This small volume is dedicated to the friends
and family who have helped to make lockdown bearable,
including those loved but seen no more,
departed and living.

HENRY NOLTIE

ESSAYS FROM LOCKDOWN

EDINBURGH
MMXXII

CONTENTS

INTRODUCTION

Most of the essays in this second collection have been written during lockdown; many were first posted online as blogs for the 'Botanics Stories' series on the Royal Botanic Garden Edinburgh (RBGE) website.

With the impossibility of foreign travel, the British flora, one of my earliest loves, proved a lifeline on daily walks around Edinburgh and on longer outings when these became possible. With its outstanding architecture and topography, and its wide range of habitats – man-made, natural and semi-natural – there can be few more attractive cities in which to have been locked down. To the enquiring naturalist even unpromising urban streets can prove surprisingly rich in wildlife as, to a much greater degree, are the expanses and volcanic bluffs of the King's Park and Blackford Hill, the intertidal zone of the shore at Wardie Bay and industrial-archaeological relics such as the Union Canal and the network of disused railway lines. The first group of essays therefore relate to the Scottish flora, both native and introduced.

As always I delight in finding threads of connection between past and present, between individuals and between topics that might initially be taken to be discrete. Throughout the pieces, therefore, are references to work undertaken between 1986 and 2017 while on the RBGE staff. Initially this work was curatorial, for exhibitions in Inverleith House, of which one of the first and last was on the Garden's great Enlightenment period Regius Keeper, John Hope. Following this, twelve years were devoted to the researching and writing of accounts of monocots for the *Flora of Bhutan*. It was through this that my fascination with the Subcontinent developed and from 2000 my work focussed entirely on the Garden's Indian collections – herbarium specimens, archives, books, and botanical drawings by Indian artists. In order to restore broken links visits were required to India (to archives and in the field) and London

(to Kew and the British Library). Two of the collections explored in depth were those of the East India Company (EIC) surgeons Robert Wight (1796–1872) and Hugh Cleghorn (1820–1895), whose names crop up in many of the essays as do those of an earlier generation, including Hope's students William Roxburgh (1751–1815) and Francis Buchan-Hamilton (1762–1829). The latter two were both Superintendents of the great Indian botanic garden of Calcutta, which also puts in many appearances. My great fondness for Ruskin is also commemorated.

With access to libraries impossible, research had to be limited to back-burner projects for which at least some preliminary information had already been accumulated, with additions from online sources: thank goodness that so much literature had already been digitised though organisations such as the Biodiversity Heritage Library (BHL). The Douglas and Badenach pieces, and those on the *Erophila* impression and Lady Flory's window, come from the revisiting of old files. With lockdown came thoughts and reflections on the past: of foreign travel to places one may well never see again – such memories often came in dreams and flashbacks – 'thochts frae the riggin o' the nicht'. As examples, in the middle of the book, come three pieces based on old Indian diaries, two botanical (relating to plants of the high Himalaya and of a hill fort in Andhra Pradesh), one on a memorable visit to the bronze casters of Swamimalai in Tamil Nadu. Sleep disturbance has also led to unbidden reflections on the distant past, so the collection ends with three essays of reminiscence from a Yorkshire childhood.

The poems appear more or less in the order in which they were written. They serve as a record of the change of seasons and the swings of mood experienced during the strange years of 2020 and 2021: three for winter, four for spring, three for summer and seven for autumn – while a product of happenstance, it seems appropriate that the most reflective season should turn out to predominate. Given the deafening silence that greeted the poems of the first collection I gave much thought to the question of whether or not to inflict more on long-suffering friends. I make no claims for them, and don't even know if that is what they should be called – it is perfectly possible that I have committed a category error. They

are, however, the opposite of the 'night thoughts', always thought up rapidly, in response to something observed. What I mean by a poem is:

a
heartfelt moment
caught
in a
compression
of
words

PART ONE
BRITISH BOTANY

1 · CHLORIS VIA-MELVILLIANA

In 1823 'Jupiter Botanicus', the Montrose-born botanist Robert Brown (1773–1858), published an account of the plants collected on Melville Island in the Canadian Arctic. The collections were made in 1819–20 during the first of William Edward Parry's voyages in search of the elusive North-West Passage. Duplicates of many of the specimens, which were collected by Parry himself, the astronomer Edward Sabine, the surgeon John Edwards and his assistant Alexander Fisher, and by James Ross, are in the RBGE herbarium. For the title of his account, instead of using the conventional Latin name of the goddess of flowers as a 'Flora', Brown used her Greek equivalent Chloris, and called his work *Chloris Melvilliana*.

It therefore seems appropriate to maintain this usage for a Local Micro Flora of a street named for the same man as the island. Parry's voyage was commissioned by Robert Saunders Dundas (1771–1851), the second Viscount Melville and First Lord of the Admiralty. It is he (rather than his father Henry, as is commonly believed) who is commemorated in Melville Street, which was planned and designed for the Walker family in 1814 by a quite different (architectural) Robert Brown. In 1857 a fine statue of Melville by John Steell was placed at the centre of the street, at the point where it dilates on either side into the double-sided Melville Crescent (actually a diagonal square), which is also included in the present account. Participants in the BLM movement, genealogically surprisingly well informed but armed with spray paint, were clearly of the view that the sins of fathers are visited upon their sons as on 8 June 2020 all four faces of the statue's plinth were defaced with the slogan 'Son of Slaver and Colonialist Profiteer'. The paint was fortunately soluble and quickly removed.

To the field botanist the street, one of the grandest and least altered in Edinburgh, the centrepiece of its Western New Town, is not initially a promising area for investigation. When standing at

either end of its 366-metre length hardly a single blade of greenery is to be seen: its glories are entirely architectural. Blocking its western extremity rises the majestic façade and the triple spires of Gilbert Scott's 1870s Episcopal Cathedral of St Mary, which gives a surreal Gothic termination to an otherwise classical vista. The street's eastern end benefits from a 'borrowed view': the austere (almost Russian) dome of Robert Reid's 1811–14 St George's Church (now, as West Register House, part of the National Records of Scotland), which stands between Charlotte Square and Randolph Place. Between this pair of Gothic and Classical ecclesiastical eyecatchers lie what were built as domestic dwellings for minor Scottish gentry and upper-end Edinburgh professionals.

The street is made up of five extensive terraces (with the slightly later interruption of the Crescent already described) of three-storey-plus-basement houses, spaced 33 metres apart. At eastern and western ends, and on the two corners of Stafford Street, are tenement blocks, of which the north-eastern one is home to the author. The houses are set back about three metres from the pavement, behind sunken and paved 'areas' reached by descending flights of stairs, the drop from the pavement being protected by iron railings raised on kerbs; the front doors are approached by arched and paved stone bridges ('platts') each of which is spanned by an elegant, cast-iron lamp arch. The restoration of the stonework and ironmongery of the whole ensemble was an early success story in the restoration of the New Town; though sadly the lamps themselves were never installed and the pavements have recently been replaced with concrete slabs in a variety of nasty shades of pink and brown. Nearly all of the former houses are now used as offices so there has been little attempt to soften the stone by means of vegetation, which is restricted to a single handful of window-boxes and a few pairs of tubs with bonsai bay and box trees. In two of the basement areas an attempt at gardening has been made: from one emerges some jasmine and *Hydrangea petiolaris*, and from the other the pale-green, trifid-tentacles of an *Akebia*. The asphalt, concrete, Carboniferous sandstone and lime mortar represent a challenging habitat for plant growth – the major physiological stress must be an acute shortage of water, which

quickly runs off both vertical and horizontal surfaces into gutters and drains.

METHOD AND AREA INCLUDED

The plants were observed during a thirty-minute walk taken on the morning of 6 May 2020. The perambulation started with the north side of the street from east to west, returning along the south side in the opposite direction. The plants grew in the gutters, cracks in the pavement, and on the walls, stone steps and paving of the 'areas'. The weed flora of the northern side of the street is presently richer than that of the southern (though eleven species were seen only on the latter), but this probably merely reflects quirks of recent management practices.

A repeat survey later in the season will be necessary. Even if no weed-killing takes place many ephemerals (such as *Erophila verna*) will soon have disappeared. Other species might, however, put in an appearance. Grasses are currently notably rare with only two species and more, with other perennials, may perhaps become apparent later in the season.

RESULT AND DISCUSSION

A total of 55 species were recorded: 6 ferns and 49 angiosperms.

As the habitat is entirely man-made the question of 'nativeness' is somewhat meaningless, as all the plants must be relatively recent arrivals. Whereas the plants that grow on area walls might be able to persist for reasonably lengthy periods, those on the pavements have been subject to repeated spraying with weed killer, or manual removal, and must represent repeat colonisers. One can at least give the status of the species in the country as a whole, from which these recent recruits have been made. Perhaps surprisingly the large majority, 39, are native and 5 are 'archaeophytes' (ancient introductions but appearing native). Only 11 are recent arrivals to these shores ('neophytes'– better known as aliens), which have been introduced either accidentally or, in some cases, as ornamentals. In Melville Street some plants cross such boundaries: tutsan, while native in western Britain, must here, like the wall-pepper, be a garden escape. The case of the native Danish scurvy-grass will be

discussed later; the Welsh poppy, white stonecrop and feverfew, though counted as archaeophytes, must here also be regarded as garden escapes, as are the yellow corydalis and trailing bellflower that are denoted neophytes.

Given the acute water shortage of the habitat, and the climatic regime of damper winters, it might have been expected that annuals would predominate, but this proves not to be the case: of the 55 species recorded only 17 are annual. The roots of the 38 perennials clearly manage to find enough water in the cracks between paving stones and retaining walls, though many are probably short-lived. The same applies to the single shrubby species (the now ubiquitous butterfly bush), though none of its several individuals is more than a metre tall. Both of the tree species recorded are represented by single individuals: the birch, in a gutter, is a seedling with a very short life expectancy; the elm is embedded in the wall of a basement area and is also less than a metre tall.

With the winter salting of motorways, roads, streets and pavements, plants of the coast and the saltmarsh have, over the last four decades, been able hugely to extend their range inland. Three such species, Danish scurvy-grass, lesser sea-spurrey and sea pearlwort, are to be found in Melville Street, though not as frequently as in nearby Moray Place or the Dean Bridge.

The most unexpected find was black spleenwort, a glossy, evergreen fern, with healthy colonies on two sections of the inward (east- and north-facing) area walls of No. 23, growing along with the much commoner *A. trichomanes*.

In recent years water bent, the grass *Polypogon viridis*, has become very common in Melville Street and on the nearby Dean Bridge. Classed as a neophyte it was first recorded in cultivation in Britain in 1800 and in the wild in Cardiff in 1876. Until about twenty years ago its British spread was limited to England north to Norfolk, since when it has greatly extended its range. Not normally regarded as a halophyte it must certainly be salt tolerant for it to be able to survive, and indeed flourish, so close to the road.

Perhaps the most intriguing of the plants is a species of *Sedum* that I've noticed for at least five years on the pavement directly beneath my flat and on the opposite side of the street, but which has never produced a flower. A small, compact, perennial, it has attractive glaucous, glandular leaves. Ray Stephenson has identified it as the Central European form of *S. dasyphyllum*, which is hardy and in the Pyrenees grows up to the snowline. It has previously been recorded as naturalised from Jersey to Yorkshire, but this is the most northerly record known to Ray, which may explain its reluctance to flower. The plant can grow from a single detached leaf and is spread by birds and perhaps on human feet. Although cultivated at RBGE it is certainly not a common plant in Edinburgh gardens and I wonder if its origin might lie in the recent craze for 'green roofs', of which, due to their drought tolerance, various species of *Sedum* form a major component.

It is one of the halophytes, the sea pearlwort *Sagina maritima*, that I'm most pleased to see, and directly below my dining-room window, as it has connections with George Don and my adoptive

county of Angus. It was described as a new species by Don in his *Herbarium Britannicum*, a collection of dried specimens for which his friend Patrick Neill printed the title-pages and labels of its eight fascicles published between 1804 and 1806. The *Sagina* is the only one of the three species described as new to science by Don that hasn't been lost to synonymy (the others are *Myosotis alpina* and *Raphanus maritimus*). The sea pearlwort was specimen No. 155 of *Herbarium Britannicum*, issued in 1806, which Don reported as 'on the sea coast not unfrequent, in Angusshire, Isle of Sky, near Aberdeen, Queensferry and Edinburgh'. He might have been rather surprised by its recent spread from the coast.

Three happy years of my life were spent working on the cytology of the genus *Senecio* with Ruth Ingram in St Andrews. The project was on *S. cambrensis*, a fertile hybrid derivative of the groundsel and the Oxford ragwort, which first arose as an entirely new species in North Wales, probably relatively shortly before its discovery in 1948. During the course of the project, in September 1982, the species was found growing at six locations in Leith, on waste ground, demolition sites and on pavements; it was proved, genetically, to represent a second and independent origin of the species. The originating event had probably taken place a decade earlier as a previously misidentified specimen from Leith was found in the RBGE herbarium dated 1974. The presence of the species in Leith was to prove short-lived, however, and it had become extinct there by the end of the millennium.

Not only are the bright yellow daisies (radiate capitula) of the Oxford ragwort an adornment to any city street, but the history of the plant's introduction is an interesting one and has connections with both George Don and the RBGE. The story of its spread from the Oxford Botanic Garden is well known: the plant is believed to have originated on the slopes of Mount Etna in Sicily as a hybrid between *Senecio aethnensis* and *S. chrysanthemifolius* and was introduced to the Oxford Botanic Garden around 1690. By the 1780s, when Don observed it on one of his travels 'in the neighbourhood of Oxford', it had already broken out. Thereafter it spread rapidly, especially with the development of the railway system (the ballast of the tracks must have reminded it of its native lava). A well-known

story tells of how George Claridge Druce in 1927 observed some cypselae (achenes with feathery pappuses) 'enter a railway-carriage near Oxford and remain suspended in the air in the compartment until they found an exit at Tilehurst'. It turns out, from a sheet in the herbarium of George Walker-Arnott at RBGE, that the plant had at least two potential independent sources of introduction to Scotland long before the relentless northward march from Oxford.

The sheet bears two collections, both regrettably undated – one is labelled 'naturalized at the back of Don's garden, Forfar', the other 'Old Bot^{c}. Garden [almost certainly the Leith Walk one in Edinburgh]'. The Edinburgh garden moved to Inverleith in the early 1820s and Walker-Arnott is known to have visited Don's former garden around 1824 when it was under the care of Thomas Drummond, so both specimens perhaps date from the mid 1820s. Don had in fact distributed specimens of *Senecio squalidus* in 1806 as No 140 of his *Herbarium Britannicum*, but these were stated to have come from 'a garden', which could have been either his own in Forfar, or the Leith Walk one of which he was superintendent *c.* 1802 to 1808.

SYSTEMATIC LIST

Being the work of a botanical dinosaur the arrangement follows the families and order of the *Flora of the British Isles* by Clapham, Tutin and Warburg ('CTW', the botanical bible of my youth), though the Latin species names have been updated.

FERNS

Black spleenwort (*Asplenium adiantum-nigrum*)
Wall rue (*Asplenium ruta-muraria*)
Hart's-tongue (*Asplenium scolopendrium*) (S side of street only)
Maidenhair spleenwort (*Asplenium trichomanes*)
Broad buckler-fern (*Dryopteris dilatata*)
Male fern (*Dryopteris filix-mas*) (S side of street only)

DICOTS

Papaveraceae
Welsh poppy (*Papaver cambrica*)
Yellow corydalis (*Pseudofumaria lutea*)
Cruciferae
Thale cress (*Arabidopsis thaliana*)
Wavy bitter-cress (*Cardamine flexuosa*)
Hairy bitter-cress (*Cardamine hirsuta*)
Danish scurvy-grass (*Cochlearia danica*) (S side of street only)
Common whitlow-grass (*Erophila verna*)
Hedge mustard (*Sisymbrium officinale*)
Hypericaceae
Tutsan (*Hypericum androsaemum*)
Caryophyllaceae
Common mouse-ear (*Cerastium fontanum*)
Sticky mouse-ear (*Cerastium glomeratum*)
Sea pearlwort (*Sagina maritima*)
Procumbent pearlwort (*Sagina procumbens*)
Lesser sea-spurrey (*Spergularia marina*)
Common chickweed (*Stellaria media*)
Oxalidaceae
Procumbent yellow-sorrel (*Oxalis corniculata*)
Crassulaceae
Wall-pepper (*Sedum acre*)
White stonecrop (*Sedum album*) (S side of street only)

Thick-leaved stonecrop (*Sedum dasyphyllum*)
Onagraceae
Rosebay willowherb (*Chamaenerion angustifolium*) (S side of street only)
Broad-leaved willowherb (*Epilobium montanum*)
Codlins and cream (*Epilobium hirsutum*)
Short-fruited willowherb (*Epilobium obscurum*)
Urticaceae
Pellitory-of-the-wall (*Parietaria judaica*) (S side of street only)
Stinging nettle (*Urtica dioica*)
Ulmaceae
Wych elm (*Ulmus glabra*)
Betulaceae
Hybrid birch (*Betula* × *aurata*)
Buddlejaceae
Butterfly bush (*Buddleja davidii*)
Scrophulariaceae (in the old sense)
Ivy-leaved toadflax (*Cymbalaria muralis*)
Green field-speedwell (*Veronica agrestis*)
Plantaginaceae (in the old sense)
Greater plantain (*Plantago major*) (S side of street only)
Campanulaceae
Trailing bell-flower (*Campanula poscharskyana*)
Compositae
Daisy (*Bellis perennis*) (S side of street only)
Creeping thistle (*Cirsium arvense*) (S side of street only)
Argentine fleabane (*Conyza* cf. *bonariensis*)
Beaked hawk's-beard (*Crepis vesicaria* subsp. *taraxifolia*)
Hawkweed (*Hieracium* sp.)
Cat's-ear (*Hypochaeris radicata*) (S side of street only)
Pineappleweed (*Matricaria discoidea*)
Wall lettuce (*Mycelis muralis*)
Common ragwort (*Senecio jacobaea*)
Oxford ragwort (*Senecio squalidus*)
Groundsel (*Senecio vulgaris*)
Prickly sow-thistle (*Sonchus asper*)
Smooth sow-thistle (*Sonchus oleraceus*)
Feverfew (*Tanacetum parthenium*) (S side of street only)
Dandelion (*Taraxacum officinale*)
Coltsfoot (*Tussilago farfara*)

MONOCOTS

Gramineae
Annual meadow-grass (*Poa annua*)
Water bent (*Polypogon viridis*)

Some 15 years earlier, on 19 June 2005, I had made a similar list of the plants of Melville Street. A total of 48 species were then recorded, which included 13 not seen in May 2020. These were bracken (*Pteridium aquilinum*) and the flowering plants *Acer pseudoplatanus*,* *Agrostis* cf. *scabra*, *Capsella bursa-pastoris*,* *Fraxinus excelsior*,* *Galium aparine*, *Geranium lucidum*, *Papaver somniferum*, *Polygonum arenastrum*,* *Rosa rugosa*, *Rumex obtusifolius*, *Sagina apetala*,* *Salix caprea*. Later in 2005 I also observed *Trifolium repens**. On 30 June 2016, on the front steps of 43 Melville Street (which once belonged to the Inverarities of Rosemount), I was delighted to see the silvery panicles of a clump of *Deschampsia cespitosa* waving

in the wind. The plants marked * were refound later in the summer of 2020.

If the older records are added to the May 2020 list, the number of species recorded for the Via Melvilliana comprises 7 ferns and 69 angiosperms. If the British flora (including archaeophytes, but excluding apomictic microspecies) is taken to number 1671 species, then this represents 4.5% of the total: surely rather a surprise for such an unpromising-looking urban site, with no visible soil, and an area of only about 1.2 hectares.

ADDENDUM

Following the initial survey I continued to watch for the arrival of new plants throughout the summer of 2020. I also took to labelling some of the plants in blackboard chalk for the benefit of interested neighbours. Over the next five months, six of the plants recorded in 2005 but not seen on 6 May recurred and, as anticipated, four more species of grass put in an appearance. More unexpected was a single plant of a fourth species of *Senecio*. *Sedum dasyphyllum* increased greatly during the course of the summer, but one of its largest clumps, clinging to the base of a rubbish bin opposite my dining-room window, suffered from the application of a boot and was shattered into myriad, single-leaved potential propagules. This demonstrated the brittleness of its stems, but also why it is currently spreading so rapidly in the streets of central Edinburgh. Single plants of two unexpected garden escapes were of interest – an *Alchemilla* and a young plant of a sedge that is unlikely ever to reach large enough size for certain identification, but probably *Carex pendula*.

The additions for the rest of the season of 2020 were as follows:

FERN

Lady fern (*Athyrium filix-femina*). 16 June.

DICOTS

Leguminosae. Lesser trefoil (*Trifolium dubium*). 29 May.

Rosaceae. Garden lady's-mantle (*Alchemilla mollis*) (S side only). 8 May.

Onagraceae. American willowherb (*Epilobium ciliatum*). 27 May.

Umbelliferae. Hogweed (*Heracleum sphondylium*). 16 June.

Solanaceae. Tomato (*Solanum lycopersicum*). 22 September.

Labiatae. Self-heal (*Prunella vulgaris*). 14 July.

Compositae. Sticky groundsel (*Senecio viscosus*). 29 May; Spear thistle (*Cirsium vulgare*).16 June; Canadian fleabane (*Conyza canadensis*) – lots of this now coming into flower, but a few plants of *C. cf. bonariensis* (with hairier, more deeply cut leaves) are still in tight bud. 14 July.

MONOCOTS

Cyperaceae. Pendulous sedge (*Carex pendula*). 16 June.

Gramineae. Perennial rye-grass (*Lolium perenne*). 29 May; red fescue (*Festuca rubra*) (S side only). 29 May; Yorkshire fog (*Holcus lanatus*). 16 June; rat's-tail fescue (*Vulpia myuros*). 30 June.

The tally recorded since 2005 has now reached 90 species – 8 ferns and 82 angiosperms in 22 families, representing 5.4% of the British flora. Pteridophytes and angiosperms, however, are not the only plants to have colonised the street. David Chamberlain kindly agreed to have a look at the bryophytes and on 24 October recorded 17 species of moss and three liverworts in a variety of habitats including traffic islands, the kerb at the base of the railings, areas and the steps down to them and even on tarmac.

Covid 19

Buses cruise the streets
bereft of passengers.

Drivers condemned
to endless rounds:

Les Vaisseaux Fantômes.

1 iv 2020

II · A VISIT TO LENY GLEN

In spring 2021 a party from RBGE was invited to see the recent restoration work that has been undertaken in the historic wild garden that occupies the lower part of Leny Glen, Callander, Perthshire. To the Himalayan botanist this is sacred territory as, following his return from India in 1815, Leny was the home of Dr Francis Buchanan (1762–1829). In 1818, in order to inherit his maternal estates from his brother, he had to take the name of Hamilton and as Francis Buchanan Hamilton he lived at Leny until his death in June 1829. In the Glen to the east and north of the house he developed a woodland garden:

> *at an expence [sic] of several thousand pounds … intersected with gravel walks, and the shrubbery filled with the rarest foreign plants and trees of every description, forming the most delightful pleasure grounds.*

The 'foreign plants' included ones from the Himalaya supplied by Nathaniel Wallich, Buchanan-Hamilton's indirect successor as superintendent of the Calcutta Botanic Garden. As the first British botanist to have spent a significant period in Nepal (in 1802–3) Buchanan-Hamilton had a particular interest in the Himalayan flora and its geographical affinities. One of the purposes of our visit was to establish if any of the plants, especially rhododendrons and conifers, might date back to the 1820s, or whether they were the result of the continued development of the garden under his son John Buchanan Hamilton (1822–1903) and grandson John Hamilton Buchanan (1861–1919). The party consisted of Mark Watson (for his Nepalese interests), David and Maria Chamberlain (to look at rhododendrons, with mosses on the side) and myself. We found ourselves there on Friday 30 April, a sunny, but cool, day.

Mark and I had last visited Leny in August 2006, when the estate belonged to Alan and Frances Roebuck and it was on that occasion

that we rescued Buchanan-Hamilton's fallen and eroding marble grave marker from the family burial enclosure for conservation and preservation at RBGE. Access to the Glen was then impossible: it was said to be an impenetrable thicket, dominated by the dreaded '*ponticum*'. I did, however, make a mental note of a magnificent specimen of the West Himalayan spruce (*Picea smithiana*) in the park close to the south-west of the house.

Within the last decade access to the Glen has been made possible by means of a track usable by 4-wheel-drive buggies, and the drainage of the lower, boggy part. Over the last two years Janis Binnie and her partner Ian Martin have contributed substantially to the restoration of the glen plantings on behalf of the owner, Fraser Inglis. On meeting up with Janis and Ian the first of several extraordinary connections emerged. Among his other talents Ian turned out to be a fish biologist who has worked extensively in Nepal on polymorphism in the mahseer (*Tor putitora*) in the Mahakali River. This fish (a famous challenge to anglers) was first described in 1822 as *Cyprinus putitora* by Buchanan-Hamilton in his pioneering *Fishes Found in the River Ganges and its Branches*, in which he wrote that the fish 'sometimes grows to nine feet in length'.

The Chamberlains arrived, Maria straight from a second Covid 'jag', David's presence being crucial to the exercise for his encyclopaedic knowledge of temperate rhododendrons. It was only by identifying these and their geographical origins (and hence the earliest possible dates for their introduction), which would allow informed speculation as to any possible connections with Buchanan-Hamilton. Until the 1970s much *Rhododendron* taxonomy was based on specimens grown in British gardens of 'the great and the good', who had a vested interest in the inflation of species numbers. There was then no appreciation of the extent of hybridization in the wild, or even of that which had taken place in gardens either deliberately or by accident. The project to revise the genus undertaken at RBGE in the 1970s and '80s by James Cullen and David proved game changing. Cullen never saw any of the species in the field and his work was based largely on herbarium specimens. The work, however, coincided with the reopening of China to botanical expeditions and David was among the first

post-War Western botanists to see Chinese rhododendrons in the wild. His travels embraced the whole Sino-Himalayan region: from Kashmir to the Khasia Hills in India, the Chinese provinces of Yunnan, Sichuan and Guizhou, and the mountains of Vietnam. The plasticity of species and the extent of hybridization became abundantly clear to him. In the popular imagination a curious mystique is given to the description of new species, but a good taxonomist performs a perhaps more useful task in recognising the synonymy of superfluously described ones. In addition to the constantly asked 'how many new species have you described …?' an equally pertinent one is '… and how many species have you sunk?' – especially in genera such as *Rhododendron*.

We were invited into the house for what by now were 'twelveses'. But from the drawing room looking out over the park towards Callander it was not possible to imagine ourselves as sitting where Buchanan-Hamilton once had, as this was in the part of the house built by his son in 1846. David Bryce remodelled the house for John Buchanan Hamilton, adding a substantial L-shaped wing to the south and west, mirroring the original seventeenth-century north – and east wings. The addition is in the baronial style but on a more domestic scale, and somewhat less turreted, than the extravagances produced by Bryce for institutions such as Fettes College or the mansions of titled magnates.

Suitably refreshed we walked to the foot of the Glen to see the progress Janis and Ian have made in the Herculean task of clearing the *ponticum* jungle to expose its much more interesting Asian congeners, some of which, with massive, gnarled trunks, were clearly of considerable age. Above the shrubs elegant conifers soared skywards; there were also two massive sycamores, believed to be more than 400 years old, and oaks of a similar vintage. The rhododendrons, while attractive, turned out to be ambiguous in terms of potential links with Buchanan-Hamilton. Certainly there were several Himalayan species, including huge and venerable specimens of *R. campanulatum* and *R. barbatum* (the crimson flowers of the latter blasted by recent, unseasonal frosts), both of which could have had a Nepalese origin, and two specimens of the former might, just conceivably, have been two

centuries old. The blackcurrant-coloured *R. niveum*, however, is native to Sikkim and Bhutan, and it seemed perhaps more likely that all of the Himalayan species (and specimens of *R. campylocarpum* and *R. wallichii*) dated from the latter half of the nineteenth century, following Joseph Hooker's 1848 discovery of the Eastern Himalayan rhododendrons and their introduction to British gardens. A second geographical category of species *Rhododendron*, including *R. pachytrichum* and *R. strigillosum*, which are native to Sichuan and Yunnan, must have been planted in the early twentieth century, possibly from collections made by E.H. Wilson.

Regrettably no written records of the garden plantings have survived. The contents of the house, including the library, were dispersed in the 1950s following the death in 1953 of the last member of the family, John Hamilton Buchanan's cousin. At that point some of the family's historical muniments went to what is now called the National Records of Scotland but sadly these do not include garden records. What does survive is a series of sepia photographs of the policies, including the walled garden and the Glen, taken around 1905 by John Hamilton Buchanan. Copies of some of these are at Kew, having been given to David Prain in connection with his invaluable biographical memoir on Buchanan-Hamilton published in the *Annals of the Royal Botanic Garden Calcutta* in 1905. Others were published, but with no descriptive letterpress, in a limited-edition book titled *Photographs of Trees & Shrubs in the Garden of Leny, Perthshire*, a copy of which is in the RBGE library.

The majority of the old rhododendrons in the Glen, and beside the walled garden, proved to be hybrids. From the impressive girth of their trunks these probably dated from the latter half of the nineteenth century, their parentage involving the Himalayan species *R. arboreum* and *R. thomsonii*, and North American species such as *R. catawbiense*. It was disappointing that there was no pure *R. arboreum* but perhaps unsurprising as it isn't completely hardy in Scotland and, while sheltered and damp, Leny lies far inland and on the very edge of the Highlands. One of the aims of the mid-nineteenth century hybridizations was to combine the brilliant scarlet flowers of *R. arboreum* with hardiness: the results were known as 'Ironclads'.

In the lower part of the Glen stand two western hemlocks (*Tsuga dumosa*), which must be among the tallest in the country. The same applies to a huge sitka spruce (*Picea sitchensis*), which, under favourable conditions and allowed to reach maturity, reveals a majesty that quashes the aversion felt when it is seen massed in Forestry Commission plantations. On the slopes on either side of the Glen, and in the surrounding parkland, are several large Wellingtonias (*Sequoiadendron giganteum*), which cannot date from before the 1860s. As the West Himalayan spruce and two deodars (*Cedrus deodara*) on the eastern side of the Glen are similar in size to the Wellingtonias, and despite their Himalayan origins, these trees probably all date from the same period as is confirmed by the 1905 photographs, in which all these trees are still of modest height.

We continued into the upper part of the Glen, which is in different ownership, but where interesting rhododendrons continued (more *R. barbatum* and a single non-flowering specimen of *R. rex* subsp. *fictolacteum* – the only large-leaved species seen, but a Chinese one). Here the land rises steeply and amongst the untamed jungle are many native oak trees, remnants of the original forest of oak, birch and alder. In the eighteenth century this was a valuable commercial resource that was managed by felling and coppicing on a 16- to 25-year cycle for tan bark and the making of charcoal for the Carron Iron Works.

In the lower Glen it was not only the woody species that were of interest. Carpeting the damp ground along the Leny Burn, among

extensive clumps of white butterbur (*Petasites albus*), was a sward of a conspicuous but unfamiliar crucifer, clearly a species of bittercress. Its white flowers were intermediate in size between those of *Cardamine pratensis* and *C. flexuosa* and it had a curious habit – the flowering shoots were leafless, the leaves all radical, arising from extensively spreading rhizomes. It was the leaves that betrayed the plant's identity – *C. trifolia* – and this turned out to be one of only three naturalised populations recorded for Scotland. The three, stalkless, overlapping leaflets are attractive – lime-green, rhombic with toothed margins – and the day after the excursion Mark saw the plant for sale in the New Hopetoun Garden Centre for £7.45 a pot. If the price doesn't put people off perhaps more naturalisations can be expected in the future?

In the damp undergrowth my eye fell on a scurfy, whitish-green patch of what, from its flattened, leafy stems, I took to be a liverwort, but which David identified as the moss *Hookeria lucens*. This set off a chain of associations as the genus was named by James Edward Smith for his young Norfolk compatriot, the then 23-year old William Jackson Hooker. Hooker had found the moss near Holt, the second of his notable early bryophyte finds, following that of *Buxbaumia aphylla*, which had proved to be his entrée into metropolitan botanical 'Society'.

The moss was known to Linnaeus as *Hypnum lucens* and, as with many bryophytes, has a worldwide distribution. The Rev. John Lightfoot had found it in Scotland on his tour with Thomas

Pennant in 1772 'by the sides of rivulets, in dark shady woods, but not common'. And in 1794 Archibald Menzies (like Smith and Buchanan-Hamilton, a student of John Hope) had found it on the shores of the North Pacific beside Nootka Sound. The paper in which Smith established the new genus was written in Norwich in 1808 and published the same year in the *Transactions of the Linnean Society of London*. Another paper in the same issue of the journal is by Hooker on none other than the mosses collected by Buchanan-Hamilton in Nepal. The specimens were in Smith's herbarium and had been given to him by Buchanan-Hamilton (along with his Nepalese flowering plants) in the hope that Smith would publish them. Most, however, were destined to remain unstudied in the herbarium in Norwich. Only a small number of the flowering plants were described by Smith – in his own *Exotic Botany* and in the great *Cyclopedia* edited by Abraham Rees. Hooker, as a young protégé, was one of the few to be given access to them and the paper 'Musci Nepalenses' (with accounts of 17 species, ten of which were new to science) is one of few early uses made of Buchanan-Hamilton's Nepalese collections. The connection between Smith and Buchanan-Hamilton went back to their time as medical undergraduates at Edinburgh in 1782, when Smith had formed the Society for the Investigation of Natural History, of which his fellow student was a founder member at a time when mosses were his main botanical interest.

