the three Macleays who contributed to the collections.

The following abbreviations are used: *Ann. Nat. Hist.*, *Annals of Natural History, London*; *Phil. Mag.*, *Philosophical Magazine, London*; *TESNSW*, *The Entomological Society of New South Wales*; *PLS*, *Proceedings of the Linnean Society of London*; *PLSNSW*, *Proceedings of the Linnean Society of New South Wales*; *Zool. Journ.*, *Zoological Journal, Linnean Society of London*; *Zool. Soc. Proc.*, *Proceedings of the Zoological Society of London*.

Alexander Macleay; initiated the Macleay collections

1767
Born, 24th June
1786 age 19
Went to London, worked with wine merchant William Sharp, after whom he named his eldest child
1791 age 24
Married Elizabeth Barclay
1792 age 25
Child 1 born, William Sharp
1793 age 26
Child 2 born, Frances Leonora
1794 age 27
Elected Fellow of Linnean Society; possibly already collecting insects
Child 3 born, James
1795 age 28
Chief Clerk in the Prisoner of War section of the Transport Office
1796 age 29
Child 4 born, Alexander Rose
1797 age 30
Head of Department of Correspondence, Transport Office
Child 5 born, Barbara
Sent sons William Sharp and James to school in Wick in the care of his father

1798 age 31
Moved to settled home by Storey Gate, Westminster
Child 6 born, Elizabeth
Secretary of Linnean Society (until 1825)
1799 age 32
Children 7 and 8 born, twins Christiana Susan and Catherine
1800 age 33
Child 9 born, Elizabeth
Child 6 died, (Elizabeth 1)
1802 age 35
Visited Caithness; collected 250-300 insects; wrote to Rev. Kirby offering to exchange specimens
Child 10 born, Margaret
1803 age 36
Child 11 born, Johanna
1805 age 38
Insect collections mentioned in Donovan's 'Insects of New Holland' and Lewin's 'Lepidopterous Insects of New South Wales'; paid £39.10.0 for 72 insects sold at the auction of Dru Drury's.
Child 12 born, Kennethina; child 13 stillborn
1806 age 39
Secretary of the Transport Board, 20 clerks under him — became well known in official circles (Sir Joseph Banks, Lord Bathurst, Sir Robert Peel)
1807 age 40
Moved to 12 Queens Square, Westminster
Child 14 born, Rosa Roberta
1809 age 42
Elected Fellow of the Royal Society (Sir Joseph Banks, President)
Child 2 died (Frances Leonora)
1810 age 43
Child 15 born, George
1811 age 44
Child 16 born, James Robert
1812 age 45
Became partner in his brother John's bank, the Caithness Banking Company.
Child 5 died, (Barbara).
Director of the British Fisheries Society

Old and new Keiss Castles. The new castle was built in 1755 and remodelled by Alexander Macleay's brother, Kenneth. (Macleay collection)

Chronology of the Macleays

1813 age 46
By this time had his country place, Tilbuster Child 8 died, (Catherine)

1814 age 47
Sold specimens by auction — described as a 'well known' gentleman
Child 17 born, Barbara Isabella.
Leach started describing insects from Alexander Macleay's collection
Child 9 died, (Elizabeth 2)

1817 age 50
Transport Board abolished. Macleay retired on a pension three-quarters of his £1000 salary

1818 age 51
Purchased Francillon's insects (some collected by Surgeon General White) including *Arthropteras macleaii* Donovan

1819 age 52
Purchased insects from the sale of Bullocks Museum, London, and the Thomas Marsham collection

1824 age 57
Elected to the Council of the Royal Society (Sir Stamford Raffles President). Lent £550 by William Sharp at 5% interest. Offered position of Colonial Secretary at £2000 plus £750 from colonial revenues in lieu of pension plus rent free house

1825 age 58
Purchased insects from the Stephens and General T. Davis collections. Appointed Colonial Secretary and sailed for Australia with his wife and six daughters

1826 age 59
Arrived in Australia; recommended funds for starting the Australian Museum; received 54-acre land grant at Elizabeth Bay

1827 age 60
Started work on the gardens at Elizabeth Bay; carriage way, gardener's lodge, stables constructed. Purchased Brownlow Hill (40 miles from Sydney)

1828 age 61
Increased staff of the Royal Botanic Gardens; imported plants

1829 age 62
Australian Museum commenced work. George Macleay left his father's property, Brownlow Hill, with Captain Sturt for his second expedition down the Murrumbidgee

1832 age 65
John Peter managed Alexander's sheep station between Goulburn and Yass

1833 age 66
John Verge designed house for Elizabeth Bay

1835 age 68
Foundation stone of Elizabeth Bay House laid by Alexander's wife, Elizabeth, on her birthday, 13 March 1835

1836 age 69
President of the Australian Museum.
Committee of Superintendence of Gardens

and Museum established

1837 age 70
Dismissed from Colonial Secretaryship, replaced by Governor Bourke's son-in-law, Edward Deas Thomson

1838 age 71
Moved to Elizabeth Bay House. Claimed pension from Government over wrongful dismissal

1841 age 74
Auction of library and furniture at Elizabeth Bay House

1843 age 76
Elected speaker of the Legislative Council

1845 age 78
William Sharp took over his father's affairs; moved into Elizabeth Bay House. Alexander moved to live with his daughter, Susan Dumaresq, at Tivoli, Rose Bay (now part of Kambala School). Portion of the Elizabeth Bay House estate sold. John Peter, Alexander's sheep manager, retired

1846 age 79
Resigns as speaker

1848 age 81
Died as the result of a carriage accident. Elizabeth Bay House inherited by William Sharp

William Sharp Macleay was the son of Alexander Macleay who initiated the Macleay collections; William Sharp increased the size of the collection and prepared his cousin to inherit it

1792
Born, 21 July

1806 age 14
Westminster School

1810 age 18
Trinity College Cambridge

1812 age 20
Father unsuccessfully tried to get William Sharp a job in the Transport Office

1814 age 22
B.A.

1815 age 23
Attached to the British Embassy, Paris. Secretary to the Board for liquidating British claims on the French Government. Met French naturalists Cuvier, Latreille, St-Hilaire

1817 age 25
Under influence of Cuvier's *Regne Animal* published this year, William Sharp decided to revise the group *Scarabaeus* of which his father had 1800 specimens, and which were well represented in most collections on the continent

1818 age 26
M.A.

1819 age 27

Returned to England

Horae Entomologicae Part 1, published
1821 age 29

Horae Entomologicae Part 2, published
Elected Fellow of the Linnean Society
1825 age 34

Commissioner of Arbitration to the Mixed
British and Spanish Court for the Abolition of
Slave Trade established at Havana, Cuba.
Salary £1850. Sailed in September on the
Bustard with two servants and three tonnes of
baggage. Lived with a large garden at
Guanabanacoa, cultivated orchids parasitic on
trees, and animals

1826 age 35

PLS. 14: 46-68, Insects and fungae distribution

PLS. 14: 353-359, The Greek insect *Oistros*

PLS. 14: 527-565, Tunicata

PLS. 14: 584-585, The hermaphrodite *Papilio
lacodocus*

Zool. Journ. 1: 444-448, *Hylobius abietis* in fir
trees

1827 age 36

PLS. 15: 63-73, The tarsus of Coleoptera

Phil. Mag. 2: 178-179, The larvae of Diptera

1828 age 37

Zool. Journ. 4: 47-52, on Mr Virey's
observations

1829 age 38

Zool. Journ. 4: 269-278, the genus *Capromys*

Zool. Journ. 4: 401-415, a letter to Bicheno

Zool. Journ. 4: 475-482, *Ceratitis citriperda* and
oranges

1830 age 39

Phil. Mag. 7: 431-445

Phil. Mag. 8: 53-57, The dying struggle of the
Dichotomous system

Phil. Mag. 8: 134-140, "

Phil. Mag. 8: 200-207, "

Zool. Journ. 5: 18-25, *Oistros*

Zool. Journ. 5: 145-179, Anatomy of the thorax

Zool. Journ. 5: 179-180, *Capromys*

Commissary Judge of the Court, Havanna

1833 age 41

PLS. 6: 1-46, Birds of Cuba

Zool. Soc. Proc. 2: 9-12, Genera *Urania* and
Mygale

1834 age 42

Zool. Soc. Proc. 2: 12, *Sphaeriodactylus cinereus*
and *S. elegans*

1836 age 45

Judge of the Court, Havana. Returned to
England via the United States. Presented at
Court

1837 age 46

Retired with pension. Elected to Council of
Linnean Society. Met Charles Darwin,
encouraged him to write up the zoology of
the *Beagle*

1838 age 47

Presided over Section D of the British
Association's meeting at Liverpool; met Rev.

