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Jupiter Botanicus in the Bush: Robert Brown's Australian Field-work, 1801-5

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Synopsis

Australia's 'Celebration of a Nation' in 1988, in my view, turned out to be an apotheosis of the second-rate as far as recognition of talent in the sciences of natural history was concerned. The values paraded were not those of The Linnean Society of New South Wales. It seems we treasure heroes publicly overlooked. But our heroes ought not be thus forgotten, and the conjunction of anglophone Australia's bicentenary with that of The Linnean Society of London encourages me to consider one of relevance to both. Australian students of systematic Botany are familiar with the name Robert Brown, that of a figure linked inextricably with the history of the London society and, albeit less directly, with that of our own. They know Brown came to Australia as naturalist with Matthew Flinders on H.M.S. *Investigator*. Yet few seem to be aware of what Brown did here, where he went during the period 1801-5 to collect the material on which so many of the plant taxa they know were based, or that he also examined animals, rocks and minerals as well as plants. The failure of Australian scientists and historians to be seriously inquisitive about the activities of a pioneer who contributed mightily to scientific knowledge is both remarkable and a reproach. A main purpose of this address is to provide a calendar of Brown's field-work in Australia. It is hoped thereby readers will gain some better understanding of what lay behind the 'R.Br.' attached to hundreds of Australian plant names.

ORIENTATION

At our society's Annual General Meeting in 1889 my presidential predecessor, W. J. Stephens [1829-1890], dismissed unceremoniously his fellow colonists' efforts to mark completion of the first hundred years of European settlement in Australia: 'rather more than a year ago, many persons were endeavouring to get the Centenary celebrated with universal rejoicings. The most absurd proposals were heard exploding in all directions, in the vain effort to stimulate an enthusiasm which had no substance or basis. Each agitator called upon everybody else to be enthusiastic, but no symptoms of enthusiasm were visible, excepting those which were well paid for out of the public purse' (Stephens, 1889: 1781). Stephens continued, more despairing than enthused: 'no one can deny that we have kept our Centennial year in a way not lightly to be forgotten. With political squabbling and scuffling inside and outside Parliament, with strikes . . . , with clamour against Chinese labour . . . , and with a disastrous drought . . . , we must admit that we have something to remember'. Only the inauguration during 1888 of the Australasian Association for the Advancement of Science (later, ANZAAS) appeared a worthwhile enterprise to Stephens. He welcomed it by the way before going on to devote the main part of his address to society business and a review of recent advances in science. His successor at the time of the sesquicentenary, E. C. Andrews [1870-1948], also a geologist, did not even bother to nod to the national festivities of 1938 in his presidential address.

Some beyond our society may be surprised to learn how unenthusiastically in their

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time and office Stephens and Andrews reacted to the celebration of what by general consent were notable anniversaries. Neither man could fairly be accused of want of patriotism and the concerns of The Linnean Society of New South Wales, then and still the only voluntary body anywhere in the country committed specifically to promoting knowledge of mineral, plant and animal Nature, are without doubt related to the history of anglophone Australia. Why then did these presidents decline to join the rejoicings? For me, having experienced the way the bicentenary went last year, the answer is not hard to find. The values espoused by our society and those represented as prized by the Australian community at large still run no risk of collision. It might have been otherwise. The land to which the first, mainly unwilling and unsophisticated colonists came in 1788 was practically unknown to Europeans. Nature lay awaiting exploration and study but the distant promoters of settlement had perceived no need to send with the First Fleet or its successors any naturalist who could have served as expert guide. The early settlers had to make with Nature what accommodation they could. Exploitation rather than appreciation of the natural environment was forced upon our ancestors. It has since, alas, become practically habit. Australian history as commonly propagated is a stage largely for officials and exploitative entrepreneurs of one sort or another. Those who by quiet dedication established our knowledge of Australian Nature rarely get noticed. Davison's study (Davison *et al.*, 1987: 1-29) of the centennial celebrations shows that self-made men foisted upon their community in 1888, what irked Stephens. Material prosperity, actual or hoped-for, mattered more to the then rulers than anything intellectual. By delicious chance, however, that year 1888 yielded also the second and final series of *Essays in Criticism* (1865, 1888), the work in which the English poet and educator Matthew Arnold [1822-1888] drew convincing attention to the prevailing philistinism of his countrymen. Transportation to what once were known as English colonies had brought more than people; distance did, and does, not insulate Australians from Arnold's strictures. One hundred years on, little seems to have changed here. True, the bicentenary was celebrated on a grander scale, with matching expense, than previous anniversaries but the perceptions which mattered in 1888 are still to the fore. Stephens and Andrews opted to stand aside from the clamour in their times. While ready to identify with them, I do not intend to follow. Our society's values deserve an airing.

The very name of our society in a way is its affirmation. According to Walkom (1925: 10), members at the first meeting (29 October 1874) came up with but two suggestions regarding an appropriate name. One at least thought we should be 'Banksian' but 'Linnean', promoted by W. J. Stephens, easily prevailed. Although A. B. Walkom [1889-1976] inclined to the view Stephens meant to commemorate links with The Linnean Society of London long enjoyed by members of the Macleay family (W. J., later Sir William, Macleay [1820-1891] had accepted our society's inaugural presidency), the decision of 1874 indirectly or directly pays tribute to the Swedish scientist Carl von Linné, earlier Linnaeus [1707-1778]. Our founders adopted as exemplar one whose life practically was given over to careful study of all branches of Nature and instruction of others in knowledge of its order and variety, by lectures to his pupils or 'apostles' (Jonsell, 1982) and by his voluminous writings. The choice, of course, implied no desire to resurrect the science of Linnaeus's day. Rather, it proclaimed the hope that members would seek to emulate the ways of an outstandingly active and fruitful investigator of Nature for the sake of knowledge. A matching exhortation to activity comes with the appropriately classical (Linnaeus lectured and wrote in Latin) motto used by the society since its early days: *integros accedere fontes*, to approach untainted springs. Members know the motto from the covers of the *Proceedings* but to judge from questions asked few are aware of its origin. The three words, one emended in a way which seems to me to implicate

W. J. Stephens, teacher of Latin as well as Natural History, are from a sentence found twice in the didactic poem *De Rerum Natura* (Bk I, 927; Bk IV, 2) of the 1st century B.C. philosopher-poet Titus Lucretius Carus, generally known as Lucretius: *juvat integros accedere fontis atque haurire*, 'What joy it is to light upon virgin springs and drink their waters' (as translated by R. E. Latham in the Penguin Classics edition, 1951). The poet's joy is his reward as 'sweet love of the Muses', custodians of knowledge, grants him 'strength to pioneer through pathless tracts of their Pierian realm where no foot has ever trod before' (Latham translation). Lucretius may never have practised what he preached and been a naturalist in any conventional sense but his aim that readers of the poem will 'gain insight into the nature of the universe and the pattern of its architecture' (Latham) serves to link our motto and eponym.

'The cultivation and study of the science of Natural History in all its branches' has ever been the guiding principle of our society. It fitted Linnaeus's consuming purpose in life, but what of Sir Joseph Banks [1743-1820]? The decision of 1874 showed clearly enough most of our founders thought Banks no competitor to Linnaeus. A group committed to 'Natural History in all its branches' had reason to question the suitability as model of one whose interest in the field hardly extended beyond a partiality to Botany. Banks, for instance, had been content to leave what Linnaeus termed the mineral kingdom as no more than a source of income (Vallance, 1986: 151). As to 'cultivation and study' our founders could respect Banks as a supportive patron of selected scientific enterprises but where, they might have asked, was the evidence of his engagement in the actual work of science? He had, indeed, when young been active as a collector, chiefly of plants, but Banks's published works, those issued in his lifetime, dealt rather with antiquities, agriculture and the economy of estates than with Botany. Linnaeus matched our founders' resolve to promote active participation and breadth in scientific effort; Banks did not. Yet, without question, that resolve set The Linnean Society of New South Wales apart in a community which already accepted Joseph Banks as a notable figure in its history and accorded him credit as a sort of founding genius of Nature study here. And as recent bicentennial events have shown, Banks remains a congenial hero to many Australians. Banks continues to divide. Any examination of our society's historical position must admit as much and seek to show why.

The one identified supporter of the society going 'Banksian' in 1874 was a retired naval officer, Thomas Stackhouse [c1832-1886], honorary secretary 1874-9 and reputedly a keen collector of plants. What little I know of him suggests Stackhouse was a public-spirited man with some range of interests in science not put to use as a practitioner. If he made any particular scientific study the results are lost. There is not even a record of his contributing an exhibit at a monthly meeting. What attracted Stackhouse to Banks? Perhaps it was Banks's early interest in plant-collecting, his naval connection through the voyage on H.M.S. *Endeavour* (1768-71), or his devoted service to The Royal Society of London. The reason is unknown but Stackhouse would have been neither the first nor the last to fix an enthusiasm for Banks on some perceived alliance of interests incidental to science. Birth, wealth and connections smoothed Banks's way in life; connections, real or supposed, continue to serve. Assumption of privilege secured places for him and his party as supernumeraries on *Endeavour* and the lion's share of praise for its success when the expedition returned home (Beaglehole, 1974: 273-4). He was fortunate too to have as colleague on that voyage one of Linnaeus's 'apostles', D. C. Solander [1736-1782], a man with some of his mentor's versatility but far less, it must be admitted, of Linnaeus's capacity for sustained effort. On *Endeavour* at least Solander did supply more than intellectual ballast. He and Banks, and Banks's assistants, kept impressively busy on lines consistent with the patron's interest, that is chiefly with plants and animals. Geological matters, and one of Solander's few published works dealt with Tertiary fossils

(Brander, 1766), were more or less ignored. After the voyage Solander went back to his post at the British Museum but took on extra part-time duty with Banks as his librarian and curator. It was then Banks's intention to prepare a Botany of the voyage, supposedly a 'common effort' (Rauschenberg, 1968: 42) with Solander though the extent to which Banks gave science to what remains unpublished is far from clear. Rauschenberg (1968: 42) admits some of the blame for the work lapsing may have been due to Solander's failure to resist the allures of London society but argues rather that 'Banks never pushed the project' — an odd claim if Banks, in fact, had been an actively contributing author as well as underwriter. Yet it is Banks who emerges shining to posterity, as even the title of the *Banks' Florilegium* (Adams, 1986), issued 1980-8, shows. The man who commissioned the original plates for the Botany of the *Endeavour* voyage gets all the credit, it seems.

Banks's dependence on Solander is not easily exaggerated. Solander brought Linnaean expertise to the association and after Banks assumed the presidency of the Royal Society with its attendant duties in 1778 responsibility for *Endeavour* Botany must have fallen even more heavily on the part-time curator and Banks's artists. Was it a coincidence that systematic work on the plants effectively came to a standstill after Solander's sudden death? Nor did the loss of Solander impinge only on *Endeavour* Botany. In July 1783 one who had been on the voyage, J. M. Matra (alias Magra) [1746-1808], wrote to Banks enquiring about a reputed scheme to make settlements in the South Seas. The following month Matra claimed Banks's approval of 'A Proposal for establishing a Settlement in New South Wales' (King, 1985: 12-20) then being lodged with the British government. An official Committee of Enquiry into Transportation was set up in consequence and on 10 May 1785 Sir Joseph Banks gave evidence (King, 1985: 58-62) before it in favour of a colony at Botany Bay. By then Banks had had at least two years to refresh his memory of the place visited on the *Endeavour* voyage in 1770. Yet the answers he offered to questions about the character of Botany Bay appear remarkably uninformed. Reading the transcript one is led to wonder if Banks had not left to Solander the serious business of observing Nature there. In 1785, however, there was no Solander and the word of the Royal Society's president had to be authoritative. Botany Bay became the appointed place for settlement. That it, in fact, was quite unsuitable only became apparent in January 1788 when Captain Arthur Phillip [1738-1814] reached there with the First Fleet. The most cursory inspection convinced Phillip he would have look elsewhere. He was in process of moving people and stores from Botany Bay to Sydney Cove when the expedition led by J. F. de Galaup, Comte de la Pérouse [1741-1788] arrived in the bay for respite. Phillip soon discovered the French vessels carried scientific staff and took what advantage he could of the brief presence of a naturalist. Governor Phillip had cause not only to rue Banks's inept advice regarding Botany Bay but also his failure to urge the appointment of any scientific adviser to the colonizing venture. Those who regard Banks as the 'Father of Australia' would do well to contemplate the baronet's less-than-glorious role at the outset.

Sir Joseph Banks, it seems, has never lacked admirers ready to put the worthiest gloss on their hero's life and works. Those of the present must have found last year's bicentennial celebrations endlessly satisfying. They, and we, heard or read in 1988 of Banks the accomplished traveller, great scientist and patron of science, a model of eighteenth-century Enlightenment (*pace* Buffon *et al.*) and, of course, Father of Australia. No one but Banks had much credit for the study of Australian Nature. The claims themselves were nothing new. What distinguished these from past celebrations was the extent to which many scientific bodies in this country now showed a readiness to identify with Banks. Not only were portrait busts of Banks set up in the botanical gardens of Canberra and Sydney but the Australian Academy of Science, in concert with the state Royal societies, sponsored Banks Lectures in various centres. The busts in their

situations might commemorate Banks's long and practical association with the Royal gardens at Kew but what of the lectures, public nods from science, being dedicated only to Sir Joseph Banks? One wonders how carefully the promoters of those lectures had examined the evidence before deciding to ride the Banksian bandwagon.

The sponsors of Banks Lectures must have forgotten, if they ever knew, what an undeniably distinguished scientist and contemporary, Sir Humphry Davy [1778-1829], himself president of The Royal Society of London 1820-7 — a place, by the way, Banks thought him 'rather too lively to fill' (Treneer, 1963: 186), wrote of their hero: 'He was a good-humoured and liberal man, free and various in conversational power, a tolerable botanist, and generally acquainted with Natural History. He had not much reading and no profound information. He was always ready to promote the objects of men of science, but he required to be regarded as a patron, and readily swallowed gross flattery' (J. Davy, 1836: II, 126). Even early this century Smith (1911: 300-1) could allow Davy had there commented 'not ill-naturedly' but since then Banksian devotees have tended to close ranks, sniffing at the bad manners of the humbly-born Davy, envious of an established gentleman. Thus Cameron (1952: 158) disposes of the sketch by claiming Davy 'never liked him [Banks]'. O'Brian (1987: 298-9) goes further: 'even quite strong resentment cannot without an even stronger additive of ill-nature, account for Sir Humphry Davy's often-quoted remark'. Carter (1988: 440) simply dismisses the sketch as 'that bleak and pejorative comment'. This modern school of Banksians allows its hero all the privilege he himself appropriated in life (Beaglehole *in* Banks, 1962: I, 23) and either damns as a detractor or ignores any who questions. The work of an experienced Australian botanist learned in the history of his subject, McGillivray (1971), for instance, which agrees with Davy on Banks's botanical expertise rates no mention in Carter's extensive bibliography (Carter, 1987). But then a conclusion like 'The outstanding and the incompetent may be remembered for their botany through two hundred years, but not the "tolerable"' (McGillivray, 1971: 15) is hardly ambrosia to a hagiographer. Fortunately, there are also other judicious sources, chief among them Beaglehole (*in* Banks, 1962) and Beaglehole (1974). Those studies, along with his meticulous editions of Cook's voyages, in my view show why the historian J. C. Beaglehole [1901-1971] so outshone all others of his profession in Australasia. Beaglehole (*in* Banks, 1962: I, 123-4) cites Davy on Banks but parts company with the special-pleaders after admitting the contrasted origins: 'Davy came from a quite different stratum of society, Davy was all concentration, a laboratory man, Davy belonged to — was the maker of — a new age'. Beaglehole then goes on to complete the picture: 'Banks, we may conclude, had not the instinct of thoroughness'. Banks was not a scientist in the sense Davy was; nor was he one like Linnaeus.