In 1820 Hooker was appointed to the chair of botany at Glasgow, from where he made annual excursions to the Highlands to instruct students, and to collect and record the flora. On at least one of these excursions he visited the sage of Leny. Hooker sketched the old house and must surely have been shown the recent plantings in the Glen. But he was not the only famous botanist relevant to this tale to have visited Leny in Buchanan-Hamilton's lifetime, and it is astonishing to think that Wallich – a Calcutta-based Dane – also came here. In 1828 Wallich had arrived in Britain on what would end up as a four-year furlough, during which he curated and distributed the major part of the enormous herbarium he had accumulated in Calcutta on behalf of the (British) East India Company. During this period he scarcely left London but soon

after his arrival, in late September and early October, he made a brief *iter septentrionale*. On 5 October he wrote to Hooker from Edinburgh:

> *I spent a most delightful day & night at Dr Hamilton's, whom I found in better health than I expected – tho' he is* multum mutatus ab illo, *whom I knew 13 years ago. But his mind & heart are still the same: generous, warm & full of knowledge beyond, almost, all other Indian examples known to me.*

Our day ended with a pilgrimage to the small family burial enclosure at the bottom of the as yet unrestored walled garden. A peaceful spot where the sun streamed through the translucent shuttlecocks of the fern *Matteucia struthiopteris* (also naturalised in the Glen). Dispersed around the walls are memorial tablets to Buchanan-Hamilton's father (Thomas Buchanan of Spittal) and his descendants, and it was the first time I had seen the inscription for Buchanan-Hamilton made by Graciela Ainsworth – a replacement in resistant granite for the soluble marble original that is now mounted on the wall in the foyer and greets visitors to the RBGE Library and Herbarium.

POSTSCRIPT

Two subsequent visits to Leny by RBGE staff took place in the summer and autumn of 2021, to study conifers and fungi. Back at his computer, and with the help of literature now available on the Biodiversity Heritage Library, Mark had found published accounts of visits to the garden made in the late nineteenth and early twentieth centuries by several well-known arboriculturists aware of the historical significance of the garden. These provide important evidence on the question of which rhododendrons might go back to Buchanan-Hamilton's time. In 1906 William Bean visited from Kew and speculated that the 25-foot high specimens of *R. barbatum* and *R. thomsonii* that he saw had been sent by Wallich 'around 1819'. The date sounds like a guess and in 1819 any material from Nepal would have come indirectly – *via* Wallich in Calcutta, but originating with Edward Gardner, the British Resident in Nepal. The huge specimen of *R. barbatum* that survives on the left bank of the burn is doubtless the one seen by Bean and therefore possibly dates from the 1820s rather than the 1840s as we had initially suspected. Perhaps more certain is the origin of the huge *R. campanulatum* on the burn's right bank (photo page 28). Sir Herbert Maxwell visited Leny in 1916 and recorded that the specimen, then 30 feet high, had been 'sent home to the present Laird's grandfather in 1823'. This sounds like information provided by John Hamilton Buchanan and, given the precision of the date (shortly after Wallich's own period spent in Nepal of 1820/1), seems likely to be reliable – based at least on family lore, or even on written garden records that were then extant. In other words at least one, and possibly two, of the Leny rhododendrons really do seem to date from Buchanan-Hamilton's time and are probably the oldest rhododendrons in cultivation anywhere in the world.

Easter Monday

Deserted streets:
        Leith in lock-down.

Sir John Gladstone's church,
rededicated as a
        Sikh gurdwara.

Beneath its black spire
the priest, discretely
admits his congregation:
        family by family.

Their faith triumphs
over their fear
        of a virus.

Meanwhile the Church has opted for
secular solidarity:
        sported oaks,
        and services by Skype.

13 iv 2020

III · A DARWINIAN CONNECTION IN A PERTHSHIRE KIRKYARD

For several centuries the kirkyard at Fortingall in Perthshire has been a magnet for tourists with an arboricultural bent – for the sake of its ancient yew. This relic is now represented by several individual trees, each of unremarkable size, but which represent circumferential saplings from a veteran that once had a girth of fifty-two feet and variously estimated at two, or five, thousand years old.

On a recent visit it was not the walled enclosure that protects these renowned trees that attracted my attention, rather, a nearby one – one of those in which Scottish lairds are traditionally laid to rest. In this was another yew tree, perhaps an offspring of the veteran, but it was an inscribed marble tablet on one of its interior walls that caught my eye. It commemorates 'Marmaduke Ramsay MA FLS' and it was the second acronym that intrigued me. Who was this man and what were the biological interests that led to his being elected a fellow of the Linnean Society of London? The epitaph stated that Ramsay had died at Duneaves (a small mansion close to Fortingall) on 31 July 1831, aged only 36, and that the enclosure belonged to John Menzies of Chesthill, an estate in nearby Glen Lyon.

Ramsay's occupation was given as Fellow and Tutor of Jesus College, Cambridge and as he was the fifth son of Sir Alexander Ramsay of Balmain this meant that he must have been a brother of Edward Bannerman Ramsay, Dean of Edinburgh and incumbent of St John's, Princes Street. This is my local church, and among its handsome mural monuments is one to the brothers' mother, the Dowager Lady Ramsay of Balmain. Dean Ramsay was author of the charming *Reminiscences of Scottish Life and Character* in which is recorded a fascinating anecdote with reference to one of 'my' Indian botanists. He wrote that 'by an awful dispensation of God's providence' the death of Christian, Countess of Dalhousie (mother

of the Governor-General), 'happened *instantaneously* under my roof in 1839'. At this point Ramsay lived at 11 Ainslie Place, a house I used to pass daily on my way to and from work, but there was a more recent connection as only the previous week, at Kew, I had been cataloguing the drawings commissioned by Lady Dalhousie from a 'native' artist in Simla in 1831. As wife of the Commander-in-Chief of the Indian army she spent seven months in the then recently established hill station. While there she had botanical chit-chat and exchanged drawings with the founder of the Saharunpur Botanic Garden, Dr George Govan and his wife Mary Maitland, whose collection of drawings I had also catalogued, and who came from a similar Scottish aristocratic botanophile background to Lady Dalhousie.

On my return to Edinburgh, with the help of Google and a shelf of Darwin biographies, an intriguing story emerged. In 1814 Ramsay was admitted to Jesus College of which he became a fellow in 1819. In 1818 he was the 15th Wrangler, next in position to John Stevens Henslow through whom Ramsay would become a close friend of Charles Darwin. While Lady Dalhousie was botanising in the Himalayas Darwin and Ramsay were planning a natural-historical adventure to Tenerife in the Canary Islands. Darwin was deeply affected by the news of Ramsay's sudden and unexpected death in Perthshire. It was not only that it put paid to the Canary expedition but it was his first experience of the loss of a close friend. As he wrote to Henslow:

> *I have been lucky hitherto in never losing any person for whom I had any esteem or affection. My acquaintance, although very short, was sufficient to give me those feelings in a great degree.– I can hardly make myself believe he is no more.– He was the finest character I ever knew.*

That life went on, and that for Darwin was shortly vastly to expand, comes from the irony that it was in the same letter in which Henslow told Darwin of Ramsay's death, in August 1831, that he raised the possibility of his young protégé's participation in the *Beagle* voyage. Three years later, from remote East Falkland Island, reminiscing about Cambridge friends in a letter

to Henslow, Darwin could still write 'I never think of him without the warmest admiration'.

And what of the initials 'FLS' on the stone? On 3 December 1822 Ramsay was elected to fellowship of the Linnean Society as 'a gentleman well versed in the study of Natural History, more particularly in Botany & Geology'. Darwin appears to have rated

Ramsay more for his personality than as a naturalist who did 'not care much about science'. I can find little about his specific interests other than that in their book on Darwin and slavery Adrian Desmond and James Moore state, with no supporting reference, that Ramsay 'shared the age's craze for ferns'. It appears that it was Henslow, at this point Professor of Mineralogy at Cambridge, who proposed Ramsay as his name appears first on the election certificate. The other proposers were the dentist and zoologist Thomas Bell and three Cambridge contemporaries with botanical interests – the lawyers Edward Horne and John Hogg, and Richard Daniel who became a cleric.

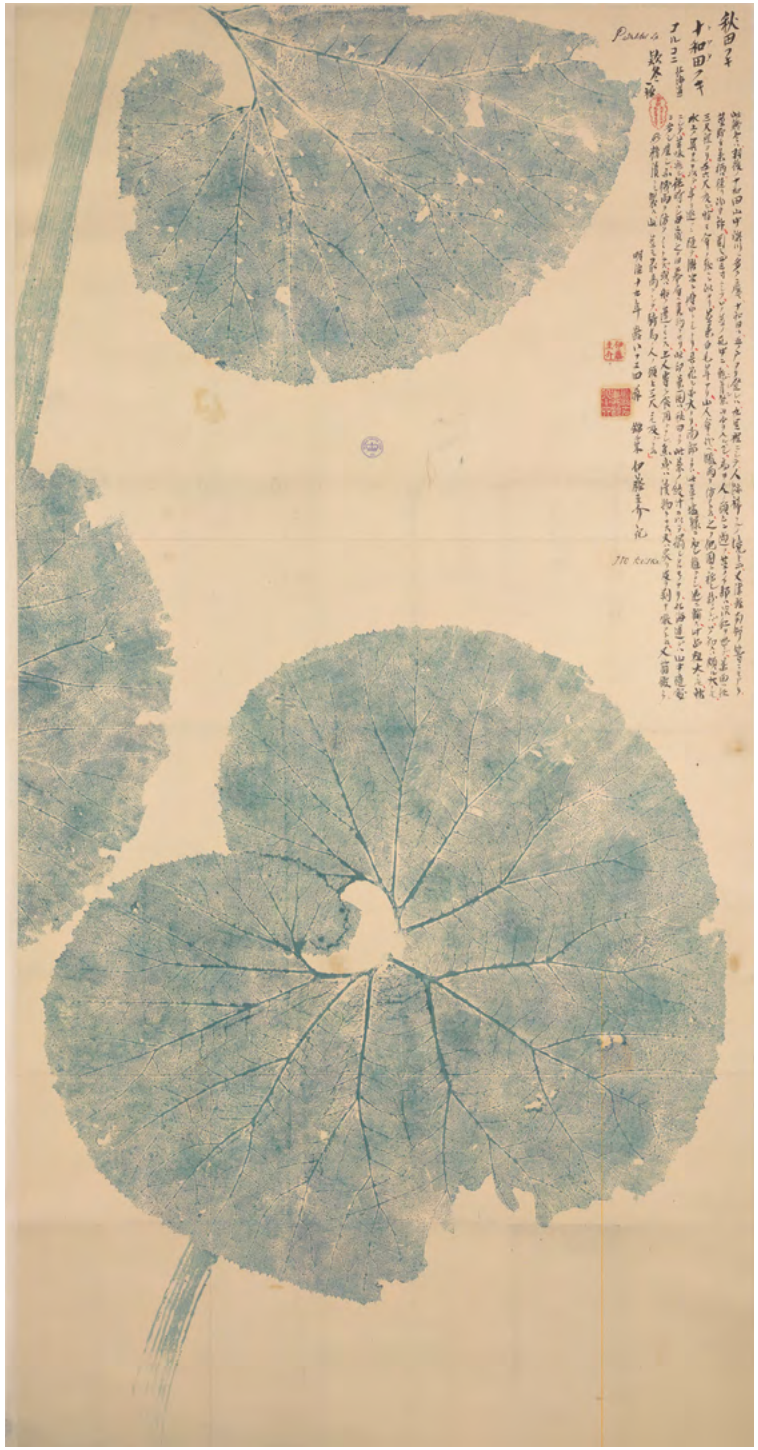
The Fortingall monument is not the only one to Ramsay's memory and Darwin himself was behind one placed in the chapel of Jesus College. Also a mural tablet this is a grander, Neo-Classical affair, with a roundel enclosing an exquisite low-relief profile of Ramsay's head. The monument is by Joseph Theakston of Pimlico who for many years carved the drapery for Sir Francis Chantrey's statues and, in terms of portraiture, clearly learned much from his boss. Darwin told Henslow that subscribers to the monument would receive (at the cost price of ten to twelve shillings) a copy of an engraving based on a portrait of Ramsay he had commissioned from 'Miss Jenyns'. The stipple engraving is by the London-based, but Musselburgh-born, William Walker and the copy reproduced here was Darwin's own. The artist was Mary Jenyns (1790–1858), sister of the Rev. Leonard Jenyns, vicar of Swaffham Bulbeck, another member of the Cambridge circle of Darwin, Henslow and Ramsay. Jenyns was elected to the Linnean Society the same year as Ramsay and had been Henslow's first choice as naturalist for the *Beagle*.

Even if Ramsay's natural historical interests didn't amount to much, the touching aspect of the story is to have stumbled on a memorial revealing of a historic and significant friendship with the author of *On the Origin of Species* in the unlikely context of a highland kirkyard.

Arthur's Seat
    in mid-April

Slopes or,
    quartered argent:

whin
    and sloe.



IV · THE GIANT BUTTERBUR, *PETASITES JAPONICUS*

Rituals to mark the unrolling of the seasons have always seemed important, but never more so than as reference points by which to punctuate the longueurs of lockdown. A powerful symbol of the vernal renewal of plant growth is to be seen on my regular drives to Dundee with the annual eruption of colonies of the chunky, pale yellow-green inflorescences of *Petasites japonicus* on the roadside at Kinfauns to the east of Perth. From a distance, and in lateral view, the stumpy spikes look somewhat pyramidal, but when seen from above their narrowly tongue-shaped bracts, being spirally arranged, give them more the appearance of multi-armed starfish. The robustness is in fact illusory as the stems are hollow, soft and sappy. The plant belongs to the family Compositae and its cylindrical capitula are of a dirty white colour; the florets in this, as in other naturalised British populations, are entirely male. The inflorescences are relatively short-lived and replaced in summer by large, umbrella-like leaves that quickly become untidy and tattered. It was for the leaves that Dioscorides coined the name *Petasites*, from the Greek name for a broad-brimmed hat, *petaros*.

Each year I stop and perch the car at the edge of the dual carriageway and, as lorries and cars thunder past, leap out and pick five spikes. These I put on my kitchen table in a handsome flower brick made by Sarah Walton, salt-glazed and the colour of laterite. Although trips to Dundee had, over the previous year, been somewhat restricted, the removal of my mother to a care home and eventual permission to visit her on 25 March 2021 allowed the performance of my ritual as in previous years.

The origin of this population is almost certainly as an escape from the nearby garden of Seggieden (*Anglice*: valley of the yellow flag-iris). The mansion, long-since demolished, was an elegant, bow-fronted Georgian one that stood on a terrace close to, and overlooking, a noble stretch of the Tay (not far from where Millais

painted his 'Chill October'). In the second half of the nineteenth century it was the seat of a noted ornithologist, Colonel Henry Maurice Drummond-Hay (1814–1896). Born Henry Drummond at nearby Megginch he was the son of Admiral Sir Adam Drummond and his wife Lady Charlotte, a daughter of the fourth Duke of Atholl and niece of the botanist Lady Charlotte Murray. In 1859, on his marriage to the heiress Charlotte Richardson Hay, he acquired her property and appended her surname to his own. Drummond-Hay was a professional soldier in the Black Watch who in retirement commanded the Royal Perthshire Rifles Militia; his passion, however, was for natural history. A founder member and first President of the British Ornithologists' Union he was

possibly the last man to see a living great auk. The sighting was from a ship off the coast of Newfoundland in December 1852, six years after the species' official extermination with the murder of a nesting pair of garefowl on the island of Eldey off Iceland in June 1844. Drummond-Hay was an outstanding taxidermist and the galleries of Perth Museum, of which he was for many years honorary Curator, were once filled with his exquisitely prepared bird groups, which I admired as a child but were later swept away in a lamentable programme of 'modernisation'. The Colonel was also a keen botanist for whom in 1886 his friend Francis Buchanan White named a variety of yellow rattle that the pair had found growing at 3350 feet on Ben Lawers: the no-longer recognised, quadruple-barrelled *Rhinanthus crista-galli* var. *drummond-hayii*. In a biographical memoir in *The Ibis* it was noted of Drummond-Hay that 'Few could rival his garden in its show of rare herbaceous plants'. One such rarity must have been the giant butterbur, which can have been introduced only shortly before his death in 1896.

Drummond-Hay's genes for an interest in natural history were clearly passed on: his eponymous son Henry (1869–1932), who became a tea-planter in Ceylon, is remembered as an herpetologist (commemorated in two snake species) and his daughter Constance (1862–1944) painted lively watercolours of fungi, now in the RBGE collection, of which her great aunt Lady Charlotte Murray could have been justly proud.

I think it was in 2001, when looking through the folders of Compositae in the Kew illustrations collection, that I came across *Petasites japonicus* in an altogether different form. Whereas most illustrations are flat, or folded at most into two, this one resembled a soft pillow that when unfurled became a sheet of mulberry paper 170 × 86 centimetres. The image it bore, in an unearthly shade of copper-green, was a nature print of a whole leaf, and parts of two others, of the butterbur; beside the leaves was written a long note in Japanese script. Several years later I drew this marvel to the attention of Jim Kay who, in the days before his project to illustrate the Harry Potter novels, worked on illustrations in the Kew library. In 2006, with Kew's Compositae expert Nicholas Hind, Jim wrote an article on the nature print for *Curtis's Botanical Magazine*. They

had the note translated, which stated that it had belonged to the Japanese botanist Ito Keisuke (1803–1901). Brought up in traditional herbalism and Confucianism, Keisuke was also instructed in Western botany and medicine (including vaccination) by the German botanist Philipp von Siebold. At the time Siebold was working as surgeon to the Dutch East India Company on the island of Deshima in Nagasaki harbour, to which foreigners were confined. In 1885 the print was given to Kew's martinet of a director William Thistleton Dyer by Keisuke's grandson. The note states that the image was made at Akita (in northern Honshu) by Ito when he was 80 years old and was printed using the plant's own sap. Much interesting additional information on the plant is also given: it grows on mountain riversides in the Towada mountains of Aichi Prefecture and in Hokkaido; its local name is *fuki*; its leaves, taller than a man mounted on a horse, are used as umbrellas; its leaf stalks are eaten boiled, pickled or crystallised in sugar. The plant is still eaten in these ways today, as are the immature inflorescences while still enclosed in their bud scales. Keisuke also stated that 'when the plant is exported to a foreign country it will still grow large, but gradually reduces its size and vigorousness due to the different environment'.

Since Hind and Kay wrote their article it has emerged that while the Kew print clearly belonged Ito Keisuke he might not, despite what is stated in the inscription, have made it himself. For further enlightenment we await the findings of Michele Rodda of Singapore Botanic Garden, who is currently making a study of these fascinating large-scale nature prints of *Petasites japonicus*. He tells me that they belong to a genre called *akitafukizuri* and were made to adorn screens and sliding doors of Japanese houses.

The information on the Kew print about the foreign cultivation of the plant suggests that it was already being exported as a horticultural curiosity by 1885, though its main introduction to Britain probably took place in the 1890s through the Yokohama Nursery Company. It reached Kew only in 1899, from where it was illustrated for *Curtis's Botanical Magazine* in 1905. The plant was first described in 1843 by Siebold and Zuccarini in the genus *Nardosmia* and was transferred to *Petasites* by Maximowicz in 1866. The form

in cultivation has been described as subsp. *giganteus*, though how this differs from the typical one, other than size, is unclear. The plant occurs in Honshu and Hokkaido, in north-east China and Korea, and on the Kurile Islands and Sakhalin. It appears not to be recorded from Kamchatka, though in habit it resembles the megaherbs for which that peninsula is famous.

Doune Terrace

Ulmus, the elm, has

two springs,
two autumns.

Two greens:
unripe samara wings: limey, moist;
then darker foliage unfurls.

Two browns:
chaffy fruits, pale buff, fly first,
then fall the heavy leaves of gold.

18 iv 2020

V · L'ERBA DELLA MADONNA

On my daily constitutional to Wardie Bay the ivy-leaved toadflax, C*ymbalaria muralis*, is currently (25 April 2021) making a fine display in the lime mortar of the sandstone walls on the eastern side of Granton Road. The plant is not native to Britain but classed as an introduction of long standing: an *archaeophyte*.

The first author to publish it as a British plant was John Parkinson, in his 1640 *Theatrum Botanicum*. By this time it was already naturalised in 'divers places of our Land', including upon 'thatched houses in the North parts … [especially] Lancashire', having first been known in gardens around Hatfield, Hertfordshire. One wonders if it might first have been brought from Europe by John Tradescant the Elder, who laid out the gardens of Hatfield House for the Earl of Salisbury in the early seventeenth century. Parkinson's description of the habit of what he called 'the Italian Gondelo, or Ivie like leaf', cannot be bettered:

> *this small herb creepeth on the ground with slender threddy branches all about, taking hold on walls or any thing it meeteth, by small fibrous rootes, which it shooteth out at the joynts as it runneth.*

It was a favourite plant of John Ruskin, who was something of an iconoclast when it came to the naming of plants. He objected to many Linnaean names on grounds of etymology, linguistic correctness or decency, and his preferred names for what was then officially *Linaria cymbalaria* relate to his two favourite cities, Venice and Oxford. In the former it was known as L'Erba della Madonna; his 'Oxford ivy' was probably of his own invention, and typically contrary.

One day in Venice, 'in a nook behind one of the shafts of the destroyed cloister of San Zaccaria', Ruskin took a sheet of blue paper and made a delightful drawing of the plant in ink wash and graphite. It has the intensity of one of Leonardo's plant studies.

In 1874 he placed the sketch, along with photographs, prints and other drawings (both original works and copies), in one of his specially designed cases (the one titled 'Introductory subjects and exercises in flower drawing'), as teaching material for the benefit of the students of his Oxford drawing school. The school was then based in the Ashmolean Museum to which the collections, including these 'Educational Series', were later transferred. Another of the groups of drawings in this series are the originals of seven of the illustrations for Peter William Watson's *Dendrologia Britannica* (1823–5) but curiously the majority of these, some 156 drawings, have ended up at RBGE, though at a date and by means unknown. Ruskin's were given to him by a pupil and included as examples of drawings 'in the old English manner', but almost nothing is known of the three artists who made them – one was called Edward Dalton Smith but of the other two, Mrs J. Travis and J. Hart, we don't even know their Christian names.

In the ninth chapter, 'Of finish', of the third volume of *Modern Painters*, published in 1867, Ruskin wrote of 'how [Giovanni] Bellini fills the rents of his ruined walls with the most exquisite clusters of the erba della Madonna'. The hauntingly beautiful paintings of the Madonna and Child are among Bellini's best loved works but after browsing the many available online I have been unable to find one that shows her herb in any of the Madonna's architectural surrounds. It is, however, clearly depicted in portraits of two altogether more austere male saints. In 'St Jerome Reading' of 1505 in the National Gallery of Art in Washington a healthy clump of the plant can be seen on the cliff above the saint's head, to the right of a rather sinister, skeletal tree; the Saint, it should be noted, is dressed in a garment that appears to be a prototype of a mankini in fetching sky-blue. In the 'Ecstasy of St Francis' of *c.*1480 in the Frick Collection (in which the Saint is more conventionally garbed), some delicate stolons of *Cymbalaria* dangle from the cliff at the top right-hand corner.

In Granton Road the prevalent form of the toadflax is the usual one, rich in a purple pigment (presumably an anthocyanin) that tinges the underside of the leaves and stems, and suffuses the flowers. But also growing there is a form lacking the pigment so

that its leaves are a yellowish-green and the flowers white, but for twin yellow spots on the palate at the mouth of the corolla. This is probably the cultivar *Cymbalaria muralis* 'Nana Alba', but in Ruskinian spirit I would like to propose a more picturesque name for what is an attractive plant – one appropriate for a northern city even if the regularity of Edinburgh's New-Town architecture failed to meet with his approval:

L'Erba della Madonna della Neve.

POST SCRIPT

My friend Ian Rolfe has pointed out that the first introduction of *Cymbalaria muralis* to Britain was, in fact, made by William Coys (c 1560–1627) – to his garden at Stubbers, Essex, in around 1602. Perhaps Coys supplied the plant to Hatfield, or perhaps it had already spread there either by natural or human means by the time of Parkinson's record. Coys was a friend of John Goodyer (who gave his name to *Goodyera repens*, the little white orchid of northern pinewoods) and of Matthias de L'Obel (of the *Lobelia*); he was also the first to bring *Yucca gloriosa* to flowering in a British garden.

Gentiana verna

These brilliant blue stars,
        should spangle the limestone turf
of the Burren or Cronkley Fell.

And deserve a better fate
        than to be caged on a pavement,
outside the Stockbridge Scotmid.

Doubtless offloaded
        by a locked-down garden centre,
offered for whatever
        the supermarket can get for them,
these spring gentians
        must be sprung from captivity.

Ruskin deemed Gentius of Illyria
        unworthy of commemoration,
so renamed it for a comely maiden:
        'Lucy of Teesdale', *Lucia verna*.

Each flower
        is a hypersensitive heliometer.

A cloud passes:
        her corolla lobes spiral shut.
The sun shines:
        she opens her face and smiles.

Stockbridge, 3 v 2020

VI · *EROPHILA VERNA* – A ROYAL IMPRESSION?

In April 2017 I visited a memorable exhibition at the Yale Center for British Art in its handsome Louis Kahn building in New Haven, CT. Entitled 'Enlightened Princesses' it explored the lives and patronage of three Hanoverian spouses. Taken in conjunction with a television series by Lucy Worsley broadcast around the same time it comprehensively exploded any nasty British suspicions of the Hanoverian dynasty as one of *wurst*-munching philistines. The three princesses were Caroline of Ansbach (1683–1737) who married George II, Augusta of Saxe-Gotha (1719–1772), founder of Kew and wife of Frederick Prince of Wales, and Charlotte of Mecklenberg-Strelitz (1744–1818), Augusta's daughter-in-law and wife of George III.

In a display case in the botanical section of the exhibition were two specimen-folders from the herbarium of the Rev. John Lightfoot (1735–1788), author of *Flora Scotica* and chaplain-naturalist to the Duchess of Portland. In 1788, following the cleric-naturalist's death, his herbarium was purchased by George III for a hundred guineas as a gift for his wife. One of the sheets bore the shrivelled remnants of a small cruciferous plant accompanied by two hand-written tickets and a tiny, coloured image on a rectangle of black paper. The label caught my pedantic taxonomist's eye, initially for the plant name 'Lepidium', taken uncritically from one of the tickets, though the other did bear what in Lightfoot's day was the plant's correct name *Draba* (now *Erophila*) *verna*. But there was another quibble as the label claimed that the image was a 'collage of coloured papers'. The glorious botanical paper mosaics of Mary Delany (1700–1788), almost a thousand in number, which she made between the ages of 72 and 82, are well known and because of Mrs Delany's friendship with Queen Charlotte several of her mosaics on black backgrounds were included in the exhibition. It would have been entirely possible for such a work, either by Mrs

Delany (a friend of Lightfoot) or one of the Royal princesses (to whom she taught her technique between 1786 and 1788), to have been added to the herbarium sheet. However, even through the glass of the vitrine it didn't look like a mosaic – either from its texture or its diminutive size. The coloured, life-sized image was only 3.5 centimetres high, the flowering scapes only half a millimetre wide – surely impossible to have been cut from painted paper by scalpel or scissors even wielded by the deftest hand and guided by the sharpest of eyes. The exhibition was about to travel for a second showing at Kensington Palace, so it wasn't until a year later that I was able to study the sheet, following its return to its home in the Kew herbarium.

The tiny image is discussed in several chapters of the excellent catalogue that accompanied the exhibition, though in a confusing, not to say contradictory, manner. Mark Laird referred to it as a 'Delany-style collage' and speculated as to whether the 'unique work' was made at Bulstrode (the Duchess of Portland's Buckinghamshire home) 'under the eyes of Delany and John Lightfoot', or if it might have been added to the sheet 'after Delany's death in 1788, as a royal tribute to her genre of botanical collage?'. In fact Laird himself unwittingly alluded to the true nature of the image with a reference to Queen Charlotte's botanical interests, of which he learned in Ray Desmond's history of Kew. On 19 March 1788 the Queen wrote to her late mother-in-law's botanical advisor, Lord Bute, about a 'Herbal from impressions on black paper' that she was then making. Both Laird and Desmond mistook this to mean the mounting of real specimens. In fact the Queen's letter, as hinted at in Todd Longstaffe-Gowan's catalogue chapter, refers to a technique taught to the Queen and the three eldest princesses, Charlotte (the Princess Royal), Augusta and Elizabeth, at Frogmore, Windsor, by a Mr and Mrs Lock of Norbury. Plants from the royal gardens were pressed into soft black paper and the resulting impressions then painted using fine brushes. Further details are to be found in Lorna Clark's 2014 edition of Fanny Burney's *Court Journals and Letters* for the year 1788. The Queen had developed what Fanny (her second Keeper of the Robes) described as a 'violent hankering' for the 'colouring of plants', in which she

had been instructed by William Lock. This was described as the 'Norbury pastime of pressing live plants (a skill at which his wife excelled) and then painting the impressions'.

On 30 March 1788 Fanny wrote to her father, the musical historian Dr Charles Burney:

> *We go on prodigiously well here [at Windsor]. Mr Lock gives almost Daily lessons, in Colouring the Plants, & with great success, – not only with his first [the Queen], but with three younger Royal Pupils [the princesses]: & Mrs Lock has been called upon to Lesson in the Impression taking.*

THE LOCKS OF NORBURY

William Lock (1732–1810) and his wife Frederica ('Freddy') *née* Schaub (1750–1832) were a wealthy and cultured couple, friends of Fanny Burney and of Mrs Delany, who were presented to the Royal family in 1787. Lock had inherited a fortune from his father, a London merchant and MP, but lived a life of leisure. This had started with an artistic Grand Tour before establishing himself and his beautiful wife in various grand houses in Mayfair, then in a mansion at Norbury, near Box Hill in Surrey, built for him to a design by Thomas Sandby. The estate was an old one planted with an astonishing number of walnut trees, of which the wood was used to make gun-stocks. The main drawing room of the new house was a remarkable 'Panoramic Room', its ceiling and walls entirely covered with landscape murals by the Irish artist George Barret, with details added by Sawrey Gilpin and Giovanni Battista Cipriani. (Barret had earlier worked in Scotland, painting three landscapes of the park at Dalkeith for the Duke of Buccleuch). The Norbury house has had an intriguing, if chequered, history and from 1938 to 1958 it was owned by Marie Stopes the palaeobotanist and family-planning pioneer. The murals, however, have survived if in a diminished condition. Lock was a close friend of John Julius Angerstein, founder of the National Gallery, and one of his daughters, Amelia, married Angerstein's son John. Lock's eldest son, also William, was an artist who married and left descendants including a glamorous great great grand-daughter, Vittoria Colonna Caetani,

Duchessa di Sermoneta. It is from the duchess's fascinating 1940 family biography that more is learnt, even if she was rather lofty about her forbear's plant impressions. While admiring William's expertise she considered it a 'pretty and useless art'. In widowhood Frederica continued to make plant impressions, of which many apparently survived in albums at Holbrook in Somerset until its sale in 1945 on the death of Georgina Angerstein (widow of Amelia Lock's grandson). The survival or whereabouts of these albums, as with Queen Charlotte's 'Herbal' of impressions, is unknown. Perhaps they lurk unidentified in some library or collection and would be easily recognisable from their black backgrounds; their rediscovery would throw light on this scarcely-known technique of eighteenth-century botanical illustration.

LIGHTFOOT, SMITH AND THE ROYAL FAMILY

The interest of the Royal ladies in botany and art was considerable and, as described in the catalogue essay by Jane Roberts, Princess Elizabeth in particular became a skilled botanical painter – and probably also a Delany-style mosaicist. In 1791 James Edward Smith was asked to curate the Lightfoot herbarium for the Queen, which the Bishop of Carlisle, Samuel Goodenough, had found to require remedial attention. Smith visited Frogmore for the first time in February 1792 and not only attended to the herbarium but gave 'conversations' on botany and natural history to the Queen and the princesses. Several more sessions took place and Smith took notes from the herbarium for use in compiling his *Flora Britannica*, but the interaction came to grief when the Queen took offence at passages in Smith's 1793 *Sketch of a Tour on the Continent, in the years 1786 and 1787*. While Smith's defence of Rousseau, and his comparison of Marie Antoinette with the Empress Messalina, made Smith appear more radical than he really was, the royal lessons came to an abrupt halt. In 1821, two years after Queen Charlotte's death, many of her possessions were secretly sold by her rakish son George IV to pay for his gambling dates. Lightfoot's herbarium was purchased by Robert Brown, Keeper of Botany at the British Museum for 50 guineas, but at some stage in the 1850s Brown must have parted with it. After a mysterious spell in a

museum in Saffron Walden at least the majority of it was acquired by Kew in 1921.

