

Furthermore,

the site on which many gentlemen have built their mansions is in some instances in as bad taste as the destruction of their trees.¹⁹⁸

Shepherd conceded that "some gentlemen may probably dislike our gum-trees", but he had "no dislike to them...they look as well as the old ornamental trees in an ancient English park".²⁰⁰ The Colonial Secretary, Alexander McLeay had not followed the traditional practice in the treatment of his 56-acre grant at Elizabeth Bay.²⁰¹ To Shepherd's delight, McLeay had

preserved his native trees and shrubs to extend his Landscape Gardening. From the first commencement he never suffered a tree of any kind to be destroyed, until he saw the distinct necessity of doing so... he...harmonised them with foreign trees...²⁰²

While arguments raged over the nature, function and administration of "the Government cabbage-garden",²⁰³ the Elizabeth Bay garden and the house built in its midst, became an acknowledged centre of botanical and other scientific work.²⁰⁴ Not only did McLeay import plants and seeds in great quantity²⁰⁵ from all over the world²⁰⁶, but also from

198 *ibid.*

200 *op.cit.*, p.79.

201 Gov. Darling promised the grant in Oct.1826 and it was confirmed in Oct.1831. Originally estimated at 54 acres, the grant was later found to be a little over 56 acres. Explaining his action, Darling stated that "Mr.McLeay's knowledge as a Horticulturist is likely to prove beneficial to the Colony". Darling to Huskisson, 26 Mar. 1828, *HRA*, XIV, p.42, also p.908. By 1827 McLeay had built "a gardener's cottage" and had begun to prepare the garden for his intended house. See letter of Eliza McLeay in *Proc.Linn.Soc.NSW*, 1920, p.584.

202 Shepherd : *Landscape Gardening*, p.88.

203 Allan Cunningham's derisive term for the Botanic Gardens in 1837. See Chapter V, p.470.

204 especially in entomology.

205 The register of "Plants received at Elizabeth Bay", c.1835-1843, recorded well over 500 species and varieties from Loddiges Nursery, Hackney; William Macarthur; Charles Sturt; James Backhouse; Allan Cunningham; W.S. Macleay and others. The seed-book for 1836-1853 contained 3,286 separate entries of seeds for the flower and kitchen gardens and for the orchard.

206 especially from England, India, China, the East Indies, South America, South Africa and the Pacific.

ELIZABETH BAY HOUSE



ELIZABETH BAY HOUSE, designed by John Verge for Alexander McLeay, and built 1835-1837. The home contained a library of 4,000 of the "best works on Theology, Biography, History, Botany, Medicine, Arts, Sciences, Mathematics, Education, and every branch of polite literature"¹⁹⁹, and even after McLeay was obliged to sell this, the house continued to be a mecca for visiting and resident scientists on account of the vast natural history collections and the fabulous garden of exotics and indigenous plants arranged around walks and terraces, streams and grottoes.



A NEGLECTED FRAGMENT of the once-renowned Macleay garden of 56 acres still surviving among buildings erected after the various sub-divisions of the original property.

Photos: L.G., 20 Aug. 1969.

various places within N.S.W. and the other Australian Colonies²⁰⁷. The few extant remnants of this once magnificent garden²⁰⁸, landscaped in the best romantic style, still enable one to appreciate something of the attraction it had for its many visitors.²⁰⁹

There is evidence that indigenous plants came into favour in other gardens. In the spring of 1842, the Faithfulls of Goulburn sowed Waratah seeds²¹⁰, and the Rev. G.E.W. Turner²¹¹ during his incumbency of Ryde, 1839-1869, grew native species in the rectory garden which he made famous.²¹² Other advocates of the cultivation of native plants included George Allen, whose garden at Toxteth Park, near Glebe Point, had Pittosporum and Callitris incorporated into border arrangements²¹³; William Macarthur who cultivated native orchids and other species at

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- 207 e.g. in Mar. 1837, Eriostemon, Bauera and Boronia plants were received from Wm. Macarthur. Proc. Linn. Soc. NSW, 1920, p. 587.
- 208 See photograph on p. 580.
- 209 These included Allan Cunningham (1830, 1831); Dr George Bennett (1832 and later); Lieut. Wm. H. Breton (1832); Annabella Innes (1834-1835); James Backhouse (1835); Joseph D. Hocker (1841-1842); Robert & Georgiana Lowe (1840s); Wm. Henry Harvey (1855); Novara scientists (1858); Thomas Henry Huxley (1847-1850); Dr Frederick M. Rayner, HMS Herald (1850s); Dr Wm. Stimson, USS Vincennes (1853-1854); Lieut.-Col. G.C. Mundy (1848); Roger Therry (between 1829-1859). There were scores of other visitors including the Macarthurs of Camden, and successive members of the Linnean Society, Museum Committee, etc.
- 210 Faithfull Papers, ANL, 1146/1.
- 211 See Chapter V, pp. 488, 499, 508-509, and this Chapter, pp. 680, 686-687.
- 212 See Horticultural Magazine, IV, 1867, pp. 41-43: Turner "made and planted the garden now so famous for the many fine specimens of trees and shrubs found there," including a Native Daphne, Eriostemon myoporoides, 5' in diameter, and a Silky Oak, Grevillea robusta "fifty feet in height, raised by Mr. Turner from seed." See also Ryde Church Paper, 1 Dec. 1920, p. 7. The last of Turner's Rectory garden was recently destroyed by the ironically named "Kirkby Gardens" development.
- 213 Horticultural Magazine, II, 1865, pp. 227-228

Camden Park by 1850²¹⁴; and James Norton²¹⁵, "an ardent horticulturist" who cultivated indigenous species at "Ecclesbourne", Woollahra, and who "spared and safeguarded the welfare of all the most attractive native plants" on his estate at Springwood, of which area he made a botanical census.²¹⁶

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- 214 The orchids included such epiphytic species as Bulbophyllum minutissimum, Cymbidium suave, Dendrobium aemulum, D. cucumerinum, D. linguiforme, D. speciosum, D. kingianum, D. tetragonum and Sarcochilus falcatus; terrestrial species such as the Hyacinth Orchid, Dipodium punctatum and Scrub 'Lily', Calanthe veratrifolia. Other plants included Gynea or Gigantic Lily, Doryanthes excelsa; Swamp Lily, Crinum pedunculatum; Darling Lily, C. flaccidum; Hoop Pine, Araucaria cunninghamii; Cypress Pines, Callitris spp.; Silky Oak, Grevillea robusta; Myall or Boree, Acacia pendula; Sunshine Wattle, A. botrycephala; Moreton Bay Fig, Ficus macrophylla. See W. Macarthur : Catalogue of Plants Cultivated at Camden, Syd., 1850.
- 215 James Norton, LL.D., M.L.C. (1824-1906), solicitor, was born in Sydney. In 1862 he succeeded to his father's law firm, and devoted much of his leisure to natural science. He was "one of a small band which included Professor W.J. Stephens, Mr. R.D. Fitzgerald (sic), Mr. Edwin Daintree (sic) and a few others" who met informally but regularly to study and compare their botanical and other discoveries. (Proc. Linn. Soc. NSW, 1907, p.6). Norton served as M.L.C., 1879-1906; postmaster-general, 1884-1885; and as a member of various trusts, including those of the Australian Museum, the Public Library and Hyde Park. He also had an interest in the history of botany--see his Presidential Address in Proc. Linn. Soc. NSW, 1900, pp.763-794. See also Proc. Roy. Soc. NSW, 1908, pp.115-116 and SMH, 20 July 1906. FitzGerald named an orchid discovered in the Blue Mountains by Norton, Adenochilus nortonii. Norton's other botanical friend, Edwin Daintrey (1814-1887) was also a solicitor, "a gentleman of highly cultivated literary tastes... He was an excellent Botanist, and took a lively interest in all branches of Natural History." (Prof. W.J. Stephens's Presidential Address, Proc. Linn. Soc. NSW, 1887, p.1089). See also SMH, 4 Oct. 1887. Bentham acknowledged a few of Daintrey's specimens in Flora Australiensis. See Appendix I. Richard Daintree (1831-1878) Government Geologist of North Queensland, 1869-1872, also collected for Mueller, and the two names were often confused.
- 216 Thomas Steel in Proc. Linn. Soc. NSW, 1907, p.6.