It is possible, however, our colleagues joined the Banksians in 1988 not from some mistaken thought that Banks was a scientist but rather from a desire to be identified with his perception of science. Again, I turn to Humphry Davy. Following the custom whereby fellows submitted notice of their discoveries to the president of the Royal Society, Davy in 1815 sent Sir Joseph details of his miners' safety-lamp. This time he received an acknowledgment: 'Much as by the more brilliant discoveries you have made, the reputation of the Royal Society has been exalted in the scientific world, I am of opinion that the solid and effective reputation of that body will be more advanced among our contemporaries of all ranks by your discovery, than it has been by all the rest' (Banks to Davy, 30 October 1815; letter in the Royal Institution library, London). The isolation of potassium and sodium in 1807 or proof of the elementary nature of chlorine (1810) had elicited no such presidential praise. The safety-lamp was different; it was useful. A mine-owner himself even if his properties were not plagued with fire-damp, Banks knew the commercial advantage offered by Davy's invention would be widely

welcomed. This was Banks the 'improver' in action. He could appreciate science where it served a useful purpose. It gained public esteem for science and such esteem was what Banks particularly prized. He had long been active as a patron of efforts to improve agriculture and horticulture. Botanical collectors knew of his special interest in plants which might be turned to advantage by cultivation. That interest, by the way, is now being appropriately acknowledged in the Sir Joseph Banks Centre for Economic Botany under development at Kew.

Davy's perception of science could hardly have been more divergent. Davy certainly relished his share of public esteem and showed no reluctance to engage in 'useful' projects but whereas Banks could regard such work as a sufficient purpose Davy made sure it did not interfere with what he took to be the overriding aim of science, enlargement of knowledge of the natural world. His response as 'The Unknown' (H. Davy, 1831: 240-6) to the assertion 'It does not add much to the dignity of a pursuit, that those persons who have followed it for profit have really been most useful' sets a perspective Banks would have thought eccentric. Throughout his sadly short career Davy remained convinced the worth of any scientific discovery — and his own researches ranged across biological and geological as well as purely physical science — is independent of considerations of practical utility (J. Davy, 1858: 58). It may not be spoken of at South Kensington where Banks resides in marmoreal splendour but it was Davy, not Banks, who opened the way for a national facility to foster research in Natural History (Hartley, 1966: 129). Davy's scheme for a separate department of the British Museum 'with a separate government' may have foundered in the corridors of Whitehall but it foreshadowed what came into being some sixty years later. Yet one will look in vain for acknowledgment of Davy in the semi-official history of the British Museum (Natural History) by Stearn (1981) where Banks a material but hardly intellectual benefactor, patron rather than practitioner of science, appears in abundance.

The values fostered by Davy, as earlier by Linnaeus, that science principally should be about increasing knowledge have been shared by most significant discoverers in science. That 'new age' Beaglehole credited Davy with making also marked a return to a liberal perception of science curtailed for so long by the selective, utilitarian style imposed by Banks both privately and as president of the Royal Society. It was not that Davy disavowed patronage, or refused to find merit in any of Banks's promotions. Banks, indeed, had an acknowledged knack for employing people who performed beyond expectations. And Davy knew his own career owed much to the support of The Royal Institution of Great Britain, a body set up with decidedly practical aims but which had shown itself open to promoting science in general. Patronage, as Davy was aware, had to be sympathetic and open-minded, not narrowly-conceived, if it were to allow talent full opportunity for enlarging scientific knowledge. That message is worth remembering now as a philistinism of 'relevance', of 'applicability', propagated widely within governments and business, in educational and even some scientific circles, threatens to draft ever more scientific effort in directions congenial to holders of influence. One wonders, indeed, if the enthusiasm for Banks certain Australian scientists discovered last year was at least in part a gesture of 'gross flattery' towards latter-day patrons as intrusive and mostly as utilitarian as Banks was in his time. Whatever the reason for the fervour, the challenge to The Linnean Society of New South Wales to keep asserting its intellectual purpose, to keep helping 'to approach untainted springs' remains.

There was, of course, little enough reason here in 1988 to remember Davy the man, or Linnaeus for that matter. Apart from a few items of Australian business referred to the Royal Society under his presidency, Davy enjoyed no particular link with this country though it and its inhabitants occasionally came into his thought (e.g. H. Davy, 1831:

74, 147-8, 229). Thought, however, was hardly a significant element in the public affairs of 1988. Sir Joseph Banks held every advantage. His links, the visit on *Endeavour* in 1770 and the continuing interest in colonization of the country, were known to Australians from schooldays. No sophisticated pleading is required to secure a place for him in any general celebration of our past. But to those charged with generating public enthusiasm Banks the 'improver', the promoter of exploitative activities, had other attraction; they could understand and identify with his aims. Banks the utilitarian patron, the man of 'no profound learning' according to Davy, qualified nicely for prominence in the official bicentennial celebrations, managed as they were by government-sponsored committees on which business and administrative interests held greater influence than those of the mind. Public events thus came to be marketed, marketed as entertainments rather than as opportunities for reflection and learning. The circumstances determined that where science emerged in the programme it was 'useful' science, with use embracing diversion, not science as knowledge. As an example I take the touring exhibition of treasures from British collections, chiefly those of the British Museum (Natural History). The Introductory Message in the book (Steven, 1988: 5) of the exhibition set an unmistakable tone: '... a stunning exhibition ... this entertaining and delightfully presented volume ... We wish *First Impressions* well in the South Land, and its audiences great enjoyment'. South Land indeed; was it expected Australians could only gape? It seemed so. The exhibition brought fascinating images of Nature as historical documents with barely a hint as to where those first impressions led in terms of understanding. Indeed the assertion that in 1815 'British curiosity about Australia surrendered its scientific emphasis to a commercial concern' (Steven, 1988: 89) appeared to dispose of the matter. But why 1815, and why to other aspects left unconsidered? It appeared those who mounted *First Impressions* were expert in display, in public relations or whatever now puts science and learning at risk as museums seek to become 'accessible' as places for entertainment. *First Impressions* made a dazzling show but where was the scholarly substance? No doubt the promoters felt confident a 'solid and effective reputation', a Banksian reputation, could be achieved most readily by avoiding tiresome detail.

Ever since one of my great-great-great-grandfathers, and others, began teaching the youth of this country, in the 1790s in Sydney, there have been anglophone Australians capable of some sophistication. Yet it has been a talent little used for much beyond 'getting and spending', as Wordsworth put it. Ours may be a lucky country, the pithy term of one modern commentator, but its population has yet to establish any widespread respect for critical intelligence. The fare dished up last year by way of celebrating the bicentenary seemed to acknowledge this. Perhaps it was appropriate though I had hoped for better and there recent experience encourages me. It was my privilege early in 1988 to address geological colleagues gathered in Brisbane to celebrate 'Achievements in Australian Geoscience' over two centuries. There have been, of course, many achievements in that and other sciences worthy of remembrance but the occasion also gave me the opportunity to raise questions about originality, about quality in the science, and to caution against complacent acceptance of fashions (Vallance, 1988). Serious discussion ensued for days afterwards. Members of a profession more involved with material progress through exploitation of the environment than most others in the natural sciences showed themselves impressively ready to pause and reflect on what they owe to those who have been prepared to challenge the assumptions of authority. I look forward to the day Australians will recognize that the adulation of Joseph Banks during their bicentenary was largely a result of assumptions.

It comes as no surprise that one rated no better than 'a tolerable botanist' (McGillivray, 1971) has no place, even among the least distinguished, in a classification of naturalists compiled about 1847 by Edward Forbes [1815-1854], later Regius Professor

of Natural History at Edinburgh (Wilson and Geikie, 1861: 414-7). Yet among those of Forbes's highest class, that to which 'the greatest leading minds belong' — a group of four including Aristotle and Linnaeus, is the name of the first outstandingly-able man of science to work in this country, a man whose career effectively began in Australia. Here surely was an appropriate candidate for glory in the bicentennial celebrations but it did not turn out that way. The public scientists preferred Banks lectures and although *First Impressions* allowed a nod to this man so respected by Edward Forbes, Steven (1988: 73) has his portrait (with artist's name misspelled) reproduced smaller than any one of the three portraits of Banks, four counting a caricature, present in the book of the exhibition. Robert Brown [1773-1858], alas, is all but unknown to most Australians; nor should the present tense only be used. A well-informed newcomer to Melbourne felt moved by experience there in the 1860s to annotate as follows the passage concerning Brown in what is now my copy of Wilson and Geikie (1861: 416): 'This common name of Robert Brown is one I dare be sworn has scarcely been heard of by even a very few of Australian Colonists, yet is it one intimately connected with Australia — Humboldt entitled him 'the first of European Botanists' — He accompanied Flinders as naturalist, the then young Franklin being a shipmate, as midshipman. Sir Joseph Banks and Dr. Solander had previously gained a slight knowledge of the Australian Flora, but Dr. Robert Brown was the first to make an extensive acquaintance with Austrn. Botany, and to this day & ever will be considered as a leading authority in it'. The remark on Franklin (Sir John Franklin [1786-1847]), I believe, serves to identify the writer who signed his name Robert Goodsir in the book. Lonsdale (*in* Goodsir, 1868: I, 9-10) records that Robert Goodsir, a medical graduate and brother of the Edinburgh anatomist John Goodsir [1814-1867], close friend of Edward Forbes, had sailed twice to the Arctic on expeditions sponsored by Lady Franklin to seek evidence of her husband's fate and of those who sailed with him in 1845. Among the lost was another Goodsir brother, Harry, who had gone with Franklin as surgeon and naturalist. Robert Goodsir's intimate connections with active students of the sciences of Natural History lend weight to his observations on Brown, as well as on Banks and Solander. I have no idea what became of him in Australia but suspect his stay was not long; his book had a new owner by 1870.

Goodsir's reference to Alexander von Humboldt [1769-1859] and his enthusiasm for Robert Brown was notably apt. The same Humboldt even rated him *Botanicorum facile Princeps*. Although Brown had the respect of a select few of his countrymen, it was in continental Europe, especially in Germany, that the innovative and intellectual quality of his work gained most profound admiration. By 1855 his distinguished colleague Karl von Martius [1794-1868] of Munich was addressing Brown as *Jupiter botanicus*, the title adopted by Mabberley (1985) for what, remarkably, is the first detailed biographical study of the most 'philosophical' botanist of his period — "philosophical" because he combined the descriptive and the experimental: on the one hand . . . the patient descriptive approach . . . the bibliographical expertise . . . as well as the acute powers of observation and interpretation necessary to a herbarium taxonomist; and, on the other, the flair and zeal for experiment with new approaches — principally through the microscope' (Mabberley, 1985: 398). As one reviewer of Mabberley's book for a general readership remarked (*Times Literary Supplement*, 11 April 1986: 400): 'It is sad that such a man [as Robert Brown] should have been so thoroughly elbowed out of history by the Bankses and Hookers'.

OUR BROWNIAN MEMORABILIA

Robert Brown has never been elbowed out of the history of The Linnean Society of New South Wales even though he was dead sixteen years when the society began. Not

only do we of this society share Brown's concern for science as knowledge but his friends, who were also ours, have left us a rich legacy of tokens of the man and his works. No non-member received prouder recognition than Robert Brown during this society's centenary in 1974 and now at another season of commemoration — a bicentennial purpose I prefer to mere celebration — there is added reason to remember at least some of his tokens.

The year 1988 indeed marked not only the bicentenary of anglophone Australia but also of the founding of The Linnean Society of London, in a way the parent of all such bodies. Choice of an 'active' motto for our society may have followed its example: *Naturae discere mores* (to learn the ways of Nature), though the London society's decision after a



Fig. 1. Robert Brown. Engraved after the portrait by H. W. Pickersgill presented to Brown in 1835 on behalf of subscribers (among them Alexander and W. S. Macleay). The print, a gift from The Linnean Society of London to mark the centenary (1974) of The Linnean Society of New South Wales, is now on loan to the Macleay Museum which also holds on loan the society's (incomplete) collection of coloured plates from Bauer (1813). Photograph by courtesy of Lydia Bushell, Macleay Museum.

few decades of its existence to abandon interest in inorganic Nature (Linnaeus's mineral kingdom) has never had much influence with us. Nevertheless, there are treasured links between the two societies and I take this opportunity to congratulate The Linnean Society of London on its achievements over two hundred years (Gage and Stearn, 1988); may it continue to thrive. Acknowledgment of the London society raises thought here particularly of the Macleays (Fletcher, 1921; 1929) and their friends, among them Robert Brown. Brown, in fact, became an associate of the society in November 1798 only a few months after Alexander Macleay [1767-1848] had been elected its secretary, a post he was to hold until 1825 when appointment as colonial secretary of New South Wales required his retirement. Friendship between Brown and the Macleay family blossomed after his return from Sydney in 1805 and employment by the Linnean Society (Mabberley, 1985: 132), employment which continued with some change of duty until 1822. So close indeed did the friendship become during those years that Mabberley (1985: 242) thinks it 'likely' Brown and Frances Leonora (Fanny) Macleay, later Harington [1793-1836] Macleay's eldest daughter and a gifted amateur painter of flowers, were engaged to marry 'since 1815'. Windschuttle (1988: 58), however, claims Fanny Macleay had to reject Brown's suit about that time under pressure from her mother. Whatever the circumstances, the two remained close friends even after Fanny and her family removed to Sydney. From comment made in 1837 (Mabberley, 1985: 242) — by which time Fanny was dead, after only six weeks of marriage — it seems Mrs Macleay had come to regret earlier opposition to Brown as son-in-law. But by then it was too late; Brown stayed a bachelor. He also maintained his connection with the London society, occupying its presidential chair 1849-53 — the only former employee to have achieved such rank in the society's history.

The Linnean Society of London acknowledged these cherished connections in a gift to our society at the time of the centenary in 1974 — a copy of the print engraved by Charles Fox [1794-1849] and issued in 1837 after the portrait of Robert Brown painted by H. W. Pickersgill [1782-1875]. So apt was the gift (Fig. 1) it had a place of honour in the exhibition mounted by the State Library to mark our centenary (Vallance, 1975: 202-3). I may add, parenthetically, the present we sent last year for the London society's bicentenary relates activity by the collector George Caley [1770-1829] during the time Brown was also busy in the colony: one of an edition limited to 400 copies of '*The Devil's Wilderness* George Caley's Journey to Mount Banks 1804', edited by my friend and colleague on council Alan Andrews (Caley, 1984). But to return to the portrait shown here in 1974. It was, if anything, even more significant as a gift to us and to Australia than I then knew. As Mabberley (1985: 312, 395) explains, Pickersgill's painting, owned by the London society, was a subscription work paid for by Linnean fellows — Alexander Macleay and his son William Sharp Macleay [1792-1865] being among the subscribers — and presented to Brown in 1835 by George Bentham [1800-1884], later of *Flora Australiensis* (1863-78) fame. And the illustration under Brown's left arm in the portrait is that by Ferdinand Lucas Bauer [1760-1826], Brown's artist colleague in Australia, of *Brunonia australis* Sm., Brunoniaceae, the Australian plant named in Brown's honour by J. E. Smith [1759-1828], 'institutor' of The Linnean Society of London, though by accident of publication Brown himself appears to have started the name in print (Brown, 1810: 590).