W.B. Clarke. Published *Annulosa of South
Africa*. Left for Australia in the *Royal George*
1839 age 48

Published new species of spiders including
Nops guancganocoe

Arrived in Australia

Ann. Nat. Hist. 2: 1-14, New Arachnida

Ann. Nat. Hist. 4: 16-22, Trilobites and
Crustacea

Ann. Nat. Hist. 4: 385-388, Annelida

Darwin wrote asking help for Syms

Covington, who had been his assistant
on the *Beagle*

1842 age 51

Ann. Nat. Hist. 8: 241-243, *Antechinus*

Ann. Nat. Hist. 8: 324-325, Bird Catching

Spiders

Ann. Nat. Hist. 8: 337-338, *Antechinus stutii*

Ann. Nat. Hist. 9: 197-207, Natural

arrangement of fishes

1846 age 55

Took over his father's affairs, moved into
Elizabeth Bay House. Alexander cut William
Sharp out of his will

1847 age 56

Met T.H. Huxley from H.M.S. *Rattlesnake*
(which stayed 11 months) Mother died; father
forgave William Sharp, but his brother George
said 'his company not sought'

1848 age 57

Inherited Elizabeth Bay House

Appointed to Australian Museum Trust

1849 age 58

Chairman of the Australian Museum Trust,
1849-1852, 1853-1856, 1858-1860

Tasmanian Journ. Nat. Sci. 3: 275-278,

The Bunyip

1856 age 65

Frequently discussed entomology with William
John Macleay

1862 age 71

Resigned from the Australian Museum Trust

1865 age 74

Died; Elizabeth Bay House passed to George
Macleay (who had returned to England
in 1859)

William John Macleay cousin of William
Sharp Macleay; inherited and greatly enlarged
collection; by the terms of William Sharp's
will, offered collection to the University of
Sydney

1820

Born, 13 June

1825 age 5

Father died

1833 age 13

Edinburgh Academy

1837 age 17

Edinburgh University

Chronology of the Macleays

- 1838** age 18
Mother died (March)
Left for Australia (November) with his brother, John, under the care of William Sharp. Each brother had £1000. James Macarthur also on board the *Royal George*
- 1839** age 19
Arrived in Australia, and learnt farming at Brownlow Hill (a farm 40 miles from Sydney, owned by Alexander Macleay and run by his son George)
- 1840** age 20
Took up land on the Murrumbidgee, later known as 'Kerabury', in partnership with his brother John. Another brother, Alexander Donald, may have later been financially involved in the partnership
- 1846** age 26
Appointed a magistrate (Justice of the Peace), Murrumbidgee district
- 1847** age 27
Court House at Wagga Wagga built
- 1852** age 32
Helped form the Murrumbidgee Turf Club
- 1855** age 35
Elected to the Legislative Council as member for Lachlan and Lower Darling
- 1856** age 36
Elected to the Legislative Assembly to represent the Lachlan and Lower Darling. Helped found and lived at the Union Club, Sydney. Elected to the Philosophical Society of New South Wales
- 1857** age 37
Married 18-year old Susan Deas Thomson. Moved to 153 Macquarie Street, Sydney
- 1858** age 38
Helped found the *Wagga Wagga Express*. George Macleay returned to England; William Sharp and William John became close friends. William John started collecting insects in earnest
- 1859** age 39
Elected member for the Murrumbidgee, succeeding his cousin, George Macleay
- 1860** age 40
The two cousins worked together on entomological problems; William John started to employ collectors and began scientific writing
- 1861** age 41
Became Trustee of the Australian Museum
- 1862** age 42
Formed the Entomological Society of New South Wales at Macquarie Street
- 1863** age 43
Served on Select Committee 'The Defence of Port Jackson and the best means of guarding the Port and City of Sydney From Foreign Attack'
TESNSW. 1. (1): 9-21, Twenty Australian Coleoptera
- TESNSW*. 1. (1): 22-23, Twenty New Buprestidae
TESNSW. 1. (1): 55-74, Scaritidae — 2
- 1864** age 44
Routed the bushrangers Gilbert, Hall and Dunn. Exchanged specimens with South Australian Museum
TESNSW. 1 (2): xxx-xxxvi, Early Australian Entomology
TESNSW. 1 (2): 75-90, Glaphyridae
TESNSW. 1 (2): 106-130, pl.ix, Coleoptera from Port Denison
TESNSW. 1 (2): 134-154, Scaritidae
- 1865** age 45
William Sharp died and the family collection passed into William John's care
TESNSW. 1 (3): 176-198, Scaritidae — 3
TESNSW. 1 (3): 155-157, pl.xv, New genus of carabideous insects.
TESNSW. 1 (3): 199-209, Genera of the Amycteridae.
- 1866** age 46
Select Committee, 'The Distress at Present Existing Among the Working Classes'. E. Damel collected at Cape York
TESNSW. 1 (5): 310-340, New Amycteridae
- 1869** age 49
Closure of the Entomological Society of New South Wales., the collections given to the Australian Museum. J. Odewahan exchanged specimens from Gawler, South Australia
TESNSW. 2 (1): 58-70, Scaritidae — 4
- 1871** age 51
Select Committee, 'The Best Mode of Facilitating Inland Traffic and the Extension of Railways Generally'
1871 age 51
TESNSW. 2 (3): 79-158, Insects from Gayndah — 1
- 1872** age 52
TESNSW. 2 (4): 239-318, Insects from Gayndah — 2
- 1873** age 53
Decided to collect vertebrate specimens. Offered his collection to the University of Sydney with an endowment of £6000 for the curator's salary. Started to employ collectors and purchase specimens, books and museum furniture
TESNSW. 2 (5): 319-370, Miscellanea Entomologica
- 1874** age 54
Appointed George Masters as Curator of his museum. Helped start the Linnean Society of New South Wales. Held or attended five fishing picnics including one with scientists from HMS *Challenger*. Retired from the Legislative Assembly. A. Simpson collected specimens at Port Denison and Hobart. Insects received from A. Cross (Newcastle), Mr James (Sydney), Mr Pilcher (Rockhampton), Dr. J.C. Cox (Cape York), Mr Phelps (the Darling), W.