By the 1880s it was appreciated that

for a long time the wild flowers of the country were neglected, but now in some places shows are exclusively devoted to them. The dictum of Mr. A.A. Wallace is not to be lightly challenged, and it is that 'no country in the world affords a greater variety of lovely flowers than Australia, nor more interesting forms of vegetable life.'²¹⁷

The time was to come when over-enthusiastic appreciation combined with economic considerations and the allure of forbidden fruit caused legislation to be passed to protect the most favoured species from extinction.

Whether or not the owners of fine gardens planted indigenous species, there soon arose the opportunity for nurserymen to establish promising businesses to meet the local demand for seeds and seedlings which were otherwise obtainable only from English nurserymen, the Sydney Botanic Gardens or from fellow horticulturists. Just as Australian species had been prized by English nurserymen since the earliest days of settlement,²¹⁸ so were English and other exotic species in high demand in N.S.W. By 1804, Suttor's Nursery at Baulkham Hills was catering for horticulturists and orchardists²¹⁹, and other early nurserymen were operating on a modest scale.²²⁰ In February 1827,

217 Willoughby : Australian Pictures (1886), p.202. By the 1880s the annual Wild Flower Show at Manly was a well-established event. See for example, SMH, 4 Oct.1887.

218 See Thesis I, and such works as Conrad Loddiges & Sons : The Botanical Cabinet, Lond., Vols. I-XX, 1817-1833. Conrad Loddiges (d.1820) a native of Germany, established a nursery at Hackney about 1770. His son George (1784-1846) drew many of the plates for this work, which in 20 volumes dealt with no less than 220 N.S.W. species, or 11% of the total number described and illustrated. The other species were chiefly from the Cape, North and South America and the Far East.

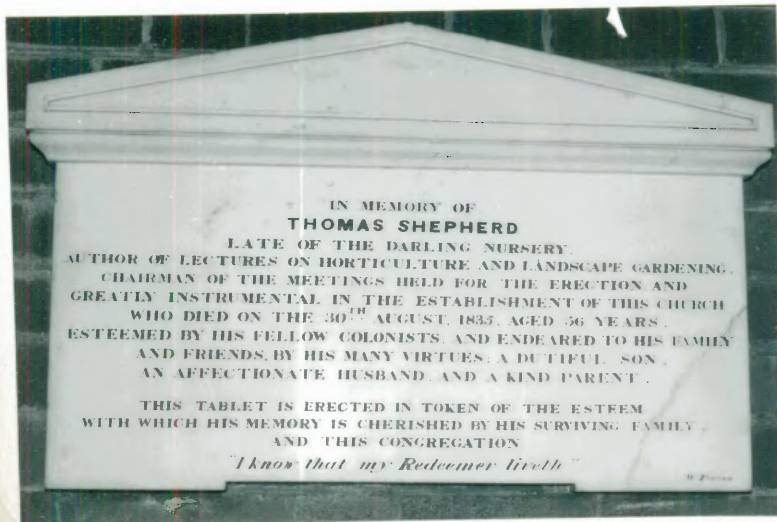
219 Syd.Gaz., 20 May 1804.

220 These included W. Furber of Kissing Point (Syd.Gaz., 24 Mar.1805 and May 1805, passim) and Nicholas Divine of Bullanaming (near Newtown) (Syd.Gaz., 5 June 1805). For N. Divine (1738?-1830) see Chapter V, pp.438-439, and Aust.Dict.Biog., 1, pp.308-309. For a brief and often inaccurate account of some early nurserymen, see H.J. Rumsey : "The History of the Seed and Nursery Trade of New South Wales", in The Seed and Nursery Trader, Syd.& Melb., 20 Dec.1934.

MEMORIALS TO THOMAS SHEPHERD

GRAVESTONE of Thomas Shepherd (1779-1835), pioneer nurseryman, landscape gardener and one of the earliest advocates of the preservation of native trees. Like many other botanists, Shepherd was buried in the old Devonshire Cemetery whence monuments and remains were moved to La Perouse in 1901.

Photo.: L.G.,
18 Aug., 1969.



MEMORIAL PLAQUE in St. Andrew's Presbyterian Church, Rose Bay, originally erected in St. Andrew's Scots Church, Sydney.

Photo.: L.G.,
20 Aug., 1969.

Thomas Shepherd²²¹ who had been a nurseryman at Hackney near London for twenty years, arrived in Sydney, with, in his own words, "no idea that a nursery would answer, were I to establish a business in that profession here".²²²

Governor Darling thought otherwise,

for a nursery was much wanted in the Colony, and if trees were sold at a moderate price, it was likely that I should meet with great encouragement.²²³

Shepherd

accordingly undertook to establish a nursery if His Excellency were pleased to give...a grant of a suitable piece of land.²²⁴

The result was the establishment in 1827 of the Darling Nursery which the Governor visited on several occasions.²²⁵ Shepherd endeavoured to excite a better style of laying out grounds...and to encourage the thinning out, but not the total destruction of the native trees...²²⁶

and so he was one of the first advocates of the conservation of trees for their own sake.

221 Thomas Shepherd (1779-1835) was born at Kembach, Fifeshire, the son of the head gardener to the Earls of Crawford and Lindesay. Leaving Scotland, Thomas ultimately owned an extensive nursery at Hackney. In Sydney he won considerable fame, not only for his nursery, but also for his lectures on horticulture and landscape gardening. He died on 30 August 1835 with many of his lectures written, but undelivered. Alexander McLeay and Edward Deas Thomson were among the mourners at the funeral in the old Devonshire Street Cemetery, Sydney, on 2 Sept. 1835. In 1901 his remains and monument were moved to La Perouse. See photographs on p.584. See also SMH, 10 Sept. 1835 and Proc. Roy. Soc. NSW, 1908, p.118.

222 T. Shepherd : Landscape Gardening, p.60.

223 ibid.

224 ibid.

225 op.cit., p.61. The nursery was situated near the site of the subsequent Blackfriars Public School, with a frontage to Newtown Road, where the Shepherd house stood.

226 SMH, 10 Sept. 1835.

After Thomas Shepherd's death in 1835, the Darling Nursery was capably managed by his sons, Thomas William Shepherd²²⁷, whose botanical collections were acknowledged by Bentham²²⁸, and Patrick Lindesay Crawford Shepherd²²⁹.

The Shepherds were keen advocates of the preservation and cultivation of native plants, and by 1851, when the Darling Nursery had "upwards of 2500 species and varieties" in stock, a wide range of N.S.W. species was included.²³⁰ Indigenous plants were not catalogued

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- 227 T.W. Shepherd (1824-1884) was an active member of the Horticultural Improvement Society of N.S.W. and of the Australian Horticultural and Agricultural Society which succeeded it in 1856. His papers on "Native Plants, and the Pastoral, Agricultural, and Horticultural Resources of Australia" and "Hybridization of Plants" were published in the Sydney Magazine of Science and Art, 1857-1859. He became agricultural editor of the Town and Country Journal. Shepherd died at "Fernbank", Arthur Street, Ashfield on 27 Aug. 1884 and was buried in the Presbyterian Cemetery, Rookwood. See Proc. Roy. Soc. NSW, 1908, p.119 and SMH, 29 Aug. 1884.
- 228 Bentham acknowledged T.W. Shepherd's Illawarra specimens over 50 times in Flora Australiensis. See Appendix I.
- 229 P.L.C. Shepherd, M.L.C. (1831-1903) overlanded cattle to South Australia when he was 18, and "assisted his father for many years...at the Darling Nursery...and...became the first practical seedsman of Sydney". In 1854 he assisted Charles Moore to collect timber specimens for the Paris Exhibition. Shepherd was M.L.A. for Nepean, 1874-1877 and M.L.C., 1888-1903. He took a keen interest in St. Barnabas's Church, Broadway, in the Horticultural Society and in the Volunteer Artillery. He died at Burwood on 31 July 1903, his funeral service being conducted at St. Luke's Concord, by Rev. W.H.H. Yarrington, a clergyman with botanical interests. See Proc. Roy. Soc. NSW, 1908, p.119 and SMH, 3 Aug. 1903.
- 230 especially ferns (e.g. Staghorn and Elkhorn, Platycerium grande and P. bifurcatum; Tree-ferns, Cyathea australis, Dicksonia antarctica and Todea barbara; Rasp Ferns, Doodia aspera, D. caudata; Maiden Hair, Adiantum formosum and A. hispidulum); Trees such as Red Cedar, Toona australis; Silky Oak, Grevillea robusta; various species of Banksia, Casuarina and Acacia; Moreton Bay Fig, Ficus macrophylla; Kurrajong, Brachychiton populneum, B. acerifolium and Hibiscus heterophyllus; Mock Orange, Pittosporum undulatum and P. revolutum; Christmas Bush, Ceratopetalum gummiferum; Black Wattle, Callicoma serratifolia; Brush Box, Tristania conferta; Blue Gum, E. saligna and Smooth-barked Apple, Angophora costata. Shrubs included Waratah, Telopea speciosissima, Waxflower, Eriostemon buxifolius; Honey Flower, Lambertia formosa; Bottlebrush, Callistemon salignus, C. rigidus, and various Needlebushes (Hakea) peas, etc. Climbers included Traveller's Joy, Clematis aristata; Sarsaparilla, Smilax glycyphylla; False Sarsaparilla, Hardenbergia violacea; Dumplings, Billardiera scandens; Wonga Vine, Pandorea pandorana. The smaller flowering plants included Black-eyed Susan, Tetratheca juncea, Fringed Violet, Thysanotus juncifolius; Flaxlilies, Dianella caerulea, D. laevis; Christmas Bells, Blandfordia nobilis and B. grandiflora; Mat-rushes, Lomandra longifolia and L. filiformis.