An even more remarkable link with Brown and Australia came into our society's possession more than a century ago, Brown's own copy* of the account (Flinders, 1814) of the voyage which brought him to this country. The gift was received 31 August 1887 without fuss and, indeed, few people seemed to know of its existence until I exhibited the work at a meeting during the centenary year (Vallance, 1975: 203). At the time I was aware only that the donor had been described by Brown as his 'Relation & Friend'. Now,

thanks to Mabberley (1985) and the prompting of a lady in England who not only shares the botanist's surname but also descent from John Brown [d. 1701] of Angus and who was interested to learn if the family persisted in Australia, I am able to expand the story. The inscription on the half-title leaf of the first volume of our Flinders (Fig. 2) records Brown's gift of the book to John Sangster. Nor was this the only part of Brown's property Sangster received. Both he and his sister each had legacies by the will Brown signed on 19 January 1858, where Sangster is described as 'at president [sic?] resident in the Colony of New South Wales' (Mabberley, 1985: 440). Mabberley indeed suggests the brother and sister were then the only surviving close relations Brown had. As the will indicates, Brown knew their father, and his first cousin, Commander Robert Sangster R.N., was already dead.

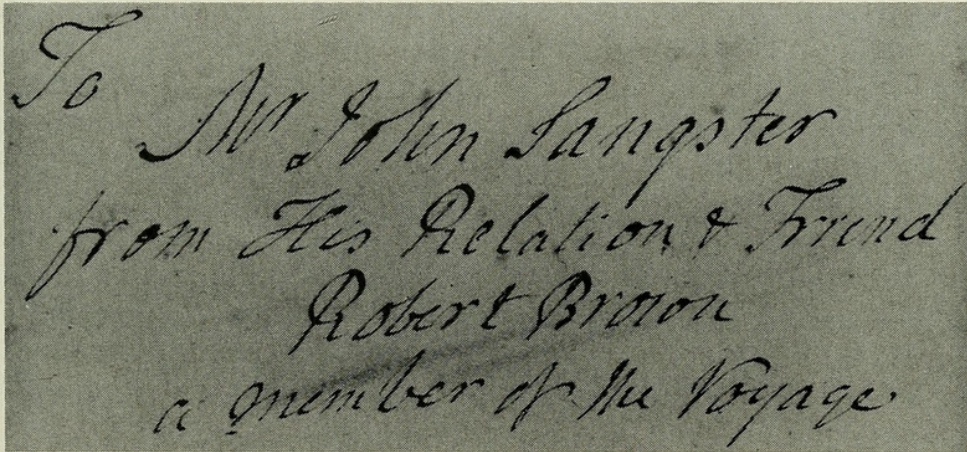


Fig. 2. Presentation inscription in Robert Brown's copy of Flinders (1814). The copy was given to The Linnean Society of New South Wales by Brown's cousin, John Sangster, in 1887; it is now on loan in the Rare Books division of the University of Sydney Library.

What then of this John Sangster who followed his illustrious cousin to New South Wales and in 1887 entrusted his prized relics to the care of our society? And prized by him they certainly were. Before parting with them Sangster took the trouble to set the provenance beyond doubt by making the Statutory Declaration pasted below Brown's inscription: 'I John Sangster of Sydney New South Wales do hereby solemnly and sincerely declare as follows: that the above is the handwriting of the late Robert Brown, and

* It is interesting to note in Nicol the publisher's accounts (Ingleton, 1986: 422) reference to sets 'not paid for' of the cheaper, 'Small Paper' edition assigned to 'Mr Aken' and an otherwise-unknown 'Mr Brine'. In the case at least of Aken, whom he had no trouble identifying, Ingleton was ready to admit fault while arguing extenuation: 'clever Aken never paid Nicol for his copy, which, after all, seems fair justice in the circumstances'. 'Fair justice', equally, would have embraced Robert Brown, in my view, the 'Mr Brine' of the publisher's clerk. Both Aken and Brown served Flinders loyally during the voyage and during preparation of the book, to which in fact Brown contributed an appendix. It would have been in character if the dying Flinders, expecting his two supportive companions were not grand enough to win presentation copies from the Admiralty, had urged they receive copies 'not paid for' by them. I find no convincing reason to accuse either Aken or Brown ('Brine') of deliberately avoiding payment for the work of their lamented friend.

that he gave me the book in two Volumes'. The signed declaration was witnessed 19 February 1887 by one Edward Gell J.P. It may be added the two volumes, without the Atlas which Brown may have used to destruction or kept with his collections in London, are notably free from annotations. They came into the society's hands through the agency of a lawyer and politician, L. F. Heydon [1848-1918], who it turns out was more than a mere conduit. Heydon had been elected a member of our society 28 April 1886. He thus knew the society's purpose but, more to the point, he was in a position as one of the family to explain that purpose to Sangster. It appears that Heydon was son-in-law to Gell, the witness to Sangster's declaration, and from what I make out Gell had married a sister of Sangster's wife. I have no doubt it was Heydon who convinced Sangster he should fix his gift on The Linnean Society of New South Wales.

John Sangster appears to have come to New South Wales early in the 1850s and to have served with the Royal Marines, though whether here or elsewhere, or both, is not clear to me. He could have received the gift from his cousin before leaving for Australia, when they discussed — as I assume they did — a destination Brown had known so many years earlier. If, however, the '1857' pencilled below the inscription betokens year of acquisition then either Sangster returned to London for a while or the books were sent out to him. The books are not mentioned in Brown's will, where Sangster is noted as resident in New South Wales, so these remarkable association copies must have been in this country no later than 1857. It is not clear to me what Sangster was doing at the time and the occupation 'householder' committed to the certificate of his marriage at Bathurst in 1860 to Sarah Haselden (or Haseldon) reveals little. Later, at least, Sangster had employment in what seems a clerical capacity with the N.S.W. Lands Department. It was as a pensioner of the government that John Sangster died, aged 74, at Darlinghurst, Sydney, on 1 March 1899. By then he was a widower (Sarah Sangster died 21 July 1897), cared for it seems by members of the Gell family; there were no children of his marriage. Although the Sangsters had married according to Roman Catholic rites, John Sangster remained an Anglican and was buried thus in Waverley Cemetery. The Brown family connection with Australia thus lies fixed within the nineteenth century — Robert Brown had his first sight of it, Cape Leeuwin, on 6 December 1801 — and we have a precious memento of that connection.

Our society's heritage from the Macleays has been explored in some detail by J. J. Fletcher [1850-1926] who, curiously, found little to say about Robert Brown (Fletcher, 1921: 578). He could report only 'four reprints of papers by Robert Brown with inscriptions to Alex. McLeay, Esq.' in the society's library and notice the name *Macleaya* erected for a genus of extra-Australian plants by Brown in 1826. There are, in fact, more than that number of 'reprints' — a misleading term — in what remains of our library after recent regrettable events, nor are all the Brown items presentation copies to Alexander Macleay. For instance, our copy of Brown's botanical appendix (Brown, 1826a; Linn. Soc. N.S.W., Tracts X.P.18) to Denham and Clapperton's *Narrative of Travels and Discoveries in Northern and Central Africa . . .* (1826), in which *Macleaya* R.Br., Papaveraceae, was introduced to commemorate 'my much valued friend Alexander Macleay, Esq. Secretary to the Colony of New South Wales, whose merits as a general naturalist, a profound entomologist, and a practical botanist, are well known', was a present to W. S. Macleay 'from his sincere friend R Brown'. There can be no doubt Alexander also received a copy — that sent to his son in Cuba was hardly accessible to him — but it like so much else of Alexander Macleay's library was sadly dispersed. Among items known to have been in the older Macleay's collection was a copy of Brown's first major work, his *Prodromus* on the Australian flora (Brown, 1810). Stearn in his introduction to the facsimile edition of the *Prodromus* (Brown, 1960: xxx) notes that Macleay was among the first of Brown's friends to receive a copy. But Alexander Macleay fell on hard times in the 1840s and was

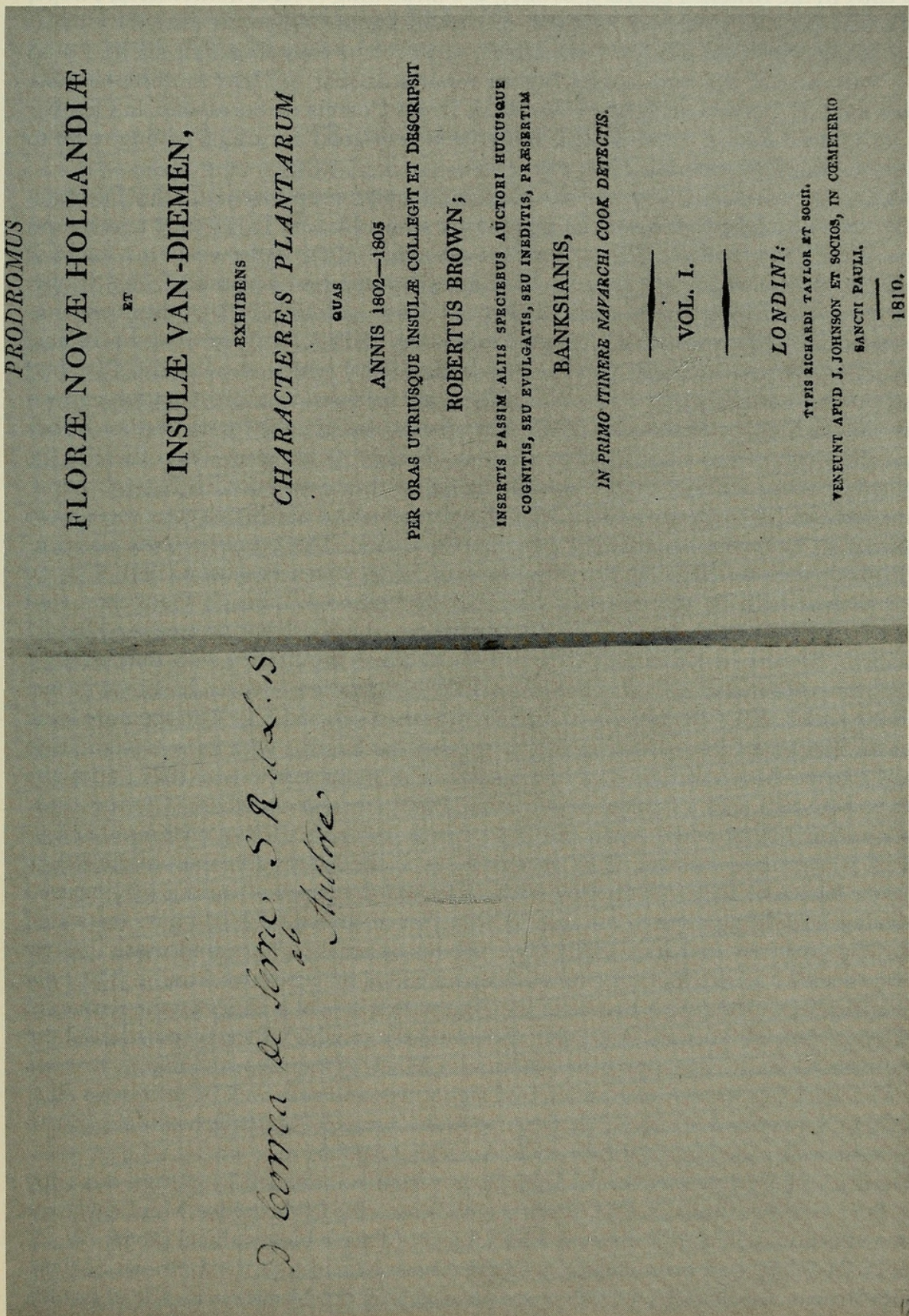


Fig. 3. Title-page of Brown's *Prodrômus* with facing presentation inscription to J. F. Correia de Serra. The volume is now on loan in the Rare Books division of the University of Sydney Library.

forced to realize various assets. The printed catalogue (John Blackmore, auctioneer, Sydney, sale 1, 2, 3 April 1846) of Macleay's library 'of nearly 4000 volumes', known only by the copy in the Mitchell Library, Sydney, is a dispiriting record. Somewhere, I hope, the Macleay copy of *Prodromus* remains, in careful hands. When, at last (the time is unclear as the copy lacks stamps*), the society acquired its copy (Fig. 3) it did almost as well — with one of the nine copies Stearn reports as sent to Paris in 1810, the one destined for J. F. Correia de Serra [1750-1823]. It was Correia de Serra who, in October 1798, introduced Brown to Sir Joseph Banks as a very good naturalist willing to go to New South Wales (Mabberley, 1984: 41).

Alexander Macleay's copy of the first, and only, supplement to the *Prodromus* (Brown, 1830) somehow escaped the dissolution of his library. It remains in a bound volume (Linn. Soc. N.S.W., Tracts X.P.12) with other notable Brown items, most of them assuredly not 'reprints'. Thus we have a copy of the first account of what is now termed Brownian Motion or Movement (Brown, 1828), printed at the author's expense and antedating publication in a journal (Mabberley, 1985: 271). With it is the at least equally rare *Additional Remarks on Active Molecules* (1829) which Brown also first had printed privately (Mabberley, 1985: 272). These are followed by a presentation copy of Brown (1831) which, as Mabberley (1985: 294) shows, was printed for the author before he read the work in two stages to The Linnean Society of London. Then there is the single leaf, lacking a presentation inscription but with a correction in Brown's hand, entitled *Additional Remarks on the Pollen Mass in Asclepiadeae* and of which a copy was sent to F. L. Bauer on 22 November 1831 (Mabberley, 1985: 294). This bound volume also contains Brown's work on *Kingia* R.Br., Xanthorrhoeaceae, which Ferguson (1941: 373, no 1003) noted as held in this country only by the National Library, Canberra, and ascribed to the year 1825. As the title-page indicates, the contribution was read before the Linnean Society in November 1825 but the slightest familiarity with that society's publications would have revealed Ferguson 1003 has another source. It comes in fact from King (1826) where Brown's essay appears in vol. 2 (pp 534-65). The separate issue we and the National Library have may be a 'reprint' but it is one with its own pagination and signatures. King's volumes were reissued in a 'main' edition in 1827, after the printer had trouble with a noble neighbour and had to retreat elsewhere (Clowes, 1953: 21-4; Common and Moulds, 1973), but there can be no doubt Brown on *Kingia*, Ferguson 1003, was printed with the 1826 issue of King. Colleagues had copies of the *Kingia* work from Brown in 1826 (Mabberley, 1985: 250) and the paper of various origins used for printing the folding plate in the several examples of Brown (1826b) I have inspected matches the diversity in King (1826). The printer appears to have had more orderly stock for the 1827 reissue but, of course, Brown needed no separates from it. The only other 'reprint' associated with Brown in our Tracts X.P.12 is of a paper on the natives of King George Sound, Western Australia, (Nind, 1831), to which Brown contributed the introduction, at least. Our copy bears Alexander Macleay's name, probably in Brown's hand. The work has its own pagination and signatures and may well be unique in Australia; there is no record of it in either Ferguson's *Bibliography of Australia* or the *Addenda* to Ferguson issued by the National Library of Australia in 1986.