- Forster (Marrickville), Mr West (Wagga), F.H.
du Boulay (Endeavour River)
1875 age 55
Became a Fellow of the Senate of the
University of Sydney. Financed and organised
the *Chevert* expedition to New Guinea. Part of
Elizabeth Bay grounds sold
PLS. 1: 15-16, New Species of *Dendrophis*
PLS. 1: 36-40, Collection of the *Chevert*
1876 age 56
Erected two buildings in the grounds of
Elizabeth Bay House to contain his museum,
the larger (115 x 35 x 9 feet) for all but the
insects. Carpenter engaged for a year to build
cases. Entertained the members of the
Linnean Society to a picnic at Wentworth
Falls. Received insects from H. Bloomfield
(Cooktown), Mr Creswick (Coonabarabran), J.
Cockerell (New Britain, New Ireland, Duke of
York Island)
PLS. 1: 164-168, Coleoptera of the *Chevert*
PLS. 1: 216-281, Ichthyology of the *Chevert-1*
PLS. 1: 301-306, Entomology of New Ireland
PLS. 1: 321-359, Ichthyology of the *Chevert-2*
1877 age 57
Resigned from Trust of Australian Museum.
Appointed Member of the Legislative Council.
Chairman of the Royal Commission on Oyster
Culture. E. Spalding collecting in Darwin for
Macleay
PLS. 2: 33-41, Ophidians of the *Chevert*
PLS. 2: 60-69, Lizards of the *Chevert* — 1
PLS. 2: 97-104, Lizards of the *Chevert* — 2
PLS. 2: 135-138, Batrochiids of the *Chevert*
PLS. 2: 213-217, New Carabidae from Port
Darwin
PLS. 2: 219-222, Snakes from Port Darwin
1878 age 58
Supported N. de Miklouho-Maclay's
suggestion for a zoological field station.
Appointed Commission for the International
Exhibition, Sydney. Mr Webb collected in King
George Sound for Macleay
PLS. 2: January, 213-217, New Carabidae from
Port Darwin
PLS. 3: 12-17, New species of *Therapon*
PLS. 3: 33-37, New fishes from Port Jackson
and King Georges Sound
PLS. 3: 52-54, New species of *Hoploccephalus*
PLS. 3: 165-169, New species of *Amphisila*
PLS. 3: 306-334, Plagiostomata of the Pacific
(with N. de Miklouho-Maclay)
1879 age 59
Acquired collections from Mr Cockerell
(Solomon Islands), Mr Goldie (New Guinea)
PLS. 4: 60-64, Fish of the Solomons
PLS. 4: 363-385, Clupeidae of Australia
PLS. 4: 410-427, Mugilidae of Australia
1880 age 60
President of the Fisheries Commission.
Acquired J. Ramsay's collection from Bourke.
PLS. 5: 45-47, New Species of *Galaxias*
PLS. 5: 48-49, Two Fishes of the Markets
of Australia — 1
PLS. 5: 302-444, Descriptive catalogue of fishes
of Australia — 1
PLS. 5: 510-630, Descriptive catalogue of fishes
of Australia — 2
1881 age 61
PLS. 6: 1-138, Catalogue of fishes of Australia
— 3
PLS. 6: 202-387, Catalogue of fishes of
Australia — 4
PLS. 6: 536-539, *Phasma* destructive to
Eucalyptus
PLS. 6: 811-813, Two new snakes
1882 age 62
PLS. 7: 11-15, Pleuronectidae of Port Jackson
PLS. 7: 69-71, Fishes of the Palmer River
PLS. 7: 106-109, *Galaxias* in the Australian
Alps
PLS. 7: 202-205, Poisonous fly of New
Caledonia
PLS. 7: 224-250, Fishes of New Guinea-1
PLS. 7: 344-347, An insect injurious to the
vine
PLS. 7: 351-366, Fishes of New Guinea-2
PLS. 7: 366-371, Fishes of Port Jackson
PLS. 7: 585-598, Fishes of New Guinea-3
1883 age 63
PLS. 8: 2-6, Mugilidae from New Guinea
PLS. 8: 199-213, Fishes of the Burdekin and
Murray Rivers
PLS. 8: 252-282, Fishes of New Guinea-4
PLS. 8: 409-416, Undescribed Coleoptera
PLS. 8: 426-431, Plagiostomata of the Pacific
— 2 (with N. de Miklouho-Maclay)
PLS. 8: 431-436, Reptiles of the Herbert River
PLS. 8: 439-441, New Fish from Port Jackson
PLS. 8: 457-462, Trawl Fishing outside Port
Jackson
Trans. Roy. Soc. S.A. 6: 173. *Sphaerophus*
destructive to oranges
1884 age 64
Ichthyologist appointed to Australian
Museum; Macleay reduced work on
vertebrates. Government voted £10,000 for a
building for the museum at the University of
Sydney. G. Allen Mansfield appointed as
architect
PLS. 9: 2-64, Supplement to Fishes of
Australia
PLS. 9: 170-172, New Fishes
PLS. 9: 548-568, Australian Snakes
PLS. 9: 700-712, Insects of the Macleay coast
1885 age 65
Gave the Linnean Society land and a building
in the grounds of Elizabeth Bay House (Hall
80 x 40 ft; library 40 x 40 ft; and lab. 40 x
20ft). At the dedication of the Hall, it was
agreed that a bust of William John Macleay
be commissioned. Received insects from B.
Barnard (Coomooboolaroo, Qld). University
Museum building found to cost £15,774;
additional funds sought



PLS. 10: 61-62, A snake from the Barrier Ranges
 PLS. 10: 64-68, Reptiles of the Herbert River
 PLS. 10: 129-140, Revision of *Lamprina*
 PLS. 10: 199-202, Two new Lucanidae
 PLS. 10: 267-269, New fishes of the Upper Murrumbidgee
 PLS. 10: 473-474, A new Lamprimides
 PLS. 10: 673-678, Plagiostomata of the Pacific – 3 (with N. de Miklouho-Maclay)
 PLS. 10: 718-720, A fish from Lord Howe Island
Proc. Roy. Soc. Tas. 1885 (1886): 285-308, Zoology of Australia
 1889 age 69
 Conferred Knight Bachelor. The bulk of the

collections removed to the University. Macleay bust unveiled at the Linnean Society of N.S.W.
 1890 age 70
 Bequest of £12,000 to the University of Sydney for the foundation of a Chair or Lectureship in Bacteriology. Remainder of collections taken to the University. Transfer to the Linnean Society a mortgage of £14,000 bearing interest at 5%
 1891 age 71 Died
 Bequest of £6,000 to the Linnean Society of New South Wales
 1903
 Bequest of £35,000 to establish four Linnean Macleay Fellowships became available

Chapter Ten

Chronology of the Macleays

Chapter Eleven

Staff of the Macleay Museum

Anderson, Jenny	1963-1966	Kemple, Jeanine	1969-1971
Athanosatos, Harry	1985	Le Vielle, John	1979
Bertram, Brian	1979	Lea, Alison	1984-1987
Bonelli, Elisabeth	1971-1972	Leon, Judy	1973-
Booth, David	1985	McCawley, Leigh	1987-
Bushell, Lydia (Kennedy)	1971-	McDonald, John	1981
Chapman, Yvonne	1972-1973	Masters, George	1888-1912
Cole, Kerry (Smith)	1965-1971	Norrington, Stuart	1986-
Davidson, Lindy	1985-	Phipps, Graeme	1979-1985
Davies, Alan	1975-1986	Reade, Henry	1960-1961
Egan, Majella	1986	Salter, Keith	1934-1945
FitzGerald, Elizabeth	1973	Saunders, Julia	1982-1985
Forteach, Nigel	1974	Shewan, John	1911-1934
Goddard, Alex	1985-1986	Snowden, Catherine	1982-1986
Groom, Barry	1982	Stanbury, Peter	1967-
Hahn, Elizabeth (Boesel)	1958-1963	Stern, Bill	1980
Henry, James	1945-1958	Thomas, Rebecca	1988-
Holland, Julian	1988-	Trent, David	1974-1975
Horning, Donald	1982-	Wells, David	1984-1985
Keating, Harry	1961-1968	Wickman, Warren	1982-1983

Top:
 Wick Harbour,
 1987. (Macleay
 collection)

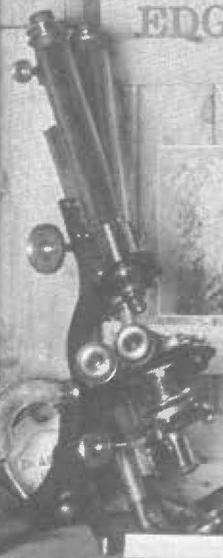
Bottom:
 Bilbster, near
 Wick, owned by
 Alexander
 Macleay,
 1824-1833.
 (Macleay
 collection)

ANTARCTIC EXPLORATION

EDGEWORTH
DAVID



MAWSON



Chapter Twelve

Exhibitions, 1971-1988

These exhibitions were mounted to publicize the Museum; bring in new groups of visitors; provide a focus for staff endeavours; enable the Museum to take its place in the museums' community; and attract donations and bequests to the Museum. The first exhibitions and catalogues were relatively simple, but many of the latter exhibitions had essay-style catalogues which were published commercially after the initial stocks printed by the Macleay Museum had sold. Details of the publications can be found in the List of Publications.

1971

The World of Museums

168 museum posters from around the world. A catalogue listed the origin of each poster and the process by which it was made.

1972

Historical and Interesting Scientific Instruments

121 instruments, mainly of nineteenth or early twentieth century origin, from University Departments of Medicine, Pharmacy, Science, Mining, Engineering and Computer Science. This exhibition drew attention to the historical value of early scientific instruments. A 26-page duplicated catalogue accompanied the exhibition.

1973

Victorian Delights

This exhibition displayed a variety of Victorian artifacts: clothing, colour-printed cards, pottery, toys, books, firearms, and dealt with pastimes, crafts and plants from the Conservatory. The objects were lent by the staff of the University, many of whom became aware of and involved with the Macleay Museum for the first time. A duplicated 68-page essay-style illustrated catalogue was produced.

1974

Nineteenth Century Utility and Technology

This exhibition was similar to *Victorian Delights* in format but dealt with more robust subjects: the blacksmith; agricultural technology, pumps, the carpenter's toolkit, the water closet, Australian potteries, lighting, the sewing machine, the typewriter, and bottles. A duplicated 90-page illustrated catalogue was issued.

100 Aboriginal Bark Paintings

The Museum's first commercial exhibition; the sales established a fund to enable professionally designed and printed books to be published with later exhibitions.

1975

100 Years of Australian Scientific Exploration

This subject was chosen to coincide with the centenary of William John Macleay's *Chevert* expedition. Twelve other explorers were covered in the exhibition and in a published book of 125 pages, later reprinted by Holt Rinehart and Winston.

Domestic Pottery in Greece and Turkey

Mounted in association with the University's Department of Archaeology, this exhibition was accompanied by an illustrated book with the same title, written by Judy Birmingham (Department of Archaeology).