separately, but incorporated into the general list, "arranged on the Natural System as pointed out by Dr Lindley".²³¹

In May 1829, John Thomas Baptist, a native of Lisbon, arrived in Sydney.²³² Three years later he bought his first land at Surry Hills and successfully applied for a convict to be assigned to him.²³³ By 1866, Baptist and his sons had developed about thirty acres to such a

pitch of perfection as to be second to none in the colony...Perhaps a more complete establishment, whether in the Nursery or the Market garden line, cannot be found in the Southern Hemisphere, for the establishment is complete in everything.²³⁴

John Baptist's nursery, "about a quarter of a mile from the Sydney Railway Terminus", was still a showplace in the 1870s when nearly one hundred species of native N.S.W. plants were in stock.²³⁵ Clients included the Rev. W.B. Clarke, the Windeyers of Tomago, the Ogilvies of Yulgilbar, Governor Sir John Young, and the rival firm, Shepherd and Company.²³⁶ John Thomas Baptist died in 1873, but his son of the same name continued the business until about 1880 when Shepherds took it

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- 231 T.W. Shepherd : Catalogue of Plants cultivated at the Darling Nursery...Syd., 1851. The surprisingly varied list of cultivated native plants given above is from this catalogue.
- 232 J.T. Baptist (1804-1873) arrived as a steerage passenger with his wife and child in the barque Swiftsure on 8 May 1829. (Syd.Gaz., 12 May 1829). See also The Horticultural Guide and Standard Reference Book (Royal Hort.Soc.NSW) Syd., 1970, p.125.
- 233 NSW Gov.Desp.1835, ML.A1214, p.668. By 1844 Baptist was offering free immigrants three-month terms of employment on arrival. NSW Gov.Desp.1845, ML.A1234, pp.623,625,1141,1177.
- 234 Hort.Mag., III, 1866, p.155. Baptist apparently established a functional nursery in or about 1837. In 1875, R.D. FitzGerald named the terrestrial orchid, now known as the King of the Greenhoods, Pterostylis baptistii to commemorate the founder of the nursery.
- 235 See Catalogue of Trees, Shrubs, Fruit Trees, Bulbs &c., &c. for Sale by John Baptist & Son, 'The Gardens', Bourke St., Surry Hills... Syd., 1871, Native species included ferns, wattles, Waratah, Christmas Bush, etc.
- 236 Baptist Papers, ML. Uncat.MSS, Set 162, Box 2.

over.²³⁷ By 1884, Shepherds were advertising "500,000 ornamental trees, shrubs and plants" from Baptist's old site in Bourke Street.²³⁸

By developing stocks of indigenous species, such nurserymen effectively encouraged the recognition and appreciation of native plants, and advanced the cause of conservation through cultivation. By publishing accurate and well-arranged catalogues, they promoted knowledge of plant affinities through botanical names, the use of more precise nomenclature and sometimes information about geographical distribution as well.²³⁹

237 See billheads, etc. in Baptist Papers, ML. Uncat.MSS, Set 162 Box 9. By 1862, Shepherds had established a subsidiary nursery at Chatsworth, Eastern Creek, on 1300 acres, about two miles from Rooty Hill Railway Station. (Hort.Mag., III, 1866, pp.138-140 and Shepherd's Select List of Fruit Trees, Shrubs, Plants, &c...Syd., 1862).

238 advertisement in Sydney Directory for 1884.

239 By 1851, Michael Gufffoyle's Exotic Nursery at Double Bay, had in stock various species of Acacia, Eriostemon, Callistemon and Brachychiton, as well as Moreton Bay Fig, Hoop Pine, Silky Oak and Christmas Bush. By 1866, the indigenous stock had increased considerably to include Pittosporum, Waratah, Sarsaparilla, Wonga Vine, Sturt's Desert Pea, and even the Giant Stinging Tree, Dendrocide excelsa! Blackberry plants, Rubus vulgaris were available at 1/- each. In 1866, Francis Ferguson's Australian Nursery at Camden also had a wide range of native plants including Acacia ("seeds of all kinds"), Eriostemon, Brachychiton, Red Cedar, Moreton Bay Fig, Silky Oak, Waratah, Christmas Bush, Coachwood, Gynea or Gigantic Lily, Pittosporum, and Eucalyptus "many kinds, in pots". Note also Alexander Hunter's Camellia Grove Nursery, Liverpool Rd., Ashfield (in operation in the 1870s and 1880s, see Hunter MS., ML. DOC 123 and ML. Correspondence, 65/1961); Robert Henderson's Camellia Grove Nursery, Newtown. Henderson, "an old and respected colonist" had during 40 years superintended many gardens, including the Macleay garden at Elizabeth Bay, and the Darling Nursery "during the minority of the members of the firm of Shepherd and Co." before establishing his own nursery which became "one of the first and best gardens in New South Wales". (Hort.Mag., II, 1865, p.68). Henderson died on 18 Feb. 1865, aged 67 (SMH, 21 Feb. 1865); John Gelding, editor of the Horticultural Magazine in 1871, then ran the Victoria Nursery at Petersham. In Dec. 1867, Edward Pearson Ramsay established the Dobroyde New Plant Bursery, Ashfield, which apparently passed to Treseder and Bartlett by 1884. By 1889, John G. Treseder, a Cornish gardener, had established a nursery on the former Underwood property on Parramatta Rd., Ashfield. (SMH, 12 Oct. 1889). Other nurseries functioning in the 1860s and 1870s were those of T. Graham of the Markets and Lilydale and of Michael Magill of Bourke St., Surry Hills.

Competition among the colonial nurserymen, as among nurserymen everywhere, was keen²⁴⁰, and members or representatives of the various establishments combed the bush for plants likely to be viewed as horticultural novelties. Unfair competition from Government institutions was resisted, and it has been shown how nurserymen T.H. Shepherd and Michael Guilfoyle took Charles Moore to task.²⁴¹ Sometimes it was even suspected that horticultural zeal exceeded the bounds of gentlemanly conduct. In the spring of 1847, for example, William Carron²⁴² felt bound to defend himself in an indignant letter to William Sharp Macleay. Carron, who had come to N.S.W. in 1844, apparently with a shipment of plants for the Elizabeth Bay garden, was employed there for a time before joining Shepherd's Darling Nursery, but

having been informed that I have been accused of taking plants from your garden to Mr. Shepherd; I beg to assure you such accusation is false, that I did not take a seed or plant from the place, and that I did not know Mr. Shepherd until after I left your service; and hope you will give me an opportunity of explaining to you where we got the plants supposed to have come from your garden...²⁴³

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- 240 This competition among nurserymen did much to stimulate botanical exploration throughout the world, especially during the 18th and 19th centuries, and some nurserymen became extremely competent botanists. e.g. James Lee (of Lee and Kennedy's "Vineyard" Nursery, Hammersmith) who published his Introduction to Botany in 1760 and Rules for Collecting and Preserving Seeds from Botany Bay in 1787. (See Ronald Webber : The Early Horticulturists, Lond., 1968). In Nov. 1864, John Gould Veitch of Veitch's Nursery, visited Sydney and made some excursions before going to Queensland and Victoria, and in 1893 his son James Henry Veitch also visited N.S.W. (See Alice M. Coats : The Quest for Plants : a History of the Horticultural Explorers, Lond., 1969).
- 241 Chapter V, pp. 506 et seq.
- 242 For Wm. Carron (1821-1876) see Chapter III, p. 298; Chapter IV, pp. 393, 418, 420, 424, 425; Chapter V, p. 513. See also Proc. Roy. Soc. NSW, 1908, pp. 95-97 and L.A. Gilbert in JRAHS, 1961, pp. 292-311 and in Aust. Dict. Biog., 3, pp. 360-361.
- 243 Carron to W.S. Macleay, 2 Sept. 1847, Macarthur Papers : Misc. Letters : W.S. Macleay, 1815-1863, ML. A4304, p. 377.