THE LIGHTFOOT SHEET AND THE PAINTING

In April 2018 I was finally able to examine the Lightfoot specimen. His herbarium sheets are folios, which are folded in half to protect the specimen mounted on the right-hand side of the sheet. On the one in question is a single specimen of the diminutive annual *Erophila verna* collected considerably after its prime. It was sent to Lightfoot by the Bath botanist William Sole (1741–1802), who thought it a 'new plant', from a 'wall near Frome, 3 Furlongs from the Town on the Road to Longleat'. On the ticket with the collecting details the name *Draba muralis* was initially written, with the (correct) epithet '*verna*' apparently added slightly later – it is the second ticket that bears the incorrect identification of 'Lepidium', given by Daniel Solander on account of the plant's 'Valvulae contrariae'. The painting itself is in gouache, with some tiny losses where the thick paint has pinged off. It shows the artist's close attention to detail, with minute hairs added to the margins of the leaves. The paint was presumably applied to the impressed surface of the paper, but the thickness of the gouache conceals this, and the slightly raised surface of the scapes and the anthers of the single open flower are due to the body of the paint. The impression must first have been emphasised, as traces of pencil outlining around the image must have been added before the application of the paint, after which came over-drawing with ink to define the sepals, petals and filaments.

The question of who made the drawing, and when, must remain open, but the strong likelihood is that it was made in March 1788, at the time the Locks were instructing the royal ladies. This corresponds with the flowering time of *Erophila*, which could easily have been found growing as a weed on a garden path at Frogmore. It is possible that it is by Queen Charlotte herself, but one of the princesses is perhaps the more likely, especially the most skilful of them, Princess Elizabeth (1770–1840).

The Lightfoot herbarium is kept in its own cabinets, which stand on the grand staircase of Hunter House, the late seventeenth- or

early eighteenth-century house on the north side of Kew Green that was made available to Sir William Hooker for botanical use in 1852. In the 1830s this had been the home of Ernest, Duke of Cumberland, who left it on his accession to the throne of Hanover in 1837. Although a staircase is a rather strange place on which to maroon an historic herbarium it is curious to think that Princess Elizabeth, in her widowed years as Landgravine of Homburg, probably trod these very stairs in 1835/6, while on a visit from Germany to her next youngest brother.

Man and Nature Mismatched

For the larger gulls,
Larus argentatus and *Larus fuscus*,
man's discarded waste,
and the long northern aurora,
are occasions for
clam'rous exultation

For the insomniac human,
in a Covid world
of heightened anxieties,
their hysterical brayings
a nightmare

Melville Place, 2.47 a.m., 2 vii 2020

VII · FIRST RECORDS OF BRITISH PLANTS – THREE INDIAN CONNECTIONS

In search of interesting facts for some captions I had been asked to write on members of our native flora I turned to David Pearman's fascinating 2017 account of the first records of British plants *The Discovery of the Native Flora of Britain and Ireland*. The desire to trace such records is a slightly curious one, but has a long tradition in the best amateur tradition of British botany, including the writing of local Floras (one duly followed by Ruth Ingram and myself in our 1981 *Flora of Angus*). Of course it has little relevance to biology, as most plants made their own way to these islands following the retreat of the ice after the end of the last glaciation. The story of their 'discovery' is therefore the history of botanical investigators and, more particularly, of who managed to get into print first. For this reason the greatest contributors to the story are men like William Turner, Thomas Johnson and John Ray so that a surprising 87% of the native British flora had been recorded (i.e., published) by as early as 1724.

But such intersections of people, history and plants lead to fascinating byways and anecdotes, as well as more serious aspects of the history of scientific discovery and its documentation. The question of post-glacial arrivals, either brought by man (whether deliberately or accidentally) or, in the case of light-seeded orchids perhaps wind-borne (i.e., 'natural'), is somewhat different. For these an accurate date might have some biological meaning. In some such cases, where a recent introduction has hybridised with a native species (or at least a longer-established, presumed non-native, termed an 'archaeophyte'), this has sometimes led to significant evolutionary consequences – including the origin of completely new species, as in the cases of *Spartina anglica* and *Senecio cambrensis* (see Chapter I). However, in what amounts to a kind of phyto-racism, introductions known certainly to have been made by man (denoted 'aliens') have usually been excluded

from lists of 'first-records', such as the pioneering one of William Ambrose Clarke in 1900. Pearman admitted archaeophytes and a few other categories, thereby covering a total of 1671 species considered 'British' (excluding microspecies of *Hieracium*, *Rubus* and *Taraxacum*), of which 1197 are probably 'native'.

While perusing the book and its fascinating introductory material, which includes a brief review of historical floristic literature and basic biographical information on all makers of first (or near-first) records, I was delighted to find that three have links with India. As a purely personal obsession I claim no significance for the links – rather, they are an indirect result of the interconnectedness of the two countries, especially of the career trajectories that took many ambitious young men, often with a medical training, from Britain to India in the eighteenth and nineteenth centuries.

THE ALPINE MILK-VETCH

In the entry for the graceful legume *Astragalus alpinus* Pearman quoted plate 2717 of the 1837 supplement to Sowerby & Smith's *English Botany*: 'It was discovered on 30 July 1831, on a cliff near the head of the Glen of the Dole, Clova, by Mr. Brand, Dr. Greville, and myself [Dr. R. Graham]'.

One significant name is omitted from this record, and therein lies the link with India. The occasion was one of the summer excursions to the Scottish Highlands organised by Robert Graham for his undergraduates, friends and Edinburgh alumni – on this one were William Brand and Robert Kaye Greville, together with some other distinguished botanists: Hewett Cottrell Watson, Dr A.J. Macfarlane, W.H. Campbell, Martin Barry, James McNab, William Christie and Dr Robert Wight. Of those whom Graham credited with the discovery, Brand was one of his students, a founder member of the Botanical Society of Edinburgh (BSE), who later became a lawyer (his bust is in the RBGE library). Greville had attended medical lectures with Robert Wight in Edinburgh around 1815, though would graduate from Glasgow with a law degree; private means, however, allowed him to pursue his interests, notably botany (especially cryptogamic), and anti-slavery and temperance activities.

It is Robert Wight's presence that makes the link with India, as at this point he was on furlough from the first of his professional periods spent in the Subcontinent. In 1831 Nathaniel Wallich was also on leave from his post of Superintendent of the Calcutta Botanic Garden and was in London distributing the EIC herbarium. Greville wrote Wallich an amusing account of the discovery of the *Astragalus* (then known as *Phaca astragalina*), which suggests Wight's active involvement:

> *And this leads me away very naturally … to our Highland ramble, where, if you had been present, instead of vegetating in your dusty workshop – bad man that you are – you would have been present at the discovery of* Phaca astragalina *– the first time that* Phaca *has made its bow to a British audience – our friend Wight performed wonders, and to the gazers at the foot of the precipice, seemed* Wightia scandens *rather than* gigantea*; especially as being seen in perspective little more than his anonymous end was visible. He & I however really, having less regard to broken bones or the sighs & tears of those we left behind, carried off most of the specimens. And just in this place, I beg that you will not turn up your nose at so much being said about a new British species.– Man of a thousand discoveries deign to recollect that to find a new phaenogamous plant in this exhausted receiver, as it were, of vegetation, is like finding a new species of Elephant or a Palm tree in Nepal – ahem!*

At this point Wallich had recently discovered a new palm in Nepal (now *Trachycarpus martianus*), and described the new genus and species *Wightia gigantea*. Although Wight was certainly present at the discovery, and I had taken Greville's account to suggest that his antics might have made him a key player, David Pearman alerted me to a paper by F.M. Webb in the *Transactions of the Botanical Society* of 1879 in which the full story is given: 'The discovery of this species was brought about by the accident of … [the RBGE Curator] Mr W. M'Nab's stick slipping from his hand over a steep cliff in Glen Dole, Clova. Mr Brand descended to recover it, and, in doing so, met with the plant. The party went round to the base of the precipice, and on the lower levels were

enabled to procure a supply of specimens'. Wight was therefore merely one of the procurers rather than the discoverer.

Astragalus alpinus still occurs in Glen Doll, with only three other British stations: Creig an Dail Bheag in the Watsonian Vice-County of South Aberdeen, and in East Perth on the Cairnwell and Ben Vrackie.

Pearman's entry for this plant, under the name *Scrophularia umbrosa*, reads "Edinburgh, Mr W.H. Campbell. Cramond Woods, West Lothian, Dr. A. Hunter'. – Stevens (1840)', which came as a surprise on two counts – the first nomenclatural and distributional, as I had always thought of the plant as a predominantly western species; the second from the name 'Dr. A. Hunter'.

The Rev. Charles Abbot Stevens (1817–1908) realised that in European Floras and British herbaria (including those of Linnaeus and J.E. Smith) two species had been conflated under the Linnean name *Scrophularia aquatica*. When describing the second element as a new species in 1840 Stevens named it *S. erhartii* for the German botanist and Linnaean pupil J.F. Ehrhart who had first described it (though under the name *S. aquatica*). In the paper, in addition to earlier literature references under various names, Campbell's and Hunter's Scottish specimens were cited, which makes them part of the type material of Stevens's name. At least two earlier names have now been found for the plant, one of them even since Pearman's publication: *S. oblongifolia* of J.-L.-A. Loiseleur Deslongchamps apparently predates, by a matter of months, B.C.J. Dumortier's *S. umbrosa*, though both were published in the year 1827. (Is such pointless and confusing exhumation of best-forgotten old names from the obscurest of sources, which does nothing but bring taxonomy into ill-repute, ever to end?).

It was the name 'Dr A. Hunter' that caught my attention – could this possibly be Dr Alexander Hunter (1816–1890), founder of the Madras School of Art, a fascinating man of whom I wrote about in *The Cleghorn Collection*? So it proved (and see Chapter VIII). Both he and William Hunter Campbell were botanical students of Robert Graham. In 1836 Campbell was another founder member of the BSE and its first Secretary (like Brand he also went on to become a lawyer); Hunter joined the Society only two months later, and both he and Campbell were keen contributors to the Society's herbarium, to which they made their first donations in December 1836. The specimens referred to by Stevens – 'Banks of Almond, Edin-shire, 30 Augt. 1834, ex herb. W.H. Campbell, and 'Cramond woods, West Lothian, August 1835, Alexr. Hunter' – are still in the RBGE herbarium.

In the UK the green figwort (which now, regrettably, has to be called *Scrophularia oblongifolia*) has a curiously spotty distribution – Central Scotland, Cumbria, Yorkshire/Lancashire, eastern Wales and Norfolk, and in Ireland along the Liffey west of Dublin). In July 2020 I refound it at the old locality of Hunter and Campbell, on the banks of the Almond in the woods north of Cramond, where the photograph was taken. In the 2002 *Atlas of the British and Irish Flora* it is suggested that it may be 'a relatively recent colonist'.

These two cases both date from the 1830s and stem from the medical origins of much botanical exploration. The third, despite many unresolved questions, differs in several respects – it dates from an earlier period, and the recorder not only came from an arts background but would go on to attain the highest office in the India of the Company period.

THE PIPEWORT

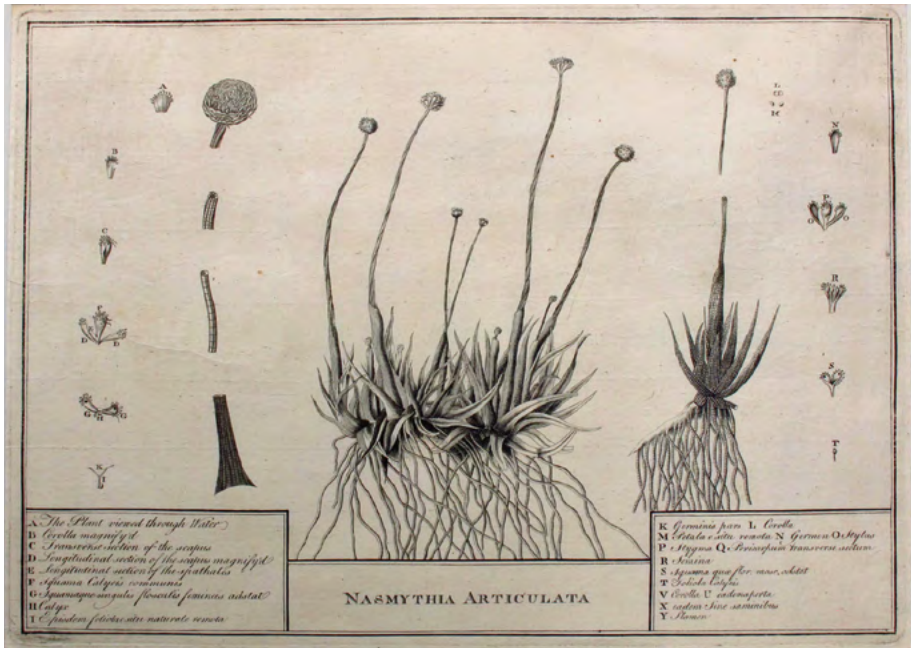
Pearman's entry for *Eriocaulon aquaticum* is double – a substantiated record followed by a more doubtful second. The first reads:

> *It was found, September 1768, in a small lake in the island of Skye, by James Robertson'. Hope (1769 [actually 1770]).*

The second:

> *In a small lake by the road side leading from Sconsar to Giesto in Skye, 11 Sept. 1764. Sir John Macpherson, who, indeed, first noticed it, leaped from his horse, waded into the lake, and brought it out'. – Dr. Walker in Hooker (1821: i. 270).*

With the first entry there is no problem. James Robertson was one of Hope's ablest students and was commissioned by the Commissioners of the Annexed Estates to undertake a series of surveys of the Highlands and Islands; he visited Skye between 23 July and 8 October 1768. Although *Eriocaulon* is not mentioned in his diary of the trip, Robertson made an outstanding analytical drawing of it and there was a specimen in Hope's herbarium. Hope was intrigued by the plant: its annulated roots suggested to him a possible link with algae, for which reason he sent it to John Ellis for an opinion, but he then realised that it belonged to Linnaeus's



genus *Eriocaulon* of which he was enabled to make an improved description. Hope had initially taken the plant to represent a new genus, which he intended to name for his patron Sir James Naesmyth of New Posso (later Dawyck). Robertson's drawing was engraved by Andrew Bell, and some states of the print were inscribed with the name *Nasmythia articulata*, one of which must have been seen by William Hudson who published this name in 1778. Hope, however, eventually concluded that the plant was conspecific with Linnaeus's *Eriocaulon decangulare* and published the illustration and an article in the *Philosophical Transactions* of 1770 under this name. Before this publication appeared Hope must have sent a copy of the plate and paper to his patron the Earl of Bute who passed it on to his tame botanist John Hill who, while crediting Hope and Robertson, pre-empted Hope's publication and in 1769 coined his own name *Cespa aquatica* for it, which, after a transfer to *Eriocaulon* (made by G.C. Druce in 1909), remains its correct name.

The second, more enigmatic, entry is the more interesting – not least for the hint of rivalry between John Hope and the Rev. John Walker that might lie behind it, played out through their respective protégés. Hope held the Edinburgh Regius Chair of Botany and Medicine, while Walker held the Regius Chair of Natural History, to which he had been appointed in 1779 in preference to William Smellie, a student of Hope and therefore one possible cause of friction. The source of this, pre-Robertsonian, record quoted by Pearman is William Hooker's *Flora Scotica*, but this was not published until 1821, 18 years after Walker's death. In a footnote Hooker did supply the original source of the suspiciously detailed anecdote – a note on a specimen in Walker's herbarium as seen and recorded by a Mr Maughan (probably Robert Maughan, an early member of the BSE). Unfortunately, neither Hope's nor Walker's herbarium has survived. Several questions arise. Is *Eriocaluon*, a submerged aquatic, with tiny inflorescences that project only a few inches above the water really likely to have been spotted from a man on a horse (even if trotting rather than galloping)? And if Walker and Macpherson had seen it four years before Robertson, why did they fail to publish such a significant record, especially following the appearance of Hope's 1770 paper? A further cause for at least a raised eyebrow is that Macpherson was not made a baronet until 1786, so the note must have been added more than 22 years after the event (with a hint of snobbery that Walker was proud of an aristocratic connection).

To me the main interest of the story is the Indian link in the person of the alleged finder, John Macpherson. Macpherson's father was the Rev. James Macpherson (1713–1765), minister of Sleat, a noted antiquary and Gaelic scholar. Walker was commissioned by the Society in Scotland for the for the Propagation of Christian Knowledge (SSPCK) to undertake a series of Highland Surveys. (Another possible point of friction between Walker and Hope, as it was Robertson who was commissioned to undertake similar surveys for the Commissioners of the Annexed Estates). Professor Charles Withers tells me that, as part of his first major trip in, Walker is known to have been on Skye from mid-August 1764. Given the SSPCK connection it is highly likely that Walker

would have met Macpherson *pater*, but the whereabouts of *filius* at this point is uncertain. John and his brother Martin had been sent to King's College Aberdeen with a view to ordination and both had graduated AM in April 1764. Martin did go on to become a minister, but in this same month the more ambitious John was said to be spending the session studying at Edinburgh University. It is possible that the young Macpherson could have met Walker in Edinburgh and offered to accompany him on part of his survey, but there is no record of this; on the other hand John could have been on a summer break with his father in Skye and the meeting could have been a fortuitous one.

The truth, even should the Walker specimen turn up, is never likely to be ascertained, but it is worth saying a little more of John Macpherson's later life. By all accounts he was a remarkable character, regarded as a polymath, speaking five languages and, at well over 6 feet tall, physically striking. He went to Madras in 1767 where he became acquainted with the Nawab of Arcot who had been lured, if not forced, by a notably corrupt Madras Government into a tangled web of debt, which Macpherson tried to help him to resolve by returning to London. (He arrived back in November 1768, which is why the date of September 1768 for his supposed *Eriocaulon* discovery cited by William Wright in a letter to Robert Brown cannot be correct). Macpherson went back to Madras as a 'writer' in 1771 but in 1776 was dismissed by the controversial Governor Lord Pigot, after which he returned to London and became MP for Cricklade. In 1781 Macpherson was appointed to the Supreme Council of Bengal and became right-hand man to Warren Hastings (a friend since their earlier Madras days), which is why, on Hastings's resignation in 1785, Macpherson acted as Governor-General of India for 19 months until the arrival of Lord Cornwallis as the official nominee in 1786. During this time he made himself unpopular by taking a stance against corruption. Macpherson, who never married, returned to London, where he again became an MP (briefly again for Cricklade, then for a longer period for Horsham), and travelled in Europe. He died in London in 1821 and was buried in St Anne's Soho.

The pipewort has an interesting 'amphiatlantic' distribution, occurring on both sides of the ocean. In North America it is scattered in eastern Canada and the United States as far west as Lake Superior. In Britain, after Skye, it was next found in Ireland (by Walter Wade in Connemara in 1801), where it is widespread, occurring in the counties of Cork, Kerry, Galway, Mayo, Sligo and Donegal. A second Scottish site, on the island of Coll, was first recorded by the geologist John MacCulloch in 1819 and in 1967 it was found on the Ardnamurchan peninsula on the Scottish mainland.

Noctilucent pebbles

Against the black glaze of a plate,
on the disc of a mahogany table,
pebbles glow in the half-light
– as though lit from within.

Auburn cornelian,
Milky-blue chalcedony.

While the mind knows that faint light-waves
have been absorbed and diffracted,
the eye and the heart are tempted
to a magical explanation.

Re-radiated flame:
a vestige of the vulcanism
that forged them
in the Lower Old Red Sandstone?

Colour forms of silica
and verdigris'd chlorite
crystallised within air bubbles
as lava cooled.

In its own cycle of mortality
chocolatey andesite crumbles
to release hidden gems
– inclusions excluded.

Souvenirs mudlarked in late middle-age
        from the shingle-shores of Tay
these incandescent stones
        offer comfort in lockdown bewilderment,
            emitting ghosts from a former age.

From childhood beachcombing,
        to deep geological time.

Via Victorian lapidarists
        (who cut and set them in brooches),
and Mesolithic hunter-gatherers to whom,
        scouring the same beaches for molluscs,
the stones' translucency
        must also have seemed
            talismanic.

19 vii 2020

PART TWO
INDIAN MATTERS

VIII · THE GARDEN OF MALABAR REFIGURED

This piece was written as a talk for a one-day symposium convened by the artist Siân Bowen at the Royal Botanic Garden Edinburgh on 28 February 2020 as part of her exhibition 'After Hortus Malabaricus: Sensing and Presencing Rare Plants'.

The exhibition had opened in Inverleith House on 10 January as the first event of what turned out to be the Garden's interrupted, if not doomed, 350th anniversary celebrations, and scheduled to end on 22 March. Little could it have been imagined that this would turn out to be the day before the great national lockdown, during which the exhibition was left marooned in the deserted house. The exhibition was the culmination of a four-year collaboration with RBGE, as part of a Leverhulme Fellowship held by Siân, its starting point being the dozen printed volumes of the *Hortus Malabaricus* through which the artist became interested in the concept of rarity and the vulnerability of plant life. This led her to a study of historical Indian specimens in the RBGE herbarium and field work in Kerala, where she spent time at the Gurukula Botanical Sanctuary. The exhibition included work in the diverse range of media – from drawings, casts and artist's books to video – which Siân uses to express her artistic vision. These reflect an interest in historical technical processes, which include paper-making and book construction, and the use of that fascinating optical framing device, the Claude Glass.

The twelve, sumptuously illustrated volumes of the *Hortus Malabaricus* represent one of the most remarkable publications of the entire colonial encounter – and not only in the field of medico-natural history. This is a result of the rich and complex process of the work's genesis – from the information gathering and plant depiction that took place at Cochin on the coast of Malabar, to the editing of the text, engraving of illustrations and book production in Amsterdam on the north-west coast of Europe, all achieved in

the three closing decades of the seventeenth century. To botanical taxonomists the work is one of the pioneering accounts of the plants of a more-or-less defined tropical region – that is a 'Flora'. To post-colonial students it represents a unique record of indigenous Indian medical knowledge. To art historians it is one of the high points of line-engraving on copper as a technique for the reproduction of botanical drawings. In all of these ways of considering the work hybridity forms an important element. The themes of hybridity and metamorphosis seem particularly relevant to Siân Bowen's exhibition at Inverleith House. To me it is deeply hybrid in nature, dissolving boundaries between drawing and sculpture, art and science, living and dead, bound and unbound, and, with her interest in paper technology, those supposed antitheses of art and craft. The idea of metamorphosis is also relevant both to her work and to the nineteenth century drawings to be discussed here.

These drawings were unearthed in the RBGE library in 1998 – when I identified and extracted them from a vast archive – some 250, 000 items of visual information – known to the Garden's taxonomists as the Illustrations (or, more ominously, 'Cuttings') Collection. The Garden dates back to 1670, founded at the very time that Hendrik van Rheede and his team were at work in Cochin. Its purpose was a related one – established as a 'hortus medicus' for the cultivation of medicinal plants, chiefly for the teaching of the identification and pharmaceutical uses (*materia medica*) of plants to students of medicine.

While differing greatly in appearance from their prototypes – in terms of medium and physical size – it was apparent, from their annotations, what the drawings were: 'Rheed XI. Tab. 30' denotes plate (*tabula*) number 30 of the eleventh volume of the Dutch publication. The Latin binomial of the plant depicted is also given – in this example 'Nelumbium speciosum [of] Willd[enow]', representing a layer of taxonomic knowledge added subsequent to the work's publication in what botanists refer to as the 'pre-Linnaean era' – that is before the publication of Carl Linnaeus' epoch-making *Species Plantarum* in 1753. The plant names recorded in the *Hortus Malabaricus*, by contrast, are largely transliterations from Malayalam, the language of the Malabar Coast (now

mainly Kerala) into various scripts, including Roman and Arabic. Following the editing of the work in Holland by Jan Commelin, Arnold Seyn and others, botanists including John Ray in England attempted to fit the plants described and illustrated into the global classificatory schemes of their time. Slightly later, as part of his great encyclopaedic enterprise, Linnaeus cited almost half of the 794 plates, and used about 100 of them as the basis for new species under his sexual system of classification. However, it wasn't until the later eighteenth and early nineteenth centuries that extensive exploration of the Indian flora by Western botanists took place, enabling the illustrated plants to be more accurately identified and classified – a process re-examined and progressively refined up to the present day.

The question, rather, was where and when these unusual ink drawings were made. The archival exhumation formed part of a larger project: the extraction of all the original drawings (as opposed to prints) from the Illustrations Collection. The organisation of the collection had been purely taxonomic – by family, genus and species of the plants depicted – but to reconstruct the history of the drawings (social and art-historical) it was necessary to rearrange them into their original groupings – by commissioner and, where possible, by artist. Many of the reassembled groups turned out to represent different elements of a once large body of work commissioned and assembled in India between 1842 and 1868 by (the Madras-born) Hugh Francis Clarke Cleghorn during his career as an East India Company surgeon. The striking *Hortus Malabaricus* 'copies', amounting to 379 drawings, represent one such sub-collection – and include images of more than half of the 690 species illustrated in the published work.

Copies of the twelve volumes of the *Hortus Malabaricus* were always rare, even in Europe, and in pre-photographic days many botanists had copies of the plates made for reference purposes. For example, William Hooker in England in 1810 (in preparation for an ultimately abortive visit to Ceylon), and Robert Wight in India in the 1840s; Cleghorn was therefore following in an established tradition. Both Hooker and Wight used a smaller, more portable, format than the folio-sized originals, but whereas their copies were

simple outline drawings, Cleghorn's artists achieved something altogether finer. In India copies of the *Hortus Malabaricus* were particularly hard to catch sight of. In Madras in the 1820s there was a set in the Medical Board in Fort St George, but when Wight asked to borrow it to assist with his taxonomic work he was refused by the curmudgeonly Governor, Stephen Rumbold Lushington. It may be this copy, still in Chennai's Connemara Library, that Cleghorn set his artists to copy. Cleghorn did, however, own copies of the first six volumes of the work, that had been given to him while on leave in Edinburgh in 1850 by his friend the cryptogamic botanist and anti-slavery campaigner Robert Kaye Greville. These volumes are now one of the treasures of the RBGE library and three of them were included in Siân's exhibition. That this was possible was something of a miracle as the precious tomes almost came to grief on Cleghorn's return to Madras. While lodging on an upper floor of the warehouse of Oakes, Partridge and Co., in what was then known as 'Black Town', the botanist was woken one morning in the early hours by the whining of his dog. The warehouse was ablaze. Cleghorn emerged unscathed, lugging the books with him, but the poor dog was left to its fate.

In Madras in the early 1850s Cleghorn began to have botanical illustrations copied from books and periodicals on an extensive scale. At this point his professional life was a hectic one – as Professor of Botany and Materia Medica at the Medical College, as secretary of the Agri-Horticultural Society and as a practising physician and surgeon. Unlike his botanical guru Robert Wight, Cleghorn published only a handful of the illustrations he amassed, so one can only presume that he commissioned his drawings – whether from living plants, or, like these, copied from rare books – as part of his teaching practice and for private study. The *Hortus Malabaricus* set was doubtless begun during this period, but in 1856 a dramatic development to his career came with his appointment to the newly created post of Conservator of Forests for the Madras Presidency.

A question arises as to the choice of plates that Cleghorn got his artists to copy. With the unexplained absence of even a single one from Volume 8, by far the highest proportion come from those

he didn't own, Volumes 7 to 12. These he presumably wanted as part of his general botanical studies. However, a smaller number of copies are from volumes that he did own and significantly these are all of trees. The watermark 1856 appears on drawings copied from the last two volumes, suggesting that the majority were probably made after his forestry appointment – and probably shortly thereafter, as in the damp climate of Madras paper tended to be used soon after its manufacture. This would make sense as during the next four years Cleghorn made three extensive forest tours, largely through the Western Ghats in what are now the states of Tamil Nadu, Karnataka and Kerala, where the drawings would have been useful in helping him to identify the botanical and arboreal riches encountered. It was a similar interest that had inspired an earlier Edinburgh-trained Indian surgeon, Francis Buchanan-Hamilton, to write his analysis (with up-to-date species identifications) of the *Hortus Malabaricus* in the 1820s. It is likely that Buchanan had been shown the copy of the single volume of the *Hortus Malabaricus* owned by his botanical teacher John Hope. In 1774 the fascinating apothecary, playwright and botanist Sir John Hill, one of the founders of the Royal Garden at Kew, started to publish a new edition of the *Hortus Malabaricus*, in a more portable, quarto format and with redrawn plates. Hope subscribed to this edition and sent a copy of the only volume produced to another of his Indian students, William Roxburgh, in Madras – another example of reimagining and translocation.

Van Rheede employed three or four artists, probably all Dutch, as certainly were the two whose names are recorded – Antoni Jacobszoon Goetkint and Marcelis Splinter. Both were employed at Cochin by the Dutch East India Company, and both came from artistic families – Goetkint from Antwerp; Splinter from Utrecht. The names of only two of the Dutch engravers are known, Bastiann Stoopendael and Gonsalez Appelman, but others were most probably used during the long course of the work's publication.

Even less is known of the artists who reinterpreted the Dutch engravings for Cleghorn. In 1853 he had inherited from Wight the artist Govindoo, probably one of the Raju caste of traditional artists with origins in Tanjore who adapted themselves to work in a

new hybrid style for British patrons, especially for natural historical subjects. But at this exact time a significant new phase in Indian art had begun with the opening, in 1850, of the Madras School of Art (MSA) by Cleghorn's friend Alexander Hunter (1816–1890), another Edinburgh-trained Company surgeon (see Chapter VII). Hunter's was a philanthropic exercise: to train Indian and Anglo-Indian boys in fine and applied art in order to improve their job prospects. Although a few of the pupils appear (from their names) to have come from traditional artistic backgrounds, the majority did not. Cleghorn employed pupils from the School of Art both in the Medical College and at the Agri-Horticultural Society, to draw plants from nature and, especially in the winter, to make copies of book illustrations.

The *Hortus Malabaricus* 'copies' appear to have been made over a period of several years – by several artists and on a variety of papers (most are English, though some are on what appears to be a fine, locally-made one). By far the majority of the drawings are clearly the work of a single artist, but despite difficulties with attributing copy illustrations, three or four other hands seem to be responsible for some of the drawings. The identity of the artist responsible for the majority is unknown, but there are two main contenders. One is Govindoo, the other an MSA pupil called Murugasen Modeliar who worked for Cleghorn, but who also made ink wash drawings of the Amaravati sculptures for Cleghorn's civil-servant friend, the naturalist and antiquarian Sir Walter Elliot (see Chapter X). On the back of three of the drawings is pencilled the name 'Chengulvara', another MSA pupil, and in one of these the name appears to have the revealing suffix 'Raju' (being stuck to a backing sheet it is not completely visible). The style of these drawings is slightly scratchier than that of the chief artist, and he may only have been employed by Cleghorn for the latter part of Volume II. The question of definite attribution, however, seems hopeless and, as anonymity has always been a feature of Indian art, perhaps even a misguided aim.

One is also left to the realm of speculation about aspects other than artists' names. The drawings intrigue the mind and the eye in a number of ways, and at different levels, quite apart from their strange beauty. For a start they develop the hybrid nature of the

original work, and in several respects. Whereas the original drawings (now in the British Library) were made in India by Dutch artists, in washes of pale grey ink, these drawings were reimagined and drawn with brushes by Indian artists in Madras, taking the Dutch engravings as a starting point. They are by no means 'copies' in terms of being facsimiles of the prints and there are strong parallels here with what to me are the visual highlights of Siân's exhibition – her re-drawings of some of the engravings (including the stunning one of mangroves, the only 'ecological' grouping in the *Hortus*) in the thrilling medium of indigo and bronze powder,

in which her transformations also play with scale (huge enlargement) and a reversal from positive to negative. Siân has long been interested in the idea of the copy as an art-form and in Japan in the 1980s made a series of exquisite watercolours using the techniques of 'mosha'. This was introduced to Japan from China in the seventh and eight centuries and, as in Indian art, was seen not only as a technical process, but an 'attempt to recapture the inner spirit which had animated the original painting'.

The Madras plates are not only translations in terms of medium but, markedly so, in terms of composition. The engravings in the printed volumes are large-format, landscape compositions, each one fixed down its central fold to a 'guard', expansively spread across the full width of the opened book. By contrast the drawings (with the exception of the lotus) are compressed into a portrait format of less than half the original size that required considerable ingenuity on the part of the artist. While Cleghorn's interest almost certainly concerned only the taxonomic information content of the drawings – the all-important floral parts that enabled the plants to be identified 'scientifically' (and therefore correlated with medicinal uses) – the Indian artists must have had other interests. That is, at least in the case of the plants they recognised (as the plants depicted came from the west coast of India, many would have been unfamiliar to Madras-based artists). Their main concern was probably entirely visual, as is clear from the care taken in the composition of the plates. Pattern formation and the imaginative filling of space have always been major concerns for Indian artists.