Finally, as a sign of how Brown kept distant friends informed I mention our copy (Linn. Soc. N.S.W., Tracts X.P.5) of Paris (1838) inscribed 'Alexander MacLeay Esqr from his affectionate friend R Brown'. The subject of Paris's biographical sketch, W. G. Maton [1774-1835], had been closely associated with Macleay at the Linnean Society, and with Brown. By 1838 Brown's dearest friend among the Macleays was dead but his

* Further search reveals it was one of more than 700 volumes donated by Sir William Macleay in 1889 (*Proc. Linn. Soc. N.S.W.* 4, 1889: 1319).

thoughtful communication with the family to whom we owe so much continued. On 7 August 1848 it fell to Alexander's third son, George Macleay [1809-1891], to inform Brown by letter of his late father's 'most affectionate dying remembrances to his dear friend Robert Brown' (Mabberley, 1985: 378). Members of The Linnean Society of New South Wales, heritors of the Macleays, indeed have special reason to esteem *Jupiter Botanicus*.

ROBERT BROWN IN AUSTRALIA

The name Robert Brown may mean little to most Australians but every systematic work on Australian plants is likely to abound with genera and species identified with the initials R.Br. That at an obvious level is a measure of Robert Brown's lasting contribution to knowledge of the Australian flora, a contribution begun with his own collecting in the field of many of the taxa still bearing the names he gave them. But whereas botanical systematists know his legacy it seems few are more than generally aware of where Brown went in this country, where he collected. It is this aspect of Brown's activity in Australia I now wish to pursue. Geologists, perhaps more than their fellow students of Nature, bother about locations, where significant specimens were collected and what the relationship was with their original surroundings. Yet locality detail is also of importance to those concerned with identity and diversity among plants and animals, detail in particular relating to places where type material was gathered. Geographical localization of Brown's plant types, and not only his, has long been a problem, for instance, for botanical systematists. The synopsis of Robert Brown's travels in Australia which follows is offered in the hope it will be of service to such specialists and, indeed, to others involved in the study of Australian Nature during early colonial times. If thereby the activity of a notable figure in our history comes to be better understood and appreciated my purpose will have been well served.

The valuable work of Mabberley (1985) absolves me of need to dilate on the circumstances of Brown's life and achievements. Suffice it to say here, that in December 1800 Sir Joseph Banks remembered the young naturalist introduced to him by letter from Correia de Serra in 1798 (Mabberley, 1985: 62). Matthew Flinders [1774-1814] had then recently returned from New South Wales with a proposal to run a hydrographic and natural history survey of the Australian coasts. The plan, apart from Flinders's wish to have Mineralogy included (Vallance and Moore, 1982: 3; Vallance, 1986: 157), gained Banks's support and before 1800 was at an end the Admiralty had commissioned a vessel as H.M.S. *Investigator* with Flinders in command. It was at this stage Banks remembered Brown and, acting for the Admiralty without saying so, offered the young Scot, then surgeon's mate with a regiment in Ireland, the post of naturalist to the expedition. Brown accepted promptly and soon was in London preparing for the adventure of his life while arrangements to secure release from his regiment dragged on. These settled, there were other delays before *Investigator* eventually got underway for Australia on 18 July 1801.

Although employed by the Admiralty, Brown's duties and priorities as naturalist were largely set for him by Banks. Botany had to be his overriding purpose but, as opportunity allowed with no penalty to Botany, he might also attend to matters of Zoology and Geology (Vallance and Moore, 1982: 3-5). In the event Brown managed reasonably across the spectrum of Natural History while more than satisfying Banks's inclination. Three assistants chosen by Banks shared in the work: the botanical artist Ferdinand Bauer, the gardener Peter Good [d. 1803] who was to look after plants destined for Kew, and a 'practical miner' from Banks's Derbyshire estates, John Allen [c1775-1869?], in the company perhaps as a sop to the commander. For a recent account

of the voyage, and of Flinders, the reader should consult Ingleton (1986). But travel with Flinders covered only part of Brown's time in Australia. While in the Gulf of Carpentaria in November 1802 Flinders was advised his ship might last another six months at sea, barring bad weather or accident. With skill and fortitude he brought *Investigator* back to Sydney (9 June 1803) by way of Timor, but at a cost. Some had died on the voyage from Timor, others were seriously ill, among them the commander. Peter Good survived the journey only to die on the third day after arrival.

The period from 9 June 1803 was as critical for Brown as it was for Flinders. *Investigator* became a hulk in Sydney Harbour and, when Flinders resolved to return to London in the hope of securing a replacement vessel to complete his survey terminated off Arnhem Land, Brown and Bauer sought and were granted permission to remain in the colony to extend their work. Allen at first proposed to stay with his colleagues but changed his mind (Vallance and Moore, 1982: 30-1) and sailed on *Porpoise* with the landscape painter William Westall [1781-1850] and the rest of *Investigator's* company. It was Allen who, after reaching England by way of China in August 1804, brought first-hand news to Banks of Good's death, of the fate of *Investigator*, of the wreck of *Porpoise* and the rescue of its people but not of the plants Brown entrusted to it.

Brown and Bauer continued their activity in Australia, sometimes together sometimes going their separate ways, for almost another two years. During that period Brown visited Tasmania and the Hunter River area and Bauer spent six months at Norfolk Island. Finally, and much against Brown's wishes, the two men joined a resuscitated *Investigator* which left Sydney 23 May 1805 on a non-stop voyage to England by way of Cape Horn. Furthermore, the leaky, once-condemned vessel completed the journey without mishap, reaching Liverpool 13 October 1805. But that was not the end of Brown's trials. The commander of *Investigator* failed to clear the contents of his ship with Customs before going off to London. Brown and Bauer had to wait at Liverpool, urging Banks and his factotum librarian Jonas Dryander [1748-1810] by post to expedite clearance of the collections. Not until 5 November 1805 did Brown and Bauer see London again; they had left it for Portsmouth 14 June 1801 at the start of a remarkable journey which turned out to involve not merely circumnavigation of Australia but of the world.

As Brown informed Banks by letter 19 October 1805 it was a considerable cargo which delayed him and Bauer at Liverpool. Apart from five boxes or packages of clothes and two with miscellaneous contents, there were 11 of drawings of all sorts, 12 of dried plants, two of 'Birds & Beasts Preserved', one of insects and three (elsewhere* Brown makes it four) of 'Minerals'. Mabberley (1985: 128-31) outlines some of the contents: 3600 plant specimens from Australia, '3200 being different, 200 from Timor; 23 mammals, 217 birds, 39 fish, 33 reptiles and amphibians and 29 invertebrates other than insects. Of the animals, according to Mabberley, 'none but the birds and insects was ever worked on systematically'. Banks, to whose house the whole collection had been delivered, simply handed the 'Minerals' over to the Admiralty, the real owner of all the natural history material including drawings, whence they went to the British Museum (Vallance and Moore, 1982: 10). The month after his return to London Brown took up employment with the Linnean Society but was able to continue working on his plants at Banks's house under Admiralty auspices. Banks, indeed, managed to have that financial support maintained until 1811 (Mabberley, 1985: 177), by which time Brown had published his *Prodromus*. The plant collection brought back on *Investigator* may not have matched in number that returned on *Endeavour* in 1771 (Beaglehole (1974: 273) claims Banks and Solander had 17000 plants) but Brown made vastly more for science with his.

* Brown Correspondence, vol. 3: 125; BM(NH) Botany Library.

My serious interest in tracking Brown in Australia had its origin in Edwards (1976), a paper which for the first time in print supplied detail of what remained in the British Museum (Natural History) of Brown's rock and mineral collection. Some of the cited localities made no geographical sense. The source of the difficulty became clear in 1978 when I had the opportunity to examine the material with which, fortunately, Brown's original paper slips had been preserved. Whoever registered the specimens (in the 1890s) was ignorant of the geographical notation devised by Flinders and used by Brown in the field (Vallance and Moore, 1982: 10). Whether botanists were then aware of the system I do not know but the publication by Burbidge (1956) of a key apparently passed without notice in the Minerals Department, BM(NH). The task of correcting registration of Brown's rocks led my colleague David Moore and me to consult Brown's manuscript Diary in the museum's Botany Library. We found, with some effort, the execrable handwriting could be read. So it was after work on the rocks was completed, and aware that hitherto only a few fragments of the Diary had been published, we decided to attempt a complete transcription in collaboration with Eric Groves, formerly of the Botany Department, BM(NH). The venture, with explanatory notes, is now almost complete, in a state of final revision before hoped-for publication.

Brown's Diary, of course, is an essential aid to following his travels in Australia yet it is also an imperfect one. Not only is it an incomplete record but in places there are problems, notably with dates. Some of Brown's dated specimen slips are likewise not free from error. Evidently at times the naturalist forgot his calendar and entering remarks some while after the event, as he occasionally did, was one source of confusion. During the voyage with Flinders, Brown's lapses as a rule are easily repaired, by means of the ship's log, Flinders (1814) and, especially, Good (1981). The journal kept by the gardener Peter Good and now available in the edition by P. I. Edwards [1916-1984] is an impressive source though the reader perhaps should be warned of the following errors in the printed text: the entry for 22 July 1802 (p. 82) continues on p. 96 after the third word of the fourth line of the entry for 29 October 1802, the text following on pp. 96-7 relates to the matching days in July (not October) as far as '7PM' on line 8 of the entry for 28 October (i.e. July) on p. 97, but the next three lines in fact complete the entry for 29 October (p. 96). It is all very confusing unless one has access to the original manuscript. Bauer and Allen appear not to have kept journals, though the annotations to Bauer's paintings can serve as useful indicators of time and space.

After Good's death, and the separation from Flinders and the ship, the task of establishing where Brown went becomes vastly more difficult, and more open to error. It is not surprising Burbidge (1956) confined her list (alas, also not without mistakes though it is quoted verbatim by Stearn in Brown, 1960: xxi-xxiv) of Brown's collecting localities to those visited from *Investigator*. Yet they relate to activity during roughly half the time Brown spent in this country. The period June-November 1803 when Brown was based in Sydney is quite without any Diary record. To get even an impression of what was done then one must depend on miscellaneous sources, the local weekly newspaper, letters, and original labels with Brown's herbarium specimens and Bauer's paintings. The Diary was resumed when Brown put to sea (November 1803) for what he expected to be a short visit to Bass Strait and Port Phillip but became an extended stay in Tasmania. The founding of Hobart while he was there passed him by; he was too busy in the field. Fortunately, on some of his Tasmanian excursions Brown had companions who kept records, the chaplain Robert Knopwood [1763-1838], and the mineralogist A. W. H. Humphrey [c1782-1829]. Humphrey, in particular, is a useful adjunct (Vallance, 1981: 132-40). But for much of his time in Tasmania there is only Brown's record which became increasingly scrappy and lapsed before he was due to return to Sydney in August 1804. Back in Sydney, Brown learned as we do from the newspaper that Bauer

had left for Norfolk Island only days before. Again, Brown forgot the Diary, except for notice of a visit to Caley at Parramatta, until 9 October 1804 when he embarked for the Hunter River and what is now Newcastle. The Diary ends 4 November 1804, with Brown up the Paterson River which, by quirk of history, he knew as the Williams. It should be recognized that in Brown's time what is now the Hunter River above Raymond Terrace was the Paterson, our Paterson was the Williams and the Williams was known as the Hunter. Herbarium slips and shipping records point to Brown's return to Sydney 20 November 1804. From then until he left our shores six months later there are only scattered sources to guide the seeker after Robert Brown in Australia.

What follows as a calendar of Brown's travels in Australia derives from the efforts of Groves, Moore and myself though as the only Australian in the team I must accept responsibility for what errors of geographical interpretation are found therein. The work is imperfect, after all the original record is far from complete, but at least Brown can now be followed well beyond where Burbidge (1956) left him. The maps shown during presentation of this address are being held for the edition of Brown's Diary; it is hoped, however, that modern place names and geographical coordinates given in the calendar will serve for readers having access to standard topographical maps. Where no name is attached to some record of activity in the calendar, Brown's involvement may be assumed.

CALENDAR OF ROBERT BROWN'S ACTIVITY IN AUSTRALIA

8 December 1801–5 January 1802 King George Sound, Western Australia (King George III's Sound of Brown and the discoverer, George Vancouver [1757-1798], in 1791

Anchorage: (1) off Seal Island, 35°05'S, 117°58'E (8.xii); (2) entrance to Princess Royal Harbour (10.xii); (3) off N shore Princess Royal Harbour (12.xii); (4) off Seal Island (3.i).

Shore work: on Flinders Peninsula, towards Bald Head (9.xii, Good got off that night but Brown, Bauer and Allen to a.m. 10.xii) — Vancouver Peninsula (10.xii, Good only) — vicinity of Mt Martin, entrance to Oyster Harbour (11.xii) — Mt Clarence (35°01'S, 117°54'E), N side Princess Royal Harbour and within present Albany town area (12, 13.xii) — N shore Princess Royal Harbour (14, 21, 27.xii, Good also visited there on other days to get soil and plants for his garden) — meeting with aborigines, N shore Princess Royal Harbour (15.xii) — walk from Emu Point along W shore Oyster Harbour to King River, up river c4km and return across country, night spent by Lake Seppines (17-18.xii) — walk to coastal hills from SW shore Princess Royal Harbour (20.xii) — walk, with Flinders and others, to Torbay Inlet, night spent near Lake Powell, and return by the coastal hills (23-24.xii) — Vancouver Peninsula (28.xii, Brown and Allen) — study of aborigines, opposite anchorage (30.xii, Brown with Bell the surgeon) — vicinity of Limeburner Point, S shore Princess Royal Harbour (31.xii, with Flinders and others, not Good) — again to Limeburner Point but for walk E to King George Sound (1.i, Brown and others, not Good) — as for 1.i (2.i, Good only) — Flinders Peninsula, about Isthmus Hill (4.i, later in the day Brown visited Seal Island with Flinders).

9–14 January 1802 Lucky Bay, Western Australia (Bay I or 1 during the voyage)

Anchorage: within Lucky Bay and c1.5km WSW of Mississippi Hill.

Shore work: Mississippi Hill (33°59'S, 122°16'E) and vicinity (10.i) — Thistle Cove and vicinity (11.i) — about landing place Lucky Bay, Brown and Allen/towards

Frenchman Peak (33°58'S, 122°10'E), Good only (12.i) — to summit Frenchman Peak (13.i).

14–17 January 1802 Goose Island Bay, Archipelago of the Recherche, Western Australia (Bay II or 2 during the voyage; Brown also referred to Middle Island as 'Island No 2')

Anchorage: in passage between Goose and Middle islands, at W entrance to Goose Island Bay.

Shore work: on Middle Island, in particular its E part and the salt lake, Goose Island (34°05'S, 123°11'E) visited in evening (15.i) — W side Middle Island with ascent of Flinders Peak/according to Brown, Allen 'walkd round the island' (16.i).

28–29 January 1802 Fowlers Bay, South Australia (Bay III or 3 during the voyage)

Anchorage: 32°00'S, 132°27'E, in Fowlers Bay c5km NNW of Point Fowler.

Shore work: vicinity of present Fowlers Bay settlement and on Point Fowler peninsula (29.i, a.m. only).

2–4, 8–9 February 1802 Petrel Bay, St Francis Island, Nuyts Archipelago, South Australia (Bay IV or 4, or Anchorage IV or 4, during the voyage)

Anchorage: about 32°30'S, 133°18'E, off N side of the island.

Shore work: traverse of the island (3.ii) — Flinders ashore a.m. 4.ii but claimed naturalists were deterred by oppressive heat, and neither Brown nor Good reports landing (the claim by Black (1957: 749) that Brown this day collected *Solanum hystrix* R.Br., Solanaceae, must be doubted; a Brown specimen of the plant in the BM(NH) herbarium, however, can reasonably be attributed to 'Anchorage V') — visit, according to Brown, for 'plants gathered sparingly when last here' (8.ii, Good only).