Despite such personally painful incidents, it may be conceded that healthy horticultural jealousy must have influenced the dissemination of botanical knowledge! The horticulturists themselves finally devised the best means of satiating their professional curiosity. In 1862 they formed the Horticultural Society of N.S.W., with Thomas Sutcliffe Mort²⁴⁴ as foundation president. In 1864, the Society held its first Autumn Show at Mort's property, "Greenoaks", Darling Point.²⁴⁵ When Mort died in 1878, Patrick L.C. Shepherd became president.

The Society proclaimed that horticulture teaches forethought, industry, and economy of time; it exalts the mind, invigorates the frame, and constantly reminds of the great God, whose hand is imprinted upon every leaf, and who, in his bountiful providence, rewards us with the fruits of the earth.²⁴⁶

It should also be added that the Society's activities promulgated botanical knowledge and promoted botanical experiment, especially in the fields of propagation and hybridization.

The Society's short-lived journal²⁴⁷ reflected some interesting attitudes and trends where native plants were concerned. The general tendency was to provide information about traditional "garden" plants rather than about indigenous species. In 1865, it was cautiously suggested that the Illawarra Flame Tree, Brachychiton acerifolium, "though a native, should be planted freely in gardens"²⁴⁸ and a speaker

244 T.S. Mort (1816-1878) auctioneer, wool-broker, founder of Mort's Dock & Engineering Co. and pioneer exporter of frozen meat, had one of the finest gardens in Sydney at "Greenoaks" and a well-developed property, "Bodalla", Moruya.

245 Hort.Mag., I, 1864, p.54. It was planned to hold the Show in the Botanic Gardens, but admission could not be charged, so Mort offered his grounds for the function.

246 Hort.Mag., I, 1864, p.19.

247 The Horticultural Magazine, and Gardeners' and Amateurs' Calendar ...survived for only eight volumes, 1864-1871, when in John Gelding's words, "to be brief, mutual arrangements have been entered into whereby the magazine will be henceforth incorporated with the Sydney Mail".

248 Hort.Mag., II, 1865, p.23.

addressing the Society on ferns in 1863, wished

it to be distinctly understood that...I shall entirely
confine myself to those Ferns that are found in and
around Sydney and Illawarra...²⁴⁹

This need to emphasise almost apologetically the departure from speaking
about the traditional exotics brought some interesting reactions,
including a reassessment of the conventional attitude towards the
monotony of the bush :

Reader, do not agree with the saying that there is a
sameness in Australian scenery, for every step the
lover of Nature takes presents something new; it is
only to matter-of-fact people that there is a sameness,
and with such there is a sameness in all things.²⁵⁰

Another correspondent nicely brought the matter to a head by asking

Why are the flowers of the bush so much neglected?--
are they any the less beautiful because we see them
every day; or is it because they are difficult to
grow when taken from their native home?...Many of
these native plants are cultivated with great care
in the old country -- in fact they mainly depend on
them for spring decoration; but if we want to see
them here we must go and see them in their wild
state and be satisfied.²⁵¹

Thereafter, some correspondents, chiefly Louisa Atkinson²⁵² of Kurrajong,
freely offered advice on the cultivation of native species.²⁵³

249 op.cit., I, 1864, p. 294. The speaker was "J.G.", probably John
Gelding, nurseryman of Petersham.

250 op.cit., II, 1865, p. 183.

251 op.cit., II, 1865, pp. 190-191. It is interesting to note that it
was appreciated that native plants were often difficult to raise
by transplanting from the bush. This makes the lists of native
species then stocked by nurserymen all the more significant.
Most of their plants were of course raised from seed, but even
this can be a delicate operation.

252 identified as "L.A." She is noticed later.

253 e.g. Waratah, Telopea speciosissima; Honey Flower, Lambertia
formosa; Woody Pear, Xylomelum pyriforme, and species of Epacris,
Leucopogon, Hovea, Pultenaea, Boronia, Eriostemon, Hibbertia and
Tetralochea. Despite the present promotion of the cultivation of
native plants, it seems that horticulturists of the 1850s and
1860s grew species which would be rare indeed in any wildflower
garden to-day.

Another challenge was issued when one correspondent asked for the compilation of

a sort of History of Gardening, Gardeners, and their Promoters...we often hear of some of the old places, as the Bishop's old place, in Woolloomooloo; Barker's old place, at Darlinghurst; Macleay's old place, in Elizabeth's Bay, and many more...but this is about all we do hear of them...I think Sir, that... some of our oldest gardeners or amateurs, could, before they go to their last resting place, give us an account of some of our oldest gardens...also the lives and history of some of the leading men, as Botanists, Gardeners, Amateurs, and Promoters of Horticulture.²⁵⁴

Someone had a laudable sense of history, but unhappily no one accepted the challenge and the history of horticulture on the scale proposed, has yet to be written.

Interest in horticultural novelties was still evident in the 1890s, as indicated by a proposition made by Alfred Russel Wallace :

In order to induce persons residing in favourable localities to collect and send these [terrestrial orchids] I propose to act as their agent, disposing of the tubers to amateur horticulturists;...you are sure to know persons living in the wilder districts of New South Wales who might be willing to earn a trifle by this easy and agreeable occupation. If you know of any ladies fond of botany...they might be pleased to have a little definite employment...and even the small amount of profit might be in some cases an inducement.²⁵⁵

254 Hort. Mag., I, 1864, p. 225.

255 A.R. Wallace to Henry Deane, 16 Aug. 1892, Deane Papers, ANL. MS610, Series 4, 19/399. R.D. FitzGerald's son accepted the proposal (Wallace to Deane, 24 Nov. 1892, Deane Papers, ANL. MS610, Series 4, 19/400). A.R. Wallace (1823-1913) during his travels to the Amazon, 1848-1850 and to the Malay Archipelago, 1854-1862, formulated a theory of natural selection so similar to Darwin's, that the views of both were presented in a joint paper to the Linnean Society of London on 1 July 1858. Wallace supplied Deane with precise "Instructions for packing and sending Terrestrial Orchids for Cultivation." Deane is noticed later.

ii. Collectors

Some enthusiasts found pleasure not only in cultivating native plants, but also in collecting herbarium specimens, although the two activities were not necessarily associated.²⁵⁶ Some may have had virtually no garden, and yet possessed a widely representative herbarium or "hortus siccus", the formation of which may have assumed the nature of a valued hobby in a lonely situation.²⁵⁷ For those who had not yet discovered such a hobby, there was ample solemn advice. Active enquiry of this kind was considered a "pursuit...delightful and invigorating to the body and mind...It affords both bodily and mental exercise".²⁵⁸ Some clergymen naturally supported this view.

The more accomplished amateurs appreciated the contribution which energetic hobbyists could make at the stage when the progress of botanical knowledge largely depended upon the collection and identification of plants in the field and upon recorded observations from which the prevalence of species and their geographical distribution could be determined.²⁵⁹ The contributions of the more dedicated of

256 Some were happy to collect herbarium specimens without cultivating native plants, but a few, like Louisa Atkinson, not only cultivated native plants, but painted them as well as collecting herbarium specimens.

257 cf. the squatter mentioned in Chapter III, p.313. Note also Robert Issell Perrott (1822-1895) of "Haroldston", Armidale. Some of his botanical art and herbarium specimens are still in the possession of the family. Bentham acknowledged some of his specimens. See Appendix I, and this Chapter, p.594.

258 "Sampyris" : "On the Pursuit of Natural History" in The Journal of Australasia, Melb., I, 1856, p.37.

259 This seems to have been the normal pattern of development in various fields of natural science -- specimens are first seen as being of interest in themselves, then the need for nomenclature and identification becomes evident, and later individual species are considered in relation to other species, and in relation to climatic, edaphic and other external factors. With the development of more refined methods of examination, detailed morphological and physiological studies may be made, sometimes leading to a reassessment of earlier classifications and of allotted places in a particular "natural" system based upon apparent affinity. Cf. J.M. Petrie's statement on the title-page of this Chapter.