1976

The Moving Frontier

This exhibition drew largely on the resources of the Macleay Museum's anthropological collections, and examined the changing relations between black and white Australians. A book of essays on various aspects of the subject was published in the following year by Reed.

The History of Australia

Associated with *The Moving Frontier* was an exhibition by the Australian artist, Keith Looby, who in fifty-one drawings summarized

A display from the 1975 exhibition, *100 Years of Australian Scientific Exploration*. (Macleay collection)



the evolution of Australia, the coming of man, the Aboriginal people and their life, and the arrival of white men. A book of reproductions of the drawings, together with poems by David Campbell about Aboriginal rock carvings, was published and later reprinted commercially.

1977

The Mechanical Eye

This exhibition concerned the evolution of photography, with emphasis on Australian photography. The associated publication listed Australian photographers to 1860 and those operating in Sydney to 1900. It was the forerunner of the successful Oxford publication, *The Mechanical Eye in Australia*, which listed all known Australian photographers to 1900 and gave selected examples of their work; this book won the publications section of the inaugural Australian Heritage Award.

Native Weavings from Peru and Guatemala

A commercial exhibition of imported weavings. The Museum's commission was one-third of the sale price. The money raised contributed to the publication fund of the Museum.

1978

Australia's Animals, Who Discovered Them?

Drawing on the Macleay Museum's zoological collection and the University Library's early printed accounts and illustrations, this exhibition told the story of the way Aborigines and early European settlers and explorers reacted to Australia's native fauna. The original Macleay publication won the award for the best historical book in the inaugural Whitley awards of the Royal Zoological Society of New South Wales, and was later reprinted in colour by Pergamon Press.

1979

Life in Irian Jaya

This exhibition started as a loan from the parents of Robert Mitton (1947-1977), who collected about 500 artifacts from Irian Jaya from 1971-1976. After the exhibition was over, the artifacts were purchased with a special grant arranged by the Vice-Chancellor. A book of Mitton's photographs and diaries was published in 1983 by Oxford.

Sydney Unearthed

Telling the story of Sydneysiders through the ages, this exhibition was a mixture of archaeology, anthropology and conservation techniques. The associated book, *10,000 Years of Sydney Life — A Guide to Archaeological Discovery*, sold well and was reprinted by the Macleay Museum.

Black and White History of Australia

This exhibition of Keith Looby's drawings continued his series of *The History of Australia* (1976).

Brass and Iron

A display of apparatus to celebrate the Centenary of the world's first Psychological Laboratory and the Golden Jubilee of the first Australian Department of Psychology at the University of Sydney.

1980

Hear Here

An exhibition about the science of hearing, mounted in association with the Tenth International Congress on Acoustics.

1981

Bushfire!

Many aspects of the way in which bushfires affect Australian life and landscape were covered, including the social cost, human survival, the ecological role of fire, and the response of the flora and fauna. The accompanying book sold well but was not reprinted.

Genesis of Botany

This exhibition was mounted in association with the thirteenth International Botanical Congress.

1982

My Dear Friend Daniel Solander

An exhibition about the Swedish naturalist, who with Joseph Banks sailed on the *Endeavour* from 1768-1771. It commemorated the 200th year of Solander's death and was opened by Princess Christina of Sweden.

Life After Man

A whimsical exhibition predicting what animals might look like 50 million years into the future.

Views of Rome

Arranged in conjunction with the Italian Cultural Institute, this exhibition of 95 Roman etchings and engravings was opened by Mr Gough Whitlam.

Sir William Macleay and the Bushrangers

A small exhibition which told the story of Macleay's encounter with Ben Hall and his gang, for which Sir William was awarded a gold medal.

Cultural Variations in Buddhism

In conjunction with the Sydney University Buddhist Society, this exhibition set into context some of the rarely seen artifacts of the anthropological collection.

Leichhardt — An Era in Pictures

Sponsored by the Leichhardt Municipal Council, this exhibition and publication featured the work of a local photographer, J.G. Park. The exhibition toured a number of shopping centres.

Exhibitions

Top:
Sir Hermann Black and Princess Christiana of Sweden. The Princess opened My Dear Friend Daniel Solander, an exhibition commemorating the 200th year of Solander's death. (Macleay collection)

Bottom:
Mr Gough Whitlam opening the exhibition, Views of Rome, held in the Museum gallery in 1982. (Macleay collection)

Exhibitions

Sydney — the 1850s, The Lost Collections

Sponsored by the Commercial Banking Company of Sydney, this exhibition and its associated publication, was launched at the Martin Place branch of the bank, and featured early photographs of Sydney from the Historic Photograph Collection, accompanied by contemporary accounts of Sydney. The exhibition toured several of the Bank's branches.

1983

Medical School Centenary

An exhibition featuring early medical apparatus and other items pertaining to the history of the Medical School. In 1986 many of the pieces of medical apparatus which had been held by the Macleay Museum were transferred to the Pathology Museum in the Faculty of Medicine for a permanent historical display.

Rediscovering Historic Photographs

This exhibition and its associated brochure explained the policy and research potential of the Historic Photograph Collection.

Lost World of Irian Jaya

Similar to *Life in Irian Jaya* (1979), this exhibition was mounted for the launch of Mitton's book, published by Oxford (see List of Publications) describing his experiences while collecting the artifacts from Irian Jaya, now in the Macleay Museum.

1984

South Pacific

An exhibition and book about the geography, culture and politics of Australia's far flung neighbours.

John Paine, Landscape Photographs, c.1880

An exhibition from the Historic Photograph Collection's excellent holding of this noted Sydney photographer, accompanied by a 16-page brochure.

1985

The Blue Mountains — Grand Adventure for All

An exhibition about the history and use of the rich resources of a relatively unspoilt area near Sydney. The book, originally with nine contributing authors writing about a wide diversity of subjects, was enlarged and reprinted with the aid of a Bicentennial Grant in 1988.

Health, Wealth and the Wilderness

An exhibition of 130 images (1860-1930) of the Blue Mountains from the Historic Photograph Collection. A 16-page brochure with numerous references accompanied the exhibition.

Men Rule — OK?

An exhibition of photographs showing the role of men in society.

1986

The Same But Different — Indian and Australian Photographs, 1850-1925

A photographic exhibition of Indian and Australian photographs (1880-1925) arranged in association with Dr Jim Masselos (Department of History) which examined how photographers saw the two countries. 16-page booklet.

Australia

A commercial exhibition of photographs by Raymond de Berquelle (Department of Illustrations) for the launch of his book, *Australia*.

Advance Australia? Aspects of 1888

An exhibition mounted by students from the Diploma in Museum Studies, which gave an impression of life in the city and country a century ago. It aimed to provide a background to the Bicentennial year.

1987

Toys to Remember

An exhibition of simple toys throughout the world including many from the Museum's anthropological collection. 36-page catalogue.

Vietnam in Retrospect

A photographic exhibition by Denis Gibbons (Department of Botany), who was a photographer in Vietnam for the duration of the war.

1988

Miklouho-Maclay, a Centenary Exhibition

The Russian explorer and anthropologist, N.N. de Miklouho-Maclay, was a colleague of William Macleay. The Macleay Museum holds a significant collection of specimens and photographs donated by Miklouho-Maclay's widow. This exhibition, mounted in association with the Miklouho-Maclay Society, was opened by Mr Michael Somare.

A Centenary of ANZAAS

Mounted to celebrate the Sydney centenary meeting in May 1988.

Popular Photography, 1888-1988

An exhibition mounted to coincide with the University's Open Day.

Mr Macleay's Celebrated Cabinet

An exhibition telling the story of the Macleays and their museum. Mounted to celebrate the centenary of the Macleay Museum at the University of Sydney.