I will end with some associations that come to mind relating to hybridity, metamorphosis, and the journeyings back and forth that lie behind these nineteenth-century drawings and their seventeenth-century 'originals'. In her work Siân has thought of many transformations (concerning time, space, botany, ephemerality and materials), but one might also consider the geography and societies of the places of these drawings' creation. The engravings were made in Amsterdam towards the end of the Golden Age of Dutch art. Rembrandt had died only four years before the publication of the first volume. In fact there is a connection – through the artist of the allegorical frontispiece of the *Hortus Malabaricus*, which shows an

Indian incarnation of the goddess Flora being offered botanical tributes. This was a purely Dutch contribution to the book and, as has been shown by the great Indian scholar (and translator into English) of the *Hortus*, Professor K.S. Manilal of Calicut, its artist was Gerard de Lairaisse. Lairaisse was the author of an influential textbook on painting and the subject of a haunting portrait by Rembrandt, now in the Met, which shows the sitter in his latter, syphilitic days. The prints were engraved beside the bustling canals of Amsterdam. The original drawings had been made in, or near, an outpost of Dutch militarism, the Fort at Cochin on the Malabar Coast. Cleghorn's artists worked within earshot of the pounding surf of the Coromandel Coast – either in his house at San Thomé, in the Medical College, or in the Agri-Horticultural garden.

In Siân Bowen's work such resonances – a concern with historical research, geography and travel, have continued and been developed in highly imaginative ways. Her engagement with the RBGE herbarium (in which one of the oldest specimens is of the black pepper, collected on the Malabar Coast in 1700), her travels to Western India (including coastal mangrove swamps, and the Gurukula Botanical Sanctuary in the hills of Wyanad, as captured in her hypnotic video pieces), the work in her studio in Northumbria and elsewhere, have now come together in a glorious exhibition in the sublime galleries of Inverleith House.

Daylength

In this northern city
summer lockdown days
    were too achingly long to fill.

Only too soon will they
    become too short.

So the most should be made of
    these median autumnal days,
when twilight comes
    at a welcome hour.

Edinburgh, 20 viii 2020

IX · BHUTANESE EXCURSIONS

By 1987, when I joined the *Flora of Bhutan* project at RBGE, the Bhutanese government was in a period of deep xenophobia, unwilling for foreigners to observe the effects of its forcible eviction of the majority of its Nepali population. It was convenient that the rest of the world should turn a blind eye to what was going on and be able to retain its romantic delusion of the existence of one last, unspoiled Shangri La. What would have been a fourth official expedition by RBGE staff was therefore disallowed and yet, for the sake of the *Flora* it had commissioned under a more outward-looking regime of the previous decade, it was essential for me to see for myself, in a living state, the plants I was describing – especially the difficult groups of sedges (Cyperaceae) and rushes (*Juncus*). During the course of the 1990s the political situation in Bhutan was to improve, by which time the country also had several trained botanists of its own. The government came round to the idea of completing the *Flora* and generously allowed the two final official expeditions essential for bringing the long-running project to a conclusion. Of these the one for orchids took place in 2000, and in 1998 I had made a memorable trip with Rebecca Pradhan, Sherub and Tandin Wangdi, in which we traversed the country in search of grasses – but that is another story.

In 1991 foreign nationals working in the country were still allowed to invite personal guests and I was fortunate to be able to go to Bhutan for a month in July/August as the guest of John R.I. Wood then working for the Bhutanese Department of Education. As one of the world's greatest and most active field botanists John had previously worked in Yemen and Colombia and would subsequently work extensively in Bolivia, and in all four countries he has made outstanding contributions to botanical knowledge. On his arrival in Bhutan he had reached an informal understanding with the Forestry Department that allowed him to make a collection

of plants, of which mine could be seen to form a part. In addition to sedges and rushes I was particularly anxious to refind three petaloid monocots: an un-named yellow iris, and two endemic plants, a lily and an onion that had both been described almost half a century earlier by W.T. Stearn.

THE 'TUNCHU GOP'

William Stearn (1911–2001) is best remembered as a great botanical bibliographer and for his textbook *Botanical Latin* first published in 1966 and still regarded as a bible for the plant taxonomist. Much of Stearn's vast knowledge was acquired while he was librarian of the Royal Horticultural Society's Lindley Library, a post he held for twenty years from 1933 (with an interruption during World War II). Before my appointment to the Bhutan project he had been asked to write the treatment of *Allium* that, with the horticulturally rather more attractive *Epimedium*, was his favourite genus. Stearn was known for his helpfulness to younger colleagues and it was over his *Allium* account that I would first meet him in the hallowed precincts of the Kew library.

In 1960, in the *Bulletin of the British Museum (Natural History)*, Stearn had monographed the species of *Allium* of the central and eastern Himalaya, some of which he had seen for himself in the field in Sikkim in May 1945. As a Quaker his war-time service was with the RAF Medical Service, which had taken him to India and Burma. He still recalled with horror the collecting method of a senior Indian botanist that he had observed in Sikkim four decades earlier. Mounted on horseback the *burra sahib* would point at a specimen that an earthbound minion, who undertook the (lower-caste) activity of collecting, would gather. The result was that only plants visible from an elevation of at least ten feet would reach the plant press. In the Himalayan monograph Stearn described the new species *Allium rhabdotum*, which resembled the Welsh onion, based on five herbarium specimens collected in Bhutan. Of these two had been made in 1914 and 1915 by Roland Edgar Cooper, and three in 1949 on the last and most productive of the Bhutanese expeditions of Frank Ludlow and George Sherriff. On this 'LSH' expedition the veteran Tibeto-Himalayan collectors

were accompanied in a medical capacity by Dr John Hicks, but the 'S' was in fact plural as Sherriff's wife Betty was also a key member of the team. The old records suggested that the *Allium* occurred at high altitude throughout the country, from the west to its extreme east. The most characteristic feature of the tall plant (which could reach 1.25 metres) was its tubular ('fistulose') leaves, but the epithet used by Stearn, taken from Greek, refers to its striped tepals.

The stripy onion had not been seen by a Western botanist since 1949 so on my 1991 visit I was especially keen to refind it. As part of his wide-ranging travels in the country John had arranged an excursion to a remote alpine lake called Darkey Pang Tso, set in a corrie high above the Paro valley in the west of the country. Also of the party were John's son Paul and two of his colleagues, Jenny Sutherland and Gary Knamiller, along with Gary's wife and their three rather noisy children. For such a large party it was necessary to hire a guide and pack animals, which were duly engaged in the village of Doteng. Our guide was the village headman, Gup Dorji, who insisted on receiving our luggage the previous night not, it turned out, to speed departure the following morning, but in order to ransack it in search of chocolate to which he was partial. The Gup, who was accompanied by his graceful and handsome son, a monk ('Gelong') and Tsechu dancer from Paro Dzong, did everything he could to put us off the idea of reaching the lake, with tales of unscalable paths and unfordable rivers. Unconvinced, we were undeterred. It was on this trek that the *Allium* found me rather than the other way round. The story of the encounter is best told by an extract from my diary:

"Below Darkey Pang Tso (27°34'05.27"N, 89°22'42.36"E), 3920 metres, Sunday 4 August 1991. 6 am.

On the way up here there was lots of *Codonopsis* in the forest. Usually unseen its presence is revealed by its unmistakable smell – rather like that of *Chara*, a mixture of lemon zest and freshly-ground coffee. The meadows in the forest clearings we passed through were herb-rich, like the ones I saw the other day at Pajoding, colourful with the mauve *Thalictrum chelidonii*, *Geranium*, a dark blue *Stachys* resembling clary, white umbels (*Heracleum* and *Angelica*) and

primulas. There were several rushes and sedges new to me other than in desiccated form on herbarium sheets, and drifts of *Juncus allioides* with white-heads and chestnut bracts. While still in the lichen-festooned fir forest the path turned into a waterfall, doubtless one of the reasons for the Gup's faint heart. Up and up we continued until we emerged above the tree-line into an alpine world of rhododendron and juniper scrub. We lunched, then ever onwards and upwards, past a river that plunged into a narrow gorge, and at last came into a vast corrie with rock pinnacles towering skywards. From numerous cascades came the sound of rushing waters; the basin was a caricologist's paradise – a marshy, sedge-filled expanse. We crossed the Gup's unfordable river – broad, but extremely shallow – into a huge meadow where I was thrilled to see two Scottish sedge rarities, *Carex microglochin* and *C. atrofusca*. In fact the whole scene could have been in Glen Coe or somewhere thereabouts. Our beasts of burden were already ensconced and happily grazing; smoke oozed from a tarpaulin stretched over the stone base of a yak-herder's hut. The animals (four ponies and two mules) must indeed have had difficulty negotiating the waterfall – the rocks were incredibly slippery – but they must be accustomed to such terrain and are extremely sure of foot. By this time it was drizzling filthily, which it continued to do throughout the evening. The meadow is dominated by the sedge *Blysmus compressus*; there is a tall and extremely handsome, woolly-headed thistle, *Cirsium eriophoroides* and a lovely blue sow-thistle, *Cicerbita macrantha*.

When I eventually arrived, having lagged far behind, John was in his element, erecting the tents like a hyperactive Scoutmaster. I cowered in the hut, trying to keep dry, then transferred to a tent to press specimens and write up notes. At 5.30 the Gup cooked another good supper – red rice (a Bhutanese speciality) and a vegetable stew ('suja') of *Allium wallichii* ('la gop'), but which lacked yesterday's chanterelles or *Clavaria*. Evening games were tonight bearable as no communal singing was involved. I now know what it must have been like to have lived in Skara Brae (and very pleased not to have had to do so): a stone base, wooden poles to support the tarpaulin, a niche in one of the long walls for a cupboard and a hearth at one end. The smoke gets everywhere – some finds its way out only to re-enter through the open front door. One has to get as close as possible to the ground in order to be below the smoke, which is extremely painful to the eyes. As we played games the Gelong had gone out to collect wood (how it burns when so sodden is a mystery) and commestibles. I heard him approaching the hut but to my disbelief and delight the first thing to poke itself through the door was a flower-head of *Allium rhabdotum*, one of the plants I most wanted to see, which I had looked for in vain at Pajoding (one of the Cooper localities). He had six plants – stiff, erect things, about five-foot high, with reddish, papery bulbs and greyish flowers, each tepal with a dark median stripe. Its local name is 'tunchu gop' and the Gup says it occurs in other high, wet places including Bimelang Tso; today I hope to see it for myself, growing around the lake."

The next day the Gelong showed me the *Allium*, which occurred in some quantity up to an altitude of 4170 metres. It grew beside streams and stood out against the rhododendron scrub due to its stiff geometry and glaucous colour. Other excitements included the ghostly, cream spires of the giant rhubarb *Rheum nobile* on the cliffs, and the lovely lemon poppy *Meconopsis paniculata*. At the other end of the scale were tiny, high-alpine, representatives of two families associated with more tropical regions and, at almost 4000 metres, at their extreme altitudinal limit. The first of these high-altitude adventurers was the dwarf aroid *Typhonium alpinum*; the second a terrestrial orchid only 5 centimetres high, with yellowish petals and green sepals. This proved to be a new species and was described a decade later as *Herminium pygmaeum* by the Greek-Swiss chemist and orchidologist Jany Renz (1907–1999), though published after his death. As I was clambering on one part of the cliff John on another came across a second new species of tiny orchid, described by Renz in the same paper in a new genus as *Bhutanthera albo-sanguinea* for its white sepals and pink petals.

On the ascent to Laname Tso, an even higher alpine tarn (at over 4000 metres), the Gelong dug up shoots of the medicinal spikenard (*Nardostachys jatamansi*), which traditionally have been said to resemble ermine tails. The slopes and cliffs were a natural rock garden and home to two bizarre species of *Saussurea* – *S. gossypiphora*, which resembles a fist-sized snowball, and Brahma's lotus, *S. obvallata*, with a foot-high stem and an inflorescence

enclosed within a cocoon of translucent cream bracts. Two of the dwarf alpines, *Corydalis cashmeriana* and *Meconopsis aculeata,* had flowers of an unearthly ice-blue and of an equally unlikely hue were the candy-pink ray florets of the composite *Cremanthodium palmatum*.

The remarkable day ended with an even closer encounter with *Allium rhabdotum*, in gastronomic form, consumed in another of the Gup's vegetable stews: *suja à la tunchu gop*.

BETTY SHERRIFF'S LILY AND A YELLOW IRIS

The other plants known only from old collections that I most wanted to see were a mysterious yellow iris and *Lilium sherriffiae*, both of which had also been found on the 1949 'LSH' expedition. Only two yellow-flowered species of Sino-Himalayan 'Sibiricae' *Iris* were known, *I. wilsonii* and *I. forrestii*, both from SW China. A Bhutanese specimen (LSH 19496) misidentified as *I. clarkei*, but with white outer and yellow inner tepals that I had found in the herbarium was therefore a puzzle that required investigation. The lily was better-known, having been introduced to cultivation by Sherriff as bulbs that were among a pioneering consignment of plants sent to Britain by air from Calcutta, but by 1991 it survived in cultivation only in one or two British gardens. Ludlow and Sherriff had been collecting separately but had met up at the hot springs called Dur Chutsen in the Upper Mangde Chu valley. While there they received news that meant they had to reach Hicks and Betty Sherriff in the east of the country as Betty had broken an arm in a fall from a pony. The pair crossed the Ju La into the valley of the Dhur Chu where they soon encountered a purple *Iris* whose identity was to prove problematic, among which grew the even more puzzling yellow-flowered specimen. It was lower down in the same valley, at a forest clearing called Gortsam, that they discovered a new lily (the only one on any of their expeditions). It resembled a large fritillary, with elongated, deep mahogany bells, chequered on the inside with gold. It turned out that Betty had found the same plant in the north-east of the country earlier, so when it flowered in Britain in 1950 and Stearn described it as a new species, he named it for her.

In the RBGE archives are the original manuscripts of Sherriff's expedition diaries, written with a fine-nibbed fountain pen in an exceptionally neat hand. The diaries contain scarcely a single blot or crossing out and it strains credulity to imagine how they could have been written under camp conditions and in a monsoon climate, even by a meticulous man with a military background. In the working library of the Flora of Bhutan project was a large, much tattered, photocopy of the sketch map made by Ludlow and Sherriff of their Bhutanese expeditions. With the help of the map and of Sherriff's diary I embarked on the only excursion of my life that can in any way be described as intrepid.

A vehicle and a driver called Leki was hired in Thimphu and we set off on a memorable drive across Bhutan, along the central, west-east road, with ascents and descents over the mighty north-south ridges that intersect the length of the country at regular intervals. We passed unforgettable sights, such as fields of pink buckwheat, and on roadside banks in the fir forest on the Yuto La I found a new species of rush, which I called *Juncus spumosus*. After a ten-hour drive we reached Jakar in the Bumthang Valley, where I stayed the night. The next morning, and somewhat to his surprise, Leki dropped me at the foot of the Dhur valley, heavily laden with a rucksack containing food, a small tent and a sleeping bag. This form of travel was entirely new to me and I struggled under the unaccustomed weight. Solitary walking, following bear footprints through thickets of bamboo, was somewhat un-nerving but after nine hours I reached Gortsam. There I found an open wooden shelter and no sooner had I settled in than a party of Bhutanese appeared with an Australian vet in tow – not quite so intrepid as I had been imagining! They had been studying sheep at high altitude and told me that I would be able to stay in a yak herder's hut at a place called Lambrang, (at 4320 m, in *Iris* territory). So, with considerable relief, I left most of my baggage behind, including the tent.

The following day (10 August), on the way up the valley, I easily found the lily beside the path at 3660 metres on the east bank of the river. Its habitat was a damp, humus-rich slope in fir forest, and on dry sandy slopes, over a 200 metre stretch up to an altitude of

3680 metres. With it were two equally interesting plants: the sedge *Kobresia gammiei*, new to Bhutan, and, for the second time on the trip, the strange Brahma's lotus (*Saussurea obvallata*). The lily, disappointingly, was in fruit; most of the stems bore a single capsule but one of them carried a pair. I carried on up to the yak herder's hut just below the Ju La, where blue sheep skipped on the soaring cliffs and I was hosted by an elderly couple who fed me stewed *Rheum nobile* – with unpleasant gastric consequences in the middle of a very dark night. Though the pasture was covered in swards of *Iris* (it is unpalatable to yak) nearly all of it was past flowering and any withered flower remains seemed to have been purple – as did the plants I took back to Edinburgh. Though only two weeks later than the Ludlow and Sherriff visit, this year must have been an earlier season than that of 1949.

The purple irises of Labrang were certainly not *Iris clarkei*, the only member of the Sibiricae group previously recorded for Bhutan, and in my 1994 *Flora* account I speculated that they were probably close to the Chinese species *I. bulleyana*. Until very recently the Chinese members of this group have been taxonomically problematic, but have recently been resolved through molecular work undertaken by a team in Vladivostok. During lockdown I was pleased to receive a copy of their paper in which the yellow-flowered species *I. forrestii*, and the beautiful, almost black, *I. chrysographes*, are both treated as forms of *I. bulleyana*. The mysterious Bhutanese yellow specimen is therefore probably also best regarded as a form of that variable species.

One of the important findings of the work for the *Flora of Bhutan* was to realise the closeness of its connections with the flora of Yunnan in south-west China. On the trek to the Ju La I had found another example of a species previously known only from China, the sedge *Carex fastigiata*. Despite what nationalists of any country might choose to believe, flora and fauna are no respecters of political boundaries. Being a small country, an artificial section of the Eastern Himalayan biogeographical region, and when Arunachal Pradesh is more thoroughly explored, Bhutan will prove to have fewer endemic plant species than is currently believed.

Prunus avium

The gean tree in autumn,

its pendant leaves
an ever changing *macedoine*:

stewed strawberry,
apricot, lemon, peach.

21 x 2020

X · SIR WALTER ELLIOT'S *BARLERIA*

Six or so years ago, while identifying the plants illustrated for Hugh Cleghorn in Madras in the 1850s, I came across a handsome but puzzling drawing of a *Barleria*. It was made in December 1853 by Govindoo in the Agri-Horticultural Garden, to which it had apparently been introduced from a relatively local source as of potential horticultural value – its flowers were attractive, white with a pink throat and a long, slender corolla tube (Frontispiece). The collecting locality must have been forgotten and was given on the drawing as the 'Naggary Hills' but with a question mark. A visit to one of the RBGE herbarium cabinets housing the large family Acanthaceae yielded a matching specimen, collected by Cleghorn's friend Walter Elliot (1803–1887) from the wild in 1852, which enabled the original locality to be established as Bellamkonda. In the 1920s, for his *Flora of Madras*, Cleghorn's protégé John Sykes Gamble had identified the specimen as *Barleria tomentosa*, one of the members of the genus with a long corolla tube. However, both the drawing and the specimen showed it to differ from any of the specimens identified as this species in British herbaria – most noticeably in the curious shape of its outer calyx lobes, which were flabellate (fan-shaped) and conspicuously green-veined. I suspected that it might represent an undescribed species and reproduced the drawing in the *Cleghorn Collection* in 2016 with a comment that an excursion was necessary to attempt to refind it in the wild to investigate its status further. I was unwilling to describe a new species based largely on a single character, and a drawing and a single, old specimen. There was also something that worried me about the calyx – might the shape be due to some sort of abnormality, genetic or even a kind of insect gall?

With the help of maps and the internet Bellamkonda was easily located in Andhra Pradesh, a short distance west of Amaravati, the site with which Walter Elliot is most closely associated on

account of his excavation of its great Buddhist stupa, which dates back to the third century BC. (The resulting sculptures, sent back to London, were initially known at the British Museum as the 'Elliot Marbles' – an Oriental equivalent to the Grecian ones brought back to Britain by another Scottish laird). Both Amaravati and Bellamkonda must have been visited by this great Madras civil servant, naturalist and antiquary while he was based at nearby Guntur. Googlearth showed an apparently wild area of rocky scrub immediately to the north of the village of Bellamkonda and there seemed no reason to think that the plant might not still be there after 167 years – in the Subcontinent things tend to persist for long periods. However, I'm not sure that I ever expected to make the trip there myself – not least with memories of a swine-flu stricken trip to the Coromandel Coast in 2009 indelibly etched on my mind. But when planning an itinerary based around the opening of an exhibition of facsimiles of a selection of the Cleghorn drawings in Chennai in January 2019 and to the Hyderabad Literary Festival the following month, I began to think that a visit just might be possible, and that the plant might then still be in flower.

Several years ago I had asked my email friend the Rev. Jimmy Carter Polimati, who lives close to Samulkottah (Roxburgh's base in the 1780s and Wight's around 1820), if he could get someone to go and look for the plant, not realising quite how far it was from his home: in any case no answer was forthcoming. He now generously offered to accompany me on my quest, which involved him in a drive of some 260 km in each direction. And so it came about that at lunchtime on 18 February 2019 we met for the first time at Vijayawada railway station. I arrived by rail from Secunderabad Junction and he from his village of Katruvalapulli, which had taken him four hours in his Honda 'Amaze', accompanied by John, a member of his congregation. In a village near Bellamkonda Jimmy had made contact with a man called C.H. Devadasan who knew several Chenchu 'tribals', a group known for their knowledge of the plants and animals of the Eastern Ghats – plants for medicinal purposes, animals for the pot. A meeting that evening with three Chenchu men who had been resettled near Mr Devadasan's house suggested – having been shown the drawing – that they *might* know

the plant. There was mention of it growing among fields about 30 kilometres to the north, which didn't sound convincing either as to locality or habitat (I had always imagined it on dry, rocky slopes). The discussions also included many examples of the operation of the Third Law of Indian Information Dynamics – that for every piece of information is another that is equal and opposite. That same evening Jimmy, John and I did a recce to the foot of the hill where there was a small, rather beaten up temple, with a fine wooden flagpole standing at its western end. From here the route up the hill was apparent even in a beautiful dusk – a magnificent moon was rising and that it would be full on the day of the expedition seemed like an auspicious sign.

The hill of Bellamkonda turned out to be far more exciting than the rough area it appeared as in two dimensions on Googlearth. A spectacular jagged mass rose abruptly from the plain to perhaps 750 metres, on top of which stood an ancient fort. On learning that the name meant 'hill of caves', I wondered if these might have been Buddhist and the reason for Elliot's 1852 interest in the site. However, rather than the basalt of the Western Ghats that lends itself to excavation, this hill is of granite, with spectacular lofty pinnacles of Hampi-esque boulders: the 'caves' turned out to be hollows beneath the huge rocks. The fortifications proved decidedly rustic compared with those of the not dissimilar (if smaller scaled) Gingee and the buildings scantier and vastly more primitive. One of these was a small temple to which there was to be an annual pilgrimage the following week. For this reason a flight of stone steps leads to the bastion-gateway of the fort, so our walk took only an hour – and that at dawdling pace, as the slopes were full of botanical interest. They were entirely covered in low bushes and small trees up to about twenty feet high – mostly evergreen and not in flower, of which I recognised only a few, notably *Dichrostachys cinerea*, with elongated purple and yellow pompoms and the fragrant *Tarenna asiatica*. Also in flower was *Gyrocarpus americanus*, an amphi-Pacific, deciduous tree that, despite its name, is native to India.

Within the fort walls, between three towering rock pinnacles, was thick, scrubby woodland, mostly evergreen, and a series of

deep 'tanks'. Two of these had been strengthened with stretches of masonry wall and one was artificial, with a massive bund at its southern end that looked down over the village. Only one of the tanks held any water, which was covered by a soupy, luminous yellow-green carpet of *Lemna* and tiny green dots too small for *Wolffia*, probably colonies of a green alga. Beside several of the dry tanks grew huge banyans, their tentacular hanging roots engulfing adjacent boulders. The temple was a small, domestic-looking building of two cells, each with a pyramidal roof, but its door was locked; beside it stood a low, U-shaped building apparently occupied until relatively recently. Below this, at the foot of a huge, toppled and long dead tree stood a congregation of handsomely carved *naga* stones. Above this group of buildings was what was said to be the 'king's house' – two rectangular, pillared halls, its columns rudely shaped posts with T-block capitals on which sat a roof of granite 'cheese straws' covered with a thick icing of concrete. The edges of the posts retained the tooth marks of the wedges used to split the granite.

The usual Indian curse of litter showed that the fort received visitors, though probably local villagers not tourists from further afield. An older, more romantic, use of the place was that of our guide Akkem – in pursuit of the *chinkara*, the Indian gazelle. A more sinister local usage was evident in the form of deep excavations into the red earth beneath some of the stone piles, and semi-concealed stashes of primitive digging equipment. These were the work of seekers after 'king's treasure', buried gold and gems (the Koh-i-Noor diamond is said to have been found in an adjacent range of hills). Jimmy, sensing an air of malevolence, became twitchy when Akkem, John and I went down into one of these to investigate. Beside it were offerings of coconuts and other objects that he said showed evidence of witchcraft, and that before the commencement of such diggings it was not unknown for a child to be sacrificed. I have heard stories of child sacrifice in the depths of rural Maharashtra and never known how much to believe them, but the Indian press does report such tragic tales periodically, from various parts of India, where desperate and superstitious people have resorted to black magic.

On the ascent I had noticed plenty members of the family Acanthaceae, including small bushes of a silvery-leaved *Barleria* that was past flowering, with erect, terminal infructescences and capsules entirely covered by narrowly ovate, scarious outer calyx lobes. There was also some of the spiny *B. prionotis* still in golden-yellow flower and lots of what might have been a *Hemigraphis* with pale lilac flowers. Within the fort were several clumps of a pretty, purplish-blue *Strobilanthes* with an urceolate corolla. In terms of our goal these flowering 'acanths' were encouraging, but on the way up there had been no sign of the sought-after plant and the habitat in the fort, where we spent the most time, seemed unsuitable.

On the cliff beneath the ramparts on the south-west corner of the fort I was surprised but thrilled when Akkem pointed out clumps of an *Aloe* (could it be native?) and soon after the start of the descent of the staircase was pleased to see another monocot I'd never seen growing at least apparently wild in India – a *Sanseveiria*. The others had gone on ahead as Jimmy had hurt one of his feet quite badly and by now it was after 4 o'clock. I noticed that a *Barleria* bush next to the mother-in-law's-tongue was different to the silvery-leaved species – slightly greener in colour and, excitingly, when I found a few flower buds, the outer calyx lobes were similar to those in the drawing, if with longer limbs below their fan-shaped tips. The fruit was completely exposed, rather than enclosed within the calyx and I was about 90% sure that it was Elliot's plant, so called the others back. Akkem quickly found a second bush, which had leaves of two types – those of which the first bush was entirely composed (small, subsessile, thick-textured, in rosettes) but also, near the apex of the branches, much larger, thinner-textured ones. He disappeared, apparently back up the hill. We called for him and I heard a rustling in the bushes. He shouted for help over a large boulder, which seemed surprising for an agile hunter, but the reason turned out to be that he was carrying something precious that he wanted to hand over: a bundle of twigs from which, I was dumbfounded to see, protruded three large, pale flowers. It was it!!! Without a shadow of a doubt, and even more beautiful than Govindoo's portrait. The flowers were, in fact, the palest rose pink, with a magenta spot in the mouth of the

corolla that bled into the five subequal corolla lobes. Completely different to the flowers of the commoner *Barleria*, by now also in flower, which were pure white and four-lobed and would later prove to be *B. longiflora*.

Back in the hotel, one of the dingiest I've ever stayed in, which is saying a great deal, I pressed some specimens for the Kolkata herbarium, in case it proved to be new:

Barleria sp.

Locality: Hill above Bellamkonda, beside footpath c. 60 metres below entrance to Fort.

16°30′10.37″ N, 80°00′44.52″ E

Habitat: dry, rocky, south-facing slopes, covered in small trees and shrubs (tree *Euphorbia*, *Diospyros*, *Acacia*, *Dichrostachys cinerea*,*?Hemigraphis*; *Gyrocarpus americanus*, *Phyllanthus* (pendant fruits), *Tarenna asiatica*.

Growing with *B. longiflora*; *B. prionotis* nearby.

Altitude 360 m, 19 February 2019

H.J. Noltie, Akkem Nageswar Rao and Jimmy Carter Polimati, s.n.

I also made a description of the plant, the first since my days as a taxonomist had ended almost twenty years earlier, but old habits proved to have died hard. As the language of descriptive botany is one of non-conventional grammar and extreme compression it will serve as the poem for this chapter's end.

Jimmy took some seeds back to his garden, which germinated and rapidly grew into a substantial plant. Although eventually forming a small shrub I was astonished to receive a Whatsapp message on 28 October with photographs showing that the plant had already begun to flower after only eight months from sowing. Jimmy was able to observe this cultivated specimen closely and found that the flowers start to open at about 11 am and are fully open in the late afternoon at around 4 pm; they remain open all night and into the next morning, although the wild ones on the hill must have closed or dropped earlier than this. This cycle is clearly an adaptation to pollination by a moth, but the species concerned must have a very long tongue to be able to reach nectar at the base of the 5 cm corolla tube.

Disappointingly the plant proved not to be a new species after all. Examination of the new specimens showed that the calyx character was not consistent – whereas some of the outer sepals were fan-shaped, others were not, though the reason for this

is unclear. Scrutiny of a recent revision of the Indian species of *Barleria* showed Gamble's original identification to have been correct and that I had been misled by a jumble in the application of the names *B. longiflora* and *B. tomentosa* in the Kew and Edinburgh herbaria. Elliot's plant is indeed *B. tomentosa* and the commoner, silver-leaved species of the same habitat *B. longiflora*. While disappointing in some respect the investigation had given rise to an unforgettable excursion and a happy meeting with an email friend of long standing.

BARLERIA TOMENTOSA ROTH

Much branched low shrub to 1 m, whole plant densely tomentose with simple and glandular hairs, faintly aromatic; old wood pale silvery brown, with prominent white lenticels.

Leaves ovate, shortly blunt-acuminate; apparently dimorphic, at flowering mostly small, thick-textured, but also (in monsoon?) producing thinner-textured, larger towards ends of branches; the smaller greyish-green, c 3 × 2 cm, petioles to 1 cm; the larger brighter green, to 9.5 × 5 cm, petioles to 2 cm.

Flowers borne on short shoots on lateral branches; subtended by pair of bracteoles Opening in late afternoon. Bracteoles linear-spathulate, blunt to acute, equal or unequal, 1.5–2 × c 0.2 cm.

Outer 2 sepals with oblong limb and flabellate to acuminate apex, membranous, prominently 3–veined, veins green, branched especially towards apex, 1.3–1.8 × c 0.4 cm, glandular, and minutely ciliate. Inner 2 sepals shorter, oblong-lanceolate, acuminate, keeled, midrib green, with side branches throughout, 0.7–0.9 × c 0.3 cm.

Corolla 4–5 cm diameter, 5 lobed, lobes subequal, ovate, rounded, 2–2.5 × 1.6–1.9 cm white, very faintly pink-flushed, throat magenta, colour seeping into lobes; tube 4.5–5.5 cm, faintly ribbed.

Fertile stamens 2, attached at apex of tube, exserted from corolla by c 1.5 cm; filaments white, c 1.8 cm; anthers cream, 0.6–0.7 cm.

Ovary flattened, green, shining, oblong, 2-celled, c 0.4 × 0.2 cm; style filiform, white, minutely hairy at base, exserted from corolla by c 2.5 cm, stigma darkened (pinkish in life) but not obviously divided.

Capsule chestnut-brown, flat, oblong-oblanceolate, abruptly contracted to sharp apex, c 1.7 × 1.1 cm, 2-seeded. Remains of calyx present at base, but capsule almost entirely exposed

Seeds 2, flat, silver-shining, glabrous, oblong-ovate, blunt, base oblique, c 0.8 × 0.5 cm.

Note. Differs from *B. longiflora* in its lateral (not terminal) inflorescences; leaves greener; capsules entirely exposed (not enclosed by oblong-ovate, papery, outer sepals). Corolla very pale pink, with magenta throat (not pure white); tube relatively shorter.

XI · A DAY AT SWAMIMALAI

20 October 2016, 4 pm. Hotel P.L.A. Residency, Kumbakonam

An utterly thrilling day at Swamimalai, which turned out to be only six kilometres from here so I got there in thirty minutes (bus fare 9 rupees) and came back on an express bus in only twenty. On arrival I started to despair as to how to find the bronze casters, but from some clay moulds sitting outside a house I quickly found one on the far side of the large temple that occupies the centre of the village. Nothing was going on there and there didn't seem to be any other workshops close by. A priest outside the temple seemed to understand what I meant when I made indications by a mixture of signs and words and he pointed in the direction of a series of streets on the south side of the road by which I'd entered the village – between it and the Cauvery River, one of whose bounties is to provide the mud from which the moulds are made. Sure enough, here were many workshops, though these are hardly apparent externally. What gives them away is the sound of tapping chisels, reminding me of Mahabalipuram where the tapping is on charnockite stone, rather than this more Nibelungian sound. A curious, two-stage process – infinite care is taken in making an exquisite statue of wax, built up from fragments kneaded from heat-softened, bees-wax that resemble thin chocolate bars. This model is covered in mud, air dried, then fired at lowish temperature (the fire is fuelled with coconut husks and a mixture of cowdung and straw) to melt the wax out through a pair of drip-holes. This empty mould is then filled with red-hot molten bronze. What emerges, on cooling, is a leprous saddhu of a figure – all the detail, so carefully fashioned in wax, has been lost, and must be recovered by sawing, scraping and tapping.