6–7 February 1802 St Peter Island, Nuyts Archipelago, South Australia (Anchorage V or 5 during the voyage; Burbidge (1956: 231), in error, sets Anchorage V as 'Off Franklin Isles', a place never visited from *Investigator* though some Brown plants, e.g. *Scaevola spinescens* R.Br., Goodeniaceae, Bennett 2573 in the BM(NH) herbarium, are assigned to it as collected from Anchorage V)

Anchorage: off N side Goat Island (32°18'S, 133°31'E), at its E end.

Shore work: in W and NW parts of St Peter Island on a day of summer heat during which Brown became separated from his companions/earlier in the day Bauer landed with Flinders on Goat Island (7.ii).

11–12 February 1802 Waldegrave Islands, South Australia (Anchorage VI or 6, also 'Island u', during the voyage; note error in Burbidge, 1956: 231)

Anchorage: off N side of the larger, more easterly, island (33°36'S, 134°48'E).

Shore work: walk along shore opposite ship and traverse across island (11.ii, chiefly a.m.).

12–14 February 1802 Flinders Island, South Australia (Anchorage VII or 7, also 'Island x', during the voyage; note error in Burbidge, 1956: 231)

Anchorage: in Flinders Bay, off NW shore of the island (33°43'S, 134°31'E).

Shore work: Good has 'traversed the greater part of this island'/Brown indicates a visit 'near the eastern extremity' and N part of the island (13.ii). In the Diary Brown reveals for the first time that he had here compiled a local plant list, 'Florula No VII'. It has not been traced.

20–22 February 1802 Thistle Island, South Australia (Anchorage VIII or 8 during the voyage; at first, Flinders seems to have termed it Uncertain Island)

Anchorage: near 34°56'S, 136°04'E, off NW corner of the island.

Shore work: in that part of island opposite the ship (21.ii, a.m.).

22–25 February 1802 Memory Cove, South Australia (Bay IX or 9 during the voyage but Flinders named it Memory Cove while there searching for a cutter lost 21.ii with eight lives; Brown was using the name by 3.iii.1802)

Anchorage: within the cove ($34^{\circ}58'S$, $135^{\circ}59'E$).

Shore work: along coast N from anchorage ≈ 3 km, mainly in search of survivors or wreckage (22.ii) — walk inland (W) ≈ 2 km to summit where Brown saw Port Lincoln to NW (23.ii) — over ground covered 22.ii (24.ii, Good only; Flinders this day confirmed Brown's sighting of inlet to NW).

23 February–6 March 1802 Port Lincoln, South Australia (Bay X or 10 during the voyage)

Anchorage 1 (25.ii): inside Surfleet Point ('Cape T₁') and roughly N of Stamford Hill ('Hill T').

Shore work: for an hour in evening (25.ii) — to summit Stamford Hill, $34^{\circ}47'S$, $135^{\circ}56'E$ (26.ii, a.m.).

Anchorage 2 (26.ii): at SW corner Port Lincoln Proper.

Shore work: walk with Flinders to Sleaford Mere ($34^{\circ}50'S$, $135^{\circ}44'E$), in search of fresh water (26.ii, p.m.) — along shore NW to North Side Hill (27.ii) — walk ≈ 2 km along shore E from anchorage (28.ii, Good only) — to shore of Sleaford Bay and circuit of Sleaford Mere (1.iii) — walk 'towards the bottom of North Side Hill (3.iii) — neighbourhood of anchorage (4.iii, Good only).

Anchorage 3 (5.iii): in entrance to Spalding Cove and off Engine Point ($34^{\circ}45'S$, $135^{\circ}59'E$).

Shore work: W side Cape Donington ('Cape T') peninsula, about Cape Colbert (5.iii, p.m.)

6–7 March 1802 Kirkby Island, Sir Joseph Banks Group, South Australia (Anchorage XI or 11, or 'Island κ_1 ', during the voyage)

Anchorage: off N side of Island ($34^{\circ}33'S$, $136^{\circ}13'E$).

Shore work: 'walkd over the greater part of the island', according to Brown (7.iii, a.m.). Brown mentioned a Florula in the Diary but deleted the passage.

9–13 March 1802 Head of Spencer Gulf, South Australia (Inlet or Bay XII, or 12, during the voyage)

Anchorage: off Red Cliff Point ($32^{\circ}30'S$, $138^{\circ}00'E$).

Shore work: excursion to summit of Mt Brown ('Mount X'), Brown and party spent the night on mountain after reaching the top near dusk, their servants (who had abandoned the climb) camped by Woolundunga Creek and were reunited next morning (10–11.iii). Brown's Florula for this venture has been preserved.

21–24 March, 1/2–7 April 1802 Kangaroo Island, South Australia (Anchorage XIII or 13 during the voyage, but also Kangaroo Island of both Flinders and Brown)

Anchorage 1 (21.iii): off N coast of island, between Hog Point (Kangaroo Head of Flinders) and present Kangaroo Head. Burbidge (1956: 231) errs with regard to which side of Nepean Bay; the place is east not west.

Shore work: walk ≈ 2 km W of landing place, 'keeping nearly the margin of the brush' (22.iii) — walk (Brown has 'about 3 miles') along coast (23.iii, Good but not Brown).

Anchorage 2 (1/2.iv): in the Eastern Cove of Nepean Bay, ≈ 3 km SW of present Kangaroo Head.

Shore work: walk along shore to SW according to Good whose stated direction makes more sense here than that (to E) given by Brown (2.iv) — exploration of Eastern Cove and Pelican Lagoon, with visit to Prospect Hill (also known as Mt Thisby, $35^{\circ}51'S$, $137^{\circ}45'E$), Brown with Flinders/a 'ramble through the woods' E from the anchorage, Good with Westall and Allen (4–5. iv).

27 March–1 April 1802 Gulf St Vincent, South Australia (Inlet or Bay XIV or 14 during the voyage)

Anchorage (29.iii): off Mangrove Point ($34^{\circ}16'S$, $138^{\circ}01'E$).

Shore work: to near head of gulf by cutter, then walk c4km NW to rising ground (30.iii, Brown with Flinders, not Good).

22–22 April 1802 King Island, Tasmania (Anchorage XV or 15 during the voyage)

Anchorage (23.iv): off Boulder Point ($39^{\circ}38'S$, $144^{\circ}03'E$), on N coast of the island.

Shore work: about one hour (Brown) or from soon after 3 p.m. until dusk according to Flinders (23.iv, Brown with Flinders and Westall) — walk 'over the first rising ground behind the sand hills' to a freshwater lake (24.iv, a.m.).

26 April–3 May 1802 Port Phillip, Victoria (Bay or Port XVI, or 16, during the voyage; here Brown's 'South Coast' series of localities ends)

Anchorages: various off N shore of tip of Mornington Peninsula.

Shore work: by boat and foot to summit of Arthurs Seat, Brown with Flinders and Westall/walk SW from about present Sorrento to shore of Bass Strait, Good with Bauer and Allen (27.iv) — from a landing between present Rosebud and Rye, reconnaissance across Mornington Peninsula just W of ridge from Arthurs Seat to Cape Schanck (29–30.iv, Good, Westall and Bell) — vicinity of landing place 29.iv (1.v, Bauer only) — walk (a.m.) across W end of Mornington Peninsula from a landing near modern Portsea and (p.m.) visit by boat to vicinity of present Queenscliff and Swan Bay (2.v, Brown but not Good).

9 May–22 July 1802 Port Jackson (Sydney), New South Wales

Anchorage: in Sydney Cove.

Shore work: in vicinity of the town, Sydney (10.v, Good) — the same (11.v, Brown and Good with Leschenault de la Tour (Vallance, 1986: 179)) — establishing a workplace in lodgings (12–13.v, Good at least) — collecting about Sydney (14–21.v, Good at least) — seed collection brought ashore and prepared for despatch (21–25.v, Good) — collecting about Sydney (26–29.v, Good at least) — walk to Hawkesbury River and back, Windsor (Green Hills) and Richmond Hill, overnight stops en route at Old Toongabbie (Constitution Hill) (30.v–3.vi, Good; Brown wrote letters in Sydney 30.v) — collecting about Sydney (4–16.vi, Good at least), Brown, Bauer, Westall, Good and probably Allen walk to Parramatta (17.vi) — Brown's party visits North Rocks (Jerusalem Rocks) with George Caley (18.vi) — party walks from Parramatta to Castle Hill and back, again with Caley (19.vi) — Brown's party to the Hawkesbury at Green Hills (20.vi) — visit to Cornwallis Farm and vicinity (21.vi) — up river by boat to Richmond Hill, then to just above junction with Grose River and a walk towards Grose Head South, late return to Green Hills (22.vi) — down Hawkesbury by boat c23km to Portland Head and back (23.vi) — return from Green Hills to Parramatta (24.vi) — Parramatta to Sydney (25.vi) — 'securing former collections' and short walks about Sydney (26.vi–2.vii, Good at least) — visit to Botany Bay, Cooks River and thereabouts (3.vii) — walks to South Head and vicinity (4–12.vii, Good at least) — preparing for next stage of voyage and storing collections to be left behind (13–20.vii). On 21 July *Investigator* sailed out of Sydney Cove with *Lady Nelson* and anchored off Bradleys Head in readiness for departure from Port Jackson next day.

29 July–1 August 1802 Hervey Bay, Sandy Cape (Fraser Island), Queensland (The bay and cape were named by James Cook from his survey in 1770; Brown's East Coast series begins here and extends to Torres Strait)

Anchorage: in Hervey Bay, c6km NW of present Sandy Cape Lighthouse ($24^{\circ}44'S$, $153^{\circ}13'E$).

Shore work: in vicinity of landing place 'near the Easternmost extremity of the sand patch', presumably then the shore almost due N of the lighthouse site (30.vii, p.m.) — from a landing place somewhat NE of that used 30.vii, Brown and party went SW past the sand patch before striking inland to SE a short way ('our very limited time not allowing us to take a more extensive walk') and returning to the boat in early afternoon (31.vii, mainly a.m.). Brown's local plant list remains.

5–9 August 1802 Port Curtis, Queensland (East Coast Port I or 1 during the voyage)

Anchorage: off the entrance to Port Curtis, between Curtis and Facing islands.

Shore work: a walk across the SE point (present Southend, 23°46'S, 151°19'E) of Curtis Island interrupted by a skirmish with aborigines in which, according to Brown, 'they seemd to have much the advantage of us in point of bravery & also in conduct' (5.viii, p.m.) — walk N towards Connor Bluff from Southend, mainly behind the beach (6.viii) — visits to Facing Island (7, 8.viii, Good and others but not Brown). The plant list 'East Coast Port I Aug^t 5 — 1802' remains, as does one of eight rock specimens collected here.

9–17 August 1802 Keppel Bay, Queensland (Named by James Cook)

Anchorage: off Dinky Point (22°30'S, 150°58'E), at NW corner of Curtis Island.

Shore work: in vicinity of Dinky Point (9.viii, p.m.) — about Sea Hill, 2km E of the point (10.viii) — Dinky Point (11.viii, a.m.?, Good but not Brown) — in whale-boat to explore The Narrows (an effort which fixed the character of Curtis Island), night at what is now Ramsay Crossing (12–13.viii, Flinders with Brown; meanwhile, Good, Westall and Allen walked to Cape Keppel 12.viii) — Brown and party (not including Good) went 'towards' Cape Keppel (14.viii) — Brown, Bauer and Good by boat to South Hill (23°35'S, 150°57'E), Connor Creek (15.viii) — friendly interview with aborigines on beach opposite the ship (16.viii). No plant list for Keppel Bay has been found and only one of four rock specimens remains.

21–24 August 1802 Port Clinton, Queensland (East Coast Port II or 2 during the voyage; Flinders in 1814 termed it Port Bowen)

Anchorage: within Port Clinton, c1km SW of Entrance Island.

Shore work: walk to a summit (near 22°28'S, 150°45'E) c1km NW of the mouth of Flinders Watering Gully, just inside North East Point, the N (mainland) head of Port Clinton (21.viii, p.m.) — walk to a higher summit (c2.5km NW of North East Point), down its NE side 'to a small sandy beach' and return 'across the hill climb'd yesterday' (22.viii) — visit to Entrance Island (23.viii, Brown with Flinders, not Good). No list of plants from here has been noticed but one of five rock specimens in Brown's catalogue is preserved.

25 August 1802 Clara Group, Hervey Islands, Queensland (Brown refers to the locality as 'Harveys Islands')

Anchorage: off N side of the northernmost group (Clara Group, 22°20'S, 150°43'E) of the Hervey Islands.

Shore work: a brief visit only to the middle, and largest, of the Clara Group (25.viii, Flinders with Brown but presumably not Good).

26–28 August 1802 Strong Tide Passage, Queensland

Anchorage 1 (26.viii): in NE entrance to the passage, c1.5km W of Reef Point.

Shore work: after landing on mainland beach opposite the ship, a walk c5km SSE to the summit of 'the highest hill' (22°22'S, 150°35'E), which Flinders was to name Mt Westall, and return (26.viii). Brown refers to the locality as 'Shoal Bay Passage'.

Anchorage 2 (27.viii): at SW entrance to the passage, and off (WNW of) Triangular Island.

Shore work: near S extremity of Townshend Island (28.viii). Brown terms the place 'Cape Townshend Island'.

29 August–4 September 1802 Shoalwater Bay, Queensland (Shoal Bay of Brown)

Anchorage 1 (29.viii): well out in the bay, c8km roughly W of Triangular Island and some 10km from the S shore.

Shore work: from a landing near Sabina Point (22°24' S, 150°18' E) on the S shore (after a long haul by boat) a walk SW ('3 miles') towards N end of Normanby Range, Rocky Creek discovered before return to ship (30.viii).

Anchorage 2 (2.ix): near S shore, roughly midway between Sabina Point and E end of Akens Island.

Shore work: walk from a landing place c4km W of Sabina Point on a WSW course to Pine Mountain ('Peakd Hill' of Brown), 22°26' S, 150°12' E, but being late off the mountain the party camped near junction of Charcoal and Ross creeks before returning to the beach next morning (3-4.ix).

5–8 September 1802 Thirsty Sound (eastern end), Queensland

Anchorage: in E entrance to the sound, c1km S of Pier Head (22°07' S, 150°02' E).

Shore work: on Pier Head, Bauer with Flinders/on mainland opposite, about Arthur Point, Good and others but probably not Brown (5.ix) — 'at the bottom of Pier head', Brown (6.ix). Among material assigned by Brown to 'Thirsty Sound, entrance' is a specimen (BM 75792) in the rock catalogue as from 'Island B'. Flinders, with Westall, visited the place 6-7.ix and named it the 7th Northumberland Island (now, Tynemouth Island). It is not known if they also brought back plants for Brown. Brown's work about the W entrance to Thirsty Sound is noticed under *Broad Sound*, anchorage 4.

8–28 September 1802 Broad Sound, Queensland

Anchorage 1 (8.ix): in Broad Sound, c5km SE of West Hill Island (21°50' S, 149°29' E).

Shore work: on the island, then thought to be a promontory ('West Peakd Hill' of Brown), Brown claimed to have reached the top but Flinders found the brush 'too thick to be penetrable' (9.ix, a.m., Brown with Flinders, Bauer and Westall).

Anchorage 2 (10.ix): c2km WNW of Flock Pigeon Island (4th Flat Island of Flinders), 22°08' S, 149°35' E.

Shore work: Brown 'walkd from one end of the island to the other' in two hours (10.ix, Brown, with Flinders, Bauer, Westall and Bell). The place is noticed as 'Broad Sound Low Island' by Brown.