Chapter Thirteen

Selected Publications

1962-1987

1962 D.H. Colless	Notes on Australasian Tanyderidae, with description of a new species of <i>Radinoderus</i> Handl (Diptera) Source: <i>Proceedings of the Linnean Society of New South Wales</i> 87: 309-311	The holotype of the fly <i>Rhadinoderus occidentalis</i> in the Macleay Museum was re-described
1962 D.E. Hahn	A List of the Designated Type specimens in the Macleay Museum Source: Macleay Museum, University of Sydney	The first list of the insect type specimens in the Museum
1962 J.H. Macpherson & C.J. Gabriel	Marine Molluscs of Victoria Source: Melbourne University Press, Carlton, Victoria	First drawing of a Brazier type mollusc, <i>Epidromus bednalli</i>
1962 K.E.W. Salter	Revision of the Thynnidae. Part V. A contribution towards a knowledge of the Thynnidae of the Philippines, Indonesia, New Guinea, the Solomons, New Caledonia and Lord Howe Island Source: <i>Proceedings of the Linnean Society of New South Wales</i> 87(2): 223-266	Specimens from the Macleay Insect Collection were examined
1963 G. Frey	Neue Onthophagen (Col. Scarab.) aus Australien (Queenslandausbeute von H. Demarz) und aus Afrika Source: <i>Entomologischen Arbeiten aus den Museum, G. Frey, Tutzing</i> 14(2): 538-549	A paratype of <i>Onthophagus demarziellus</i> was designated for the Macleay Museum Insect Collection
1963 T.C. Maa	Genera and species of Hippoboscidae (Diptera): Types, synonymy, habitats and natural groupings Source: <i>Pacific Insects Monograph</i> 6: 1-186	Two holotypes and other specimens of louse flies from the Macleay Museum were studied
1963 G.L. Pretty	A turtle shell mask of Torres Straits type in the Macleay Museum, the University of Sydney Source: <i>Records of South Australian Museum</i> 14(3): 421-428	This was a study of a turtle-shell mask suggested to be a provenance of Darnley (Erub) Island
1965 J. Anderson	The Macleay Museum at the University of Sydney Source: <i>Australian Natural History</i> 15(2): 47-51	A history of the Macleay Museum
1965 P.B. Carne	A revision of the genus <i>Elaphastomus</i> Macleay (Coleoptera: Geotrupidae) Source: <i>Journal of the Entomological Society of Queensland</i> 4: 3-13	Specimens from the Macleay Insect Collection were examined and a paratype was designated
1965 C.E. Chadwick	A check list of the Brachyderinae (Col., Curculionidae) occurring in Australia Source: <i>Journal of the Entomological Society of Australia</i> (N.S.W.) 2: 1-14	Types of several species of weevils in the Macleay Museum were listed

1966 A. Mozley	A Guide to the Manuscript Records of Australian Science Source: Australian Academy of Science, Canberra	This guide listed letters, diaries and scientific notes of Alexander, William Sharp and William John Macleay that are held in Australian libraries
1966 J.W. Evans	The leafhoppers and froghoppers of Australia and New Zealand (Homoptera: Cicadelloidea and Cercopoidea) Source: <i>Australian Museum Memoir</i> 12: 1-347	Holotypes of five species of leafhoppers were described from the Macleay Insect Collection
1968 R. Charpentier	A monograph of the family Heteroceridae (Coleoptera) of the Notogean region Source: <i>Arkiv för Zoologi, Series 2</i> 20(11): 205-241	Types of several species of heterocerid beetles in the Macleay Museum were listed
1968 R.E. Gould	Morphology of <i>Equisetum laterale</i> and <i>E. bryani</i> Source: <i>Australian Journal of Botany</i> 16: 153-176	Utilized some of Tenison Wood's original fossil specimens
1969 J. Goldman <i>et al</i>	Type specimens in the Macleay Museum II. Amphibians and Reptiles Source: <i>Proceedings of the Linnean Society of New South Wales</i> 93: 427-438	Listed early references to Macleay specimens
1969 J.C. Hall	A review of the subfamily Cylleniinae with a world revision of the genus <i>Thevenemyia</i> Bigot (<i>Eclimus auct.</i>) (Diptera: Bombyliidae) Source: <i>University of California Publications in Entomology</i> 56: 1-85	Two new species of bee-flies were described from Macleay Museum material
1969 Z.R. Liepa	Lists of the scientific works and described species of the late Dr S.J. Paramonov, with locations of types Source: <i>Journal of the Entomological Society of Australia (N.S.W.)</i> 5: 3-22	Six holotypes of flower-loving flies were deposited in the Macleay Museum
1969 G.L. Pretty	The Macleay Museum mummy from Torres Strait; a postscript to Eliot Smith and the diffusion controversy Source: <i>Man</i> : 24-43	Described one of the significant anthropological specimens of collection
1969 P.J. Stanbury	Type specimens in the Macleay Museum I. Fishes Source: <i>Proceedings of the Linnean Society of New South Wales</i> 93: 204-210	The first in a series of papers on type specimens in the Museum prior to their permanent loan to other institutions
1969 P.J. Stanbury	Type specimens in the Macleay Museum III. Birds Source: <i>Proceedings of the Linnean Society of New South Wales</i> 93: 457-461	At least 57 bird types, including type series, were listed
1969 P.J. Stanbury	Type specimens in the Macleay Museum IV. Mammals Source: <i>Proceedings of the Linnean Society of New South Wales</i> 93: 462-463	Eight mammal types were listed
1970 D.J.G. Griffin & P.J. Stanbury	Type specimens in the Macleay Museum V. Decapod crustaceans Source: <i>Proceedings of the Linnean Society of New South Wales</i> 95: 122-131	The list gave 47 existing series of types and 16 series of types which apparently have been lost
1970 V. Puthz	Revision of the Australian species of the genus <i>Stenus</i> Latreille (Coleoptera: Staphylinidae) Source: <i>Memoirs of the National Museum of Victoria</i> 31: 55-80	Many rove beetle types and other specimens from the Macleay Insect Collection
1970 P.J. Stanbury	Looking at Mammals Source: Angus & Robertson, Sydney	Illustrated many museum specimens; reprinted by Heinemann, 1972
1971 N.V. Dobrotworsky	The Tipulidae (Diptera) of Australia. III. The genus <i>Ptilogyne</i> Westwood Source: <i>Australian Journal of Zoology, Supplementary Series</i> : 1: 3-41	Specimens from the Macleay Museum were examined

1971 N.V. Dobrotworsky	The Tipulidae (Diptera) of Australia. IV. The genus <i>Platyphasia</i> , Skuse Source: <i>Australian Journal of Zoology, Supplementary Series</i> 5: 3-20	Specimens from the Macleay Museum were examined
1971 G.P. Whitley	George Masters Source: <i>Australian Zoologist</i> 16(25): 25-32	An account of the first curator of the Macleay Museum and a list of his published works
1971 P.J. Stanbury	Reproduction Source: The Jacaranda Press, Milton, Queensland	Introductory survey of the subject
1971 P.J. Stanbury	The Parasitic Way of Life Source: The Jacaranda Press, Milton, Queensland	Introductory survey of the subject
1972 E.G. Mathews	A revision of the scarabaeine dung beetles of Australia. I. Tribe Onthophagini Source: <i>Australian Journal of Zoology, Supplementary Series</i> 9: 3-330	Specimens from the Macleay Museum were examined
1972 W.F. Ponder & P.J. Stanbury	Type specimens in the Macleay Museum VI. Molluscs Source: <i>Proceedings of the Linnean Society of New South Wales</i> 97: 42-55	Listed 112 species which were deposited in the Australian Museum on permanent loan
1972 P.J. Stanbury	Butterflies in the Macleay Museum Source: <i>Hemisphere</i> 16: 8-10	The history of butterfly taxonomy and how it was related to the Macleay Insect Collection was discussed
1972 P.J. Stanbury	The Macleay Museum Source: <i>University of Sydney Gazette</i> 3: 45	A history of the Macleay Museum
1972 P.J. Stanbury	Explorer without a gun Source: <i>Hemisphere</i> 16: 2-5	William John Macleay and N.N. de Miklouho-Maclay
1973 D.G.H. Halstead	A revision of the genus <i>Silvanus</i> Latreille (s.l.) (Coleoptera: Silvanidae) Source: <i>Bulletin of the British Museum (Natural History), Entomology</i> 29(2): 37-112	The holotype of the beetle <i>Silvanus castaneus</i> Macleay, 1873 was re-described
1973 L. Kennedy & P.J. Stanbury	100 Aboriginal Bark Paintings Source: Macleay Museum, University of Sydney	Exhibition catalogue
1973 J.V.S. Megaw	Archaeology Down Under, A Personal View Source: University of Leicester, Leicestershire, England	Hyper-diffusionism and the Torres Strait mummy
1973 P.J. Stanbury <i>et al</i>	Victorian Delights Source: Macleay Museum, University of Sydney	The first essay style exhibition catalogue for the Macleay Museum
1974 J.L. Barnard	Gammaridean Amphipoda of Australia. Part II Source: <i>Smithsonian Contributions to Zoology</i> 139: 1-148	Described original Haswell specimens
1974 N.V. Dobrotworsky	The Tipulidae (Diptera) of Australia. VIII. The genus <i>Leptotarsus</i> Guerin; the subgenus <i>Phytomatopsis</i> Skuse Source: <i>Australian Journal of Zoology, Supplementary Series</i> 25: 31-62	Specimens from the Macleay Museum were examined
1974 N.V. Dobrotworsky	The Tipulidae (Diptera) of Australia. X. The genus <i>Leptotarsus</i> Guerin; the subgenus <i>Macromastix</i> Osten-Sacken Source: <i>Australian Journal of Zoology, Supplementary Series</i> 25: 31-62	Specimens from the Macleay Museum were examined
1974 N.V. Dobrotworsky	The Tipulidae (Diptera) of Australia. XII. The genus <i>Dolichozepe</i> Curtis Source: <i>Australian Journal of Zoology, Supplementary Series</i> 32: 1-27	Specimens from the Macleay Museum were examined