The work takes place in backyards and sheds discreetly tucked in behind single-storey, family houses, whose low roofs are weighed down with impossibly heavy loads of half-cylindrical pantiles. The

first one I visited belonged to two brothers and their extremely strange old father (all of ample proportion). Papa seemed to be suffering from a distressing obsessive-compulsive disorder: he sat cross-legged, almost naked, in a sunken, semi-aquatic pit, endlessly scrubbing both himself and the surrounding concrete floor. He nevertheless replied to questions in perfectly understandable English. From a store cupboard were produced four exquisite casts of what they called a 'Kannadi [= Mirror] Lady', a dancing *yakshi* gazing into a hand-held mirror, possibly based on a Khujarao sculpture. It had what the brothers didn't call an antique patina – dull, verdigris'd and infinitely preferable to the more usual shiny finish that makes the figures look like brass, though weight immediately distinguishes the two alloys. After visiting two other workshops and a nasty retail outlet to which I was waylaid by a man on a motorbike, I realised that the Kannadi Lady was by far the best of any portable work I had seen, so returned and bought one of them for 4500 Rs (£52). The female form, with pert and prominent bosoms, is not my normal thing, but when it comes to artistic quality, needs must.

My next port-of-call revealed itself by a group of straw-swathed images (one of them clearly a Nataraja more than a metre in circumference). These stood in the street awaiting collection by a lorry – headed for California, doubtless to wealthy NRIs (Malaysia was another destination mentioned at several points). Here I spent ages watching the wax modelling – miraculous to witness the emergence of a miniature inanimate hand, with exquisitely curved fingers, coaxed by a living hand from a paddle-shaped lump of wax by means of repeated softening over a small glowing brazier, cut with a scalpel-like instrument and smoothed with heated metal tools of various shapes. Extraordinary that such care should be expended on this ephemeral model that is doomed to destruction, a sacrificial victim to fire, and its replacement by hard metal. I wonder if anyone has ever made a collection of such wax models? I must suggest it to Richard Blurton at the BM as it is really these that are the primary sculptures.

Longing to see the casting process I had almost despaired as everyone said "not today". Fortunately I stopped at the workshop

of Mani Sons, belonging to two large, jolly businessmen brothers, M. Saravanna and M. Iyappan (the South-Indian habit of not using surnames is frustrating to our genealogically and patronymically obsessed culture). This was a large enterprise, employing some 14 extremely charming boys (of these five were wax modellers and five metal finishers). They work in lunghis and vests, leaving their jeans and shirts on a peg, their mobiles and scooter keys on a ledge in the modelling shop, and their vehicles outside. The handsome chief modeller was patiently fashioning a four-armed, busty deity towards completion. I witnessed the addition of several hands and a conch shell, assisted by a trainee who softened and melted the wax and, by close attention, was passively absorbing centuries of tradition. Among the group there was a palpable sense not only of collaboration and skill, but of joy and humour – one played the role of 'bad boy' and at one point chased one of the others round the yard with a propane torch – playfully, but still dangerous, as is the whole enterprise. Everything is done with elegance and no sign of fuss and nobody appeared to bear any scorch marks. A great contrast between the modelling/finishing shop and the firey zone of the dusty yard. The former is scrupulously clean, its activities literally measured – with callipers so that the proportions of the statues match the instructions in the *sastras* (in another shop I saw a drawing of a goddess that bore the traditional measurements, though I hope that the English translation of '1 centimetre = 1 foot' was ignored).

The great excitement, however, was that here it *was* a casting day. One fire was dying down – surrounded by a temporary wall of bricks, containing moulds from which the wax had drained. Close by was a square pit in the earthen floor, connected (underground) to an electric blower, and this one was about to be fired up. A large crucible (about 2 feet deep and 8 inches in diameter) was set in the pit, surrounded by charcoal. The fuel was lit using a single match and some kerosene-soaked rags and the electric fan switched on. Some jute sacks, clanking with metal, were produced and opened by a lissome youth who, with a darker, shorter and more smiley sidekick were in charge of the fire department. Out of the sack poured all sorts of junk 'gun metal', for which I don't have the vocabulary, but apparently plumbing-related: L-shaped pipe joints, cogs, a huge disc (which proved recalcitrant – too large to go into the pot it had to be heated and gradually hammered into manageable quarters), small fans in metal casings. After two hours the bronze was largely molten, but the fire was refuelled and more scrap added to the pot. I should add that before the lighting of the fire both the hearth and the boys were asperged with turmeric water: despite being performed in the humblest of dusty yards the process is regarded as a religious act. After only about 2½ hours, the iron lid covering the burning pit was removed and within the crucible the red-hot bronze bubbled like soup. Meanwhile two shallow trenches had been scraped in the dust with a mattock, and about 20 torso-sized hollow-moulds arranged, near-vertically, each with its pair of drip-holes exposed. Smaller crucibles were gripped with long iron tongs and dipped into the master cauldron. With no fuss or bother (let alone any protective garments) the molten bronze was tipped into the orifices of the moulds, guided by someone wielding a four-foot bamboo stick on the end of which was tied some sacking (that it didn't catch fire, despite the temperature of 2500°C, suggests that it was made of asbestos rather than jute).

Another process had been going in parallel by one of the more junior members of the workshop – the making of the models for the stepped-rectangular plinth-bases for the statues. These were slip cast in wax into Plaster of Paris moulds and cooled in buckets of water.

Probably only for my benefit, as my curiosity was manifest, and the team seemed to appreciate it, they cooled and broke open the smallest of the by now bronze-filled moulds. What emerged was a weird skeleton, just about interpretable as two conjoined, scabrous peacocks – clearly a supplementary part of a larger, complex sculpture. The boys then announced that it was lunch time (1.30 to 2.30) and exhilarated but emotionally drained, I left them to it.

Cire perdue

Brown
sheets of beeswax,
pared like cheese,
smoothed with heated rods,
replaced by unyielding metal.

Ephemeral to enduring,
soft to hard,
feminine to masculine:
original to copy?

Industrial gun-metal,
pipe-joints and rotors,
become gods of bronze:
the profane sacred.

Changes of state,
flux and reflux,
hot to cold,
dull to shining.

Metal thrice changed
(solid: liquid: solid).
Four times the wax is transformed
(solid: liquid: solid: liquid).

The wax must be
lost
for the god to be
found.

XII · TWO ACTING SUPERINTENDENTS OF THE CALCUTTA BOTANIC GARDEN

In a book chapter by Friederike Voigt on Indian sculpture in the National Museum of Scotland (NMS) I was surprised to find that two (indirect) donors of sculpture, neither of whom I had previously heard, had both been temporary holders of the post of Superintendent of the Calcutta Botanic Garden. Near contemporaries they turned out to have more than this in common – not least that both were commemorated by William Griffith (1810–1845) in the name of a genus of flowering-plant. The difference between the two genera could hardly be greater – one of the two original species of *Grantia* is the smallest of all angiosperms, a floating duckweed with fronds less than half a millimetre in diameter, whereas Griffith's original species of *Swintonia* is a large tropical tree. Both of the botanical 'locums' came of Scottish gentry families – one from Lowland Berwickshire, the other from Highland Morayshire.

The sculpture chapter is contained in a book, edited by Roger Jeffery published in India in 2019, entitled *India in Edinburgh, 1750s to the Present*. In it ten authors discuss interactions between the Subcontinent and the Scottish metropolis across a wide range of fields (my own is on Indian collections at RBGE). The essays demonstrate the benefit of looking widely at records and collections held in the various institutions with which Edinburgh is so richly endowed (museums, libraries and even schools). Their individual histories have in many cases been interlocked, not least the relationships between the University of Edinburgh, what started its life as the Industrial Museum of Scotland (now NMS), and the Royal Botanic Garden.

GEORGE SWINTON (1780–1854)

Swinton was born at Swinton House, Berwickshire, son of the advocate John Swinton, 27th of that Ilk who later, as a judge, was known as Lord Swinton. One of the witnesses at the boy's baptism

was his paternal uncle Archibald then laird of Manderston and later of Kimmerghame who, during his Oriental career in the 1760s, had been a notably early collector of Indian paintings; by great good fortune his outstanding collection has recently ended up in NMS. In 1802 George became a 'writer' with the East India Company (EIC). Like his uncle he excelled at Persian and in 1814 acted as Persian Secretary to the Governor-General, Gilbert Elliot, first Earl of Minto; from 1827 until his retirement in 1833 he held the senior position of Chief Secretary of Bengal.

Between 1825 and 1830 Swinton was an outstandingly generous donor of specimens to the Royal Society of Edinburgh (RSE) of which he was elected a fellow in May 1827. His link with the Society, and the sponsor for his fellowship, was David Brewster. It was doubtless Swinton's position at the centre of Indian government that led to the wide geographical origins of the specimens he sent back to Edinburgh. These came not only from Bengal, but from Persia, Assam, Sumatra, Singapore and even Australia; Burma, however, seems to have been of special interest. Swinton went there himself in 1825 during the first Burmese War when he acquired some 'Burmese idols' that formed his first donation to the RSE. Further sculptures and naturalia were to follow as a result of the 1826/7 Crawfurd Mission to Ava. Nathaniel Wallich took part in this same mission, on which his primary task was to examine and report on the valuable teak forests but during which he made several notable botanical discoveries. These included the spectacular leguminous tree *Amherstia nobilis*, with flowers like dancing, scarlet Chinese characters, and the Burmese lacquer tree *Melanorrhoea* (now, regrettably *Gluta*) *usitata*. It was probably during this period of Wallich's absence from the Calcutta Garden that Swinton deputised as Officiating Superintendent. One of the places visited by Wallich in Burma was the exotic sounding 'Fontes Petrolei', later to prove of great commercial significance (the Rangoon, later Burmah, Oil Company was founded by David Cargill in Glasgow in 1886). In 1830 Swinton sent samples of Burmese petroleum from the 'wells' to Edinburgh for analysis by Robert Christison, Professor of Materia Medica, who found them to contain 'paraffine', a substance then newly discovered and named.

Swinton also sent many zoological specimens to the RSE, including snakes, birds, fish, beetles, corals, molluscs, sponges and the snout of a sword-fish. The anatomy of a skull and other parts of a dugong, and of two hoolock gibbons, was studied and published by Robert Knox. This was the Knox who gained notoriety as the recipient of cadavers despatched by Burke and Hare, which turns out to have been a curious repeat of history. The reason that George's uncle Archibald gave for having had to leave for India in a hurry was on account of a youthful exploit that involved grave robbing for the Edinburgh anatomy department (which would have been in the time of Alexander Munro II). Swinton also sent specimens of the eyes of elephant, deer and tiger for his research on the optics of animal lenses undertaken by David Brewster. Given this wealth of material it would seem very unlikely that Swinton didn't also send herbarium specimens to Robert Graham, but if he did these would have been sold with Graham's herbarium in 1845. Plant products were certainly sent to the RSE, including India rubber (*Ficus elastica*) from Assam and sheets of shola pith (*Aeschynomene aspera* or *A. indica*) that were forwarded to RBGE in 1859, but these too would have been lost, in this case with the shameful destruction of the Garden's Museum of Economic Botany in the 1960s.

In 1833 Swinton retired to Edinburgh, where he lived at 4 Atholl Crescent, next door to his once-removed cousin Archibald Campbell Swinton, professor of Civil Law. Almost opposite, at 10 Coates Crescent, lived David Brewster who had recently been knighted in the Guelphic Order.

Griffith's commemorative genus *Swintonia*, in the family Anacardiaceae, was published in the *Proceedings of the Linnean Society* (volume 1, page 283) in 1846. Wallich had originally intended to name the Burmese lacquer tree for Swinton but changed his mind, naming it instead as *Melanorrhoea* for its black latex. In his description of the species *Melanorrhoea usitata* Wallich did however pay tribute to:

> *Mr George Swinton, chief Secretary to the Bengal Government, (to whose kindness I am indebted for much valuable information concerning the produce of this and other useful trees of India, obtained for me a supply of ripe fruits from [Manipur].*

Because of this change of mind the generic name was still available for Griffith's use. Twelve species are currently recognised in the genus, all occurring in SE Asia. The only one described by Griffith was *Swintonia floribunda*, a tree to 45 metres, which occurs from NE India through Indo-China and the Malay Peninsula to Sumatra. In Bangladesh it is used for the manufacture of veneer and plywood, and in Burma for match-boxes and match-sticks.

JAMES WILLIAM GRANT OF WESTER ELCHIES (1788–1865)

Grant was born at Wester Elchies in the parish of Knockando, Morayshire. The estate had been purchased in 1783 by his father Robert Grant (1720–1803) with a fortune based on the Canadian fur trade and was inherited by Robert's eldest son Charles. In 1812 the son established a village that he somewhat immodestly called Charleston of Aberlour; now, divested of its 'Charleston', renowned for its whisky. At the age of 17 the younger brother, James, was appointed to a Bengal writership and in 1806 went to Calcutta where at the College of Fort William, and like Swinton, he excelled in the study of Persian. Most of Grant's exceptionally long career as a civil servant in Bengal was spent in the commercial sphere – at various times he was a member of the Board of Trade, of the Board of Customs, Salt and Opium, and of the Marine Board. From 1822 to 1832 he was based in Malda and involved with silk manufacture and it was here that he came to know the ruined city of Gaur, capital of the Bengal Sultanate in the fifteenth and sixteenth centuries, from where he acquired sculpture both Hindu and Islamic (including a mosque niche from the Small Golden Temple). Gaur had earlier been studied and depicted by Henry Creighton, who had commissioned botanical paintings from Bhawani Das, Shaik Zayn al-Din and Ram Das that are now in Exeter Museum. Grant's interests included painting and the study of astronomy and microscopy – according to Joachim Voigt he was 'one of the best microscopical observers' of his day. In 1830 Grant was a joint author of a report on the suitability of Darjeeling for use as a sanatorium, which was duly acted upon and within two decades could become the base for Joseph Hooker's great Himalayan explorations. In 1834 Grant was appointed to the Bengal Government's Tea Committee and it was probably in connection with this that he was appointed to temporary charge of the Calcutta Garden – perhaps while Wallich was away on the turbulent Tea Mission to Assam with William Griffith in 1835.

Grant's wife Margaret (*née* Wilson) returned to Scotland in 1830 and Friederike Voigt has speculated that her husband's collection of Indian sculpture accompanied her. Certainly by 1835 it was already displayed in the garden at Wester Elchies, as described in the account of the parish of Knockando in the *New Statistical*

Account by the Rev. George Gordon. When Grant retired in 1849 (having inherited the estate on his brother Charles's death in 1828) he continued to pursue scholarly interests and in 1851 purchased from the Great Exhibition the 'Trophy' Telescope (built by Charles May, with lenses by Ross) for which he built an observatory in the grounds of his mansion. In 1852 Grant presented some of his sculptures to the Elgin and Morayshire Literary and Scientific Association, where the mosque niche was rebuilt and stood outside their museum in Elgin until its acquisition in 1958, along with other sculptures, by the Royal Scottish Museum. At this point a carved lintel with seven (of an original nine) planets was purchased by the British Museum and further pieces were acquired by NMS from Elgin in 2016. In 1970, after its use as a preparatory school for Gordonstoun, the house and the observatory were blown up.

The genus *Grantia*, minute floating aquatics in the duckweed family (Lemnanceae), was coined by Griffith and published by Joachim Voigt in 1845 in his *Hortus Suburburbanus Calcuttensis*. It is no longer regarded as distinct from *Wolffia* and although Griffith had suspected the affinity of the two genera, because he queried the synonymy of his new genus with the earlier *Wolffia*, his name was not illegitimate when published. Griffith included two species, of which the first was newly described as *Grantia microscopica* (now *Wolffia microscopica*), endemic to the Indian Subcontinent and rediscovered in 2013 in Gujarat and Bangladesh; its fronds are 0.4 to 1 mm in diameter. The other species had been described earlier and published (posthumously) by William Roxburgh as *Lemna globosa* and was transferred by Griffith to his new genus. Now known as *Wolffia globosa* it has the distinction of being the world's smallest flowering plant, with fronds only 0.1 to 0.2 mm in diameter. The Asian watermeal is native to SE Asia and has been introduced in the Americas; in Thailand it is apparently eaten – presumably in rather large spoonsful.

A Vegetal Hibernation

Unable, or unwilling, to face
the rigours of a British winter,
the greater duckweed,
Spirodela polyrhiza,
effects its own annual lockdown.

Come the first frost,
a pale brown cyst
buds off from each luminous,
paddy-field green disc
of this semi-tropical species.

The frond shrinks,
and into
the protective ooze
of the canal's depths,
the turion sinks.

– (As swallows once
were thought to).

Gatti's Wharf, 25 x 2021

XIII · A CALCUTTA DRAWING OF *HAMILTONIA SUAVEOLENS*

Some years ago, as part of the barter economy, Niall Hobhouse gave me a handsome, but all but empty, early nineteenth-century album, its spine lettered in gilt 'CHINESE PAINTINGS'. The binding was a luxurious one, of small folio size, with marbled boards and watered silk endpapers in olive green. Tipped onto its flyleaf was a later, supplementary sheet signed with the names Katherine Amelia and Elizabeth Margaret Hibbert and the date 21 August 1845. The album still contained a loose sheet with a manuscript list of the names of the Cantonese botanical drawings the volume originally contained, but the drawings themselves had been excised long before, leaving only the stumps of their pages. A dozen of them had been sold at Christies in 2008 at what his mother Penelope, whom I ran into at the private view, irreverently referred to as 'Niall's attic sale'. Some attic! The sale raised just short of £3 million; the Chinese drawings made £8,125; two Bhawani Das fruit bats at £168, 500 and £132, 500 were the first 'Company School' natural history paintings to break the hundred-thousand-pound ceiling, but this was to be far from the end of the ascent of this pair of soaring fruit bats.

The second one landed safely in a public collection, purchased by the Met with the help of the Sackler family and other donors, but the first went into private hands, taking temporary roost in Qatar before also ending up in New York. In 2019/20, with six other paintings from the same collection, it was included in the exhibition 'Forgotten Masters' held at the Wallace Collection. Less than a year after the exhibition closed the seven paintings were among a collection of 29 'Company School' works consigned by their owner to Sotheby's. On 27 October 2021, its value enhanced by its recent showing in a public gallery, the bat fetched a hammer price of £520, 000. After the addition of the saleroom's premiums of a further £124, 200, the price paid by a clearly very eager purchaser

was £644, 200. One can only wonder where, when and how such fructification might end?

On receipt of the Hibbert album I restored the list of the Chinese drawings to Penny's care as she still had a dozen of them framed on her walls. The list was important not only as a record of the collection before it was split up, but because it was dated (1778) and it is rare to be able to put a precise date on Chinese botanical export paintings. Though later to become so, the Chinese drawings weren't at the time of particular interest to me; the reason for the gift lay elsewhere. A single orphaned drawing had survived the dispersal and remained in the album – one of greater scientific than artistic interest, and with an origin in India some four decades later. It depicted a plant of the family Rubiaceae originally known as 'Hamiltonia suaveolens Roxburgh'. With it, on a separate, folded sheet, was a contemporary, manuscript description of the plant, which included the etymology of the generic name. The drawing was clearly a copy of one of the Roxburgh Icones of the sort made in the Calcutta Botanic Garden during the tenure of its commissioner's indirect successor Nathaniel Wallich in the later 1810s or early '20s. The manuscript was copied from Roxburgh's own description, as published in his posthumous *Flora Indica*, and had a key to the dissections shown in the drawing. The drawing had clearly been damaged before being stuck into the album and part of its lower margin, below the plant name, is missing: what survives of the inscription reads: '…. [fr]om R. Barclay'. Though brief this opens up a remarkable series of connections across three continents – between Calcutta (William Roxburgh and Nathaniel Wallich), Philadelphia (the families of Hamilton and Barclay) and the London suburb of Clapham (Robert Barclay and the Hibbert family).

In the two decades that William Roxburgh was Superintendent of the Calcutta Garden (1793 to 1813) he increased the number of plants grown there tenfold, from 300 to 3500. This he achieved by means of a network of collectors and correspondents – nationally and internationally – which included several sons of his own extensive family. One of the most generous correspondent-donors was William Hamilton (1745–1813) of Philadelphia, who

pursued horticultural activities on his estate of Woodlands (the Neo-Classical mansion survives; its grounds were turned into a cemetery in 1840). No fewer than 176 introductions to the Calcutta garden between 1796 and 1810 are credited to Hamilton. On a plant-hunting trip in 1801 Roxburgh's son William found in the Rajmahal Hills (now in the state of Jharkhand) an attractive member of the family Rubiaceae, which he sent back to papa in Calcutta. Roxburgh recognised it to be a new genus and gave it the name *Hamiltonia suaveolens*, not realising that the Berlin botanist Karl Ludwig Willdenow had already used the generic name (as a replacement name for an earlier North American genus). The first publication of the binomial was in 1814 in Roxburgh's *Hortus Bengalensis* but as it had no accompanying description it was not validly published there and, in any case, it would have been 'illegitimate' as what is termed a 'later homonym'.

Although Roxburgh published little botanical work himself he did, during his 40-year Indian-career, assemble a huge corpus of plant descriptions, of which most were accompanied by a drawing by an Indian artist – collectively these formed the 2500 'Roxburgh Icones'. Of these, one set was kept by himself (which still remain in Kolkata) and a duplicate set sent to East India House in London (these are now at Kew). The original drawing of *Hamiltonia suaveolens* must have been made between 1801 and 1813 by a member of what by then was a small team of artists based at the Garden. The accompanying plant descriptions, forming a manuscript 'Flora Indica', also existed in several copies one of which was left in Calcutta with his friend the Baptist missionary the Rev. William Carey on Roxburgh's departure from India in 1813. Carey was himself a keen botanist and, through the vehicle of the Serampore Mission Press, a prolific publisher. In London Roxburgh's own 'Flora Indica' manuscript was submitted to Robert Brown (Sir Joseph Banks's librarian), who proceeded to sit on it. Fortunately, Roxburgh's indirect successor Wallich did somewhat better and started to publish the work at Serampore but at snail's pace, because of a not unreasonable desire to augment it with his own considerable additions and discoveries. Only two parts of this edition came out, in 1820 and 1824, and it was in the latter that

Roxburgh's original description of *Hamiltonia* was published with its dedication to:

> *Mr William Hamilton of the Wood-lands near Philadelphia in North America, an eminent botanist, and the first who was at the expense of erecting a conservatory in that country for the preservation of the plants of a hot climate … [to whom] the botanic garden at Calcutta is under the greatest obligation for having enriched it with many of the choicest plants of the New World.*

In fact, it had already been pre-empted in London. Realising the value of Roxburgh's drawings Banks, in 1795, had begun to publish a selection of them, the images redrawn, engraved and hand-coloured, as the *Plants of the Coast of Coromandel* on a lavish, imperial-folio scale. The letter-press was initially edited by Banks's librarian Jonas Dryander, but Dryander died in 1810. In the tenth part (plate 236, published in May 1815) Roxburgh's drawing of the new Rubiaceae was published but placed in a new genus called *Spermadyction*, doubtless because the editor (by now probably Robert Brown) was aware of Willdenow's earlier use of the name *Hamiltonia*. Because there is no indication of authorship other than Roxburgh's on the book's titlepage both the new genus and the binomial must be attributed to him, as '*Spermadyction suaveolens* Roxburgh', which remains the plant's accepted name (the genus is still monospecific). The new generic name must, in fact, have been coined by Brown, to whose authorship it is attributed in an article he wrote on the plant for Edwards's *Botanical Register* in 1819.

So much for the pre-history, what of the version of the drawing in the Hibbert album? After a period of temporary charge Wallich succeeded to Roxburgh's post in 1817. He was something of an outsider in British Calcutta, being a Dane and Jewish, but in 1808, when the Napoleonic wars allowed the temporary British takeover of Serampore, Roxburgh had recognised his talents and given him a job at the Botanic Garden; six years later Wallich became a surgeon with the British East India Company. Touchy, scientifically old-fashioned (a Linnaean), and a crashing snob, he would faithfully continue Roxburgh's programme and pursuits at the Garden until his retirement in 1846. Wallich continued to employ artists

and to use the Garden as a base for the exploration of the S and SE Asian flora by means of an ever expanding network of collectors.

Wallich had firm, but curiously inconsistent, views on what was Garden property and it was almost certainly he who lay behind the order that Francis Buchanan must surrender his Bengal Survey drawings rather than take them back to London when he left India in 1815. Buchanan blamed this on the Governor-General, the Earl of Moira (shortly to become Marquess of Hastings), but at the time Moira was on tour in Upper India and surely had more important matters on his mind such as the Gorkha War. Wallich had also stopped James Hare, another temporary holder of the Superintendent's post, from having copies of the Roxburgh Icones made, for which Hare had in fact obtained permission from Moira, whose personal physician he was. And yet! Wallich did have copies made of some of the drawings – some for sending back to the EIC, others, such as this one of *Hamiltonia*, most probably as personal gifts in a ploy to further the Garden's interests. And when Wallich travelled on furlough to Britain in 1828, he took with him not only the vast herbarium that he'd amassed, but also the collection of 1200 drawings he'd commissioned from the Garden's artists. All of this material was left behind in Britain, which meant that only the Roxburgh Icones remained in Calcutta and hence the accusation of inconsistency in such matters.

By correspondence Wallich was an assiduous cultivator of wealthy and aristocratic British garden owners, to whom he sent exotics for their conservatories in return for additions to the Calcutta Garden. One such wealthy British garden owner was Robert Barclay (1751–1830). Barclay came of an old Aberdeenshire Quaker family (see Chapter XIV), of which one branch crossed the Atlantic to establish itself in Philadelphia where the family must undoubtedly have got to know the Hamiltons, another family of high net worth with Scottish roots. Robert was born there in 1751 but sent to school in London where, in 1781, he purchased the Anchor Brewery, Southwark, from Dr Johnson's friend, the recently widowed Hester Thrale. This he developed, as Barclay, Perkins & Co., and it made him a fortune. In 1781 he acquired a large house on the north side of Clapham Common, just to the

west of the parish church of Holy Trinity (the house, which still stands, was called The Elms and was later home to the architect Sir Charles Barry). Although the house appears to have remained in the family, Barclay himself after 1805 spent most of his time at Bury Hill near Dorking, which he initially rented before purchasing it in 1815, where he expended considerable energy on gardening.

On the other side of the world, in 1826, following the first Burmese War, Wallich visited Burma and at Pegu discovered a new genus of waterlily, which he dedicated to 'my highly respected friend Robert Barclay, Esq. of Bury Hill, a most worthy benefactor to the science of Botany'. Wallich's description of *Barclaya longifolia* was sent to London in a letter to H.T. Colebrooke, who read it at a meeting of the Linnean Society in 1827. Wallich bequeathed the bound volumes of his extensive correspondence to Kew but early in the twentieth century these were 'repatriated' to Calcutta where they have suffered from the ravages of insects and humidity. In the correspondence, however, remains a letter that reveals Wallich's connection with Barclay, written by the latter from Bury Hill in December 1828 while Wallich was on leave in London. The letter concerns subscriptions to *Plantae Asiaticae Rariores*, the magnificent work published by Wallich during his furlough. Like its exemplar, the *Plants of the Coast of Coromandel*, its three imperial-folio volumes include nearly 300 superb, hand-coloured plates based on the Calcutta drawings, though by now it was possible to reproduce these by the new technology of lithography. In the absence of written evidence nothing can be proved, but it seems likely either that Barclay asked Wallich for a copy of the drawing of the plant named for a family friend from Philadelphia days or that, realising the connection, Wallich sent it to him as an unsolicited gift.

It is Barclay's house on Clapham Common that makes a link with the Hibbert family and a suggestion as to how the drawing ended up in the sisters' album. An 1800 map of Clapham shows that next door to The Elms was a similarly large mansion belonging to George Hibbert (1757–1837). Also arboriculturally named, this was The Hollies, the suburban base (he also had a house in Portland Place) where Hibbert had his garden and, with the help of his gardener Joseph Knight, specialised in the cultivation of Cape

and Australian plants. Hibbert was another merchant prince, but with dramatically different political views from those of the best known of his Clapham neighbours. His wealth was based on slave plantations and the West Indian trade and he was the founding chairman of the West India Dock Company. In 1798, in an attack on an anti-slavery motion proposed by William Wilberforce (his neighbour on the western side of the common), Hibbert made a passionate speech on the financial benefits of the slave trade. It is therefore rather extraordinary to think of him living next door to the Quaker Barclays, let alone of being on terms of swapping botanical drawings with them. Nevertheless, given the location of the Calcutta drawing and its annotation, Barclay clearly did give it to a member of the Hibbert family.

The most likely initial recipient was George Hibbert and that the album was originally his. The Chinese drawings fit in with his horticultural interests, as does the fine binding – he was known as a bibliophile and the owner of a notable library (which included a Gütenberg Bible), but there is a more specific possibility. Hibbert ended up being the purchaser of collections made in China in 1793–4 by James Main. After being away on a three-year trip Main returned to London to discover that his original sponsor, Gilbert Slater, had died and that Slater's executor had sold the collections of *drawings*, seeds and plants that he had sent back home to Hibbert. Most of Hibbert's library was sold in 1829 (for £23,000) when he moved from London to his wife's family property of Munden Hall, Hertfordshire. Perhaps the album of pretty botanical drawings was kept back for his grand-daughters, though at the time of his death in 1837 they were still only children – Katherine Amelia 5 and Elizabeth Margaret 3; eight years later, when they added their names to the album, they were 13 and 11 respectively. The sisters' father was Nathaniel, who trained as a lawyer but had no need to practise, and who married Emily, a daughter of the Rev. Sydney Smith. Katherine remained unmarried and died in 1888; Elizabeth married the Tory politician Henry Thurstan Holland, who (after his wife's early death, aged 21 in 1855) was later created Viscount Knutsford.

Waters of Lethe

Auburn leaves, accidental passengers,
        tumbled and churned,
as they career seawards
        in the peat-tinged waters
of a river in spate.

A dipper uses the brick vault
        of a Victorian bridge
to amplify its
        soft and stalling song.

If the Water of Leith,
        can't quite induce the oblivion
            of its Grecian near-homograph,
it can at least provide solace
        for churned emotions
            on an autumnal walk.

30 x 2020

PART THREE
BIOGRAPHICAL

XIV · DR JAMES BADENACH OF WHITERIGGS

While researching the life of John Hope a decade ago I went through the RBGE copies of his personal papers of which the originals have fortunately survived in the National Records of Scotland. The name of one of his correspondents caught my eye but at the time it was hard to find any biographical details about him. What piqued my interest about James Badenach was not only that the letter was written from Glamis (in my home county of Angus), but that it referred to India, another of my major interests. The topic of the 1779 letter was medical – the use of camphor and ipepacuana – and referred to a voyage in 1766 in which Badenach had visited Bombay and been told that camphor could be purchased in Bencoolen or Batavia. Badenach had then just completed a tour of Scotland and intended to return to the East Indies (though this seems not to have happened). His recent itinerary had included three of the classic sites of the Scottish 'petit tour' – Dunkeld, Taymouth and Blair Atholl; it had also taken him to Inverness and Ross-shire leading one to wonder, in connection with his name, if he might have had family connections in the north. On a genealogical website is to be found an intriguing suggestion that the Badenach name for the Glamis family was an alias for McDonald, which might indicate a Jacobite past that required to be concealed.

Other references to Badenach in the Hope papers show that in 1763 he had attended what was Hope's third annual course of botanical lectures (but not the Materia Medica one), that Badenach was a correspondent of the London naturalist John Ellis (c 1710–1776) and that in 1774 Hope paid him a shilling for the freight of seeds that, as will be seen, probably came from the second of Badenach's voyages to China. Although Hope's herbarium has not survived a manuscript catalogue of it has and in it is a record of *Valeriana dioica* collected at Langholm by 'Mr Burges and Mr Badenoch (sic)'. The Rev. John Burgess, minister of Kirkmichael,

Dumfries-shire, was a significant contributor to Lightfoot's *Flora Scotica* but his connection with Badenach and the reason for the latter's journey to the Debatable Lands is unknown. Also among the Hope manuscripts at RBGE is a list of plants arranged by flowering-time now known to be the work of Adam Freer and one wonders if an unattributed record in it, of 'Rumex digynus? an [= or] scutatus' from the 'Castle of Glammis', might have originated with Badenach.

More recently I came across Badenach's name in a quite different context, at Oak Spring, Virginia, in the papers of John Bradby Blake (1745–1773). Blake was an East India Company official based in Canton (their bizarre denomination was that of 'Supercargo'), where he commissioned a series of outstanding botanical paintings from a Chinese artist called Mai Xiu. Between these archival encounters with Badenach I had opened a file for any odd snippets of biographical information as and when I came across them and in April 2017, at Auchenblae in Kincardineshire, I managed to find his almost illegible gravestone.