Anchorage 3 (12, 13, 25.ix): c1.5km off Upper Head (22°25' S, 149°49' E), near Charon Point on the SW shore of the sound.

Shore work: vicinity of Upper Head (12.ix) — in *Lady Nelson* and then whaleboat up the sound into Herbert Creek, from this on 15.ix a walk c5km SSW to The Brothers (22°41' S, 150°00' E) and back, return to Upper Head in whaleboat (14-17.ix, Brown with Flinders), meanwhile, a walk from Upper Head S towards Cliff Peak, night 14.ix spent near Bald Hills (perhaps also that of 15.ix on the return) (14-16.ix, Good with Bauer and Allen) — vicinity of Upper Head (18.ix, Good) — [move to anchorage 4] — walk from Upper Head to a 'very considerable rivulet' (then dry) draining from Cliff Peak to the Styx River, over country seen earlier by Good, Bauer and Allen (25-26.ix). The locality is 'Broad Sound — Upper head' in Brown's rock catalogue.

Anchorage 4 (20.ix): c1.5km W of Mangrove Islands, near SW entrance to Thirsty Sound.

Shore work: on 'a very small Island', now termed Bluff (22°16' S, 149°53' E) (20.ix) — on an island (22°17' S, 149°55' E) with red cliffs, at the opposite (mainland) side

of the sound (21.ix) — on another (cf 20.ix) of Mangrove Islands (a.m.) and then at Island Bluff (22°19' S, 149°55' E) (23.ix, perhaps not Good). Brown referred to these places as 'Broad Sound — inner entrance to Thirsty Sound'.

28 September–4 October 1802 Percy Isles, Northumberland Isles, Queensland (Northumberland Islands during the voyage, later Percy Isles of Flinders)

Anchorage (29.ix): off West Bay of Middle Island and roughly E of Pine Island (21°40' S, 150°13' E).

Shore work: about 2 hours on Pine Island, a.m. Brown/on Middle Island, p.m. Good (29.ix) — on Middle Island, walk to top of 'Pine Gully' behind West Bay (30.ix) — by boat to South Island, landed (probably at Rocky Shelf Bay) and climbed hill nearby, sailed round the island and back to ship, Brown with Flinders/on Middle Island with plant boxes for soil, Good (2.x) — visit to Pine Peak Island, Bauer with Flinders/final collecting visits to Middle Island (Good) and a.m. to Pine Island (Brown) (3.x). In the Diary and rock catalogue Brown refers to Pine Island as 'Small Pine Island'; the other 'Northumberland Islands' are there identified according to size, shape and/or position. When in 1814 Flinders distinguished this group as the Percy Isles, the present Middle Island was denoted (Island) No 2, South Island was No 1 and Pine Peak Island was No 3. Other members of the group were not visited in 1802.

5–14 October 1802 Great Barrier Reef, Queensland

Anchorage (9.x): 20°51' S, 151°04' E.

Landing: from boat on Rip (also Riptide) Cay or thereabouts to examine character of the reef (9.x, p.m., Brown with Flinders).

15–17 October 1802 Calder Island, Cumberland Isles, Queensland (Cumberland Island 1₂ of Flinders but 'Island 1' of Brown)

Anchorage (15.x): c2.5km NW of the island (20°46' S, 149°37' E).

Shore work: perhaps only in the NW part, Brown notes the vicinity of the steep cliffs was not examined (16.x, a.m.). On 15.x Flinders had set course for 'Island 1' (Scawfell Island, 20°52' S, 149°37' E) but tide carried the ship 'too far to leeward' causing him to fetch for the 'lesser island' 1₂.

29–30 October 1802 Murray Islands, Coral Sea

Anchorage: off N side of the largest (Maer) of the Murray Islands (09°56' S, 144°04' E).

Observations: there was no landing from the ship but natives came out to trade, Brown made notes on their physical features, vocabulary and produce (29, 30.x).

30 October 1802 Zuizin Island, Coral Sea ('Low Island d' during the voyage; Flinders later termed it Halfway Island, a name only recently displaced on maps)

Anchorage: W of the island (10°06' S, 143°19' E).

Shore work: 'walkd round the island' in about an hour (30.x, p.m., Brown with Flinders, Bauer and Westall). Brown's list of plants from this place forms part of the Diary manuscript. The locality is there given as 'Low Island' with 'Half way Island' added later; in the rock catalogue it appears as 'Torres' Strait Low Island d'.

2 November 1802 Goods Island, Torres Strait, Queensland ('Prince of Wales Island e' during the voyage; later, Good's Island of Flinders)

Anchorage: c2km NW of S end of the island (10°34' S, 142°09' E).

Shore work: 'ascended the hills abreast of the ship; Went down & walk'd along the beach on the other side about a mile & returnd', according to Brown (2.xi, a.m., Brown, Westall and Bell; p.m., Good, Flinders and Bauer). Brown's plant list for

'Prince of Wales' Islands Island e' forms part of his Diary manuscript; the same designation was used in the rock catalogue.

7 November 1802 Pennefather River, Cape York Peninsula, Queensland (Coen River of Flinders, and Brown)

Anchorage: c5km W of mouth of the river (12°14' S, 141°43' E).

Shore work: vicinity of two landing places on N shore of estuary c2km in from mouth on that side (7.xi, Brown with Flinders and Bauer). Brown's plant list for 'Gulf of Carpentaria River 3^d' ('Gulf of Carpentaria Coen River' in the rock catalogue) is part of the Diary manuscript. The name Coen River here arose from difficulty Flinders had interpreting results of earlier Dutch exploration. Brown misdates his visit.

16 November–1 December 1802 South Wellesley Islands, Gulf of Carpentaria, Queensland

Anchorage 1 (17.xi): c1.5km S of Sweers Island ('(Carpentaria) Island a' during the voyage).

Shore work: on Sweers Island which 'was travers'd in various directions' (17.xi) — on Bentinck Island ('Island b') (18.xi, Good and Allen).

Anchorage 2 (20.xi): c3km ESE of Allen Island ('Island c').

Shore work: on Allen Island, 17°02' S, 139°14' E (20.xi).

Anchorage 3 (21.xi, adjusted 23.xi): in Investigator Road (between Bentinck and Sweers islands), S of Raft Point (Bentinck Id) and N of Inscription Point (Sweers Id).

Shore work: on Bentinck Island (22.xi) — on Sweers Island, from near Inspection Hill (17°08' S, 139°37' E) to Inscription Point (24.xi) — Sweers Island, to NE part and return (25.xi, p.m., Good perhaps with Bauer) — as for 25.xi (27.xi) — Bentinck Island (28.xi, Good). Of this anchorage Brown remarks in the Diary: 'before we left it I had made out a Florula comprehending 180 species of perfect plants'; the document has not been located. While at Investigator Road Flinders had an inspection made of the ship. He learned from the report received 26.xi 'she may run six months longer without much risk' in fine weather and barring accident.

1–7 December 1802 Wellesley Islands, Gulf of Carpentaria, Queensland

Anchorage 1 (3.xii): off SE shore of larger Bountiful Island ('Island f' during the voyage).

Shore work: on the larger Bountiful Island, 16°40' S, 139°52' E (3.xii, p.m.) — the same, 'walkd over a considerable part of the Island' according to Brown (4.xii).

Anchorage 2 (6.xii): NNW of Pisonia Island ('Island e').

Shore work: at Pisonia Island (16°30' S, 139°48' E), 'walkd round the island & penetrated into it in several places' according to Brown (6.xii, p.m., Brown with Flinders, Westall and Bell).

13–28 December 1802 Sir Edward Pellew Group, Gulf of Carpentaria, Northern Territory

Anchorage 1 (14.xii): N of Three Hummock Point (15°38' S, 137°04' E), Vanderlin Island ('Island g' during the voyage).

Shore work: for less than an hour, near the point (15.xii, a.m., Brown with Flinders). The Florula for this and other places in the group of islands, mentioned by Brown in his Diary, has not been found.

Anchorage 2 (15.xii): S of Urquhart Islet (15°30' S, 136°57' E; ('Island h₂').

Shore work: on the islet (16.xii, a.m., Brown with Flinders).

Anchorage 3 (16, 22.xii): off Cabbage Tree Cove of North Island ('Island h') and in the channel between Red Bluff of that island and Observation Island ('Island h₃'; 15°37'S, 136°55'E).

Shore work: on North Island, about Red Bluff (16.xii, p.m.) — at Cabbage Tree Cove (17.xii, Good with Flinders) — on North Island a few hours, Brown a.m./walk on North Island to what seems vicinity of North Hill (15°33'S, 136°52'E), Good (18.xii) — [after return from anchorage 5] — an hour on Observation Island (22.xii, Brown) — walk across North Island to Macassar Bay (23.xii) — briefly (?) on North Island abreast of the ship (24.xii) — by yawl to Vanderlin Island and back, walk along shore of that island, probably about Denten Point (25.xii).

Anchorage 4 (19.xii): off (SW of) Wheatley Islet ('Island g₂'; 15°36'S, 136°59'E).

Shore work: in 'forenoon' on Wheatley Islet, then to W side Vanderlin Island for walk to Cape Vanderlin, 'Cape P' (19.xii, Brown with Flinders and others).

Anchorage 5 (20.xii): at E entrance to Centre Channel, between North and Centre islands, and N of the E point of Centre Island ('Island hh').

Shore work: about the S point of North Island (20.xii) — to Survey Bay (Centre Id), then to Craggy Islands and back through Centre Channel (21.xii, Good with Flinders) — [back to anchorage 3, 22.xii].

31 December 1802–1 January 1803 Maria Island, Gulf of Carpentaria, Northern Territory ([Carpentaria] 'Island l' during the voyage)

Anchorage (31.xii): off rocks at S side of Maria Island (14°54'S, 135°44'E).

Shore work: Good has 'ranged this island' but as he and Brown agree they were back on board before 9 a.m. the ranging must have been limited (1.i, a.m.). The 'Catalogue of Plants observd', mentioned in Brown's Diary, has not been found. Two of four rock samples taken are known.

4 January 1803 Malagayangu District, Arnhem Land, Northern Territory ('Mainland opposite Groote Eylandt' in Brown's rock catalogue)

Anchorage (4.i): about 13°52'S, 136°01'E.

Shore work: walk 'Southerly' from landing place, 'nearly parallel to the beach', to a lake (13°53'S, 135°59'E) between which and the beach an aboriginal burial site found (4.i). Brown remarks in the Diary he counted 'upwards of 200' plants in this neighbourhood, 'about 26' of which 'we had not before seen'. The plant catalogue to which he refers is unlocated.

5–17 January 1803 Groote Eylandt and vicinity, Gulf of Carpentaria, Northern Territory

Anchorage 1 (14.i): c4km NNE of Chasm Island (13°40'S, 136°35'E).

Shore work: on Chasm Island and a 'low Island opposite' (14.i, Brown with Flinders, Bauer and Westall). Brown claims he alone went to the 'low Island', perhaps the islet SE of Chasm Island.

Anchorage 2 (14.i): in Northwest Bay, c1.5km of Finch Island (13°43'S, 136°34'E).

Shore work: vicinity of the bluff head of Groote Eylandt E of Finch Island and on the plain to SE (15.i) — on Winchelsea Island ('Island p') (16.i, Good with Bauer and Allen).

18 January 1803 Bustard Island, Gulf of Carpentaria, Northern Territory ('Island q₁')

Anchorage (18.i): about 13°44'S, 136°24'E, off S point of the island.

Shore work: on Bustard Island (18.i, Brown with Flinders, Bauer and Westall). A party of men seeking turtle stayed on shore overnight. The catalogue of plants referred to by Brown in the Diary has not been found. Burbidge (1956: 233) omits Bustard Island from her list of collecting localities. Low Sandy Islet ('Island q'), which she includes, was not in fact visited by the naturalists.

19 January–1 February 1803 Blue Mud Bay, Arnhem Land, Northern Territory

Anchorage 1 (19.i): c2km S of Burney Island ($13^{\circ}35'S$, $136^{\circ}14'E$), 'Island r' during the voyage.

Shore work: on Burney Island 'about an hour & half' according to Brown (19.i, p.m.).

Anchorage 2 (20.i): c3km S of SE point of Morgans Island ($13^{\circ}28'S$, $136^{\circ}05'E$), 'Island s'.

Shore work: 'remaind about an hour & half' (Brown) on Morgans Island (20.i, p.m.) — walk across Morgans Island and return before a skirmish with aborigines (21.i). The body of a presumed victim of the previous day's affray was dissected 22.i, no doubt by Bell and Brown, on board ship which early that afternoon sailed further into Blue Mud Bay.

Anchorage 3 (26.i): off (W of) the mainland point Cape Shield ($13^{\circ}20'S$, $136^{\circ}20'E$), 'Point T' during the voyage.

Shore work: walk across Cape Shield peninsula to the gulf (E) side, then N to a freshwater lake ($13^{\circ}18'S$, $136^{\circ}21'E$) and return (26.i)

Anchorage 4 (27.i): about $13^{\circ}15'S$, $136^{\circ}08'E$, off the W shore of Point Blane peninsula, 'Point S' during the voyage.

Shore work: Brown and a sailor became disoriented during work on the peninsula, they had to sleep out and return next morning along shore round the point (27–28.i, Brown) — on Point Blane peninsula (28.i, Good and Allen). Although *Investigator* moved on next morning, adverse weather prevented her clearing Blue Mud Bay until 1.ii.

2–11 February 1803 Caledon Bay, Arnhem Land, Northern Territory ('Arnhem South Bay' of the log, 'Arnheim South Bay' of Brown)

Anchorage (3.ii): in Grays Bay, c3km NE of Middle Point ($12^{\circ}48'S$, $136^{\circ}33'E$).

Grays Bay is the name now given the N branch of Caledon Bay; it is separated from the Gulf of Carpentaria by a peninsula terminated to the S at Point Alexander ('Point U₂' of the log and supposed by Brown to be 'Cape Arnheim'). During the stay here Flinders had tents set up on the W shore of the peninsula, opposite his ship.

Shore work: on peninsula E of the ship a planned walk to sandhills c4km N of the landing place had to be abandoned, mangroves about Nanjiwoi Creek barred the way and aborigines walking with the party absconded with a hatchet and musket (4.ii, a.m.) — interview with aborigines at the tents from which Brown compiled lists of their names and words used for parts of the body and local plants, later in the day Brown took boat with Flinders and Westall to S shore of Caledon Bay/Good collected near the tents for his garden (5.ii) — Brown, Flinders and Westall set out early for the summit of Mount Caledon ('Point U₁'; $12^{\circ}54'S$, $136^{\circ}31'E$) and having climbed it returned to the ship/Good continued his work for the garden, staying near the tents (6.ii) — by boat to N shore of Grays Bay where work restricted by advancing aborigines and a skirmish (8.ii, Brown, Good, Westall and Allen) — by boat to Middle Point, there 2 hours (9.ii, a.m., Brown, Good and Allen) — briefly, on Dudley Island ('Island v₁'; $12^{\circ}53'S$, $136^{\circ}44'E$) as *Investigator* was leaving Caledon Bay (11.ii, a.m., Brown with Flinders and Bauer).

13–17 February 1803 Melville Bay, Arnhem Land, Northern Territory ('Arnhem North Bay' of the log, 'North Arnheim Bay' or 'Arnheim North Bay' of Brown)

Anchorage (13.ii): in Gove Harbour, c0.5km NW of Halftide Point.