1974 G.E. Mathews	A revision of the scarabaeine dung beetles of Australia. II. Tribe Scarabaeini Source: <i>Australian Journal of Zoology, Supplementary Series</i> 24: 1-211	Specimens from the Macleay Museum were examined
1974 P.J. Stanbury & L Kennedy	Miklouho-Maklai specimens in the Macleay Museum Source: <i>Journal of the Museum of Anthropology and Ethnography, Leningrad</i> 30: 237-244	Described specimens collected by Miklouho-Maclay
1974 P.J. Stanbury <i>et al</i>	Nineteenth Century Utility and Technology Source: Macleay Museum, University of Sydney	Essay style exhibition catalogue
1974 P.J. Stanbury	Art on Bark Source: <i>Hemisphere</i> 18: 20-25	Described Port Essington bark paintings
1975 P.J. Stanbury	100 Years of Australian Scientific Explorations Source: Macleay Museum, University of Sydney	Gave an account of the Chevert expedition; reprint by Holt Reinhardt & Winst 1975; reprinted by Elizabeth Bay House Trust, 1977
1975 T. Bush	The form and decoration of arrows from the highlands of Papua New Guinea Source: <i>Records of the Australian Museum</i> 37: 255-293	T. Bush also catalogued the Macleay's arrows
1975 G.P. Whitley & P.J. Stanbury	Type specimens in the Macleay Museum VIII. The holotype of <i>Gryllus spinulosus</i> Johansson (Insecta: Orthoptera: Tettigonoidea) Source: <i>Proceedings of the Linnean Society of New South Wales</i> 100: 202-204	Described the specimen bearing the oldest known collection of collection (1756) in the Macleay Museum
1975 P.J. Stanbury & W. Stephenson	Man and Life Source: McGraw Hill, Sydney	High school text
1976 J.M. Chambers-Hunt	Natural History Auctions, 1700-1972 Source: Sotheby, Parke, Bernet Publications Ltd, London	Alexander Macleay bought specimens at several auctions in London before leaving for Australia in 1825
1976 K.C. Davies & J. Hull	The Zoological Collections of the Oxford University Museum. A Historical Review and General Account, with Comprehensive Donor Index to the Year 1975 Source: Oxford University of Press, England	William John Macleay donated specimens to the zoological collections of the Oxford University Museum in 1886
1976 K. Looby & D. Campbell	The Heritage of Australia Source: Macleay Museum, University of Sydney	Drawings and poems in association with the exhibit <i>The Moving Frontier</i>
1976 G.E. Mathews	A revision of the scarabaeine dung beetles of Australia. III. Tribe Coprini Source: <i>Australian Journal of Zoology, Supplementary Series</i> 38: 1-52	Specimens from the Macleay Museum were examined
1976 A.M. Moyal	Scientists in Nineteenth Century Australia: A Documentary History Source: Cassell, Melbourne	The influence of the three Macleays on Australian science was discussed
1976 P.J. Stanbury	Household and Garden Pests Source: Ure Smith, Sydney	Introduction to the subject
1977 W. Baker	Native Weavings from Peru and Guatemala Source: Macleay Museum, University of Sydney	Exhibition catalogue
1977 C.H. Brock	Dru Drury's Illustrations of natural history and the type specimen of <i>Goliathus goliatus</i> Drury Source: <i>Journal of the Society for Bibliography of Natural History</i> 8(3): 259-265	Discussed early purchases Alexander Macleay and gave short history of the Macleay insect collections

1977	University of Sydney Sketchbook Source: Rigby Ltd, Sydney	A history of the Macleay Museum was presented
A. Gamble & T. van Sommers		
1977	A taxonomic revision of the Panesthiinae of the world. I. The Panesthiinae of Australia (Dictyoptera: Blatteria: Blaberidae) Source: <i>Australian Journal of Zoology, Supplementary Series</i> 48: 1-112	Four species of cockroaches were examined from the Macleay Insect Collection
L.M. Roth		
1977	The Moving Frontier Source: Reed, Sydney	Inspired by the Macleay exhibition in 1976
P.J. Stanbury		
1977	The Gentleman Scientist Source: <i>Australian Natural History</i> 19(2): 46-49	The Macleays and their collections
P.J. Stanbury		
1977	The Mechanical Eye Source: Macleay Museum	Exhibition catalogue containing essays and a list of Australian historic photographs
C. Tanre <i>et al</i>		
1978	Miklouho-Maklai, 1846-1888 Source: Macleay Museum, University of Sydney	Exhibition catalogue
L.M. Bolton		
1978	A revision of the Australian chafers (Coleoptera: Scarabaeidae: Melolonthinae) Vol. 2. Tribe Melolonthini Source: <i>Australian Journal of Zoology, Supplementary Series</i> 60: 1-150	A William John Macleay holotype was re-described
E.B. Britton		
1978	Notes concerning the Macleay Museum, University of Sydney Source: Macleay Museum, University of Sydney	Records concerning the University and the Museum
P.J. Stanbury		
1978	Australia's Animals — Who Discovered Them Source: Macleay Museum, University of Sydney	Won Whitley Award for best natural history book
P.J. Stanbury		
1979	The Asmat and Dani of Irian Jaya Source: Macleay Museum, University of Sydney	Exhibition catalogue
N. Coffill & L. Bushell		
1979	A new species of <i>Dakinomyia</i> from Queensland (Diptera: Asilidae) Source: <i>Proceedings of the Linnean Society of New South Wales</i> 103(4): 275-281	Robber fly material from the Macleay Museum was studied
G. Daniels		
1979	Reclassification, phylogeny and zoogeography of the Australian species of <i>Cicindela</i> (Coleoptera: Cicindelidae) Source: <i>Australian Journal of Zoology, Supplementary Series</i> 66: 1-99	Many tiger beetle types and other specimens from the Macleay Insect Collection were studied
R. Freitag		
1979	A revision of the Australian genus <i>Blackburnium</i> Boucomont (Coleoptera: Scarabaeidae: Geotrupinae) Source: <i>Australian Journal of Zoology, Supplementary Series</i> 72: 1-88	The types of seven species of scarab beetles described by William John Macleay were re-described or synonymised
H.F. Howden		
1979	Black and White History of Australia Source: Macleay Museum, University of Sydney	Second part of The History of Australia (see 1976)
K. Looby		
1979	10,000 Years of Sydney Life Source: Macleay Museum, University of Sydney	Essay style exhibition catalogue
P.J. Stanbury		
1979	The papers of John Obadiah Westwood in the Smithsonian Institution Archives Source: <i>Entomologist's Record</i> 1/IX/79: 245-246	William Macleay letters are housed in the Westwood collection
R.S. Wilkinson		
1980	Oceanic Cultural Property in Australia Source: Australian National Commission for UNESCO, Sydney	Listed Macleay holdings
L.M. Bolton		