While he clearly led an adventurous life, undertook interesting work, made enough wealth to become at least a 'bonnet' laird and to establish a dynasty, and met some of the major figures of his day, Badenach's obscurity is probably due to his failure to publish more than three rather insubstantial works. And of these the most substantial was never intended as such. Published as recently as 1992 this entirely failed to do justice to the breadth of its author's life – its editor hadn't even managed to establish the dates of Badenach's birth or death, knew nothing of his international travels, and denoted him merely as a 'Stonehaven farmer'. One was left to wonder if the admittedly fascinating agricultural diary concerned could even be the work of the same Dr James Badenach, but so it proved. While what I have been able to discover does not amount to anything very substantial it seems worth setting it down, not only to reconnect the two halves of Badenach, but to show him as an example of a type of enterprising eighteenth-century Scot, steeped in the ideas and ideals of the Enlightenment with its emphasis on useful knowledge, whereby an EIC naval surgeon could contribute to the betterment of man (through medicine)

and scientific discovery (in natural history) while at the same time bettering himself through the acquisition of wealth and social status. Coming from a background of prosperous tenant farming he already had at least one foot on the ladder and thus was not quite the classic 'lad o' pairts'.

LIFE AND WORK: THE EASTERN VOYAGES

James Badenach (1744–1797) was christened in the parish of Kirriemuir on 1 June 1744. In the church register his name was spelt 'Badenouch', the first of many alternatives by which he was known during his lifetime, which included 'Badenough', 'Baddenough', 'Badenack', 'Badenok' and 'Badenoch'. It should be noted that his own spelling was far from orthodox: the fairer sex he spelt not only in the conventional way but as 'wewmen' and even 'wowmen', the latter doubtless not intended to indicate their potential effect on suggestible members of the opposite sex. At the time of his baptism his (eponymous) father was described as a 'merchant' who must later have turned to farming as he became the tenant of Mains of Glamis, the home farm for the great Strathmore estate. Of the younger James's education nothing is known until his appearance on Hope's 1763 class list, after which he became a ship's surgeon on the *Nottingham*. Under the command of Captain the Hon. Thomas Howe this EIC ship sailed to Bombay in March 1766, returning to Gravesend in November 1767.

An Irish doctor called David Macbride had suggested that 'wort', a decoction of brewing malt, might prove to be a remedy for scurvy, and the influential London-based medics Sir John Pringle and William Hunter recommended its trial at sea. Badenach was one of the disappointingly few naval surgeons to take up the challenge and his report on six case studies (as given in a letter to Hunter from Bombay in October 1766) was reproduced in Macbride's 1767 *An Historical Account of a New Method of Treating Scurvy at Sea*. Although *wort* is rich in vitamins of the B complex it doesn't contain vitamin C, so any benefit attributed to its use must have been a result of its making up for other dietary deficiencies suffered by the sailors treated. The real cure for their scurvy can only have been the fresh fruit eaten after the ship reached the island of Johanna in the

Comoros Islands between Mozambique and Madagascar. In 1776 Badenach would himself publish a supplementary paper summarising the use of *wort*, the effectiveness of which he was convinced, by other ships' surgeons. It was while on board the *Nottingham* that Badenach used the ipepacuana and camphor reported in his letter to Hope. A second medical paper, published in 1771, also related to a disease with which he had to deal on this voyage. Known as the 'bilious fever' this was probably malaria, which he took to be caused by night air and contracted when sailors slept on land overnight, a practice therefore to be avoided. His treatments involved bleeding, antimonial medicines and saline, followed by 'cortex peruvianus' of which the last (i.e., quinine) must have been the effective agent.

On this first of his three voyages Badenach must have been allowed to engage in private trade and so started to accumulate capital that, following its conclusion, allowed him a three-year spell in Britain. On 11 August 1768 he was awarded an MD by the University of Glasgow, though it is not known why he chose that western place of learning rather than Edinburgh, nor whether he attended any lectures there (for example those of William Cullen). In the same month he had asked Hope for a letter of introduction to the Aberdeen naturalist David Skene in which Badenach was described as 'my favourite pupil', which perhaps suggests something deeper than idle flattery. In 1765 it was also Hope who had provided the introduction to Ellis in which he described Badenach as 'a young man of a most happy genius'. At the Linnean Society of London are five letters from Badenach to Ellis in which are to be found revealing – if tantalisingly scanty – biographical details. The first two are from a period spent in Paris in the summer of 1769 during which the young surgeon studied literature on birds and quadrupeds (specifically the works of Linnaeus, Buffon and Brisson) in libraries, and under Louis-Jean-Marie Daubenton in the King's Cabinet housed in the Jardin du Roi. In Paris he also met the chemists Augustin Roux and Guillaume-François Rouelle, and Henri-Louis Du Hamel du Monceau, a great authority on trees (among many other subjects) much quoted by Hope. It was Badenach who showed the engraving of *Eriocaulon*, the strange aquatic plant then recently found on Skye by James Robertson (see

Chapter VII), to Antoine Laurent de Jussieu, and relayed Hope's request for an opinion on the plant's affinities from the great exponent of the natural system. It is probably in these letters, in which Ellis's experiments on putrefaction were discussed, that is to be found the suggestion that Badenach and Ellis were the first to consider the role of micro-organisms as a cause of disease.

During his period in France Badenach was in touch, personally or by correspondence, with four other members of Hope's international circle: the physician Sir John Pringle and three former and particularly talented Edinburgh students. Pringle and Theodore Forbes Leith were also in Paris at this time (Leith and Badenach made a joint excursion to Fontainbleau), the American Benjamin Rush was in London, and Adam Freer in Aleppo. On his return to London Badenach caught up with Pringle and met the chemist Peter Woulfe and the naturalist Anna Blackburne. Doubtless keen to pick his brain about Parisian intellectual life, Hope wanted Badenach to return to Edinburgh, but he must already have determined to make another voyage, this time to China. The primary motivation was doubtless financial, though it would also provide opportunities for further medical and natural historical observations and, with luck, for new discoveries.

The ship to which Badenach signed up was the 499-ton East Indiaman *Princess Royal* under the command of Captain Robert Ker(r) – as Kerr died in Cupar, in 1794, a Scottish link is suggested. Badenach was surgeon on both of the ship's voyages to China – the first left the Thames in February 1770 and sailed via Johanna (where he collected seeds), Madras (reached in July) and Malacca (where he hoped to obtain seed of the mangosteen) to Canton, returning to Britain in July 1771 by way of the Straits of Sunda, the Cape of Good Hope and St Helena. During this voyage, as in Paris, Badenach was fortunate to encounter some particularly interesting men. In the Ellis letters are indications that he actually met Joseph Banks and Daniel Solander, a meeting that must have taken place either on his outward voyage at Batavia (where the *Endeavour* was based from October to December 1770), or on his homeward voyage at the Cape where Captain Cook's ship was in March and April 1771. During the three months spent in Canton

(up to January 1771) Badenach met John Bradby Blake, to whom he had a letter of introduction from Ellis, and by whom he was entrusted with a plant of *Ginkgo biloba* to take back to England, presumably for Ellis. The precious plant was still alive by time the *Princess Royal* reached St Helena, but it is not known if it reached Britain where the tree, though in cultivation since 1758, was still a rarity. In Canton Badenach also met the EIC factory's surgeon Robert Gordon (d 1771) who was interested enough in botany to have made his own abridged translation of the *Hortus Malabaricus* (see Chapter VIII). Though some were damaged on the homeward voyage Badenach must have brought other collections back. These included plants for John Fothergill and it was probably on this voyage that he collected for Ellis a coralline alga previously known only from Jamaica. In Solander's 1786 book on Ellis's collection of zoophytes the Indian Fig coralline (*Corallina opuntia*, now *Halimeda opuntia*) is recorded as having been 'lately found on the shore of Prince's Island [now Panaitan], in the Straits of Sunda, by Dr Badenach'.

THE ROULOUL BIRD

The most interesting find of the trip, on the outward voyage in August 1770, was avian. In Malacca Badenach took on board a pair of unknown birds with two young, but these had died before he reached China. In October 1771, following his return to London, he sent a Linnaean-style Latin description of the birds, with an illustration of the male and a covering letter to Dr Matthew Maty, which was read to the Royal Society and published in its *Philosophical Transactions*. Despite his Parisian zoological studies Badenach was cautious – the letter ended decidedly limply:

> *What genus this bird is properly to be referred to I shall not pretend to determine; but if you think this, though but imperfect account, worth the communicating to your Society, you have my leave.*

Had Badenach dared to give it a name the bird, now known as *Rollulus rouloul*, the crested partridge, would have been new to science, but its scientific naming had to wait a further decade. When the French naturalist Pierre Sonnerat visited Malacca on his way to China he also saw the bird and learned that it was known as 'La Rouloul'. Sonnerat made a drawing of it (albeit with an inaccurately long tail) that was published in his 1782 account of the expedition – on which Giovanni Antonio Scopoli based his formal description of the bird as *Phasianus rouloul* in 1786. In the years following there was considerable discussion as to the bird's affinities, variously placed as a pheasant, a partridge or a pigeon, but in 1791 it was given its own genus by Pierre-Joseph Bonnaterre.

The male of the species, as illustrated by Sonnerat and Badenach, is black with an iridescent greenish back, red legs, a prominent crest of soft, bronze-coloured feathers, and striking bright red markings around the eye and at the base of the underside of the beak. The female, which received much shorter shrift in Badenach's description, is less decorative – greenish with brown wings and no crest. The bird is native to Burma, Thailand, Peninsular Malaysia, Sumatra and Borneo, where its conservation status is now 'Near Threatened' and it is listed in Appendix III of CITES. It is, however, sometimes kept in captivity in the West and can be seen, for example, running around the Eden Project in Cornwall.

A question remains as to the anonymous artist of Badenach's plate, which was engraved for publication by James Basire. It is possible that Badenach could have stuffed the male bird, brought it back to Britain, and that the drawing was made in London, but had he done so a zoologist there would surely have formally named the species. As no artist's name is given on the plate it seems more likely that he brought home a drawing made either in Malacca or Canton, probably the work of a Chinese artist. Although such artists are known to have been undertaking botanical commissions for western patrons (such as Blake) at this time, it seems an early date for an ornithological one. However, it is similar in style to those produced three or four decades later for William Farquhar, Stamford Raffles and John Reeves. The bird is shown perched on a branch, which is also suggestive of the Chinese artistic practice of depicting birds on a spray of foliage or flowers (observation from nature would, at least if made during daylight hours, have shown it on the ground). In his *General History of Birds* John Latham pointed out a discrepancy between Badenach's description and

the illustration: in the latter a claw is incorrectly shown on the back toe, perhaps another pointer to a Chinese artist with no specialist knowledge of avian anatomy. The rouloul article had an afterlife and its Latin description was translated into French in 1774 and into English in 1809. The latter, in the abridgement of the *Philosophical Transactions*, was probably made by George Shaw, one of the work's editors and another of John Hope's students. In 1791, in his *Naturalist's Miscellany*, Shaw had published John Latham's name for the species, *Tetrao porphyrio*, the violaceous partridge, accompanied by a rather bad illustration of the male bird by Frederick Polydore Nodder.

Badenach's second voyage on the *Princess Royal* under Captain Kerr was to Canton via Bencoolen. This set sail in December 1772 and returned to Britain in May 1774. Nothing is known of the surgeon's experiences on this voyage other than Hope's payment of freight for seeds from it; it led to no publications by Badenach himself, nor mention in those of others. The projected return to the East expressed to Hope in 1779 appears not to have taken place as Badenach was not the surgeon on the new and larger *Princess Royal* that sailed to China (under the same owner and captain) in 1777 and 1781, nor on any other East Indiaman of the period. Presumably he realised that he had amassed enough capital from his three voyages to acquire the wife and landed property to which he aspired.

STONEHAVEN FARMER

The second part of Badenach's life was very different to the peripatetic one of the first and seems to have been spent almost entirely in Scotland. On 5 October 1775, in the Parish of Marykirk, Kincardineshire, he made a canny marriage to a laird's daughter Ann Graham(e); seven weeks later her elder sister Isabel(la) married John Arbuthnott who later became the seventh Viscount Arbuthnott. The sisters' father had been born William Barclay and owned the estate of Balmaqueen (now Balmacewan) on the north side of the River North Esk between North Water Bridge and Marykirk. The Barclays were an old Aberdeenshire and Mearns family (see Chapter XIII), who owned the estates of Mathers,

Urie and Johnston in addition to Balmaqueen (which they had held since at least the sixteenth century). However, in 1744, in order to inherit the nearby estate of Morphie from a cousin of his mother, he had to change his name, to become William Graham of Morphie. There is a curious link here with a later Indian surgeon as Alexander Gibson's father was, for many years, Graham's tenant at Hill of Morphie. On Graham's death in 1776 Badenach and his new wife moved into Mains of Balmaqueen (perhaps it was her dowry) and his father appears to have followed in their wake.

Around this time James Badenach senior gave up the tenancy of Mains of Glamis and relocated twenty miles eastwards to the Howe of the Mearns – to another prosperous farm called Johnston at Laurencekirk, conveniently close to his son and daughter-in-law. At Glamis he had been a tenant of the Earl of Strathmore and one wonders if he knew the young William Paterson from nearby Brigton whom the Countess sent to collect plants at the Cape of Good Hope in 1777. At Johnston his landlord was the Scottish Judge Francis Garden, Lord Gardenstone, a great 'improver' who in 1765 had built the model village of Laurencekirk (and in 1789 St Bernard's Well in Stockbridge). From the 1803 inventory of James Badenach senior's will he clearly kept up his Angus connections as his trustees included two Forfarians, a merchant and the surgeon Dr Patrick Key, uncle of Sir David Brewster (and father of Dr Thomas Key a medical colleague of Hugh Cleghorn in Madras).

Badenach's finances must have prospered for in 1788 he purchased from Alexander Leith the larger, and already improved, estate of Whiteriggs beside the Bervie Water in the parish of Fordoun, which included the farms of Arthurhouse and Suttiewell. This was close to Arbuthnott and therefore to Mrs Badenach's sister. The estate did not have a mansion, only a large farmhouse, which suggests that for Badenach farming was a higher priority than a showy house, though ownership did entitle him to style himself as 'of Whiteriggs'. In 1792 the estate was enlarged with the purchase of the farms of Easter and Wester Waterlair, but some of this additional land was leased out. The diary of agricultural activities and weather relating to Badenach's land, kept from 1789 until his death in 1797, was published in 1992 under the title

Flitting the Flakes [*Anglice*: 'moving the hurdles'], when its manuscript was among the archives at Glenbervie House. The editor, Mowbray Pearson, had undertaken little research into Badenach, his concern being farming activities and rural economy, but in the decidedly skimpy introduction is the tantalising remark that in an *earlier* diary Badenach had described himself as a member of the Philosophical Society of Edinburgh. While unlikely to have claimed spurious membership of this significant Scottish Enlightenment body (which in 1783 morphed into the Royal Society of Edinburgh), Badenach's name does not appear in its memberships lists as reconstructed by Roger Emerson. The meticulously kept diary suggests that in the final decade of his life Badenach went no further afield than Aberdeen (on 'County' business) and Montrose, though he must also have visited Arbroath where he owned the property of Almerie Close, a house and garden on the site of the Almonry of the great Abbey of Aberbrothock dedicated to St Thomas à Becket. The short daily entries are frustratingly devoid of matters of biographical or wider intellectual interest.

Badenach died of 'dropsy' and was buried in the kirkyard at Auchenblae (the parish church of Fordoun) on 27 December 1797. According to a notice in the *Aberdeen Magazine for January 1798* he died 'highly respected … for his abilities as a physician, and his integrity as a man', which suggests that he had continued to practise medicine during his Whiteriggs days. His widow Ann lived until 6 August 1815 and their memorial stone was erected by their son, another James, who in 1807 sold Whiteriggs back to the Leiths and thereafter styled himself as 'of Arthurstone'. In 1831 James's son Robert, like his grandfather before him, made a strategic marriage; his wife Anne Wilson was heiress of the Nicolsons of Glenbervie, and the family name became Badenach-Nicolson. It is for this reason that the family archives (and a portrait of Ann Badenach, but sadly not of James) were kept in Glenbervie House until 1979 when the estate passed, through the female line, through Patience Badenach-Nicolson, to the Macphie family of Stonehaven. At this point the Macphies donated the extensive estate papers (dating back to 1495 and including those of the Douglas predecessors of the Nicolsons) to Aberdeen University Library (MS 3021). Due to

lockdown these are currently inaccessible, and the online catalogue lacks detail, with no reference to Badenach's diaries, only to his MD certificate and his appearance in letters from John Ellis and John Hope to David Skene.

Sandwich terns

Two sea swallows
    in late October,
should not be taken to indicate
    that the summer isn't over.

25 x 2020

The turnstone

tortoiseshell-mantled,
    snow-bellied, coal-bibbed,
    orange-shanked,

fossicking furiously
    in the flotsam
    of decaying fucus,

The turnkelp

Wardie Bay, 13 xi 20

XV · DAVID DOUGLAS (1799–1834): THE SCONE MONUMENT AND AN ENIGMATIC PORTRAIT

As children my parents encouraged us to make collections of both naturalia and artefacts. Of the latter my sister was assigned silver teaspoons (which in those pre-decimal days cost about ten shillings; more if they had a Scottish provincial hallmark), my brother cut-glass salt cellars (2/6 to five shillings each) and my own sphere of activity was Victorian snuffboxes (in wood, papier mâché, horn or tortoiseshell, which could then be bought for 20 to 25 shillings). This collecting had begun in Leeds and continued after our move to Scotland in 1968. Post-industrial Dundee was always hopeless for antiques and our favourite hunting ground was the more genteel Perth, then amply supplied with junk shops. One of these occupied the Fair Maid's House (now the education and visitor centre of the Royal Scottish Geographical Society) and it was there, one Saturday in 1971, that my interest was excited by an untidy heap of printed documents relating to a local firm of lithographers, W. & J. Gardner, dating from the 1840s. The material included the remains of a scrapbook containing samples of receipts and letterheadings for local businesses, architectural plans, share certificates for the Dundee & Perth Railway and many loose items including an 1845 town plan of Perth and some charming topographical prints (including the Glasite Meeting House in Perth, local castles and the Round Tower of Abernethy).

In an attempt to instil economy my parents were very old fashioned when it came to pocket money: we were allowed a weekly shilling at a time when our school fellows received at least ten times as much. This doubtless well-intentioned discipline was doomed to failure and thrift was abandoned as soon as other sources of income became available. In this case it had an unfortunate effect in that I was unable to buy the whole bundle of papers: the shop owner wanted something like £5 and I had only 25 shillings. Invidious

choices had to be made of what seemed to be the most historically or visually interesting – perhaps a useful lesson, after all? The lady selling them recognised the local significance of the collection and sold the pieces on condition that should I ever get bored with them I would pass them on to an historical society or archive in Perth.

THE FIRM OF W. & J. GARDNER AND THE DOUGLAS FLIER

According to Schenck's directory of Scottish lithographers the firm of 'W. & J. Gardiner' (sic) operated from 39 High Street Perth between 1845 and 1853, but it must have begun at least three years earlier as their dated works show that the Gardner brothers were active from at least 1842. Schenck stated that the partners were the sons of Patrick, a clock maker, and that William died in January 1848, aged 47. Scotland's People reveals that William was born on 2 October 1801, his brother James on 12 May 1803, and that their mother was Magdalane (or Magdaline) Aberdour. In the baptismal registers both the father's and the sons' surnames are spelt 'Gardiner', but on all the firm's printed work the 'i' is omitted, and the spelling used 'Gardner'.

The collection is fascinating for the insight it gives into the sort of work undertaken by a firm of lithographers in a Scottish county town in the 1840s. As already noted a large proportion consists of business stationery, but the topographical prints show a modest artistic side to the firm and, though unsigned, perhaps one of the brothers was himself the artist. In the present context the most interesting item was a 10 × 8 inch sheet titled 'Inscriptions'. It related to a monument to the great Perthshire plant collector David Douglas (1799–1834), which turned out to have been erected in the kirkyard of New Scone in 1841. Within an ornamental border are printed the texts for a 'Front Plate' – giving details of Douglas's life and his 'accidental and lamented death in one of the Sandwich Islands [i.e., Hawaii]' – and a 'Rear Plate' with the names of a selection of some of the 'ornamental plants introduced by Douglas' under the categories of trees (11 species, including the Douglas and noble firs), shrubs (seven, including garrya and flowering currant) and herbs (nine, including the Californian poppy). The print was evidently some sort of flier, but at this stage I had no clue as to its intended audience.

Among other interesting documents in the Gardner sample book are plans of parts of the Perth Gas Works and ones for a villa by the Perth architect William Macdonald Mackenzie (1799–1856). One of the items even illustrated links with the Subcontinent: an advertisement by the Misses Macnaughton, who ran a boarding school in Rose Terrace, addressed 'To Parents and Guardians in India'. Among the named referees cited by the sisters is Sir George Ballingall, the Edinburgh professor whose lectures on Military Surgery were attended by Hugh Cleghorn.

THE DOUGLAS PORTRAITS

Ten or so years later, while working in the Botany Department at St Andrews in the early 1980s, I visited an antiques fair held in the Town Hall. On one of the stalls I was astonished to recognise the remnants of the collection of Gardner papers, which must have passed to another dealer on the closure of the Fair Maid's antique shop several years earlier. It was thus possible to have another bite of the cake and among the items acquired in this second batch

was a semi-profile, head-and-shoulder portrait of David Douglas. The drawing, with the exception of a rather inept ear, is fairly well executed in pencil on thin paper, mounted on a thicker board on which is inscribed in pencil 'D[d] Douglas Botanist'. There is no date or artist's signature but given the context it was clearly connected with the Gardner flier and must date to around 1840. Might the intention have been to make a lithograph from the portrait to send out with the text? A bigger question concerned the nature of the portrait – was it drawn from life or copied from another drawing or print?

At this point it is worth giving a brief summary of Douglas's life. Born in Scone, the son of a stone mason, he spent seven years as an apprentice gardener at Scone Palace and in 1818 went to work for Sir Robert Preston in his Repton designed garden at Valleyfield. (Curiously at the same time that Preston was providing Robert Wight with a recommendation as an East India Company surgeon). In 1820 Douglas progressed westwards from Fife to the Glasgow Botanic Garden, just as William Hooker was taking charge of it as Professor of Botany. Hooker recognised the young gardener's talents and recommended him as a collector for the Horticultural Society (later the RHS), which led to a first short trip to North America in 1823. Douglas returned there for a second, much longer, expedition from 1824 to 1827, followed by two years back in Britain. In 1829 Douglas again went to North America, this time via Hawaii, and it was on a second visit to those islands in 1834 that he met his death in a pit-trap for feral bullocks on the slopes of Mauna Kea, into which he may have been pushed by a rival.

Due to his early death, which was viewed as a botanical martyrdom, and the numerous and spectacular plant introductions that have changed the face of British gardens up to the present day, Douglas was a celebrity. This led to illustrated biographical articles as early as 1836, and an intention to raise monuments to him in Scotland and Hawaii. The portraits that accompanied these articles, as with more recent biographies, all turn out to be based on only two originals drawn from life, although each of these exists (or once did) in two versions. The most frequently reproduced is by the distinguished Scottish artist Daniel Macnee (1806–1882).

As will be seen later both William Hooker and Dawson Turner owned a copy of this portrait, which, to all intents and purposes, are identical and both almost beyond question by Macnee himself.

THE MACNEE PORTRAITS

In Glasgow, just as Hooker had been one of the first to recognise the horticultural and botanical talents of Douglas, so was he one of Macnee's earliest patrons. In a biographical sketch of Hooker his son Joseph recorded that Macnee was commissioned to draw some of his father's botanical friends and protégés, among them David Douglas. Like Hooker's other Macnee portraits it is a head and shoulders, executed in coloured chalks on buff paper; the main parts are in grey, Douglas's stock and the highlights on his forehead and cheek are in white, with some additional pink highlighting above the eyebrows and on the lips and cheek. It must have been made in Glasgow as Macnee worked only in Scotland, and date from after Douglas's return from his triumphant second North American trip (the Kew version is dated 1828). The man depicted is successful and self-assured; the nose Roman, with a bump near its base. The Linnean Society version of the drawing was presented at an unknown date by the zoologist Dr William Rushton Parker.

The question is why there are two versions? A related case is suggestive. In December 1832 Hooker asked Macnee to draw the botanist Robert Wight who was then on leave from India; the original drawing was sent to Wight's sister Anne Stewart in Blair Atholl and Hooker had a second version made for his own collection. Might something similar have happened in the case of the Douglas portrait, with one version made for Hooker and another for his father-in-law, the Yarmouth collector, banker, bibliophile and cryptogamist, Dawson Turner?

In addition to his own commissions Hooker's portrait collection (now at Kew) came to include the one assembled by Dawson Turner. It is not known if the latter was given to Hooker by his father-in-law or was purchased by him at the series of sales of the great collection of manuscripts that followed Turner's death in 1858. There is no relevant documentation but one possibility is that whenever it was that Turner's portrait collection was amalgamated

with Hooker's Glasgow-made one, the two Douglas drawings came together and one sold or given away as a duplicate that ended up with the Linnean Society. On the latter version the handwriting of the pencil annotation 'Mr David Douglas' is certainly not Hooker's but it is not dissimilar to Dawson Turner's, which might suggest that the Linnean Society's copy was originally his.

THE MISS ATKINSON PORTRAITS

The second lifetime portrait of Douglas, also with two near identical versions (of which only one appears to survive), can't be of immediate relevance to this story as in the 1840s neither version was anywhere near the Gardner brothers in Perth, but in the hands of Douglas's own two brothers. Of these one was first published only in 1885 and the second in 1919.

At Kew is a sepia photograph of one of these drawings that belonged to, and is annotated by, J.D. Hooker, who may have commissioned it from a Brighton photographer. In 1885 Hooker noted on the back that the drawing was by a 'Miss Atkinson' and belonged to 'G. Douglas', the plant collector's brother, which must refer to his younger brother George (b.1806). The same year Hooker made this photograph available to the editor of the *Gardeners' Chronicle*, who published it as a woodcut in an article on Douglas. Several decades later Hooker sent a copy of his photograph (this one being made in Sunningdale) to the Rev. William Wilks, secretary of the Royal Horticultural Society, for reproduction as the frontispiece of an edition of the journal of Douglas's second North American expedition. The original drawing must by this date have disappeared or the editors would surely have had it rephotographed. On its mount is an annotation in an unknown hand with additional information that claims the drawing was made when Douglas was 'aetat 30', and that Miss Atkinson was Douglas's niece. There are grounds for rejecting both additional pieces of information, not least that they were not present in Hooker's original annotation of 1885.

The second version of the Atkinson drawing is almost identical but shows more of the sitter's coat and is framed in an oval mount. This one had belonged to Douglas's elder brother James (b.1798)

and when reproduced in W.F. Wilson's biography of Douglas in 1919 was in a museum in Vancouver and reproduced with the permission of a Miss Edge. The drawing is now apparently in the Royal British Columbia Museum, though it can't be found on their online catalogue.

The puzzling thing about the Atkinson portrait is that the sitter is scarcely recognisable as the same man depicted by Macnee. Perhaps the most striking difference is the shape of the nose, which shows no sub-basal bump. According to the dubious later inscription on the RHS photograph the drawing is supposed to be contemporary with the Macnee portrait (i.e., 1828/9), but it appears to show a younger man. Given the family provenance of both versions it can't be a case of mistaken identity. The difference, therefore, has to be put down to an earlier date, or to differing powers either of observation or technical skill on the part of Miss Atkinson and the professional artist Macnee. Nonetheless, the Atkinson drawing has considerable assurance and charm.

Who was Miss Atkinson? There is no evidence that Douglas had a niece by a married sister. He is said to have had three sisters, though only two are recorded in the Scone baptismal records. But even if she existed, was much older, and married to a Mr Atkinson, she could hardly have been old enough to have drawn Douglas's portrait. It is the sort of drawing that could easily have been made by a talented young lady, but surely not one of less than about 16 years of age. A much more interesting possibility arises. Just as Douglas had been apprenticed as a gardener in the Earl of Mansfield's garden at Scone, his elder brother James was apprenticed as a stone mason to the architect William Atkinson (1774/5–1839) who between 1803 and 1812 was gothicising Scone Palace. James later became Atkinson's Clerk of Works, so it seems entirely possible that he might have got one of his boss's unmarried daughters to draw his younger brother, perhaps even before he set out for his first North American trip in 1823. Atkinson had five daughters and of these Lynnia (sic) who was born in 1801 and married in 1820 can be ruled out. Rosamond (1803–1838) married in 1823 so is just about possible, but Maria, born in 1808, is perhaps the most likely rather than either of her two younger sisters Mary born in 1811 or Jane born pre-1815.

THREE NINETEENTH-CENTURY PRINTS

The first reproduction of one of the life portraits was made for a biographical article on Douglas accompanied by long extracts from his North American journal. This was published in the *Companion to the Botanical Mazazine* in October 1836 and, from a slightly later statement by J.C. Loudon in the *Gardener's Magazine*, it is known that the illustration was made from Dawson Turner's copy of the Macnee portrait. The print is a lithograph by the London firm of Robert Martin and Co. of 26 Long Acre. An anonymous artist must have copied the drawing onto a lithographic stone, doubtless by means of transfer paper, which accounts for the reversal of the image. The result is very true to the original drawing and, like it, shows no seam between the collar and lapel of the sitter's coat. That it was made in London probably, on grounds of relative geographical proximity, accounts for the use of Turner's, rather than Hooker's, drawing but is nevertheless slightly odd as in the same volume Hooker made extensive use of Glasgow artist-printmakers for botanical illustrations. The firm of Allan & Ferguson made lithographs, and Joseph Swan copper engravings (including ones based on Rungiah's drawings made for Robert Wight).

Two months later, in December 1836, with the permission Samuel Curtis, owner of the *Companion*, a woodcut was based on the lithograph. This illustrated a trilingual biographical article by J.C. Loudon in his *Gardener's Magazine*, a periodical with a much wider circulation than the *Companion*. Due to the engraving process the image has been reversed back to the original orientation of the drawing, but the engraver has also somewhat altered the character of the face, which looks less haughty, while retaining the Roman nose of the drawing. When it comes to the costume, however, a marked change has been introduced, the significance of which will become apparent. In the woodcut the collar is made to look as though made of dark velvet, with a vertical seam between it and the lapel.

The third of the nineteenth-century reproductions is in the *Gardeners' Chronicle* for 8 August 1885 and accompanies a biographical article on Douglas probably by the journal's editor Maxwell T. Masters. This is based on the Atkinson drawing, if at several

removes, and, as Hooker supplied the image, must have been taken from his photograph of the drawing that belonged to George Douglas. The print is identical to the Hooker photograph and must have been made using a photo-lithographic process.

THE GARDNER PORTRAIT – A MODIFIED COPY?

Because of the Perth association, and before making a study of the other portraits, I had cherished a belief that the Gardner portrait might have been drawn from life. Soon after I bought it my friend the forester James Ogilvie showed it to John Davies, author of a Douglas biography, who dismissed it as a mere copy and of no interest. Which begged the question that if it was a copy, then of what? In 1842 the two Macnee and the two Atkinson 'originals' were still in private collections, the only images of Douglas available for copying were the lithograph and its woodcut, copy both dating from 1836.

Close inspection shows that the Gardner drawing does appear to be based on the woodcut; at least as regards the clothing, with its tell-tale vertical seam between the collar and lapel that is shown neither on the Macnee originals nor the 1836 lithograph. But there are significant differences in the physiognomy between the Gardner drawing and the woodcut. In the former Douglas's nose is straight and, above all, he is shown with prominent sideburns; the hair is slightly more abundant and the hair-line has receded less far, all of which give him a more youthful appearance. Whereas some of this might be put down to artistic licence, the drawing of the coat suggests that the artist was capable of exact copying, and the sideburns suggest that something else might be going on. Is it possible that the artist was 'correcting' the print from a remembrance of Douglas's appearance as a youth in Perth some 20 years earlier? Might it be by one of the Gardner brothers who, being near contemporaries, could have known Douglas in their youth and that the portrait therefore has some claim to 'authenticity'? Whether due to faulty copying or artistic licence the curious result is that the drawing is closer to the Atkinson portrait and more boyish than Macnee's rather proud characterisation.

All of this is mere speculation and the truth can never be known, but it is perhaps worth commenting on the question of 'copying' as an artistic practice and the whiff of the pejorative that it carries in Western art-historical circles, with its obsession with supposed 'originality' and the cult of the named genius – false gods at best! My own work on Indian art, and the reading of Kärin Nickelsen's pioneering work on the prevalence and significance of copying in eighteenth-century botanical illustration, has radically changed my view on the process and its traditions. There is, of course, no such a thing as a true copy. Even traditional chemical – and paper-based photography introduces its own subtle variations if digital scans might, perhaps, be closer to a facsimile of an 'original'. But hand-drawn copies can be of interest in various respects – for example, effects resulting from translation from one medium to another; interventions on the part of the copyist, either accidental (through lack of skill) or by deliberate choice. Particularly in the case of portraits copies can also be of interest in terms of

patterns of commissioning, ownership, distribution and reproduction. In this case the Gardner drawing, certainly at least in part a 'copy', carries fascinating evidence of toings and froings in terms of location, time and media. An original drawing made in chalk in Glasgow around 1828, reproduced as a woodcut in London in 1836, redrawn in pencil in Perth about four years later, but with the introduction of significant changes.