BOTANICAL ART AND COLLECTIONS OF ROBERT ISSELL PERROTT



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1 : Watercolour of the Tongue Orchid, Dendrobium linguiforme painted at Port Macquarie, 16 Sept. 1876. Plant "taken from a forest oak on the Lake Road." Photo: Miss S. Dawson, from an album kindly lent by Mr. R.A.H. Perrott, Chevy Chase, Armidale, May 1970.

2 : Specimen of Rasp Fern, Doodia aspera.

3 : Specimen of Hare's Foot Fern, Davallia pyxidata. Photos: L.G., from an album in possession of Mr. R.A.H. Perrott.

these amateurs distinguished them from the vast number of people who took more than a passing interest in the plants of the bush. The particular contribution of the clergy will be considered separately. Among other professional men who became competent amateur botanists, Dr George Bennett²⁶⁰ was notable. Bennett first visited N.S.W. in 1829 and again in the spring of 1832, when he once more found great pleasure "among the beauties of the kingdom of Flora, which are lavished so profusely in this colony".²⁶¹ As a surgeon, Bennett was fascinated by the anatomical peculiarities of the marsupials, especially the monotremes²⁶², but as early as 1833 he was sending plants, including some "from the Bathurst country" to Robert Brown and to the Linnean Society of London.²⁶³ Many of his specimens are preserved in the British Museum.²⁶⁴

On 30 July 1835²⁶⁵, Bennett returned to Sydney for the third time, and began his long association with the Museum as secretary of the "Committee of Superintendence of the Australian Museum and Botanical Garden".²⁶⁶ Messengers from the interior brought news of "the melancholy

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- 260 For George Bennett, F.R.C.S., M.D. (1804-1893) see Proc.Linn.Soc. NSW, 1893, p.542; Proc.Roy.Soc.NSW, 1908, p.84; V.M. Coppleson in Med. Journal of Aust., 20 Aug.1955, pp.273-278; Aust.Dict.Biog., 1, pp. 85-86. See also Chapter V, p.493.
- 261 Bennett : Wanderings, I, p.61. See also p.63 for a similar statement.
- 262 Bennett's zoological interests are apparent throughout much of his correspondence, especially with his friend Richard Owen, Professor of Comparative Anatomy and Physiology at the Royal College of Surgeons. See Bennett Papers, ML. FM3/238.
- 263 Bennett to Owen, 4 Feb., 8 Mar. and 25 Aug.1833. Bennett Papers, ML. FM3/238 (originals in Owen Archives, Royal College of Surgeons, Lond.) Owen himself was later sent "seeds of Australian shrubs among them the 'Warratah' or 'Tulip Tree', Wooden Pear Tree (*Xylomelum*) &c.&c." Bennett Papers : loc.cit.
- 264 Collections of Brit.Museum: Geo.Murray : Botany, p.134.
- 265 Bennett to Owen, 16 Aug.1835. Bennett Papers : loc.cit.
- 266 See Chapter V, p.467. Bennett remained secretary until 1 July 1841. He served on the Museum Committee, 1838-1853 and as trustee, 1853-1873. See also Bennett to Owen, 7 July 1836 : "A new arrangement has lately been made with respect to the Museum & Bot^l Garden; a Committee of Superintendence being formed over them the principal Members of which are Messrs. MacLeay, King, Dr Thompson, & I am appointed by the Governor Secretary to both Committees; still being Curator & having the principal management--as far as regards arrangement of the specimens &c.--of the Museum". Bennett Papers : loc.cit.

loss" of Richard Cunningham²⁶⁷, and Bennett hoped that his friends in England would "exert their interest or...make application in my favour at the Colonial Office for the vacant appointment".²⁶⁸ At that time, Bennett believed it was "the intention of the Colonial Government to build a Museum united with the gardens"²⁶⁹ and this would enable him to combine the offices of secretary to the Committee and Colonial Botanist. Such a dual appointment was not made,²⁷⁰ and as the Museum position

267 See Chapter II, p.94-99; Chapter V, pp.458,461-465.

268 Bennett to Owen, 20 Oct.1835, Bennett Papers; loc.cit.

269 *ibid.*

270 Bennett shortly lost interest in "the situation of Colonial Botanist, as the Zoological branch of Nat.Hist. accords better with professional practice which the other would not". Bennett to Owen, 14 May 1836. Bennett Papers : loc.cit.

MONUMENT to George Bennett (1804-1893) in the old Church of England Cemetery, Rookwood. This monument, erected by Bennett's third wife, Sarah (nee Adcock) stands close to Charles Moore's grave (see Chapter V, p.532). The inscription is interesting in that it emphasises Bennett's contribution to natural history.

Photo.: L.G., Jan.1970



yielded only £100 per year, Bennett "engaged in private practice",²⁷¹ a decision which while most successful, did not unduly affect his natural history researches. Despite his predilection for zoology, Bennett ensured that he had "the means of keeping up the progress of Botanical Science" and he maintained his "great interest in the vegetable productions & the various purposes for which they are applicable".²⁷² In fact he "suggested to Mr. Moore" that "a collection of vegetable products" should be formed "in the Botanical Gardens at Sydney".²⁷³

Like other early workers, Bennett lamented the lack of scholarly fellowship, feeling "almost alone in my scientific pursuits"²⁷⁴-- a feeling not relieved by the reticence of "Mr. W.S.M'Leay".²⁷⁵ Even in 1870, notwithstanding the rise of learned societies, Bennett was hoping for something which might have "excited our Colonists from their apathy to some more active love for science".²⁷⁶

There was however, nothing apathetic about the botanical

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- 271 Bennett to Owen, 12 Jan. 1836. Bennett Papers : loc.cit.
272 Bennett to W.J. Hooker, 28 May 1853, Bennett Papers, ML.FM3/237 (originals at Kew). Bennett had a fine library containing "the whole" of the "valuable works" of W.J. Hooker, and other botanical material. Note W.H. Harvey's reference to this library (this Chapter p. 568). After Bennett's death the books were unsuccessfully offered to Sydney University for £2000, and most were dispersed by public auction.
273 *ibid.* For the Botanical Museum ultimately established by Moore, see Chapter V, p. 499. See also J.H. Maiden : A Guide to the Botanic Gardens, Sydney, Syd., 1903, pp. 10-11.
274 Bennett to Owen, 10 Mar. 1836. Bennett Papers, ML.FM3/238.
275 Bennett to Owen, 7 Aug. 1839 : "Mr. W.S. M'Leay is here but keeps close. We know not what work he is upon. I know not if he is of a communicative disposition..." Bennett Papers, loc.cit. Macleay had arrived in Sydney only a bare five months earlier. Between 1841 and 1862 Macleay and Bennett sat on Museum committees. See also Chapter V, p. 480.
276 Bennett to Owen, 23 Feb. 1870. Bennett Papers, ML.FM4/228 (original in Brit. Mus.).

activities of two colonial gentlewomen, Helena Scott (later Forde²⁷⁷) and Caroline Louisa Waring Atkinson (later Calvert), both born about the time of Bennett's second visit to N.S.W. They had much in common. Both collected useful herbarium specimens, both were competent botanical artists, both corresponded with Mueller and Woolls, and the life of each had a tragic aspect.

Helena Forde and her sister Harriet were experienced botanical collectors and illustrators long before surveyor Edward Forde, "a gentleman no less admired for his amiable disposition, than distinguished for his scientific attainments",²⁷⁸ was sent to survey the Darling River between Wentworth and Bourke for obstructions to river navigation.²⁷⁹ Helena Forde accompanied her husband, and by August 1865 she was collecting and painting specimens around the survey camp near Wentworth²⁸⁰, a noteworthy effort for a woman in such a remote area at that time. As the survey team progressed up the Darling, the stock of specimens and plant drawings increased, and by March 1866 Helena Forde had a reasonable amount of material on hand for her proposed illustrated "Flora of the Darling". In the vicinity of Menindee, however, both husband and wife contracted fever. Helena recovered, but Edward Forde died on 20 June 1866.²⁸¹ Returning to Sydney, Mrs. Forde referred her

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- 277 Helena Scott (1832-1910) was the daughter of Alexander Walker Scott (1800-1833), naturalist and pioneer of Ash Island, Hunter River, already noticed. She married Edward Forde who in 1862 became Chief Surveyor and Draftsman, Harbours and River Navigation, Dept. of Public Works. Both Mrs. Forde and her sister Harriet were accomplished artists who illustrated their father's Australian Lepidoptera and their Transformations...I, Lond., 1864 and II, Syd., 1890; James C. Cox: A Monograph of Australian Land Shells, Syd., 1868; J.L.G. Krefft: The Snakes of Australia...Syd., 1869 and J.L.G. Krefft: Mammals of Australia...Syd., 1871.
- 278 Woolls's tribute in his A Contribution to the Flora of Australia, Syd., 1867, p.192.
- 279 See SMH, 22 Aug. 1865 for some opposition to this undertaking.
- 280 See notes with Helena Forde: Botanical Paintings, ML.A1710, and with her specimens in Melbourne Herbarium.
- 281 Register of Deaths, Court House, Wentworth, where the entry appears to indicate "Low fever and exhaustion". It was understood that the Fordes contracted typhoid fever (Proc.Linn.Soc.NSW, 1911, p.10). Edward Forde's grave, with a monument, is in Menindee Cemetery.