1980 E.B. Britton	A revision of the Australian chafers (Coleoptera: Scarabaeidae: Melolonthinae). Vol. 3. Tribe Liparetrini: Genus <i>Liparetrus</i> Source: <i>Australian Journal of Zoology Supplementary Series</i> 76: 1-209	Many species of Wil Macleay's species of beetles this genus were re-describe or synonymised
1980 P.J. Stanbury & G Phipps	Australia's Animals Discovered Source: Pergamon Press, Sydney	Inspired by the Macleay exhibition in 1978
1981 E.B. Britton & P.J. Stanbury	Type specimens in the Macleay Museum, University of Sydney, VIII, Insects: Beetles (Insecta: Coleoptera) Source: <i>Proceedings of the Linnean Society of New South Wales</i> 105: 241-293	Listed 5619 type specimens representing 2907 species of Coleoptera
1981 Rosemary Brown	Saccocirridae (Annelida: Archiannelida) from the central coast of New South Wales Source: <i>Australian Journal of Marine and Freshwater Research</i> 32: 439-456	Two species of <i>Saccocirrus</i> were newly described and another species was newly recorded from Australia
1981 C. Cooper <i>et al</i>	Aboriginal Australia Source: Australian Gallery Directors Council, Melbourne	Illustrated Macleay bark paintings
1981 V. Havyatt	A Dictionary of Measuring Instruments Source: Macleay Museum, University of Sydney	Inspired by the scientific instrument collection
1981 G. Phipps	Watch out! Source: Rigby, Adelaide	Introductory text about territories
1981 P.J. Stanbury	Bushfires — Their Effect on Australian Life and Landscape Source: Macleay Museum, University of Sydney	Inspired by the exhibition
1981 P.J. Stanbury & B. Ticehurst	How Animals Communicate Source: Rigby, Adelaide	Introductory text about communication
1981 M. van Leeuwen	A History of the Macleay Museum University of Sydney Source: Museum Studies thesis, University of Sydney	A history of the Macleays at the Macleay Museum
1981 G. Phipps	Kakarakis Source: <i>Australian Aviculture</i> June 1982: 126	Phipps re-catalogued the 90 birds in the Macleay collection; this was an early paper resulting from this work
1982 O. Biström	A revision of the genus <i>Hyphydrus</i> Illiger (Coleoptera: Dytiscidae) Source: <i>Acta Zoologica Fennica</i> 165: 1-121	Macleay Museum material was studied for this taxonomic revision
1982 B. Groom & W. Wickman	Sydney the 1850's — the Lost Collections Source: Macleay Museum, University of Sydney	Early photographs and manuscript accounts of Sydney, part sponsored by the CBC Bank
1982 B. Groom & W. Wickman	Leichhardt, An Era in Pictures — the Photography of J.G. Park Source: University of Sydney	This Leichhardt photograph sponsored by Leichhardt Municipal Council
1982 D.E. Hardy	The Bibionidae of Australia Source: <i>Australian Journal of Zoology</i> 30: 805-855	Flies from the Macleay Insect Collection were studied
1982 D.S. Horning, Jr	Littoral barnacles of the Snares Islands, south New Zealand (Cirripedia: Thoracica) Source: <i>New Zealand Journal of Zoology</i> 9: 319-324	Nine species of barnacles were recorded from the subantarctic Snares Island
1982 D.S. Horning, Jr & R.M. Bohart	<i>Chrysura</i> Dahlbom Source: <i>American Entomological Institute Memoirs</i> 33: 147-158	The cuckoo wasp genus <i>Chrysura</i> was revised and a key to the nearctic species was presented

1982 D.S. Horning, Jr & A.D. Mitchell	Relative Resistance of Australian Native Plants to Fluoride Source: Academic Press, New York	The resistance of plants to air-borne fluorides was categorised and discussed
1982 P. May & M. Tuckson	The Traditional Pottery of Papua New Guinea Source: Bay Books, Sydney	Described Macleay pottery
1982 L.M. Roth	A taxonomic revision of the Panesthiinae of the world. IV. The genus <i>Ancaudellia</i> Shaw, with additions to parts I-III, and a general discussion of distribution and relationships of the components of the subfamily (Dictyoptera: Blatteria: Blaberidae) Source: <i>Australian Journal of Zoology, Supplementary Series</i> 82: 1-142	A paratype was designated from the Macleay Insect Collection. It is from the Macleay Coast, Papua New Guinea
1982 P.J. Stanbury	Conserving Historic Photographs Source: Macleay Museum, University of Sydney	Papers from a conference organised jointly with the National Trust; together with The Mechanical Eye exhibition, helped the initiation of the Historic Photograph Collection
1982 P.J. Stanbury	Museums of China Source: Museums Association of Australia, Sydney	Report of a visit by members of the Museums Association of Australia in 1981
1982 P.J. Stanbury	Visit these Museums Source: Museums Association of Australia, Sydney	Described a variety of Australian Museums
1983 Rosemary Brown	Spermatophore transfer and subsequent sperm development in a homalorhagid kinorhynch Source: <i>Zoologica Scripta</i> 12(4): 257-266	The cuticular morphology and precise location of male and female gonopores and perile spines of <i>Kinorhynchus phllootropis</i> were described and illustrated
1983 Rosemary Brown & R.P. Higgins	A new species of <i>Kinorhynchus</i> (Homalorhagida, Pycnophyidae) from Australia with a redescription and range extension of other Kinorhyncha from the South Pacific Source: <i>Zoologica Scripta</i> 12(3): 161-169	Three paratypes were deposited in the Macleay Museum. These are the first specimens of this phylum to be included in the Museum collections.
1983 E.C. Dahms	A checklist of the types of Australian Hymenoptera described by Alexandre Arsene Girault: II. Preamble and Chalcidoidea species A-E with advisory notes Source: <i>Memoirs of the Queensland Museum</i> 21(1): 1-255	The type holdings of the Macleay Museum Girault material were reviewed
1983 J. Dawes <i>et al</i>	Biology Data and Resource Book Source: Longman Cheshire, Melbourne	Incorporated ideas from Macleay displays
1983 D.S. Horning, Jr	The history and significance of the Macleay Insect Collection Source: <i>Historical Bibliographic Monographs</i> 12: 23-32	A history of the Macleay Museum
1983 D.S. Horning, Jr	The Macleay Insect Collection Source: <i>Sphecos</i> 7: 8-11	The historical significance of the Macleay Hymenoptera Collection to entomologists was discussed
1983 D.S. Horning, Jr	A new fern record from The Snares, southern New Zealand Source: <i>New Zealand Journal of Botany</i> 21: 205-208	The fern, <i>Histiopteris incisa</i> , was newly recorded from the subantarctic Snares Islands
1983 D.S. Horning, Jr & LT Bushell	The restoration of an historic insect specimen, <i>Eugaster spinulosa</i> (Johansson) (Orthoptera: Tettigoniidae) Source: <i>Institute for the Conservation of Cultural Material Bulletin</i> 9: 86-89	The Museum's earliest known specimen, collected in 1756

1983 D.S. Horning, Jr & R.O. Schuster	Three new species of New Zealand tardigrades (Tardigrada: Echiniscidae) Source: <i>Pan-Pacific Entomologist</i> 59(1-4): 108-112	Three species of <i>Pseudechiniscus</i> were newly described
1983 S. Jones & J. Stackhouse	Gentlemen Collectors: Natural History in NSW, 1826-1891 Source: Historic Houses Trust of NSW, Sydney	Biographies of the Macleays and their colleagues
1983 T. Konecny	Objects of Value Source: Museum Studies thesis, University of Sydney	Catalogue of the Elkin Collection and discussion of data cards
1983 R. Milton	The Lost World of Irian Jaya Source: Oxford University Press, Melbourne	Extensive diaries described the provenience of the Mitton Collection of Irian Jaya artefacts acquired in 1980
1983 S. Sasaki & Rosemary Brown	Larval development of <i>Saccocirrus uchidae</i> from Hokkaido, Japan, and <i>Saccocirrus krusadensis</i> from New South Wales, Australia Source: <i>Annotationes Zoologicae Japonenses</i> 56(4): 299-314	Larval development was described and illustrated
1983 P.J. Stanbury	Discover Australia's Museums Source: Museum Association of Australia, Sydney	Description of Australia's Museums
1983 Thorpe, R.W., D.S. Horning, Jr & L.L. Dunning	Bumble bees and cuckoo bumble bees of California (Hymenoptera: Apidae) Source: <i>California Insect Survey Bulletin</i> 23: 1-79	The 24 species of <i>Bombus</i> and 3 species of <i>Psithyrus</i> occurring in California were revised and their biologies were discussed
1984 No author stated	Arts of the Indonesian Archipelago Source: Crafts Council, Sydney	Illustrated Asmat shields from the anthropological collection
1984 L. Bolton & J. Specht	Polynesian and Micronesian Artefacts in Australia: an Inventory of Major Public Collections. Volume II, New Zealand and Eastern Polynesia Source: Australian Museum, Sydney	Macleay holdings listed Micronesia, New Zealand and Eastern Polynesia, Fiji and Western Polynesia
1984 D.S. Horning, Jr	The Macleay Insect Collection Source: <i>Antenna</i> 8: 172-175	The value of the Macleay Insect Collection to European entomologists was discussed
1984 D.S. Horning, Jr & Judy Leon	Preliminary Catalogue of the Hymenoptera in the Macleay Insect Collection Source: Macleay Museum, University of Sydney	This preliminary catalogue included 13,715 bees, wasps and ants found in the Macleay Insect Collection. The project was funded by Australian Biological Resources Study, Canberra
1984 J. Isaacs	Australia's Living Heritage Source: Lansdowne, Sydney	Illustrated Macleay anthropological collections
1984 G. Phipps	Notes on the Blue-faced Parrot finches in Australian aviaries Source: <i>Australian Aviculture</i> , November 1984: 259	The clarification of the status of this group in Australian aviaries
1984 M. Pietruszewsky	Metric and non-metric cranial variation in Australian aboriginal populations compared with populations from the Pacific and Asia. Source: <i>Australian Institute of Aboriginal Studies</i> 49: 1-113	Discussed the crania in the Macleay anthropological collections
1984 C. Snowden <i>et al</i> 168	John Paine, Landscape Photographs c. 1880 Source: Macleay Museum, University of Sydney	Monograph on a major donation to the Historic Photograph Collection