THE MONUMENT: ORIGINS AND DOCUMENTATION

The third episode in this tale dates from after my joining the RBGE staff in 1986. With this came access to the Garden's outstanding library, wherein was to be found an explanation of the origin and purpose of the Gardner flier. Because of Douglas's renown as a plant collector, and the tragedy of his early death, the commissioning and realisation of the monument turned out to have been thoroughly documented in horticultural literature between 1836 and 1842.

On 23 November 1835 a committee of the Perthshire Royal Horticultural Society was set up to seek subscriptions for a monument to Douglas to be erected at Scone. The chairman of the committee was Colonel John Murray Belshes, its secretary Archibald Gorrie of Annat Gardens, Errol. One estimable aim was that 'practical gardeners' should be encouraged to give donations of one to five shillings; furthermore:

> *every contributor to the amount of 1 shilling shall be entitled to a printed list of subscribers' names, to which a lithographic design of the monument and inscriptions shall be attached.*

Here, therefore, was the origin of the Gardner flier. The committee sent its proposal to J.C. Loudon in London, who publicised it in the July 1836 part of his *Gardener's Magazine*, with an additional suggestion from Gorrie that land should be purchased on which to grow the full panoply of Douglas's introductions (a suggestion soon dropped as unfeasible). In October 1836 came Hooker's biographical article on Douglas accompanied by the lithographed portrait already discussed. Loudon had enthusiastically taken up the cause of the monument subscription and in

the December issue of his own *Magazine* published a biographical article in English, French and German, aiming to drum up support in Europe and North America. Numerous addresses to which subscriptions could be sent were provided – many in Britain, but also in Paris, Hamburg, Berlin, Vienna, New York and Montreal. It was this article that was accompanied by the woodcut portrait of Douglas discussed above.

In the July 1842 issue of the *Gardener's Magazine*, Loudon was able to reproduce the final report of the Douglas Monument Committee dated 29 April 1842. It may have taken six years, but the committee had achieved its goal. The foundation of the monument had been laid on 29 July 1841 and on 14 October W.M. Mackenzie, the Perth town architect, was asked to inspect it to allow the project to be signed off. The Committee ordered the printing of 1000 copies of the inscription flier and of a lithograph of the monument's design. These were ready by 29 April 1842 and 500 copies of each print were sent to London for distribution to the southern subscribers. The fund-raising had been hugely successful: more than 600 individuals had contributed a total of £181 5 10d, amounting to about £20,000 in today's values. As was intended from the outset a large proportion of the contributions were single shillings from practical gardeners to whom this probably represented as great a sacrifice of their meagre wages as the £5 given by the Duke of Devonshire, Hooker's guinea or the pound donated by Robert Graham. There were contributors from Austria, Germany, Hungary, Denmark and France; from the last came a donation from the veteran landscape gardener Thomas Blaikie.

In the 1842 paper is a description of the monument as made of 'the famous Kingoodie sandstone, a species of bluish grey sandstone, taking a fine polish'; it stood 23 feet tall, formed 'a striking object from the public road leading from Perth to Coupar Angus' and was designed and erected by 'Messrs. Cochrane'. Information was also provided about the material originally promised to subscribers of a shilling or more – the text of the inscriptions, and a lithograph of the monument said to be 'very superiorly executed in the line manner' and 'about 10 in., high by 7½ in. broad'. A woodcut of the lithograph was reproduced in the paper and a full list of the subscribers given.

THE MONUMENT

In the Perth & Kinross volume of the *Buildings of Scotland* John Gifford described the style of the monument as 'Baroque'. This is not very accurate as it is a one-off, perhaps best described as 'Provincial-Bombastic', appropriate for its substantial cost. It resembles nothing so much as the foot- and head-boards of a rather elaborate early Victorian bed sandwiched together so that its side profile is very narrow as compared with the more or less cubic base traditional for such monuments. Raised on a stepped plinth the lower section has oblong pilasters at the corners of both faces, each of which is topped with a carved, fruit-filled, stone urn. Inset into both faces is a marble inscription, the front one biographical, the rear one with a list of Douglas's most important introductions. Between the front inscription and a small sarcophagus carved in lowish relief, is a lush, beribboned swag of flowers. It is above the inscribed zone that matters get out of hand. Sitting above the inscriptions, bridging the junction between the front and rear elements, stands a huge structure carved on both faces to resemble a lyre, with curlicued arms and a central anthemion. Like a giant pot stand this supports an urn-finial (with further curlicues for handles) borne on a plinth with the date 1841.

Further details about the designer are given on the recently discovered print, which names the firm responsible as 'John Cochrane & Brothers'. John Cochrane (1813–1850), like Douglas, was the son of a mason, born at Bridgend, Kinnoull on 26 February 1813, who established a business with his brothers James and David. Their other recorded works are a monument in the kirkyard of Tibbermore (1840) and an 1845 statue of Sir Walter Scott in King's Place, Perth. In the latter year John, with his mother and brothers, emigrated to Toronto and more information about the family in Canada can be found in the *Dictionary of Canadian Biography*.

THE PRINT OF THE MONUMENT

It had never seemed worthwhile to write anything about the Gardner 'Inscriptions' flier, or even the Douglas portrait, without having seen a copy of the lithograph of the monument. For several decades I kept an eye out for a copy without success, but on 15

October 2021 what appeared to be it was advertised in an online catalogue of that great Mecca for print collectors, Grosvenor Prints of Shelton Street, Covent Garden.

The print agreed with the dimensions given in the committee's final report but it is considerably finer than suggested by the woodcut reproduction. The committee had evidently not trusted the Gardner firm with this commission and turned instead to an Edinburgh artist and lithographer – Friedrich Schenck and Samuel Leith respectively. The print is in a technique known as *Chine collé*, in which the image is printed onto a sheet of fine Japanese paper that in the same process is bonded to a thicker backing sheet. The backing sheet is printed with details of the monument as follows:

> *Monument. Erected by subscription to the memory of the late celebrated botanist David Douglas, in the Parish Church-yard of New Scone, Perthshire. 1841. Designed & executed by John Cochrane & Brothers, Marble Cutters &c, Perth.*

The artist, Emil Ernest Friedrich T. Shcenck (1811–1885), was German. He was born in Offenbach and studied in Munich and Paris. In 1840 he was brought to Scotland by the lithographer Samuel Leith (1800–1857), who had then only recently moved his lithographic business from Banff to Edinburgh. Schenck would himself become a distinguished lithographer and wrote the account of the process for the eighth edition of the *Encyclopaedia Britannica*. From 1850 he ran a lithographic business with W.H. MacFarlane and among other botanical work by the firm of Schenck & MacFarlane were the prints for Cleghorn's paper on the Anamallai Hills. Schenck also drew and lithographed a portrait of Professor Robert Graham, Regius Keeper of RBGE and one of the subscribers to the Douglas monument.

IN CONCLUSION

It may have taken fifty years, but there is a certain satisfaction that, at last, it has been possible to reunite two pieces of ephemera, printed 179 years ago, one in Perth the other in Edinburgh, but made to be distributed in conjunction.

Carols from Kings

From the solitary confinement
of an Edinburgh kitchen

A bittersweet occasion
from reminiscences of past years,
when so much was taken for granted.

Exquisite in its execution and choreography:
a ballet in stasis

Men and boys in separate bubbles

The Dean in his stall, transported,
as if by magic,
for his blessing before the great Rubens

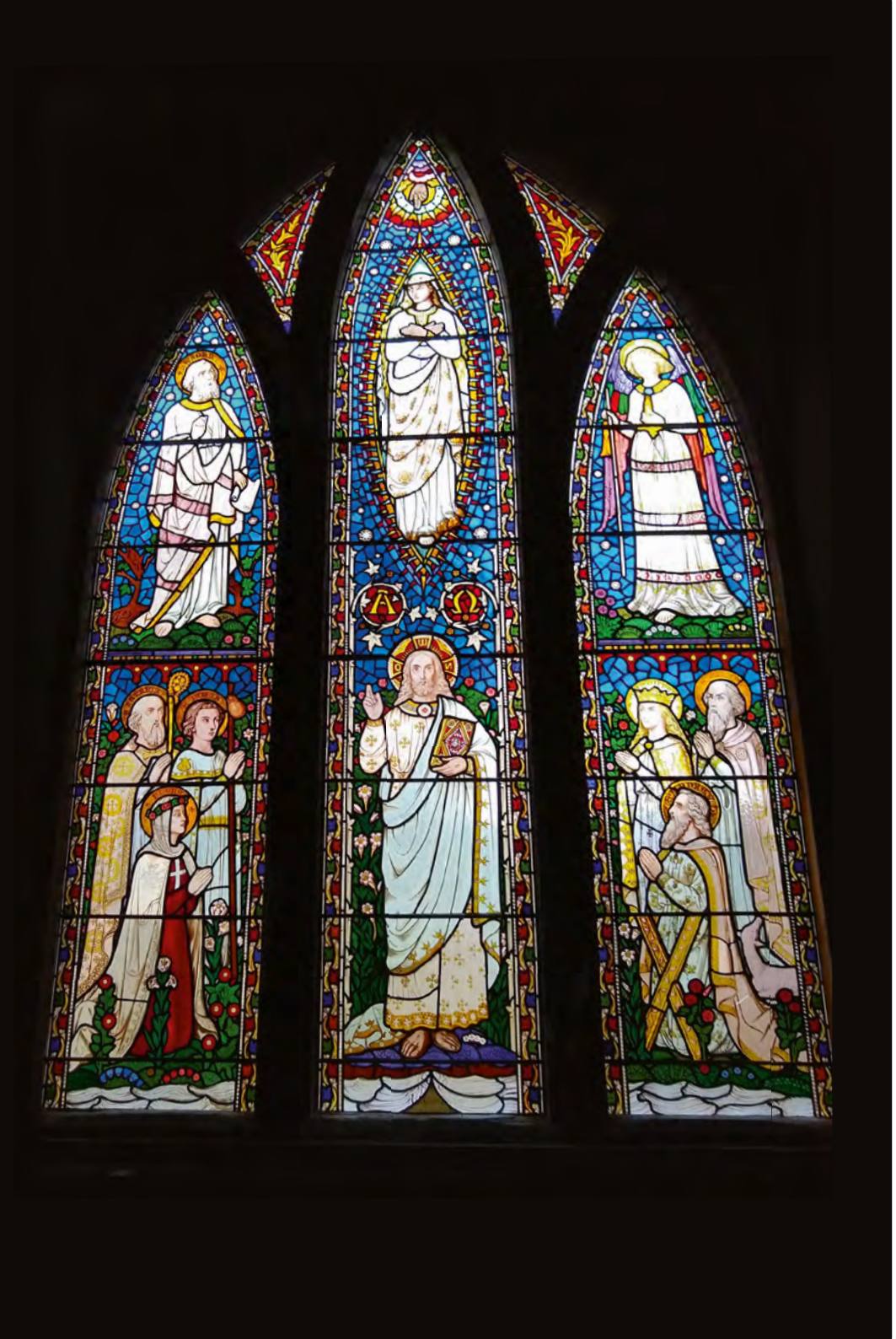
Each position reached without footsteps

The camera lies, or is directed to lie,

The jumps imply connections
but these must be
sustained by the spirit and prayers
of an absent congregation.

Social distancing aestheticized.

Christmas Eve, 2020



XVI · LADY FLORY'S WINDOW RESTORED

While researching a book on Sir Thomas Stamford Raffles and his natural history collections I first learned of a Scottish aristocrat born Flora Mure Campbell in 1780. At a young age she became the Countess of Loudoun in her own right and, following her marriage to Francis Rawdon-Hastings, ended up also as the Marchioness of Hastings. Both she and her husband had serious interests in botany and natural history, which found expression during his Governor Generalship of India between 1813 and 1823. It was Hastings who authorised the foundation of the Saharunpur botanic garden, he chaired a Plantation Committee to promote afforestation in Bengal and the couple were joint patrons of the Agricultural and Horticultural Society of India on its foundation in 1820. They also commissioned natural history drawings from the artist Sita Ram, who made a pictorial record of their progress to upper India in 1814/5.

The couple's interest in the natural history studies undertaken by Raffles in Sumatra led to an amusing incident when Lady Hastings asked his young surgeon-naturalist William Jack to make a collection of herbarium specimens. It was to be sent to Robert Jameson in Edinburgh for the University Museum, to which she contributed other material including the skull of a tapir; she also sent seeds to Robert Graham for RBGE. The brilliant, but irreverent, Jack underestimated Lady Hastings, whom he supposed would not know the difference between a 'Mangosteen and an apple' and grudgingly made the collection 'to humbug' her. Had he lived long enough the smile would have been on the other side of his face, but he died at Bencoolen at the age of 27 and when Raffles tried to take Jack's priceless herbarium home with his own collections all were lost with the burning of the ship *Fame*. Other than specimens sent earlier to his friend Nathaniel Wallich in Calcutta the Edinburgh 'humbug' set is therefore the only Jack collection to have survived.

It was with some interest that I discovered that Lady Hastings's mother Flora (*née* McLeod) was buried in an Edinburgh graveyard and that, as she was one of his great grandmothers, the third Marquess of Bute had commissioned a stained-glass window in her memory. Some genealogy is required. Flora McLeod, born around 1750, was the eldest daughter of the Laird of Raasay. In 1773, when Johnson and Boswell visited the offshore island of Skye, the hospitality laid on was lavish and Boswell regarded 'Lady Flory of Raasay' as the belle of the ball. In 1777 she married Colonel James Mure Campbell of Lawers and Rowallan, but on 3 September 1780 she died after giving birth to their daughter Flora. The death occurred at Hope Park, Edinburgh,* a villa on the edge of the Meadows built by Sir Thomas Hope of Rankeillour, uncle of the botanist John Hope. In 1782, through the death of a cousin, Campbell became the fifth Earl of Loudoun, but it didn't do him much good and in 1786 he shot himself, leaving Flora not only an orphan but a countess. She was brought up in Edinburgh by her aunt Isabella McLeod, a close friend of Robert Burns, and in 1804 married Francis Rawdon-Hastings, then chief of the army in Scotland, at that point known as the Earl of Moira. As a rakish friend of the Prince Regent, Moira (later Hastings) has had a rather bad press, but his botanical credentials were good as Moira, the family home in Co. Down, was renowned for its gardens and his great grandfather Sir Arthur Rawdon was a friend of Sir Hans Sloane. The Bute connection comes because one of the couple's daughters, Lady Sophia Hastings, married John Crichton-Stuart, second Marquess of Bute.

* This requires further investigation. In the Peerage the birth of Flora, later sixth Countess of Loudon, is given as August 1780 and in the *Scots Magazine* (volume 42, page 505) the death of Mrs Flora Mure Campbell of Rowallan is recorded for 3 September 1780 at Hope-Park, Edinburgh (no death record is available for her on Scotland's People and other sources give the date as 2 September). In the parish register for Monzievaird and Strowan (the local parish of Lawers, near Crieff), under the date 31 December 1780, is a record of the birth of a daughter Flora to 'Colonel James Muir Campbell of Lawers and Flora M'Leod his Lady' who was 'born on the 2^{d} and baptized the 5th Current'. This must refer to the baptism of the Flora who became sixth Countess of Loudoun, but the implication that it took place in Perthshire, that her date of birth is wrong by three months, and that there is no mention that her mother was dead, all seem very odd; perhaps 'Current' was a clerk's mistranscription of September?

It was another botanico-historical investigation, in 2012, that had taken me to the burying ground of a dowdy-looking church on Chapel Street just south of Old College in Edinburgh. The church was built in 1755 as a Chapel of Ease for St Cuthbert's, though one would never have guessed this from a shoddy Gothic makeover as the Buccleuch Parish Church by David MacGibbon in 1866. My goal was to find the grave of Gavin Hamilton, not the neo-classical artist of that name, but a talented draftsman nonetheless who, while in Calcutta, had made a sketch of the Nicobar breadfruit (*Pandanus leram*) for his father's medical-professorial colleague John Hope. Hamilton was buried at the Chapel in 1820 but no trace of a stone was to be found. What does survive is another memorial I had long wanted to see – to Charles Darwin's eponymous uncle, who died aged 20 in 1778 while a medical undergraduate, from a wound made and infected during the dissection of a corpse. Both Charles and his brother Robert (Darwin's father) had attended Hope's botanical lectures and Hope's colleague Andrew Duncan was so taken with the young Charles's talents that he had him interred in his own burial enclosure.

Set against the east wall of the cemetery, next but one to the Duncan enclosure, was an extremely eroded white marble tablet set into a round-arched sandstone frame. Only the penultimate and final lines of the inscription were legible, but these sufficed as they read 'Flora' and 'Countess of Loudoun'. Fortunately a transcription had been made when it was still legible:

> *The burial-place of Flora, eldest daughter of Macleod of Raasay, wife of Colonel James Mure Campbell of Rowallan, county of Ayr. She died 8th [probably a misreading of 3rd] September 1780, a few hours after giving birth to her only child, Flora, who afterwards became Countess of Loudoun.*

The stone must have been erected in memory of the elder Flora Mure Campbell by her daughter but, from its style, probably at least 40 years after her death. Intrigued, I also wanted to see the

memorial window. From the exterior the signs were unpromising – the windows were boarded up and the building was always locked. It then belonged to the University of Edinburgh and was used as a furniture store, but I contacted the Estates Department and was allowed in. The interior was even more depressing than expected: a mezzanine floor had been inserted at the level of the base of the three galleries and both floors were filled with decaying furniture, rusting filing cabinets and discarded computers. It was obvious which was the relevant window, above the west gallery and now on the upper floor, but it had been vandalised before being boarded up and there were great gashes of missing glass, particularly in two large figures in its central section. As no light could shine through the window it was impossible to glean anything about it in terms of style, artist or iconography. The head of the Estates Department told me that negotiations were underway to sell the building for use by a congregation, and although he couldn't reveal which, that the restoration of the windows was a possibility.

Over the intervening years I passed the building from time to time, but nothing seemed to have changed and it was still always locked. But when I passed the door on 20 November 2021 it was open. Without any great hope I entered to find the interior, at least the ground floor, transformed. The ecclesiastical purchase had gone ahead and the mysterious congregation turned out to be the Orthodox Community of Saint Andrew. The floor was covered in colourful rugs and the lower part of the pitch-pine pulpit had been converted into an iconostasis that more or less concealed an altar in the semi-circular apse. The Presbyter, Fr Luke Jeffery, was welcoming and my heart quickened when he told me that the stained glass had all recently been restored. He took me upstairs, still a dingy dumping ground, now strewn with the innards of the church's organ, but the eventual hope is to be able to remove the mezzanine and even to fresco the ceiling.

Given the huge losses of glass I had never really imagined that restoration of Flora's window could be possible. So what greeted my eyes above the dinge and dereliction came as an almost heavenly vision. The Rainbow Glass Studios of Prestwick had done a superb job and the glass proved to be of outstanding quality: the

colours exquisite and with a luminosity not commonly to be found in Victorian glass – the upper half, the aerial realm, dominated by a blue of almost Chartres intensity. In the central of three lancets stands a figure of Christ, one hand raised in blessing, his head flanked by alpha and omega roundels. Above him a figure of the Blessed Virgin Mary hovers in mid-air, tightly squeezed within an exceptionally narrow mandorla. Above her the hand of God descends from heaven, perhaps to indicate that Mary was the vehicle through which the lower figure of Christ was made man. The upper parts of the outer lights each contain a single figure (St John to the left, an angel on the right), below which are trios of saints. There is no inscription along the base of the panels, as one might have expected in a memorial window, the only lettering being on the saints' haloes, though one of these was enough to confirm the dedication. In the left-hand trio stand St Patrick and St James, in front of whom, kneeling in a field of lilies and roses, is a female saint her nimbus captioned 'St Flora'. The right-hand trio, with reference to Scotland, shows St Margaret and St Giles who stand behind a kneeling St Andrew.

Best known as a Roman Goddess, Flora's representation in the form of a Christian saint (a large white cross emblazoned on her red tunic and a paler one on her cloak) seemed a little surprising. However, there turn out to be at least three such uses of the name. In Spain, on 24 November 851 Flora, daughter of a Muslim father and Christian mother, was executed for the practice of her Christian faith by the 'Moors of Cordoba'. St Blath, a lay-sister and the cook of St Brigid's convent in Kildare who died in 523, has also been known as Flora as her Irish name means 'flower'; her feast day is 29 January. St Flora of Beaulieu, a French nun who died in 1347, commemorated on 5 October, has been taken as the patron saint of the abandoned, of converts, lay spinsters and of the victims of betrayal. It seems that the last is the one depicted: the Beaulieu Priory was run by the Hospitaller Nuns of St John of Jerusalem, which accounts for the shape of the cross on Flora's cloak.

In 2012 I had contacted Andrew McLean who had then recently moved on from being the archivist at Mount Stuart, but he remembered that there was information about the window in the archives

there. He is now deputy director of the National Railway Museum in York and after my telling him of the restoration of the window he found information about its installation in the *Scotsman*, which revealed not only that the third Marquess of Bute had designed it himself but gave the window's maker and its date. There are, in fact, two relevant notes in the newspaper: on 22 April 1868 was a quotation from the *Globe* about the installation of a window in 'Buccleuch Street Church, London', made 'from sketches by his Lordship'; the following day came a correction – that the location was actually the 'Buccleuch Parish Church in this City', and that the window was 'being furnished by Messrs. Ballantine & Sons, Edinburgh'.

The third Marquess of Bute was one of the richest men in Britain, if not the world, renowned for his architectural patronage and as a liturgist and ecclesiologist. He must therefore have given considerable thought to the iconography of a window in memory of an ancestor. Aged 21, only eight months after the installation of the window, Bute was received into the Roman Catholic church. This conversion 'agitated Anglican firesides' and lies behind Disraeli's character of Lothair (unlike Bute the fictional character did not convert: he was rescued from the snares and wiles of cardinals and monsignors by a suitably Protestant English Rose). As the Buccleuch church was Presbyterian one can only wonder what the elders of the Kirk Session made of the prominent depiction of the Blessed Virgin Mary in their colourful new window; but perhaps the donor's wealth and prestige made them accept the gift unquestioningly. In style the window is staggeringly different to the others installed in the church around the same time. Although these are probably also by Ballantine they are largely geometric.

At a time when the destruction of historic buildings, to say nothing of the natural environment, can at times seem overwhelming, it is heartening to have come across such a successful restoration project. And when so many churches are declared redundant and even if spared then converted to secular use, it is also gratifying to find an example of the reverse.

AN INDIAN ADDENDUM

Isabella McLeod, described above as raising her niece the younger Flora Mure Campbell, later married Major Thomas Ross of the Royal Artillery and two of the Ross daughters went on to have interesting artistic lives in India. When Lady Flora went to India (as the Countess of Loudoun and Moira) with her husband on his taking up of the Governor Generalship in 1813 she was accompanied by her cousin Elizabeth Jane Ross. The following year Elizabeth married the civil servant Sir Charles D'Oyly to become part of the fascinating circle of artists and printmakers based around him in Patna. Her sister Isabella Rose, who married Captain (later Sir) Walter Raleigh Gilbert, also returned to India where she and her sister had been born, and where Isabella painted fine natural history paintings including innovative ones to illustrate the life cycle of the Atlas moth, the source of *tussah* silk. In India in the second decade of the nineteenth century there were therefore no fewer than three talented cousins of McLeod descent pursuing interests in natural history and painting. While a long way from Raasay this forms yet another example of the strength of the historical connections between Scotland and the Subcontinent.

Spectrum

RICHARD OF YORK GOES BATTLING IN VAIN

On sunny November mornings,
a tooth of rainbow is projected
onto a hall door.

A sunbeam sundered
by a chamfered mirror's edge.

Pure colours in a fractured world:
– a potential symbol of hope,
if only the recombining prism can be found.

VIOLET INDIGO BLUE GREEN YELLOW ORANGE RED

5 xi 2020

PART FOUR
AUTOBIOGRAPHICAL

XVII · REGENT PARK TERRACE – SOME NEIGHBOURS

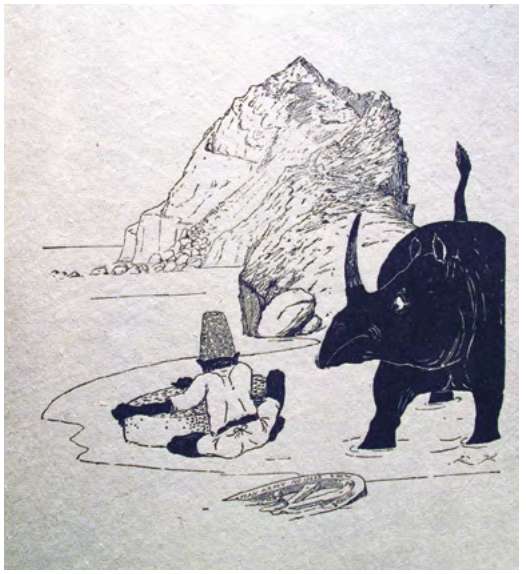
Miss Ramsay, Miss Illingworth (s'Illingworth), Miss Coates, Miss Bland – four spinsters in their 70s or 80s who lived, on heaven knows what slender means, in adjacent houses on the opposite side of the street from No. 35, our 1880s red-brick terraced house in the area of Leeds called Hyde Park. The old ladies lived in dread of ending up in hospital, in particular St James's, which had been the Workhouse in what for them was the not-so-distant Victorian past. How long was it since anyone had called any of them by their Christian names – Delia, Marjorie, Edith or Mabel – even if now, when it is too late, I can do so across the gulf of years? But perhaps at the time, as young children, we brightened their lives a little? Until, that is, we were uprooted to alien Dundee in 1968, when I was ten years old.

As a child one never considered that old ladies might have had histories, or how they might have ended up where they were. Approaching one's own old age questions come to mind that can never now be answered. Had any of them ever had a profession or career? Listening back across the years, I *can* still hear their individual voices: none of them sounds 'Yorkshire', all were genteel, so perhaps not. Miss Ramsay had a dachshund, and wore her hair in a plait, wound around and pinned in a tight coil. We scarcely knew her, and I was never in her house, but looking back – tiny, darkish-complexioned, bright-eyed – might she have been Anglo-Indian? The other uncrossed threshold was Miss Coates's: she was frightening, out of the Brothers Grimm, with wild, frizzy, grey hair – ice blue eyes – gnarled arthritic claws. She had an ancient male lodger, Mr Boothman, florid and white-haired, who walked stiffly with a stick, like a defrocked Chelsea pensioner. Peering inside from the doorstep (we must have been sent there on errands), her house was as unkempt as her hair. But beside the front door hung a tiny painting in a rich gilt frame that I fancied might be a

Constable oil sketch (over-optimistic attributions of artworks was a habit acquired early in life).

Across the entrance to a lane (Back Mount View) from the two pairs of low, inter-war, semis, in which the other old ladies lived, the tall Victorian houses began again to the west. It was in a crack of the pavement of this back lane, walking home from Rose Court one day, that I found my first 'rare plant' (one with three stars in McClintock and Fitter, our much-loved field guide – before graduating to the holy writ of 'CTW'). I picked it expecting it to be a spurge, but when no milky (wart-busting) juice flowed from its broken stem it was apparent that it was something unusual. It was pressed and submitted to our botanical guru, Dr George Nelson, a colleague of my father in the Medical School. Dr Nelson's route to a lectureship in pharmacology was an unusual one. He had been a practising pharmacist, with his own shop near the Medical School, and had been a friend to the artist Jacob Kramer in his last dysfunctional days. Dr Nelson had assembled an almost complete collection of Renaissance herbals (British and European) and was also musical. Born in Market Weighton in the East Riding he had been a chorister at Durham Cathedral and later took composition lessons with Edward Bairstow, the organist of York Minster. He taught a series of extra-mural botanical courses at Swarthmore, which were attended by our friends the Kilby sisters of Boston Spa. The plant was identified as thorrowax, *Bupleurum rotundifolium*, a rare native cornfield weed, but I later came to realise that it was in fact *B. subovatum*, a birdseed alien. It was also Dr Nelson who identified for us the Terrace's mystery tree. This grew in the tiny front garden of Mr and Mrs Lewis, a few doors down from Miss Ramsay, bolt upright, columnar like a Lombardy poplar, but with strange two-lobed, fan-shaped leaves: my first *Ginkgo biloba*.

Miss Bland lived in two ground-floor rooms of the Victorian house on the western corner of the back lane. A dark, seldom-used, north-facing, drawing-room furnished, as I now realise, in the style of the 1880s. On the right of the bay-window was a multi-storeyed walnut whatnot with a display of what she called ruby glass (much more apt than its modern designation of 'cranberry'): bowls of various sizes, claret jugs and glasses. The other



room must have been a 'bedsit'. The feature I remember best is its marble fireplace in which I still recall the excitement of spotting fossils – crinoids in cross- and longitudinal-section – not in rocks as at Grassington but in an artefact. On its mantel-shelf stood a tiny white ceramic figure who would stick out his tongue when shaken. He wore a strange, brown, flattened cylindrical hat, which reminded me of the woodcut of the Parsee man on the shores of the Red Sea in Kipling's 'How the Rhinoceros got his Skin'. Coveting this (against which there was a strict maternal injunction) eventually paid off and Miss Bland gave it to me. I treasure it to this day, but now see that he is not a man at all, but a monkey and that – wearing a kimono and holding a fan – isn't Indian but Japanese. The two holes in his back are not for a missing contraption for operating his tongue as I once assumed, but for a ribbon for attachment to a belt for he is a netsuke – a monkey as a manzai dancer in Hirado porcelain, his head gear an 'eboshi'. Today he stands on my own (non-fossiliferous) statuary marble mantlepiece, 200 miles further north, in a tiny square sake bowl brought back from Japan by the plant collector Reginald Farrer. The bowl was given to me by Joan Farrer when she visited Edinburgh with her botanical-artist daughter Annie to discuss presenting the Farrer archive to RBGE. It would not have been hard to identify mother and daughter as they stepped off the train at Waverley, but Joan had thoughtfully adorned their button-holes with sprigs of *Viburnum farreri*.

Our special friend was s'Illingworth who lived directly opposite our house, at No. 16 – semi-attached to the very different Miss Coates. On the fence between them sprawled an 'Albertine' rose. She suffered painfully from what, looking back, I realise was osteoporosis and had to wear a metal contraption to force her spine into something approaching an upright position, presumably to help her to breathe. To the right, off a gloomy hall, were two rooms and on the left a staircase that led up to uncharted territory, presumably a pair of bedrooms and a bathroom. In the hall stood an elegant, Georgian, long-legged child's chair in dark oak that had belonged to Miss March, the last inhabitant of the Georgian, stone-built, Beech Grove House, by then marooned at

the centre of the University campus (the few other old buildings that hadn't been pulled down were either early twentieth century, in white Portland stone, or Victorian red-brick terraces – the habitat of some of our Tetley forebears). The old house was the Education Department, of which my friend Tim Walsh's father William was professor (he worked on Commonwealth Literature, in particular the novels of Patrick White). When the Duchess of Kent was installed as Vice Chancellor, angelic, fair-haired Tim acted as her pageboy – somewhere I still have a yellowing cutting from the *Yorkshire Post* with a fuzzy image of this glamorous if unequally aged couple. Of the downstairs rooms the front one was a never-used dining room, with a table and four regency chairs (only one carver – this later turned out to matter, but at that stage I had no concept of a 'broken set'). At the back, in the sitting room, was the first TV that we knew – black-and-white, of course. I remember the curious test card with its chequerboard background and circular picture of a girl holding a rag doll. Permitted viewing included *Blue Peter* (Valerie Singleton, Christopher Trace and Petra the Alsatian), *Watch with Mother*, *The Magic Roundabout* and *Jackanory*.

I also remember the grownups being interested in some great novelty in the *Radio Times* that I heard as 'beetles' and of being tremendously disappointed on discovering that these were not coleopteran but human – in fact Liverpudlian Beatles. My liking for contemporary popular music has never recovered from this initial zoological setback. At one end of the room was a serpentine-fronted sideboard in a jazzily patterned wood – oloroso with black streaks – that was called 'rosewood', but I now realise was the more exotic Coromandel wood. Over this hung a watercolour by Fred Mayor of storm-clouds over Bridlington beach that had been given to s'Illingworth's sister Gertrude by Sir Michael Sadler, whose secretary she was. This must have been in 1923 when Sadler left Leeds to become Master of Univ in Oxford, but Gertrude had died long before our time in the Terrace.

Shortly before our departure from Leeds s'Illingworth had to go into an old people's home in Cardigan Road, near a strange castellated, rusticated structure called the 'Bear Pit', the sole remnant

of an 1840s zoo. Mother became involved in emptying her house and the local antique shop was called in. 'Windsor House' was on the edge of Woodhouse Moor, a Saturday-morning haunt where we spent our miniscule pocket money, my own on Victorian snuff boxes. The tortoiseshell lid of one of these was dull and our friend old Mr Waterman the jeweller, father of the formidable Fanny, polished it for me. As Myer Wasserman he had emigrated from Russia and in his shop window in Briggate were displays of his exquisite, miniature figures and musical instruments. It came as a surprise that some of s'Illingworth's furniture was valuable (a card table with a folding top, the dining chairs had they only been a set and, especially, the 'sideboard', actually a chiffonier that would originally have had a white marble top).