NATIVE-BORN WOMEN BOTANISTS.



HELENA FORDE (nee Scott) (1832-1910) who accompanied her husband Edward Forde, on a survey of the Lower Darling, 1865-1866, and was thus the first woman amateur botanist to make collections and plant drawings in this area. She also took particular note of fodder plants along the Darling, collecting 16 species of grasses one of which, Poa fordeana, was named in her honour. Mrs. Forde noted the effects produced on horses by the Darling Pea, Swainsona greyana, which she found was "regarded with horror" by the pastoralists.

Photo: from Mitchell Library, by permission of Mrs. Anne Rose Scott Cowen, Cooe Bay, Qld. As a child on Tambo Station, Barcoo River, Mrs. Cowen, a kinswoman of Mrs. Forde, herself collected plants for Baron von Mueller.

CAROLINE LOUISA WARING CALVERT (nee Atkinson) (1834-1872), authoress and an accomplished botanical observer, collector and artist, who took a keen interest in the cultivation of native plants and in the utilisation of bush products. Her father was James Atkinson, of "Oldbury", Berrima, and her husband was James Snowden Calvert (1825-1884), both of whom shared her interest in natural history.

Photo: Proc. Roy. Soc. NSW, 1908.



material to William Woolls²⁸² who enumerated this pioneer collection from the Darling²⁸³ and commented :

The fortitude with which Mrs. Forde encountered the difficulties of the expedition, and the melancholy circumstances which deprived the colony of an able and efficient officer, attach peculiar interest to the collection; and one cannot help regretting that the breaking up of the party prevented the further prosecution of an object which had been so auspiciously commenced, and which, if perseveringly carried on during progress up the river, would have tended to develop the vegetable resources of the Darling.²⁸⁴

Bentham acknowledged Helena Forde's Darling River specimens thirty times in Flora Australiensis²⁸⁵, but her illustrations for a

282 Woolls, who has been mentioned from time to time, is considered in some detail later. He referred some of the material to Mueller, who ultimately it seems, procured the whole (see below).

283 This was probably the most representative collection of plants from the Lower Darling country actually brought to Sydney up to this time. John Dallachy and the Rev. T.H. Goodwin had collected for Mueller in 1858 along the Darling between Wentworth and Wilcannia, but these specimens had gone to Melbourne. (Proc. Roy. Soc. Vic., 1960, p.247). In May 1881, Woolls advised Mueller: "Mrs. Forde...is willing to part with her collection, but being in bad circumstances, she would like to have some consideration. I recommended her to send the specimens & leave that matter to your generosity". (Letter in Melbourne Herbarium). If Mueller acted in his customary way, Mrs. Forde's plants would have earned their collector some temporary relief.

284 Woolls: A Contribution, p.193.

285 See Appendix I. Sweet Swamp Grass, Poa fordeana was named in honour of its discoverer (Mueller: Fragmenta, VIII, (1873) p.130--see also Ag. Gaz. NSW, 1893, p.413). Dampiera scottiana (now absorbed into D. stricta) was named in honour of Harriet Scott (Mueller: Fragmenta, XI (1881), pp.120-121). There is a delightful note with the type specimen in Melbourne Herbarium. Harriet Scott, writing to Mueller from "Ferndale", Double Bay, 15 Aug. 1881, thanked him for "naming such a pretty plant" after her, but continued, "altho' I feel much gratified at the honour...yet I should have been better pleased if the name had been Muellerei or Woollsi, for I do not deserve the notoriety & you do. Will you please remember my name is Harriet Scott, not Helena as you address me --my sister is Helena Forde, but I am, and always shall be I daresay, Sincerely yours, Harriet Scott." This proved an inaccurate prophecy, for in 1882 Harriet Scott was "engaged to be married to Dr C. Morgan, a medical man in good practice at Newcastle. He is a widower & has several children..." (Woolls to Mueller, 22 June 1882, letter in Melbourne Herbarium).

HELENA FORDE : BOTANICAL ARTIST AND COLLECTOR.



STURT'S DESERT PEA, Clianthus formosus : although the brilliant colouring is the striking feature of this plant in flower, Mrs. Forde captured the essential characteristics in this fine black-and-white drawing, from a specimen she collected at "'Mallara' near Wentworth, River Darling, August 1865."

Photo: Mitchell Library, from Forde : Botanical Sketches, ML. A1710.



SPECIMENS of Sturt's Desert Pea. Left: collected by Helena Forde, Wentworth, 1865. Right: collected by John Dallachy and Rev. T.H. Goodwin, who followed the Darling from Wentworth to Wilcannia in November 1858, making collections for Mueller.

Photo: L.G., Melbourne Herbarium, Jan.1967.

"Flora of the Darling" were never published. But for Woolls's record, much of this talented woman's painstaking botanical work would have gone virtually unnoticed.²⁸⁶ Some of Harriet Scott's plant drawings, especially of ferns, were used to illustrate a paper by Woolls appended to the Railway Guide of New South Wales.²⁸⁷

Caroline Louisa Waring Atkinson²⁸⁸ was born at "Oldbury", Berrima, in 1834 shortly before the death of her father, James Atkinson, whose accurate observations on the ecology and "natural productions" of the Colony have already been noticed.²⁸⁹ Louisa was a delicate child who had no formal schooling, but with a talented mother who had briefly served as governess in Hannibal Macarthur's household, she developed literary and artistic abilities and a taste for natural history. Even so, she apparently had no lessons after she turned twelve.²⁹⁰

286 See "Plants on the Darling", in Woolls : A Contribution (1867), pp.192-202. Helena Forde died without issue at Harris Park on 24 November 1910, aged 78, and was buried in the Church of England Cemetery, Rookwood (Registrar General's Records, 1910/14891/599). Her paintings in the Mitchell Library (A1710) depict about 160 species, 1852-1883, including some Darling River species painted 1865-1866. The other species were from around Port Jackson, Manly, Lane Cove, Burwood, Springwood, Newcastle, Ash Island and Illawarra. Apparently various people, chiefly women, sent species for her to paint (e.g. Mrs. E.K. Cox, Fernhill, Mulgoa; Mrs. Eustace Smith, Richmond River; Mrs. E.S. Hill, Rose Bay). Her painting of Christmas Bush, Ceratopetalum gummiferum, was used in Bennett : Gatherings (1860), Plate VII. See also Woolls : A Contribution (1867), p.204. See also the photographs on pp.601,603,605.

287 See this Chapter, p.672 .

288 She was generally known by her second Christian name. For C.W.L. Calvert (nee Atkinson) (1834-1872) "the first Australian-born woman novelist", see E.M. Miller : Australian Literature, Syd., 1956, p.42; also Margaret Swann in JRAHS, 1929, pp.14-29; Maiden in Proc.Roy.Soc. NSW, 1908, p.83; Wm. Woolls : Sermon preached in St.Peter's Church, Richmond, on Sunday, April 12th, 1874...Windsor, 1874; Aust.Dict. Biog., 3, pp.59-60.

289 See Chapter III, pp.201 et seq., Chapter IV, pp.357-358, and Appendix VIII, passim. For "Oldbury" and some details about James Atkinson, and his family see Aust. Council Nat. Trusts : Historic Homesteads of Australia, pp.56-63.

290 Woolls : Sermon, p.7.

BOTANICAL ART OF HELENA FORDE



Upper: 1. Bluetop, Morgania glabra; 2. Heliotrope, Heliotropium curassavicum; 3. Podolepis jaceoides; 4. Daisy-bush, Olearia pimeleoides; 5. Australian Hollyhock, Lavatera plebeia. Lower: 6. Hibiscus sturtii; 7. Goodenia heteromera; 8. Yellow Pea Bush, Sesbania aculeata; 9. Bindi-eye Daisy, Calotis cuneifolia. All painted 1865-1866.

Helena Forde doubtless intended that these coloured sketches should illustrate her Flora of the Darling.