1984 P.J. Stanbury & L. Bushell	South Pacific Islands Source: Macleay Museum, University of Sydney	An introduction to the Pacific Islands
1984 A.D. van der Valk	An Australian Catalogue of the Amphibian Collection (Order: Salientia) of the Macleay Museum Source: Museum Studies thesis, University of Sydney	Identified and recatalogued the frog specimens of the Macleay Museum, including the type specimens on loan to the Australian Museum
1985 A. Breaden	Frederick Falk: A Biography Source: Museum Studies thesis, University of Sydney	Discussed the relationship of Frederick Falk with Sir William and Lady Macleay
1985 A.N. Clements	A taxonomic revision of the tribe Chrysopogonini (Diptera: Asilidae) Source: <i>Australian Journal of Zoology, Supplementary Series</i> 109: 1-93	Specimens from the Macleay Museum were examined
1985 A. Davies & P.J. Stanbury	The Mechanical Eye in Australia Source: Oxford University Press, Melbourne	Inspired by 1977 Macleay exhibition. Won inaugural Australian Heritage Award
1985 D.S. Horning, Jr	1984 Penguin Count at Cape Bird and Cape Royds, Ross Island, Antarctica Source: Macleay Museum, University of Sydney	The results of counting 45,000 occupied nests of Adelie penguins
1985 K.H.L. Key	Monograph of the Monistriini and Petasidini (Orthoptera: Pyrgomorphidae) Source: <i>Australian Journal of Zoology, Supplementary Series</i> 107: 1-213	Specimens from the Macleay Museum were examined
1985 C. Lorentz	Report on Tapa Dress and Shaggy Mat from the Macleay Museum Source: Museum Studies thesis, University of Sydney	Considerable detail about the dress and mat was provided
1985 Zoe Mackenzie-Smith	Sir Charles Nicholson Collection of Medieval Seal Impressions Source: Museum Studies thesis, University of Sydney	The collection detailed, condition, importance and catalogue of the 257 seals was presented
1985 C. Snowden & P.J. Stanbury	Collecting Collections Source: <i>Australian Antique Collector</i> : 76-81	Described the philosophy of the Historic Photographic Collection
1985 C. Snowden <i>et al</i>	Health, Wealth and the Wilderness Source: Macleay Museum, University of Sydney	Monograph on photography in the Blue Mountains
1985 P.J. Stanbury	The shutter bug Source: Australian Business Collectors Annual, Sydney	Guide to identifying photographs
1985 P.J. Stanbury	The development of Australian photography Source: <i>Phanphare</i> , September: 6-9	Listed Australian photographers from 1841-1880
1985 P.J. Stanbury & L. Bushell	The Blue Mountains — Grand Adventure for All Source: Macleay Museum, University of Sydney	Enlarged and revised edition, Second Back Row Press
1986 D.S. Horning, Jr	1978 Expedition to the Bounty and Antipodes Islands, New Zealand Source: Macleay Museum, University of Sydney	The terrestrial and marine projects undertaken on these subantarctic islands were discussed and included a catalogue of the collections
1986 L. McCawley	The Godden Collection of Artifacts from Melanesia at the Macleay Museum Source: Museum Studies thesis, University of Sydney	A history and catalogue of this collection were presented
1986 J. Masselos <i>et al</i>	The Same But Different — Indian and Australian Photographs, 1855-1925 Source: Macleay Museum, University of Sydney	Exhibition catalogue

1986 B. Meehan	National Inventory of Aboriginal Artefacts Source: Australian Museum, Sydney	Listed Macleay holding
1986 M. Pietruszewski	Human cranial collections from the Pacific and Asia preserved in Dresden, Berlin and Leipzig and information on collections outside the German Democratic Republic Source: <i>Abhandlungen und Berichte des Staatlichen Museums für Völkerkunde Dresden</i> 42: 21-52	Discussed the crania in Macleay anthropological collections
1986 M. Rawson	Scientific Instruments in the Rev. W.B. Clarke Collection, Macleay Museum Source: Museum Studies thesis, University of Sydney	The background and use of this collection was presented
1986 A.Z. Smith	A History of the Hope Entomological Collections in the University Museum Oxford with Lists of Archives and Collections Source: Clarendon Press, Oxford	William Sharp Macleay many insects to F.W. H (c. 1842)
1986 M.M. Stevens & Mary Carver	Type-specimens of Hemiptera (Insecta) transferred from the Macleay Museum, University of Sydney, to the Australian National Insect Collection, Canberra Source: <i>Proceedings of the Linnean Society of New South Wales</i> 108(4): 263-266	The type specimens of Hemiptera transferred on permanent loan to Canberra from the Macleay Museum were listed and their type status discussed
1987 G.C. Nanson <i>et al</i>	Chronology and palaeoenvironment of the Cranebrook Terrace (near Sydney), containing artefacts more than 40,000 years old Source: <i>Archaeology in Oceania</i> 22: 72-78	Three stone tools from oldest dated site of aboriginal occupancy were reported in the Macleay Stockton Collection
1987 P.J. Stanbury	The Discovery of the Australian Fauna and the Establishment of Collections Source: <i>Fauna of Australia</i> 1A: 202-226	Described the Macleays' contributions to the nineteenth century scientific scene
1987 P.J. Stanbury <i>et al</i>	Toys to Remember Source: Macleay Museum, University of Sydney	Exhibition catalogue containing a survey of European and aboriginal

Chapter Fourteen

About the authors

Lydia Bushell has been administering the exhibitions programme at the Macleay Museum since 1971. She also curates the anthropological collections. She was previously associated with the University of Sydney's other large museum, the Nicholson Museum.

Susan Clarke graduated in architecture at the University of Sydney in 1962 and has since then completed a diploma in Town and Country Planning and a diploma in Building Science. After working as an architect in Sydney and a research officer with the Building Research Station in the United Kingdom, she returned to the University of Sydney where she is employed as a senior research assistant in the Department of Architecture.

Elizabeth Hahn was curator of the Macleay Museum from 1958 to 1963 when she resigned to go overseas. From 1974-1977 she was Alderman, the Parramatta City Council; in 1981 she received a commendation from the Chartered Institute of Transport in Australia for her paper, 'Breaking the Transport Barrier; is Thinking a Handicap?'. She is a member of the N.S.W. Council of ANZAAS.

Julian Holland, a specialist in historic scientific instruments, joined the Museum as a part-time research assistant in March 1988; he edits the Newsletter of the Group for Scientific and Technological Collections.

Woody Horning is a North American who for eight years was a Senior Lecturer in Zoology at the University of Canterbury, Christchurch, New Zealand; his research interests are in biogeography and ecology of Antarctica and the subantarctic islands. He has been Curator of Invertebrates and Research Fellow in the Macleay Museum since June 1982.

Leigh McCawley gained a B.A. in 1985 and the Diploma of Museum Studies in 1986, after working for many years in private industry. She began curating the Historic Photograph Collection in March 1987.

Graeme Phipps curated the bird collection of the Macleay Museum from 1978-1985, when he joined Taronga Park Zoological Trust as Curator of Birds.

Peter Stanbury has worked in the Macleay Museum since 1967. Until 1980 his job as Curator was part-time; he was also a Senior Lecturer in Biology and Director of News and Public Relations for the University of Sydney. Since 1980 he has been full time Director of the Museum.

The Macleay Museum celebrates its centenary at the University of Sydney in 1988. The collections which came to the University a hundred years ago, had been gathered over much of the previous century. This book gives an account of the three Macleays who amassed the collections which remain the core of the Museum's holdings. Alexander Macleay started an insect collection near the end of the 18th century. Before he came to New South Wales as Colonial Secretary in 1826, his cabinet was considered one of the finest insect collections in Europe. It was expanded by Alexander's son, William Sharp Macleay, a distinguished naturalist. The collection was inherited and diversified by W.S. Macleay's cousin, William John Macleay, who gave the combined collections to the University, referring to it as 'The Macleayan Museum'.

The natural history collections have not received the recognition they deserve. This book explains the history of their acquisition and provides a sample of the rich diversity of one of the most important collections in Australia.