Shore work: walk on N shore Gove Harbour (i.e. on Gove Peninsula), perhaps with Flinders to Dundas Point (13.ii, p.m.) — on island/peninsula forming E side of

Gove Harbour, walk from Halftide Point to Drimmie Hill (and probably Drimmie Head, $12^{\circ}14'S$, $136^{\circ}42'E$) and back, Brown and others/examination from boat of NE part of Gove Harbour (Inverell Bay), Drimmie Head peninsula and islands adjacent, Bauer with Flinders and Westall (14.ii) — N shore Gove Harbour, in evening (15.ii, p.m.) — by boat to Strath Island ($c1\text{km}$ S of Drimmie Head) where pyrolusite and *Sonneratia alba* Sm., Sonneratiaceae, found (the latter 'seen for the first time by me'), then to point $c3\text{km}$ E of Drimmie Head and back to ship, crossing at high tide the isthmus (now a causeway) joining Drimmie Head peninsula to the mainland (16.ii, Brown with Flinders and Bauer).

17–27 February 1803 The English Company's Islands, Northern Territory (Brown here followed the island notation of the log, prefacing localities on labels and in the rock catalogue with 'North Coast')

Anchorage 1 (17.ii): off S point of Cotton Island ('Island y_1 '; $11^{\circ}52'S$, $136^{\circ}28'E$) and E of Pobassoo Island ('Island y_2 '; $11^{\circ}55'S$, $136^{\circ}27'E$).

Shore work: E side Pobassoo Island, walk up gully to high ground and back to beach abreast of ship (18.ii) — on Pobassoo Island (19.ii, Good) — on Cotton Island, walk up valley draining SW part of island to hill at its head then back to beach opposite ship (20.ii) — on Pobassoo Island, 'crossd over to a valley I had not before seen', Brown/boat journey to NE point of Cotton Island, Bauer with Flinders and Westall (21.ii) — boat journey to Astell Island ('Island y_3 '; $11^{\circ}33'S$, $136^{\circ}25'E$) (22.ii, Good with Flinders) — on Pobassoo Island to plant coconuts and potatoes (23.ii, a.m., Good). It may be added that discrepancies at this anchorage between Good's record and those of Flinders (1814) and Brown are generally resolved in favour of Good. His account agrees better with that of the ship's log.

Anchorage 2 (23.ii): off NE point of Inglis Island ('Island z '; $12^{\circ}03'S$, $136^{\circ}12'E$) and S of Bosanquet Island ('Island z_4 '; $11^{\circ}57'S$, $136^{\circ}20'E$).

Shore work: on Inglis Island, at NE end, Brown and Good?/on Bosanquet Island or the small island between it and Inglis Island, Bauer (24.ii) — where Bauer had been the day before, in search of 'Guilandina Bonducella' (*Caesalpinia bonduc* (L.) Roxb., Leguminosae), Good a.m./and further search for the plant, in part successful, by Brown p.m. (25.ii) — on Bosanquet Island or its small neighbour (Good), though Brown claims it was Inglis Island (26.ii).

28 February–5 March 1803 Arnhem Bay, Arnhem Land, Northern Territory ('(North Coast) Bay No 3' of the log, and of Brown)

Anchorage 1 (28.ii): off S shore Mallison Island ('Island α '; $12^{\circ}11'S$, $136^{\circ}08'E$).

Shore work: on S side of Mallison Island (1.iii, a.m.).

Anchorage 2 (2.iii): off an island, then thought a peninsula ('Point Y_2 '; $12^{\circ}12'S$, $136^{\circ}19'E$), at W side of entrance to Burungbirinung River.

Shore work: on the island 'Point Y_2 ', Good p.m., a scorbutic ulcer on Brown's left foot prevented him from landing with Good/Flinders, with Bauer and Bell, began a boat survey of Arnhem Bay, they spent this night on a patch of beach among mangroves near $12^{\circ}18'S$, $136^{\circ}20'E$ (2.iii) — again on the island 'Point Y_2 ', Good and Allen a.m./boat party to Low Island ($12^{\circ}22'S$, $136^{\circ}10'E$) and S shore of bay near $12^{\circ}26'S$, $136^{\circ}09'E$ before returning to Low Island for the night (3.iii).

Anchorage 3 (4.iii): $c3\text{km}$ of Everett Island ('Island α_1 '; $12^{\circ}15'S$, $136^{\circ}03'E$).

Shore work: on Everett Island, Good and Allen p.m./boat party moved from Low Island to Hardy Island ('Island α_2 '; $12^{\circ}18'S$, $136^{\circ}03'E$) and then to a mainland point ('Point Y_3 '; $12^{\circ}24'S$, $136^{\circ}01'E$) before returning to ship at anchorage 3

(4.iii). Brown had been unable to work ashore since the visit 1.iii to Mallison Island; Flinders returned from the boat survey similarly afflicted. It was time to leave the coast and seek fresh provisions at the nearest likely source, Timor.

12 March 1803 New Year Island, Northern Territory

Anchorage (12.iii): off New Year Island (10°55' S, 133°02' E).

Shore work: 'walkd nearly round the Island' in less than 3 hours (12.iii, Good). Good accompanied a party sent to seek turtle. Brown did not land; the locality appears in his rock catalogue as 'New Years Island North Coast' with attribution to Good.

31 March–8 April 1803 At Kupang, Timor

17–21 May 1803 Goose Island Bay, Archipelago of the Recherche, Western Australia (Previously visited 14–17 January 1802)

Anchorage (17.v): c1km E of Goose Island and c2km NE of the anchorage 14.i.1802.

Dysentery had spread in the ship since leaving Timor, where Flinders could obtain only fresh provisions. He hoped this place would supply him with geese for the sick, seals for lamp-oil and much-needed salt from the lake. The visit, marred by the first fatality from dysentery among the crew, was a disappointment.

Shore work: Brown and Good's records end 17.v, Good's for ever. Good had succumbed to dysentery and was incapable of work on shore. Scorbutic sores again affected the commander's mobility, as they had at Arnhem Bay over two months earlier. His record of the second visit to Goose Island Bay has nothing about Brown and his people. Yet something was done. There is, for instance, a specimen of *Gyrostemon ramulosum* Desf., Gyrostemonaceae, in the BM(NH) herbarium (Bennett 3044B) which was collected on Middle Island at this time. That Bauer botanical painting 123 (BM(NH) Botany Library) appears to relate to this sample suggests the artist was among those still able to work.

9 June–28 November 1803 Port Jackson/Sydney, New South Wales

Investigator came to anchor in Sydney Cove about noon 9.vi.1803. The days and weeks following were to see Brown's circumstances profoundly changed. He kept no Diary as a town-based naturalist, and without the careful recording of a Peter Good or the regularity of a ship's log it becomes a difficult business to follow Brown's activities. *The Sydney Gazette and New South Wales Advertiser*, begun 5 March 1803, is of help, so too are letters but most of the detail must come from labels to Bauer's paintings and, especially, from original slips with specimens in the BM(NH) herbarium. An incomplete index to dated and located items in the Brownian collection exists in the BM(NH) Botany Library but that has had to be supplemented by much extra searching in the herbarium by my colleagues in London. Most of Brown's labels bear at least a general locality, many also a date (some a day but more commonly just a month and year). Yet those labels must ever be interpreted with great care. Brown was not always careful with time and in places mistook direction. He also annexed, without acknowledgment, other collectors' material on occasion. The finding of a dated and localized label, assuming the detail is correct, brings no certain evidence that Brown (or Bauer) was at the place at the time. A digressionary example will illustrate.

Groves and Moore (1989: 86) refer, as their no 185 (Bennett 66), to an herbarium sheet for the fern *Adiantum hispidulum* Sw., supposedly gathered by Robert Brown in Australia. Three old labels accompany the sheet, one indicating 'Port Jackson with no date, the second 'North rocks 8 August 1802' and the third 'Dove Dale Feb 1804'. The first, of course, might be due to Brown but the lack of a date is no help. As to the other two, although Brown had visited North

Rocks 18.vi.1802 he was at Port Curtis with Flinders 8.viii.1802 and at the time of the Dove Dale collection he was at the Derwent or on his way there. Bauer certainly was somewhere about Sydney in February 1804 but the Dove Dale locality (now Bents Basin on the Nepean River) was a Caley collecting place. Indeed it is known Caley was there 18-19.ii.1804 (Caley, 1966: 104). Surely he would have recorded the fact if Bauer had gone with him, or had been there independently at the time. It seems likely to me the North Rocks and Dove Dale records are annexed from Caley. And that is the sort of problem one must keep in mind when following Brown by herbarium labels.

Activity: Peter Good died 12.vi and was buried in Sydney 13.vi — *Investigator* was officially condemned 14.vi — Flinders received the offer of *Porpoise* with a tender to complete his survey, the offer subject to inspection when *Porpoise* returned from a voyage now pending (16.vi) — *Porpoise* left for Tasmania, with Caley a passenger (17.vi) — *Porpoise* returned, driven back by storms (3.vii) — having decided she would not suit his survey, Flinders sought and was offered *Porpoise* to return to London there to seek a replacement for *Investigator*, he accepted the offer (11.vii) — Brown, Bauer and Allen now applied to stay in the colony for a time (13.vii) — permission was granted for them to stay until the return of Flinders or for 18 months from the day of his departure, whichever was the shorter (17.vii) — accordingly Flinders left provisions for them for the stated period and the governor gave them the use of a house in Sydney; the arrangements appear to have been completed before Brown wrote to Banks and to Charles Greville (6.viii) — *Porpoise* sailed for England, with Allen a passenger (10.viii) — evidence of collecting begins next day and continues at various localities about Sydney and between Sydney and Botany Bay (11-21.viii) — Sydney and Parramatta (21-24.viii) — an orchid, Sydney (27.viii, Bauer) — Sydney, South Head and between (28-31.viii) — Sydney and between Sydney and Botany Bay (1-8.ix) — various specimens from the Hawkesbury, Richmond Hill etc indicate an excursion (8-24.ix), perhaps by Bauer but not Brown who was in Sydney when Flinders returned (8.ix) with news of the *Porpoise* shipwreck and when he sailed again (20.ix) with the relief ships, further, Brown wrote to Banks and Greville again (16.ix) and that day collected at Bennelong Point — an orchid, Bauer (25.ix) could be a sign of return to Sydney — between 'Port Jackson' and South Head (26.ix) — between Sydney and Georges River, there, and between Georges River and Sydney (28.ix-4.x) — orchids, Georges River (29.ix, 4.x) point to Bauer and a collection Parramatta (4.x) might be Brown apart, or Caley — Sydney and South Head (5-8.x) — near Sydney (11.x) — Parramatta, North Brush, Brush Farm (11-12.x) — Sydney (13-14.x) — between Sydney and Botany Bay (16.x) — Prospect Hill, Cowpastures, Mt Hunter (18?-24.x, probably Brown with Caley though Caley (1966: 228) has visit with Brown 'November') — Cooks River (20.x) implies Bauer apart — Parramatta (24.x) might be Brown returning from the Cowpastures, Port Jackson (24.x) seems more likely Bauer — *Resource* returned from Wreck Reef (27.x), *Francis* with seeds salvaged from the wrecked *Porpoise* came in (30.x) — collecting at Brickfields, Sydney (28.x) — Cooks River, Botany Bay etc (29.x-1.xi) and Sydney to Parramatta, Nepean and Grose Rivers coincide exactly in time, implying separate activity — likewise Sydney and South Head (2-5.xi) overlaps Parramatta, Lane Cove, Hawkesbury, Richmond Hill, Nepean and Grose Rivers and Badgery's Farm (4-21.xi) but as Bauer painting 172 depicts an orchid from 'the banks of the lake on the way from Sydney to Botany Bay Nov 12 1803' it seems more likely Brown went to the Hawkesbury this time — between Port Jackson and Botany Bay and

between Sydney and South Head dated the same day likewise suggest separate activity (23.xi) — news reached Sydney 24.xi of the arrival at Port Phillip of David Collins [1756-1810] with people to form a settlement there, the governor, P. G. King [1758-1808], then decided to send despatches to Collins by *Lady Nelson* and permitted Brown to accompany her — *Lady Nelson* sailed for Port Phillip 28.xi, with Brown a passenger and no doubt expecting no more than a brief visit to a place seen iv-v.1802. Bauer remained in Sydney. Brown resumed his Diary 28.xi.1803 but dated it 1804, a lapse which has misled many, among them Mabberley (1985: 121).

12-31 December 1803 Kent Group, Bass Strait, Tasmania ('Kent's Group' or 'Kent's Islands' of Brown) *Lady Nelson*, bound for Port Phillip, had been forced to seek shelter there from gales.

Anchorage (12, 27.xii, and others between from which it is not known when, or even if, there were landings): in East Cove of Deal Island ($32^{\circ}29'S$, $147^{\circ}21'E$).

Shore work: Brown's plant labels, variously inscribed 'Decr 12-19 1803' and 'Decr 12-19 1804', suggest an early start but it seems unlikely he landed 12.xii as the ship came in late — 'walked over a considerable part of the Eastern Island' (i.e. Deal Id) on 13.xii and 14.xii, a.m. — attempts to get clear of the islands (14, 15, 20, 24.xii) failed, each time *Lady Nelson* being forced back to East Cove where she was storm-bound 17, 18, 19, 23.xii and from 27.xii — on 28.xii *Francis*, seeking shelter on a run from Port Phillip to Port Dalrymple, joined *Lady Nelson* in East Cove — *Francis* being in a 'crazy' condition it was resolved her mission to seek an alternative site for the people at Port Phillip to settle be transferred to *Lady Nelson* — His Majesty's mineralogist A. W. H. Humphrey, with others, thus came to join Brown as passengers on *Lady Nelson* and begin an occasional association with Brown in the field — Humphrey and Brown apparently worked together 29-30.xii, in that time climbing Flag Hill behind East Cove; both collected rocks and minerals (now lost). In notes headed 'Mineralogy' (Vallance and Moore, 1982: 32) Brown refers to rocks of 'Both Islands', which suggests a visit to Erith or Dover Island, facing East Cove. *Francis* left 30.xii for Port Jackson with letters from Brown, that to Banks is known. *Lady Nelson*, with Brown and her new passengers, departed 31.xii for Port Dalrymple.

1-19 January 1804 Port Dalrymple and River Tamar, Tasmania ('Port Dalrymple, Van Diemens Land' of Brown)

Anchorage 1 (1.i): about $41^{\circ}04'S$, $146^{\circ}48'E$, off Lagoon Beach, on E side of entrance to Port Dalrymple.

Shore work: according to Humphrey, Brown 'stopped in a Valley attracted by some Plants' while he and their companions walked on towards Outer (now York) Cove ($41^{\circ}07'S$, $146^{\circ}49'E$) (1.i) — Brown walked to Low Head ($41^{\circ}03'S$, $146^{\circ}47'E$) and then to York Cove and back (2.i).

Anchorage 2 (3.i): in York Cove.

Shore work: 'walkd a little into the country' about 2 hours, from York Cove, Brown (3.i) — 'walkd to the nearest hills' (probably The Buffalo, $41^{\circ}05'S$, $146^{\circ}50'E$), again met aborigines, as some had 1.i (4.i) — walked up creek draining from NE into York Cove (5.i, a.m.).

Anchorage 3 (5.i): off Inspection Head ($41^{\circ}09'S$, $146^{\circ}49'E$), at the entrance to West Arm ('Western Arm' of Brown) of Port Dalrymple.

Shore work: 'walkd about half a mile into the country', Brown (5.i, p.m.) — probably by boat to head of West Arm then walk W to Flowers Hill ($41^{\circ}10'S$, $146^{\circ}42'E$) and back (6.i).