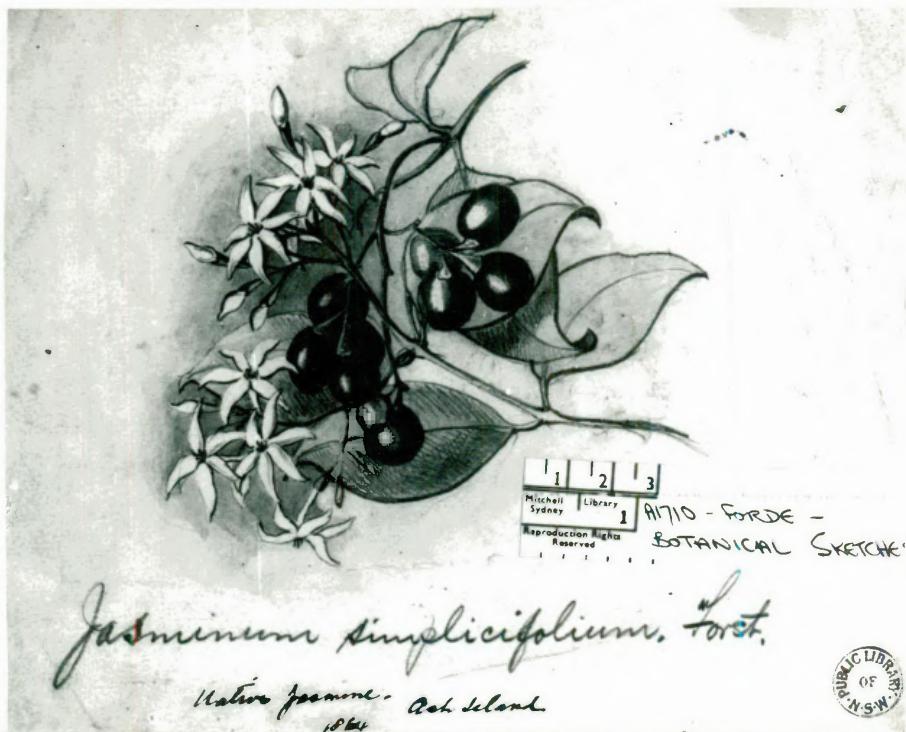
By 1857 she had published her first novel, and in 1860, while living with her mother at "Fernhurst", Kurrajong²⁹¹, she began a series of highly interesting and successful articles entitled "A Voice from the Country", published in the Sydney Morning Herald²⁹² as a "nature calendar" to guide fellow naturalists at different seasons. Between 1864 and 1870 she was also a regular contributor to the Horticultural Magazine.²⁹³ In January 1865 one of her articles was accompanied by a jar of jam to enable members of the Horticultural Society to appreciate the potential of the Native Cranberry, Lissanthe sapida.²⁹⁴

Louisa Atkinson's articles attracted the notice of William Woolls²⁹⁵ who recognizing a kindred spirit, "desired to become personally acquainted with her". Having "learned to estimate the extent of her talent and the sincerity of her friendship", Woolls

had the honour of introducing her to...Mr. W.S. Macleay
...and of opening a correspondence between herself and
Baron von Mueller...nor was the Rev.W.B. Clarke...
unconscious of her merits as a keen observed of nature.²⁹⁶

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- 291 "Fernhurst" no longer stands, but "Oldbury" remains. It was hoped that Louisa's health would be improved by life in a higher altitude.
- 292 See SMH, 1 Mar.1860 and subsequently--e.g. 28 Jan.1861 (Mt.Tomah); 2 July 1861 ("A Winter's Garland", i.e. winter wildflowers); 20 Mar.1862 (Springwood); 10 June 1862 ("A Peep into the Herb Doctor's Basket"); 8 Aug.1862 ("Scraps" including notes on Brachychiton); 2 Sept.1862 ("Botanical Ramblings"); 23 Oct.1862 ("Orchidaceae"); 12 Feb.1863 ("Ferns and their Haunts"); 4 June 1863 ("A Ride to the Fitzroy Mines" near Berrima); 25 Oct.1864 ("Stray Notes" including mention of Waratahs flowering 2½ years after seeds were sown); 20 Sept.1870 ("The Wallaby Rocks" on the Wingecarribee River).
- 293 Some of these articles urged the cultivation of native species and of employing them to meet the needs of settlers and agriculturists; others surveyed the fern flora of Kurrajong.
- 294 Hort.Mag., II, 1965, p.29. See also Appendix VIII.
- 295 Woolls was then a well-known teacher in Parramatta.
- 296 Woolls : Sermon, p.10.

BOTANICAL ART OF HELENA FORDE.



NATIVE JASMINE, *Jasminum simplicifolium*, painted at Ash Island, Hunter River, 1864.



BLACK PLUM, *Diospyros australis*, painted at Ash Island, Hunter River, 19 Sept., 1861.

Photos: Mitchell Library, from H. Forde : Botanical Sketches, ML.A1710, originals coloured.

Thus encouraged, Louisa Atkinson devoted herself tirelessly to the pursuit of botany for the remainder of her short life. Sometimes accompanied by a fellow amateur botanist, Mrs. Selkirk²⁹⁷, she explored the country between Windsor and Wiseman's Ferry, and penetrated remote gullies around Kurrajong and elsewhere,²⁹⁸ returning with her singular plant "wallet"²⁹⁹ full of specimens for pressing, painting or referring to her botanical friends. By March 1861 she had provided Woolls and Mueller "with three hundred specimens of plants, many of which are exceedingly interesting".³⁰⁰

Returning to "Oldbury", Louisa Atkinson married James Snowden Calvert³⁰¹ on 11 March 1869. Calvert also was interested in natural history, and having come to N.S.W. in the same ship as Leichhardt, had joined the Port Essington expedition, 1844-1845. Mrs. Calvert now had a partner sympathetic to her work, and the collecting, sketching and writing continued. In March 1871, Woolls was overjoyed because she had rediscovered the small crevice-dwelling orchid, Rimacola elliptica, "which no one has found since the days of Caley!!"³⁰² Mueller was similarly enthusiastic about "new localities" of species being notified by such an "accomplished finder", and he requested specimens of "grasses... rushes and sedges, from your thus far unknown locality".³⁰³ Mueller also hoped that if she "should pass the Atkinsonia in fruit at any time" to "bear kindly...in remembrance" J.D. Hooker's request for "seeds of

297 wife of Dr Selkirk of Richmond.

298 e.g. Grose Valley, Springwood, Mt. Tomah, Berrima, Illawarra.

299 This was worn suspended from her shoulders. SMH, 5 Jan. 1864.

300 Woolls in SMH, 14 Mar. 1861.

301 For J.S. Calvert (1825-1884) see Aust. Dict. Biog., 3, p. 333. For a letter by Calvert on "the best time for collecting the gum leaves for medicinal purposes", see Sydney Mail, 13 July 1872.

302 Woolls to L. Calvert, 20 Mar. 1871. ML. A4496. The plant was then known as Lyperanthus ellipticus. See Benth.: Fl. Aust., VI, pp. 374-375.

303 Mueller to L. Calvert, 31 Jan. 1871, ML. A4496.

BOTANICAL ART OF CAROLINE LOUISA CALVERT.



Elkhorn,
Platycerium bifurcatum



Small Tree Fern,
Leptopteris fraseri



Screw Fern, Lindsaea linearis and
Wedge Fern, L. microphylla



Rasp Ferns, Doodia caudata, D. caudata
var. media, D. caudata var. atkinsonii
and D. aspera.

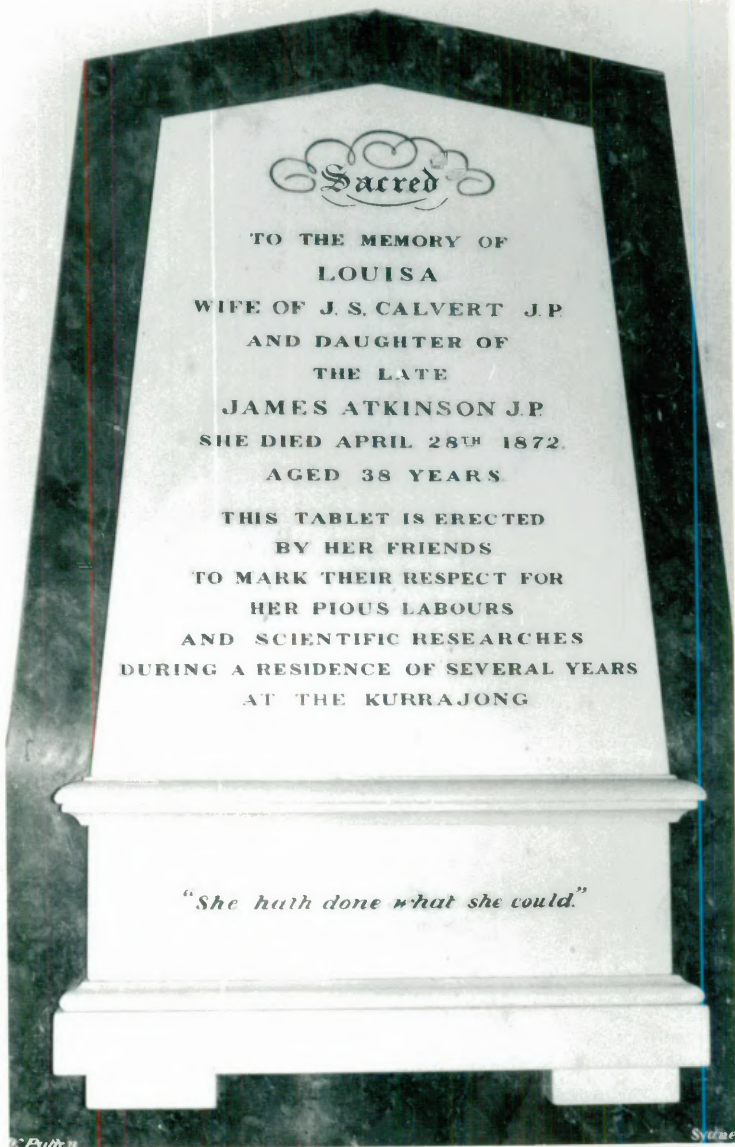
Photos: Mitchell Library, from C.L.W. Atkinson : Fern Paintings, ML. A4498, plates 34, 38, 8 and 20. Originals in watercolour.

Loranthaceae."³⁰⁴

There is evidence that Louisa Calvert planned an illustrated popular guide to the fern flora which she so admired³⁰⁵, and when she died in 1872, it was said that "some of her latest efforts are now in course of publication under the auspices of the University of Kiel"³⁰⁶, but the work does not appear to have been published. Apart from her popular press articles, Louisa Calvert's great contribution lay in her energetic collecting of specimens and in her informative correspondence with Woolls and Mueller. Bentham acknowledged her Blue Mountains and Berrima specimens nearly 120 times.³⁰⁷ She won deserved acclaim for her botanical work from her scientific contemporaries, amateur and professional. It was regrettable that she was unable to promote further interest in natural science through the illustrated work she was apparently planning. Considering her ill-health, her contribution was remarkable. Her loss was keenly felt, and many years after her death, Woolls still expressed regret that some of his later botanical friends had been denied the opportunity of meeting such "an excellent creature".³⁰⁸

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- 304 *ibid.* This referred to the parasitic shrub, Atkinsonia ligustrina which Mueller had "dedicated to the illustrious Louisa Atkinson, to whose kindness I am indebted for this and many other plants of New South Wales". ("...dicavi praeclarae Ludovicae Atkinson, cujus benignitati hanc et multas alias Neo-Cambriae plantas debeo.") Mueller : Fragmenta, V, (1865), p.34. Mueller also named a heath Epacris calvertiana "in memory of a talented investigator" ("in memoriam scrutatricis ingeniosae.") Mueller : Fragmenta, VIII (1873), p.53. Commonwealth Weed, Erechtites atkinsoniae was also named in her honour. Mueller : Fragmenta, V (1865), p.88. A form of Rasp Fern, Doodia caudata, "very local but abundant in one glen in crevices of rocks" at Kurrajong, was named by Woolls, D.atkinsonii. See C.L.W. Calvert : *Sketches of Ferns*, ML. A4498.
- 305 Louisa Calvert died at Swanton Cottage on the "Oldbury" estate, 28 April 1872, following a heart attack, eighteen days after the birth of her daughter, and was buried in All Saints Churchyard, Sutton Forest. She was 38.
- 306 Obituary notice in SMH, 2 May 1872.
- 307 See Appendix I.
- 308 Woolls to Henry Deane, 25 June 1886 : "Thanks again for Atkinsonia. I wish you had known Louisa Atkinson. She was an excellent creature, and worthy to be had in remembrance". Deane Papers, ANL. MS 610, Series 4/14.

CAROLINE LOUISA WARING CALVERT.



MEMORIAL PLAQUE IN St. Peter's Church of England, Richmond, N.S.W., where Mrs. Calvert worshipped during the years she lived at Kurrajong before her marriage. She was associated with local charitable works, and conducted a Sunday School at Kurrajong. The Rev. William Woolls, the former teacher who became the Incumbent of Richmond, was greatly affected by the death of his botanical friend and he organised an appeal to establish some form of memorial. Subscribers included Bishop Frederick Barker, the Rev. W.B. Clarke, Baron von Mueller and John Fairfax of The Sydney Morning Herald. Installation of the plaque was observed on Sunday, 12 April, 1874 by a sermon in which Woolls acclaimed his friend's personal qualities and her charitable and scientific work.

Photo: L.G., Jan. 1971.



COACHWOOD SPECIMENS, Ceratopetalum apetalum. Left: collected by Louisa Atkinson, probably in the Blue Mts. Right: collected by Wm. Woolls on the Nepean River.

Photo: L.G., Melbourne Herbarium, Jan. 1967.

Another of Mueller's valued botanical correspondents and collectors was Charles Stuart³⁰⁹, whose work in N.S.W. was confined mainly to the far north of the New England Tableland. Stuart met Mueller in Adelaide in 1847, and during the next thirty years collected great quantities of specimens for him in South Australia, Tasmania and N.S.W. while he apparently eked out a somewhat precarious existence as plant collector, nurseryman and gardener. The assistance he willingly gave to William Henry Harvey³¹⁰ in 1855 was later acknowledged in the naming of a species of seaweed.³¹¹

Stuart collected widely and discerningly around Tenterfield and the former Timbarra goldfield, labelling in a well-formed educated hand, specimens which Bentham used when describing nearly 600 species.³¹² Only the specimens of Robert Brown, Allan Cunningham and Dr Herman Beckler were acknowledged more frequently. In 1875, a commercial traveller, Charles Heath Smith met Stuart at Tenterfield, and gave him employment at Guildford as a gardener³¹³, but he died, apparently well-nigh unknown, in the Parramatta District Hospital two years later.³¹⁴

309 For Charles Stuart (1802-1877) see Charles Daley in Victorian Naturalist, Oct., Nov., Dec., 1935, pp. 106-110, 132-137, 154-157. There is, however, little mention of his work in N.S.W.

310 See this Chapter, p. 568.

311 Areschougia stuartii Harvey, was so named because "Mr. Stuart's meritorious explorations of Australian botany, both marine and terrestrial, worthily entitle him to the compliment gratefully bestowed..." See Proc. Roy. Soc. Tas., 1909, pp. 28-29. Many of the plants listed by Maiden in Proc. Roy. Soc. NSW, 1908, p. 125 were named in honour of John McDouall Stuart, not Charles Stuart.

312 See Appendix I. As Stuart collected for Mueller, most of his specimens are preserved in the Melbourne Herbarium.

313 Proc. Roy. Soc. Tas., 1909, p. 29.

314 Stuart died of "Disease of lungs" on 28 July 1877 and was buried in St. John's Cemetery, Parramatta. There is no monument. The informant of his death was the Hospital Matron, who knew little more about Stuart other than his name. See Registrar-General's Record of Deaths in the District of Parramatta, 1877/7996 and St. John's Register of Deaths, 1877/3196.

BOTANICAL ART OF JOHN LEWIN.



1.



2.



3.



4.

1 : Woody Pear, Xylomelum pyriforme; 2 : Red Bean, Kennedya rubicunda;
3 : Native Bluebell, Wahlenbergia bicolor; 4 : Fan-flower, Scaevola ramosissima.

Note the floral details in three of these sketches. The Lewin sketches in the Mitchell Library (ML. C304) have been noticed in Thesis I, pp.98 et seq., with illustrations. The sketches here reproduced were almost certainly Lewin's work, as they are part of a collection of watercolour natural history studies, some of which are signed, in an old Bligh family scrapbook. Apparently they have not been hitherto recorded.

Photos: Miss S. Dawson, from originals in a scrapbook kindly lent by Miss Patricia Morse, Armidale, Nov., 1970.