Anchorage 4 (7.i): '¾ mile above Middle Island' (41°09'S, 146°52'E).

Shore work: landed.

Anchorage 5 (7.i): off Egg Island (41°14'S, 146°58'E).

Shore work: landed.

Anchorage 6 (7.i): off Nelsons Shoal (41°20'S, 147°02'E).

Shore work: in evening landed and walked a little way up a creek, perhaps Muddy Creek on W side of the river (7.i, p.m.) — by boat in search of water, landed and dug without success (8.i, a.m.)

Anchorage 7 (8.i): above Upper (now Tamar) Island, near 'where the river becomes narrower' (the river was named the Tamar later in 1804).

Shore work: Brown stayed on board but two others went up river by boat, discovering the junction of North and South Esk rivers and, importantly for them, fresh water (9.i) — Brown and Humphrey visited the river junction (site of present Launceston) and entered the gorge of South Esk River (Cataract Gorge) (10.i).

Anchorage 8 (11.i): near anchorage 6 (Humphrey called the place Shoal Bay).

Shore work: landed in evening, Brown (11.i, p.m.) — a wooding party landed (12.i, a.m.).

Anchorage 9 (12.i): near anchorage 5.

Shore work: Brown landed 'for a few minutes' in the evening (12.i, p.m.) — landed at mouth of Supply River, water casks filled while Brown took a short walk on its banks and Humphrey carved his initials on an outcrop of dolerite (13.i).

Anchorage 10 (14.i): near anchorage 4.

Shore work: 'walkd over part of the flat country behind Middle Island', that is the country behind Bell Bay, Brown (14.i, p.m.).

Anchorage 11 (15.i): 'between Green Island & Middle rock', at the mouth of York Cove; later, nearer anchorage 2.

Shore work: Brown and others sought to interview aborigines on E shore but they retreated when the boat approached, a landing on Middle Rock on the way back to the ship (15.i).

Anchorage 12 (18.i): near anchorage 1.

Activity: neither Brown nor Humphrey appears to have landed after 15.i but William Collins [1760?-1819] completed his survey, visiting the opposite shore.

Lady Nelson sailed for Port Phillip early 19.i.

21-30 January 1804 Port Phillip, Victoria

Anchorage (21.i): in Sullivan Cove, off present Sorrento where David Collins had set up his camp.

Shore work: Brown had been here before (26.iv-3.v.1802) and left few notes of this visit — according to Humphrey, he and Brown went to Arthurs Seat, camping at its foot (24-25.i). *Lady Nelson*, with Brown still a passenger, sailed 30.i for the River Derwent, Tasmania, where Collins had decided to shift his settlement. Humphrey left the same day on *Ocean* for the same destination.

9 February-9 August 1804 River Derwent, Tasmania ('River Derwent, Van Diemens Land' of Brown)

Anchorages (*Lady Nelson*, 9.ii; *Ocean* 15.ii): Risdon Cove (42°49'S, 147°19'E). In what turned out to be a protracted stay, Brown lived on *Lady Nelson*, first at Risdon Cove and then at Sullivan Cove (Hobart) until near the end of the month when the vessel was being prepared for departure for Sydney. Brown plainly had found sufficient of interest and was not tempted to leave yet. He therefore moved on board *Ocean* at Sullivan Cove until she had to leave for Port Phillip (24.iii). Brown then left Sullivan Cove for a house at Risdon and this served for the remainder of his time at the Derwent.

Activity: collecting at Risdon Cove (11.i) — and at Herdsmans Cove (12.i) — ascent of Table Mountain (now Mt Wellington), the first night spent 'a little below the summit' (18-20?.ii, Brown but not Humphrey) — ascent of Mount Wellington (27-28?.ii, Brown) — collecting 'Derwent River' (29.ii) — Brown, Humphrey, chaplain Knopwood and John Mertho (in command of *Ocean*), joined at Risdon by surgeon Jacob Mountgarrett [1773?-1828], set out 5.iii on a boat journey up the Derwent, the first night spent about Granton, on 6.iii they reached the rapids near Lawitta (3km above New Norfolk), Humphrey and Mountgarrett then turned back but Brown and others stayed this and the next night, according to Knopwood on 7.iii Brown 'went up the mountains a-botanizing' while he and Mertho went 'a-shooting', they struck camp in bad weather 8.iii and returned to Sullivan Cove (5-8.iii) — Brown and Mertho had an interview with aborigines at Sullivan Cove (9.iii) — this time with Humphrey, Brown went to Mount Wellington, probably a late start, the night 12.iii spent in a hollow tree 'at the Foot of the Mount', then to the summit and back to the tree 13.iii, to the summit again and descent to the tree 14.iii, and return 15.iii to Sullivan Cove (12-15.iii) — on 27.iii Brown, Humphrey and Mountgarrett set out by boat from Risdon 'with 10 days provisions, to go to the head of the river' (Knopwood), reached the first rapid (cf 6.iii) that night and camped there, next day on foot to about present Clarendon, to the junction with the River Ouse by night 29.iii, then along Derwent to about junction with Black Bobs Rivulet by night 30.iii, next day the party seems to have left the Derwent and struck into country between the Nive and the River Dee (nearer the latter if Brown's directions are reliable), the return began 1.iv and by 4.iv they had reached the first rapid and by 5.iv were at Risdon (27.iii-5.iv) — Brown, Knopwood and Mountgarrett by boat from Risdon to Sullivan Cove and back (7-8?.iv) — on 20.iv, according to Knopwood, Brown returned to Sullivan Cove from a journey by which he had tried 'to get to the river Ewen [Huon], but could not', Brown himself left no record of this but where he went can be surmised, after crossing the summit of Mount Wellington he must have followed the stream (North West Bay River) which appears to drain towards the Huon but in fact turns back in a deep gorge off the mountain, once in the gorge Brown presumably had to follow where it led and arriving at North West Bay walked back (N) to the settlement (?-20.iv) — Brown tried again, setting out 2.v with Humphrey to spend the night again at the hollow tree (cf 12.iii), next day over Mount Wellington to camp just below the head of North West Bay River, on 4.v they avoided Brown's earlier mistake by leaving the river to cross the W ridge of the summit but spent an uncomfortable night on N slope of Mount Montagu, next day (5.v) down Montagu Creek to Mountain River which was followed to the Huon (7.v) and a night's camp about present Huonville, next day down the E side of the Huon to about Cradoc (43°07'S, 147°02'E) where a night's camp, next day went back upstream past the campsite 7.v to spend night 9.v about Ranelagh, then further upstream on 10.v to their limit about Glen Huon, after spending the night there they returned to the campsite near Cradoc from where, on 12.v, they crossed into the valley of Kellaways Creek (also Sandfly Rivulet) and followed it to about Peverata, on 13.v Brown and Humphrey went over Herringback (43°00'S, 147°08'E) to the head of either Cooke or Allen Rivulet, next day the rivulet (Brown's record leaves doubt as to which it was) was followed down and on 15.v they found it joined the North West Bay River and thus led to the bay, on 16.v Brown and Humphrey walked back from North West Bay to Sullivan Cove to end an extraordinary piece of early exploration in Tasmania (2-16.v) — Knopwood records Brown and

Mountgarrett went with him by boat from Risdon to 'Hobart Town Camp' (23.v) — Brown's next recorded journey was an attempt to cross the N part of the Mount Wellington summit area to Collins Bonnet and Trestle Mountain, he set out from Risdon 28.v with his servant (J. W. Porter) and some assistants crossing by boat to Prince of Wales Bay then walking up Humphrey Rivulet onto the mountain, next day as the climb continued Porter became ill and Brown left him with an assistant while he botanized, but on 30.v Porter was too ill to go on so Brown and the others brought him down to the river where fortunately a boat was passing, having seen Porter safely off Brown headed S for 'settlers rivulet' (New Town Rivulet) where he camped 30.v, next day he ascended Mount Wellington (probably by his 'usual' route from Sullivan Cove) but on reaching the summit he injured his foot, managing to get clear of the summit he spent an uncomfortable night (31.v) in 'a hut of boughs', Brown's record of the journey ends with him 1.vi barely able to stand, it is not known when he got down (28.v-?vi) — by 12.vi, however, he was out again, on a boat journey from Risdon with John Bowen [1780-1827] and Mountgarrett down the Derwent to D'Entrecasteaux Channel, the first night spent at 'McCluers' (now Barnes) Bay, North Bruny Island, a storm 13.vi restricted them to the bay and not until 15.vi did they manage to escape and move to Isthmus Bay, next day it was on to 'Henrietta Creek' (probably Garden Island Creek) not far inside the mouth of the Huon River, from there the party moved to Port Esperance ('Port de l'Esperance' of Brown) on 17.vi and next day one of the streams there (probably the Esperance River) was examined for an unstated distance by boat and on foot, the travellers returned to Risdon 20.vi at sunset (12-20.vi). Brown's Diary record of activity in Tasmania ends with that return. How he spent the 7 weeks until he sailed 9.viii on *Ocean* for Port Jackson is largely unknown. Knopwood saw him a few times more but he also mentions bad weather on nearly the half the days of July. Further, the ill-health which troubled Brown back in Sydney may well have begun at the Derwent. That and the weather could have kept him inside at Risdon compiling the *Florula Montis Tabularis* which forms part of the Diary.

24 August–11 October 1804 Port Jackson and Sydney, New South Wales

Anchorage (*Ocean* 24.viii): in Sydney Cove. It is presumed Brown returned to the house in Sydney provided for him and Bauer by Governor King before Flinders left in 1803.

Activity: Brown arrived to find Bauer had just sailed (21.viii) for Norfolk Island (and would not return until 11.iii.1805) — he had thus to continue working on his own, but from Sydney Caley was accessible and the few Diary entries made at this time refer to Caley, and Brown's ill-health — there is no evidence of collecting or other activity until 14.ix when Brown went to visit Caley — 'Walkd from Sydney to Parramatta' (14.ix) and there inspected Caley's collection, the subject of extensive notes in the Diary, on 15.ix walked and collected at Parramatta but most of the day spent with Caley, his orchids and material from the Hunter River — walked back to Sydney 16.ix, botanizing on the way — described plants (17.ix) but then Brown admits trouble: 'Indisposd loss of appetite, incapable of describing or observing' (18-20.ix) — despite this he managed to finish arranging his Tasmanian collection 'ready for packing' and on 19.ix showed it to Caley and William Paterson [1755-1810], lieutenant-governor and amateur botanist, who had called on him — more plant descriptions are dated 21.ix but there is no further sign of activity (apart, perhaps, from an undated plant list) until 9.x when he was preparing to sail by the colonial vessel *Resource* for the Hunter River. At the Derwent Brown had complained his access to boats depended on

chance. To avoid that difficulty at the Hunter (though Brown does not mention it) Governor King lent him a boat and this was taken with Brown when *Resource* sailed 11.x.

12 October–?18 November 1804 Hunter River, New South Wales ('Coal River' or 'Hunter's River' of Brown)

Anchorage (12.x): in the Hunter River, at Newcastle ('King's Town', 'Kingstown' or 'Kingston' of Brown).

Activity: a short walk about the town and visit to the coal mine, in the afternoon a walk towards 'Mangrove Creek' (part of Throsby Creek drainage) (13.x) — by boat 14.x with Charles Menzies [1783-1866], the commandant, to 'Ash Island' (later Moscheto Island but since destroyed by 'reclamation'), on the way back landed at 'Chapman's Island' (now lost to industry at Carrington) — walked in the neighbourhood of 'Kingston' (15.x) — left by boat 16.x to go up river, camped that night c3km below present Raymond Terrace — continued up river and 'stopt' for the night about a mile below the junction of Paterson's & William's Rivers' (in fact, respectively the Hunter and Paterson rivers) — on 18.x Brown continued up the Hunter (his Paterson) to between present Morpeth and Maitland, the course of the river then being far more winding than it is today — on up river to 'about two miles above mount Anna' (Comerfords Hill, 32°41'S, 151°34'E) and there slept (19.x) — up river to the base of 'Mount Elizabeth' (Mount Hudson, 32°38'S, 151°27'E), climbed it and spent the night nearby (20.x) — began return down river 21.x, spent night as on 18.x — returned to the settlement 23.x — in neighbourhood of 'Kingstown' (23-28.x) but 28.x again left in the boat with intention to 'examine the banks of Hunter's River' (modern Williams River) and this night camped as on 16.x — on up Williams River (Brown's 'Hunter's River') to just below present Clarence Town (29.x) — on 30.x Brown reached the navigable limit of the river and went only a short way further, probably not much beyond the junction with Boatfall Creek (about 32°34'S, 151°48'E), he had a visit from aborigines this evening — next day when preparing to return the aborigines again appeared and attempted to steal muskets, Brown and his servant received blows and one native was shot, perhaps fatally, the boat party retreated and spent night c4km below Clarence Town (31.x) — the next night was spent by the (present) Williams River 'about a mile & half above the commence[ment] of the cedar arm' (which Brown also knew as the 'Paterson's River' but is now the Hunter) — on 2.xi Brown's boat party followed the present Hunter to the junction with the modern Paterson River (his 'William's' or 'Williams') and then the latter to end the day between present Woodville and Paterson — continued up modern Paterson River to about townsite of Paterson (3.xi) — on 4.xi the party reached beyond Gostwyck (32°34'S, 151°36'E) and climbed 'a high round hill' (Mount Johnstone), with a description of the view Brown's Australian Diary ends. It is unclear when Brown returned to Newcastle; a plant labelled 'Hunter's River' and dated 7.xi suggests he was then still out. The first date on a sample from 'Kingstown' is 10.xi, so he was back by then. 'Ash Island' on 13.xi and 'near Kingstown' 16.xi complete the record. A collection 'vicinity of Sydney' on 28.xi fixes return to Sydney and the only arrival from Hunter River in the period was the colonial vessel *Bee* which came in 20.xi. It had to be Brown's conveyance.

20 November 1804–23 May 1805 Sydney, New South Wales

With his return from the Hunter River Brown's travels in Australia were virtually at an end. Thereafter he would only make occasional forays from Sydney in search of specimens, the longest being another visit to the Hawkesbury, roughly

24.xii-2.i. He or Caley might have contributed material from Middle Harbour dated 23.ii. By the time Brown and Bauer were reunited (11.iii) trouble lay ahead. Governor King was becoming increasingly caught up in what seemed a case of piracy which had spread into his jurisdiction. King grew anxious to refer the matter to London and as message-carrier his attention fell on *Investigator*, once a hulk but since cut-down and tested on a run to Norfolk Island and back (with Bauer). Brown's last months in Sydney were much occupied in debate with the governor who plainly wanted to see Brown, Bauer and their collections leave with the papers he was sending to London. In the end, Brown was totally out-manoeuvred. The governor had sweet answers to all Brown's protests about the likely risk to the collections at sea in a vessel he knew from experience to be leaky. But the original slip with Bennett 4597 in the BM(NH) herbarium, *Baeckea brevifolia* (Rudge) D. C., Myrtaceae, indicating collection 5.v.1805 between Sydney and South Head, shows there was still enthusiasm amidst the anxiety. It is not hard to guess, however, that anxiety was uppermost just over a fortnight later, on 23.v.1805, when Brown and Bauer saw Sydney and Port Jackson disappearing into the distance for the last time. They must have thought it was a pretty awful way to go. *The Sydney Gazette* noticed their departure, opining their collections 'will be very acceptable to the Amateurs of Natural History'. We rejoice there was more to them than that. But at least the *Gazette* did not hope those of the Northern Lands would simply be entertained.

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