One now regrets not knowing the histories of these solitary spinsters – had they, like our Great Aunt May, lost their beaux in World War I (they must all have been of similar vintage, born in the 1890s)? Had they fallen into the trap of looking after ageing parents? Or were they 'not the marrying sort', like Miss Menzies and Miss Battle, an other-worldly couple who lived beside Woodhouse Moor and had been teaching colleagues of Aunt May at West Leeds Girls' High School. Miss Menzies had permed white hair and wore skirts; Miss Battle (a PE mistress) cropped her hair, wore suits and possibly even a tie.

Where had they come from? A suggestion that a pair of pastel portraits of Illingworth ancestors be offered to Kendal Museum (they were unwanted) provides an answer in only one case. The names Ramsay and Coates both suggest Scottish ancestry (and when I asked my mother, she remembered that the other half of Miss Ramsay's semi was occupied by her married sister, a Mrs Findlay). Some of Miss Bland's bits and pieces hinted at links with the Orient – a sea captain father? Not only the 'Parsee man', but a buffalo horn carving of what she called the 'paddy bird', though its size, elegance and long legs show it to be a great egret. Although there was once a paper label on its base this was lost long ago – it was certainly from the Malay peninsula but maddeningly I can't now recall whether it was Singapore or Penang. Recently I have discovered that such carvings were originally made in India, in

Maharashtra (at Ratnagiri) and Kerala on the west coast, and at Palakimedi in Orissa on the east. Perhaps a group of carvers had crossed the Bay of Bengal as part of the Indian diaspora, or perhaps only their carvings as items of trade. As a toy to play with Miss Bland gave us the fragments of a shattered, but finely carved, ivory figurine of a Japanese woman in a kimono. Her coffin was an old Black Magic chocolate box, but like Humpty-Dumpty she was unput-backable together again: a head with a bulky coiffure and a slender, broken neck; slim ankles sundered from tiny ivory feet that remained firmly attached to a base attached to a carved ebony plinth, and fragments of a tightly furled, deeply corrugated parasol that she must once have used as a walking stick. (Weak points: first victims of violence: neck, ankles, wrists. In this case inanimate and un-premeditated – knocked from a shelf by a careless housemaid, but a chilling echo of what can be visited upon flesh and blood). Brought back for a young Mabel from a paternal voyage?

What happened to the old ladies after we left Leeds? Miss Bland ended up in a nursing home called The Hollies, a Victorian mansion in a gloomy park that we walked through on longer Sunday walks through Meanwood and Weetwood as far as the Seven Arches aqueduct. We did hear of s'Illingworth's death in 1971 (the internet reveals that she was born in 1891), but that of none of the others. Doubtless they did end up cared for by strangers in alien environments, but at least not in the dreaded Workhouse.

After Storm Darcy

A country muffled under a blanket of snow,
pristine white but for grey slush-ribbons,
cleared with grit and plough,
for the sake of the
internal combustion engine.

Birds on the move:
high in the sky skeins of pinkfeet cackle;
closer to earth
laudations of larks head south,
seeking exposed ground.

On the beach banks of tawny wrack
resemble the wreck of a battlefield:
limbs ripped from starfish,
too chunky, by far, for the probing beaks of
the turnstones and redshank
which rummage for more digestible fry.

Myriad scallop castanets,
torn from the firth's bed:
ajar, exposing fleshy, opalescent bodies,
but still conjoined,
by horny, black hinges.

Their shells,
self-coloured, fan-ray'd,
rainbow-arc'd, fritillary-chequered,
Fragonard-pink, yolk-gold,
ox-blood, parchment,
glow in the snow-reflected light.

Silver and white,
against turbid waters
and lowering skies,
hangs a throng of gulls.

Like marionettes on strings
they dip sequentially,
plucking invisible casualties
from the breakers'
cappuccino foam.

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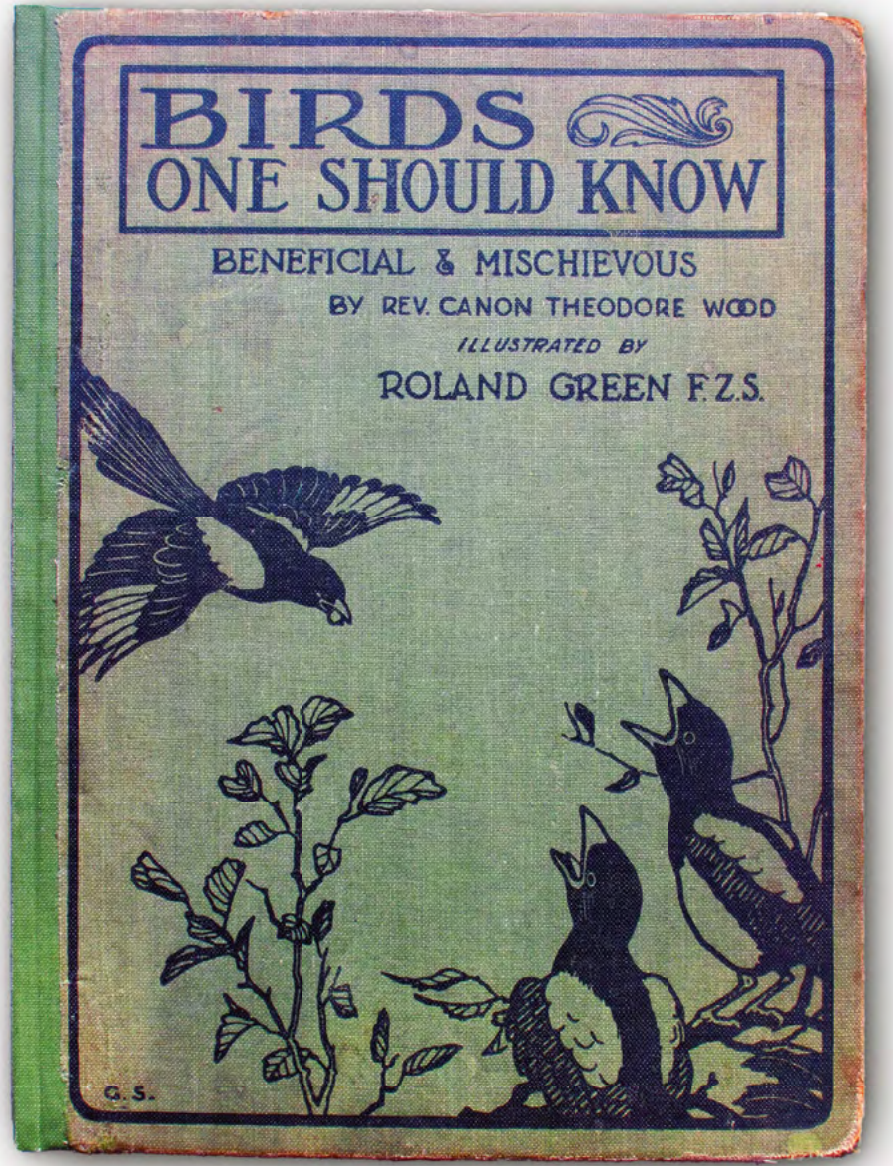


XVIII · REGENT PARK TERRACE – JUVENILE HORTICULTURAL ACTIVITIES

From the clearing of my mother's Dundee flat my sister produced a relic: a book with a half-attached spine. I had a faintish recollection of it, but Kirsty suggested that I look inside. Pencilled on the flyleaf was an inscription in my four- or five-year old hand – decidedly random in terms of letter-size, capitalisation and spelling. It reads: 'Henry NoLtie 35 Regent Park Ters. Leeds · 6 · Bird Bok'. The source of the 'bok' eludes me, but it can't have been the gift of an elderly relative as above my own inscription are the partly erased names of two unfamiliar, earlier owners, Judith Mary Hill and Barbara Hill. Perhaps it came from the jumble stall at the Leeds Girls' High School annual fête.

Back at my Edinburgh flat I took a closer look – a handsome volume, doubtless originally expensive, printed on thick, rag paper. The title *Birds One Should Know: Beneficial & Mischievous* is redolent of the attitudes of its period, 1925. On every page, entwined with the text, are charming woodcuts, with others reproduced full-page on glossy paper; at intervals, tipped in on thick, grey paper are colour plates protected by largely intact glassine guards. The illustrator, Roland Green, Fellow of the Zoological Society, was a fine bird artist and the agenda of its parson author, the Rev. Canon Theodore Wood, is revealed in his title and subtitle. The hortatory 'should' of the first and, if the second doesn't exactly ascribe agency to the birds, it certainly (with the devastating backing of Hebrew scripture) values them largely in relation to their usefulness or otherwise to man. To be fair, in addition to a binary division into good and bad – some denoted entirely one, some the other – for more than a few of our feathered friends the possibility is admitted that they might combine elements of both. The species included bear testimony to changes in land-use, if not of climate-change, as one of them is the red-backed shrike now almost extinct in

Britain. For this species no judgement is offered as to mischievousness, though as some of the insects impaled in the butcher bird's larder must be pests it might, perhaps, be taken as one of the border-crossers.

On turning the long-forgotten pages and reaching page 62 I had to catch a metaphorical breath. Inserted between it and an illustration I came face to face with a dried plant, which, though I hadn't seen it for more than half a century (long enough for its evaporating juices to have transferred themselves as a faint rusty stain to page and plate), I immediately recognised. Although I now know its name, I didn't at the time of its collection in Leeds in around 1963. With it came not only a flood of memories, but ponderings on the way in which knowledge is acquired, and of disconnects in time such that visual puzzles fixed in the mind may sometimes be resolved even after a gap of many years.

The plant grew in an area behind a high wall on the far side of the back lane that ran behind our house. This area acted as our own wild garden or, rather, as an adventure playground. The lane (Cross Cliff Road) was of stone setts; the wall a substantial and venerable structure of sandstone, some of its stones eroded into golden hollows. At its base I once watched the development of an unfamiliar seedling over a pair of seasons. In the second year a shoot arose from the rosette of sharply toothed leaves to reveal itself, miraculously, as a teasel. I can still see the connate bases of its opposite bracts, in each of which collected a tiny pool of water, like the insect traps of a tropical bromeliad.

The extensive area on the far side of the wall, divided into two parts, was approached from Grosvenor Road through a pair of stone piers from which the gates had long since disappeared. Beside this stood a lodge-house, home to an elderly couple, Mr and Mrs Johnson – she had frizzy, white hair, a rubicund complexion, a slightly frozen face and a West-Country burr; he was a large and somewhat forbidding figure, a retired gardener. From the gate an unmade drive lay straight ahead, hugging the wall along the back lane and leading to Dagmar Lodge, a derelict gothic mansion. Just beyond the lodge, immediately to its left, lay the abandoned and overgrown garden (perhaps the one originally tended by

Mr Johnston) of the one-time Vicarage of Leeds, a handsome, blackened Italianate villa (all Leeds buildings in those days were black, the Clean Air Act was passed only the year before my birth). The Vicarage itself stood at the corner of Grosvenor Road and Grosvenor Mount, its back door directly onto the pavement of the latter almost opposite the Merediths' house (Pat was the Professor of Psychology). The house was rather oddly sited with respect to the garden, not at its centre but perched high above it, the garden occupying the floor of what had once been a quarry, designed to be viewed from above. I remember the thrill of discovery when, hidden in the herbage at its heart, I stumbled upon some finely worked stones that when traced around formed a circular kerb – the basin of a long defunct fountain. Another recently disinterred relic is a folded sheet from my childhood herbarium, repurposed by my brother as a card for my sister's tenth birthday. Its cover, by this time correctly spelt and even apostrophied, reads:

POLEMONIUM CAERULEUM — FAMILY POLEMONIACEAE

JACOB'S LADDER
OLD VICARAGE GARDEN
1966

Immediately to the east of this jungle lay the University's experimental garden, surrounded by a high fence of tennis-court wire-mesh up which swarmed white convolvulus. This was out of bounds, a strictly functional area, far from decorative or even tidy, with rectangular plots, cold frames and ranges of low greenhouses. In it, from our parents' bedroom window, Miss Manton would occasionally be pointed out as she strode around on a tour of inspection: cropped grey hair, tweed suit and what I remember were called lisle stockings. She was the Professor of Botany, a colleague of my father, and one of whom he clearly stood in some awe. Only later would I discover that Irene Manton was an FRS, an authority on the cytology of ferns, collector of Chinese art, and that she must have been visiting the garden to check up on her experimental plants.

The mystery plant grew to the south of the experimental garden, from which it had at some point doubtless escaped, between the edge of the drive and the wall that bounded the back lane. Near it grew large plants with luscious black berries: belladonna, one of the herbs my mother had helped Aunt May to collect during the War in the lanes around Boston Spa and Clifford. The unknown plant exerted a fascination that lingered – its beauty was of an intriguing sort, verging on the sinister, but my mother, my chief botanical authority, had no idea what it might be, even its genus. The flowers were tubular and hung stiffly downwards: most were a dull pinkish-purple, paler at the base, and finely spotted inside when held up to the light; the occasional individual was white-flowered. It took several decades for the mystery to be resolved when, with a jolt of distant recall, I came across a picture of the plant in a gardening book: *Campanula punctata*, native to Siberia, Korea and Japan. My analytical powers have always been poor and I have always relied largely on appearances and a goodish visual memory. As a child I could never have imagined that the plant might be a *Campanula* as the shape of the flower, and even its colour, were so different to familiar ones. There was the one in our front garden and wild ones like the harebell, clearly aptly named in both English and Latin: bell-shaped with a flared mouth. Another was the clustered bellflower that we knew from the limestone of Roche Quarry, with upward-pointing flowers of deepest purple.

In lockdown the mind has been active, both in waking and sleeping hours, in retrieving memories from the distant past. As well as the memories evoked by the dried *Campanula* of what lay at the back of our house, I have also found myself thinking about the small front garden of No 35, the scene of my earliest horticultural activities.

The flat part of the garden, around a moth-eaten lawn of about ten feet by six, was raised by a step above the level of the pavement, separated by a low brick wall, above which stood the shattered remnants of a fence – once a latticework of narrow, creosoted laths. On the section along the street sprawled a dark pink rose called 'American Pillar'. A short concrete path led from the green wooden gate to the foot of the stairs that went up to the front door. In the narrow border to the right, adjacent to the Clark's garden, was a mass of musty-scented catmint and the remains of a hideously hacked willow with soot-encrusted

stems and narrow leaves that I now realise was *Salix viminalis*. On the fence opposite this, on the other side of the garden, shared with Miss Waddington (who died while we were on holiday one year), was the apricot-coloured rose 'Emily Gray'. I find it hard to recall what grew in the border along the street other than bronze-leaved bugle, a single plant of hyssop and a clump of montbretia, remembered not so much for its tawny, late-summer flowers, but for its vernal resurrection when from fibrous-coated corms miniature pale green swords pierced the decayed remains of the previous year's leaves. In the corner, at the farthest end of this border, was the compost heap, unceremoniously dumped on a plant with foamy cream racemes that we called 'the spiraea' (in fact an *Aruncus*).

The narrow border, it can only have been a yard wide and three long, about which I remember slightly more lay between the path and the lawn. This was the location for my first observation of the miracle of plant growth from desiccated seeds. I had found a packet in a drawer and planted them to be thrilled not only by what emerged – wallflowers of a rich mahogany colour – but that my mother had said that they would never grow, being too old. It was also here (but elsewhere, as it seeded itself all over the place) that grew what we knew simply as 'Campanula', which had come from the great aunts' garden in Boston Spa and had given rise to my mental concept of the genus. I now know that it was *Campanula persicifolia*, a rather coarse plant with glossy, brittle, dark green leaves, and an untidy raceme that I was taught to dead-head to encourage the production of new flowers. I can still see the bead of white milk that oozed from the broken pedicels. Most of the plants bore pale greyish-blue flowers but some were white. I also recall an early lesson in pest control as the plant attracted cuckoo spit, an unpleasant white froth in the middle of which was a small nodule, a greenish-yellow caterpillar, which had to be squashed between the fingers. In spring there were bulbs – hyacinths and daffodils – in this border, which was also the home to a veronica with slender spikes of fragile, pale blue flowers that opened a few at a time, later identified as *Veronica gentianoides*. It had variegated leaves, which I usually dislike, but this was an exception – primarily cream with delicate green veining. There was also a hummock of a mossy saxifrage with rather ugly dark pink flowers, and some pink and white bachelors' buttons.

Above the lawn ran a low wall, really just a line of rough stones that retained the slope of earth banked up against the front of the house. On the top of the wall grew some small bushy perennials, including the hoary-leaved *Alyssum saxatile* and perennial candytuft, a plant I didn't care for, not least for the old woody stems beneath its dark green leaves that produced dusty litter – a skulking ground for woodlice. Beneath and against the base of the bay window was a small rockery, in which I can picture only three plants. A treasured clump of roseroot dug up on Snowdon by Uncle Harry: thick, semi-buried rhizomes and fleshy, verdigris leaves. There was also a small calceolaria with egg-yolky, minutely orange-spotted flowers borne on slender, erect stalks, and rosettes of *Saxifraga cotyledon*, with white edged leaves, that would periodically erupt into fountains of small cream flowers. I think it was also here that *Geum reptans* grew, with its cheerful, upright flowers like large buttercups, attractively pinnate leaves, and buff-coloured, feathery seed-heads. On the right of the bay window, tied to the house by nails with bendable lead tongues, grew a tall, floriferous, yellow rose called 'Goldilocks', next to which was the flight of stairs with (to a child) deep treads that led up to the front door. I can still feel the texture of the blocks of the chamfered coping stones of the retaining balustrade of soot-blackened millstone grit.

REVISITED

I haven't been back to the Leeds Hyde Park for many a decade. The last time I saw No 35, as is so often the case when visiting scenes of past happiness, was a mistake as it had become depressingly scruffy. In fact the whole street had gone to seed, the houses no longer inhabited by families but in multiple occupancy, probably mainly by students, their fabric neglected by landlords. But it is now a simple matter to examine topography in a more detached way – by means of Googlearth and web searches. It is reassuring to find that the Vicarage garden survives, boskier than ever, and now known as the Dagmar Community Woodland (so was the whole area in fact once the garden of Dagmar Lodge, rather than half of it being the Vicarage garden?). The Experimental Garden was started by Miss Manton in 1946 when she first went to Leeds and was therefore

less than twenty years old when we knew it. Rather surprisingly it survived until 2011, when a cluster of villas was built on the site. In a blog about the Garden's history I came across a reminiscence by Chris Fraser-Jenkins, one of my colleagues on the ill-fated 1993 Scientific Exploration Society Expedition to Namdapha in Arunachal Pradesh. In 1969, as a Leicester undergraduate but already mad keen on ferns, he had spent time in Leeds studying cytology under Professor Manton at the same time as Mary Gibby. He had visited the Garden in 1969 (the year after we left Leeds) and made specimens of Manton's British ferns and experimental hybrids, which are now in the herbarium of the Natural History Museum. Mary later rescued some of the living plants for the Chelsea Physic Garden. The old Vicarage, now Grosvenor House, I find was built in 1865, and therefore during the incumbency of the Rev. Dr James Attlay as Vicar of Leeds (his brother was Archdeacon of Calcutta); it is a listed building (Grade II) and has been converted into offices. 35 Regent Park Terrace has gained an extra floor, its once frighteningly dark and dank cellar having been made into living accommodation (as doubtless originally intended). The much-loved little garden has been concreted over.

Winter II

The beacon's alight,
        but it's day not night.

The rays of the setting sun
        reflected from
the Fresnel lenses
        of the lighthouse.

A grey bannock,
        rain-scoured of its
summer whitewash
        of gannet-guano:

– the Bass in winter.

XIX · A YORKSHIRE COPY OF BENTHAM'S HANDBOOK

Elsewhere I've admitted to suffering from a condition called *beziehungswahn*, a mania for making connections. There is a particular satisfaction when the connections made are between divergent and unexpected events, things or people. An example occurred recently with a lockdown revisit to the British Floras on my bookshelves and a much-loved pair of volumes bound in dark green cloth with gilt lettered spines.

Bentham's 1865 *Illustrated Handbook of the British Flora* was effectively the first field guide to British plants, with delicate, black and white pictures of every species by Walter Hood Fitch (1817–1892). The copy belonged to my great aunt, May Padman (1892–1968) of Boston Spa and was given by her to my mother Ann Woolliscroft, her botanical protégé. The copy bears copious marginalia in a tiny, nineteenth-century hand, in which the most frequent locality is Wetherby, my mother's home village in the West Riding of Yorkshire; the annotator is identified only by the initials 'J.S.W.'. A fortuitous discovery during the clearing of my mother's flat has allowed a satisfying concatenation between some rather disparate elements among my interests: British plants, childhood botanical haunts, family memories, botanical bibliography, Johann Sebastian Bach, and Victorian church music and hymnody.

To start with the book. George Bentham (1800–1884) was one of the greatest of all the great nineteenth-century botanists, and in the best British 'amateur' tradition. He inherited enough money from his philosopher uncle Jeremy to devote his life to botany ever to need to practise his legal training. He assembled a major herbarium, worldwide in scope, which he gave to the nation in 1854, and was a prolific author of Floras and monographs, culminating in the encyclopaedic *Genera Plantarum* written with his close friend Joseph Dalton Hooker. The first edition of his *Handbook* in 1858 was unillustrated, but through his work at Kew Bentham must

have become acquainted with Fitch's outstanding botanical artistry. In Glasgow in the 1820s Hooker's father, Sir William, had 'discovered' the young man as a designer of calico patterns and trained him in the technique of botanical illustration – in particular the ability to reimagine flattened herbarium specimens as convincingly three-dimensional drawings. In this way Fitch became the major illustrator for Hooker's extensive floristic publications and in 1841 travelled south on his patron's epoch-making removal to Kew.

Fitch's 1295 illustrations for the *Handbook* are exquisite miniatures, each a mere 1½ by 2½ inches, incorporated with the concise text blocks in the same way as woodcuts in the old Herbals. They have often been described as wood engravings but, while clearly made by a relief process, the inked lines are too fine; in any case the hand engraving of so many wood blocks would have been uneconomical for a relatively inexpensive popular work. The reproductive process used has long puzzled me, but the probable answer is to be found in Bamber Gascoigne's remarkable book *How to Identify Prints*. In an obituary by W.B. Hemsley in the 1915 *Kew Bulletin* wrote of Fitch:

> *in a standing position with a block in one hand and a pencil in the other, he drew without hesitation, and with a rapidity and dexterity that was simply marvellous.*

In 1865 Hemsley was Assistant Keeper of the Kew herbarium so must have witnessed the artist at work, though was inaccurate as to the technique, referring to the results as 'elegant little wood-cut illustrations'. By this date, with a mushrooming of affordable book production and huge technical advances, other means of reproductive engraving were becoming available. Gascoigne describes one such process developed in the 1860s, the 'graphotype', which seems the method most likely to have been used by Fitch. In this a drawing was made on a block of hardened chalk using a glue-rich ink that bound to the substrate; the unbound, not-to-be-printed, areas of chalk could then be brushed away. From this relief block, by a two-stage process of electrotyping, a metal block for line printing was made that was suitable for juxtaposing with text and hard-wearing for a large print run. The result was published in two volumes by

Lovell Reeve, who specialised in scientific publications and owned *Curtis's Botanical Magazine* from 1845 until his death in the year of Bentham's *Handbook*. The Reeve firm would continue to publish many of Kew's Colonial Floras thereafter, not least the great *Flora of British India* between 1872 and 1897.

The copy of the *Handbook* in question, as already noted, was given to my mother by her Aunt May. I recall it on our Leeds bookshelves in the mid-1960s, though it was not much consulted having been superseded by Hooker's revision of it as 'Bentham & Hooker', which went into seven editions and was still being reprinted by Lovell Reeve and Co. in 1947. For the later editions the Fitch illustrations were reprinted in their own volume, four to a page, on 'paper suitable for colouring' – which many owners did in watercolour. Generations of British botanists were raised on 'Benny Hook': my mother was given the 1937 printing of the seventh edition by her parents for her fourteenth birthday in 1942. As a child I do, however, remember being intrigued by the annotations in the 1865 volumes, which my mother passed on to me in 1980 when I was working on the *Flora of Angus*. By this time their bindings were rather tatty and they were the first books I ever had 'rebacked' – by the bindery of the University of St Andrews library.

What of the marginalia? The notes occur against 452 of the species entries, of which 342 refer to Wetherby and a smaller number to the nearby villages of Collingham and Spofforth, and the floristically rich local sites of Woodhall, Linton Common, Askham Bog and Thorp Arch. With a botanical grandmother in Wetherby, and Aunt May and her friends the Kilby sisters in Boston Spa, this floristically rich area of magnesian limestone in Lower Wharfedale formed the botanical hunting ground of our childhood. The note beside the wild daffodil *Narcissus pseudo-narcissus* reads 'Field N. of Wood, Stockeld Park, Yorkshire. J.S.W.' Eighty years later, each April, we would make a pilgrimage to this same locality to see the small, delicately two-toned trumpets. At weekends we would make longer excursions to the Yorkshire Dales as, apparently, had the author of the annotations. There are records from Upper Wharfedale (from Bolton Abbey and Beamsley up to Grassington and Kilnsey), Swaledale, Nidderdale (Pateley Bridge), and from more distant places including Teesdale and Helmsley.

All of this pointed to J.S.W. as being based in Wetherby; but there are two other sorts of record. The first appear to be J.S.W.'s own, but made in other parts of England – of these the most frequently mentioned localities are Winchester and Hampshire (26 records), with a smaller number from the far south-west (including two from Okehampton) and one from Gloucester. The second category is that of records not made by J.S.W. himself – of these some are taken from contemporary literature, others from a small network of correspondents of friends and fellow amateurs. The most frequently cited literature records bear the cryptic reference 'Sc. Goss.' or 'S. Goss' and include many from Ben Lawers and the 'Barony of Burren, Co. Clare'. Aunt May had taken this to refer to a botanist called Goss but in fact they refer to the periodical *Hardwicke's Scientific Gossip*. Smaller numbers of records are quoted from *The Naturalist*, the journal of the Yorkshire Naturalists' Union, and from the London-based *Journal of Botany*. There are also records from two national Floras: C.C. Babington's *Manual of British Botany* and H.C. Watson's *Cybele Britannica*. On occasion J.S.W. would send puzzling specimens for authentication to botanical authorities: John Gilbert Baker and Hewett Cottrell Watson, the Oxford bryologist Henry Boswell and the Leeds botanist Frederic Arnold Lees. From notes of flowering times J.S.W. must have been interested in phenology, the study of plant seasonality. While only a small number of the notes are dated, those that are all refer to the single year 1877.

A FLAT CLEARANCE AND AN UNDATED LETTER

Lockdown delving into my Edinburgh bookshelves coincided with the distressing task of clearing my mother's flat in Dundee, in which many long-forgotten papers and collections came to light. Among these was a letter from Aunt May, undated as to year, but from around 1965. The Bentham volumes are discussed, as is another annotated pair, Baines's *Flora of Yorkshire*, which had yet to be passed on. Aunt May suffered from a serious stroke in 1960, which left her housebound for the remaining eight years of her life. Hiatuses and non sequiturs in the letter reveal a degree of unravelment, but the spirit and means of expression are charming – a legacy of her BA from Leeds University from before and during World War I and her subsequent career as an English teacher. More significantly in the present context the letter reveals the identity of 'J.S.W.':

> *This is not research – it's frilly Romance – but might be fun till it comes to an end like the cow that grazed into a bog … The present theory is that about 1800 AD, Wetherby was a nest of singing botanists who carolled for the next hundred years, more or less. Evidence?!!! Such as it is: a clutch of names, which may not even be spelt alike … "J.S.W." was John Sebastian Wesley who practised medicine in W'by and in Spofforth. His particular love was mosses and a debt to him is acknowledged in R. K[ilby]'s copy of a 'Flora' by somebody called Lee[s].*

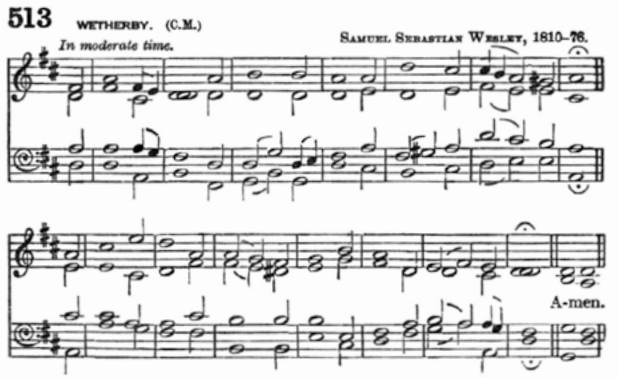
JOHN SEBASTIAN WESLEY (1836–1924)

On seeing the coupling of forenames shared with the greatest musician ever to have lived my first thought was that the until-now unknown Wetherby botanist-caroller must have had musical parents. Which hardly prepared me for the information revealed by Google – not only was his father musical he was Samuel Sebastian

Wesley (1810–1876), the greatest cathedral organist and composer of church music in Victorian England. It went further back as SS's father, Samuel, had been one of the introducers of Bach's music to England and owned one of the manuscripts of the '48', of which he edited a finely engraved edition. I can still remember the excitement of coming upon the manuscript of the E major fugue from Book 2 (not for nothing did Samuel call it 'Saints in Glory') in a display case in the old Manuscript Saloon of the British Museum, written in Bach's beautiful musical hand.

John Sebastian Wesley was the composer's eldest son, born on 30 September 1836 when his father was at Exeter Cathedral, which probably lies behind the West Country records among the marginalia. In 1842 S.S. moved to Leeds as organist of the Parish Church and the six-year old John was sent to the city's venerable Grammar School (founded in 1552) that I attended from 1965 to 1968. The draw of an ancient cathedral must have proved too great and in 1849 SS moved to Winchester, where he remained until 1865, accounting for many of the records among the annotations. The last of SS's cathedral appointments, in 1865, was to Gloucester (the origin of a single botanical record), where he died in 1876.

The younger Wesley trained as a medic at King's College London, where he matriculated in 1860. He became a Member of the Royal College of Surgeons (1862), obtained a Licence from the Society of Apothecaries (1863) and, in the year of his graduation as a Bachelor of Medicine, returned to Winchester for practical



training. After a period in London as House Surgeon for the St Pancras and Northern District he moved to Wetherby where at the time of the 1871 Census he was living as a bachelor, with a housekeeper and a groom. The move to Wetherby was commemorated in 1872 by his father's composition of a hymn tune named for the village. Wesley held the positions of Medical Officer of Health (MoH) for the Wetherby Union and for the First District and Workhouse. He was still in the village in 1888 but at some stage (possibly in 1894 when Dr J.A. Hargreaves became MoH) must have returned to the place of his birth as it was in Exeter that he died on 20 July 1924.

Little is known of Wesley's life other than dry facts taken from his school and university records, the decennial censuses, various internet sources and from botanical literature. From letters to the ornithologist Alfred Newton at Cambridge he was clearly interested in birds but, as Aunt May was aware, his major interest appears to have been bryology. In 1878 he was elected a Corresponding Member of the Manchester Cryptogamic Society and the following year Henry Boswell based the moss *Bryum origanum* (now *B. pallens*) on a Wesley specimen from Teesdale; in F.A. Lees' *Flora of West Yorkshire* (1888) his name is listed under 73 mosses and 8 liverworts. At one point Wesley's herbarium was in the Cliffe Castle Art Gallery and Museum in Keighley, thereafter in Bradford City Museum, but by 1984 it could not be traced by Douglas Kent and David Allen for their catalogue of *British Herbaria*. A few of his specimens are to be found in the Manchester Museum and in H.C. Watson's herbarium at Kew. Had it survived the herbarium might have confirmed, or otherwise, the equivocal evidence from the annotations and his published records, which suggest that his botanical days were limited to the late 1870s and early 80s.

J.S. Wesley had not only an interesting musical pedigree but a distinguished ecclesiastical one. Although his father must have become an Anglican, and his brother Charles Alexander (1843–1914) was a Church of England clergyman, his grandfather was Charles Wesley the great Methodist hymn-writer. My grandparents, and for three previous generations, were staunch Methodists. While attending the Wesleyan Chapel in Bank Street, Wetherby

in the late nineteenth century I wonder if my Woolliscroft great grandparents were aware that the great uncle of their MoH was the founder of Methodism, John Wesley? Wesley most probably attended the parish church of St James's, but might he, or at least his housekeeper, have patronised the Woolliscroft family draper's shop in the village? Such a question, unthought of until now, is likely to remain unanswerable, but who could have guessed, prior to the discovery of that letter, that on my own bookshelf, and for thirty years, had been standing a direct link with the composer of one of my favourite anthems? While its words remind one of the ephemerality of life on earth (of particular poignance to agrostologists: 'The grass withereth and the flower thereof falleth away'), the anthem ends with an assurance of eternal truths, expressed in a triumphant blaze of E flat major: 'But the word of the Lord endureth forever'.

Cathedral

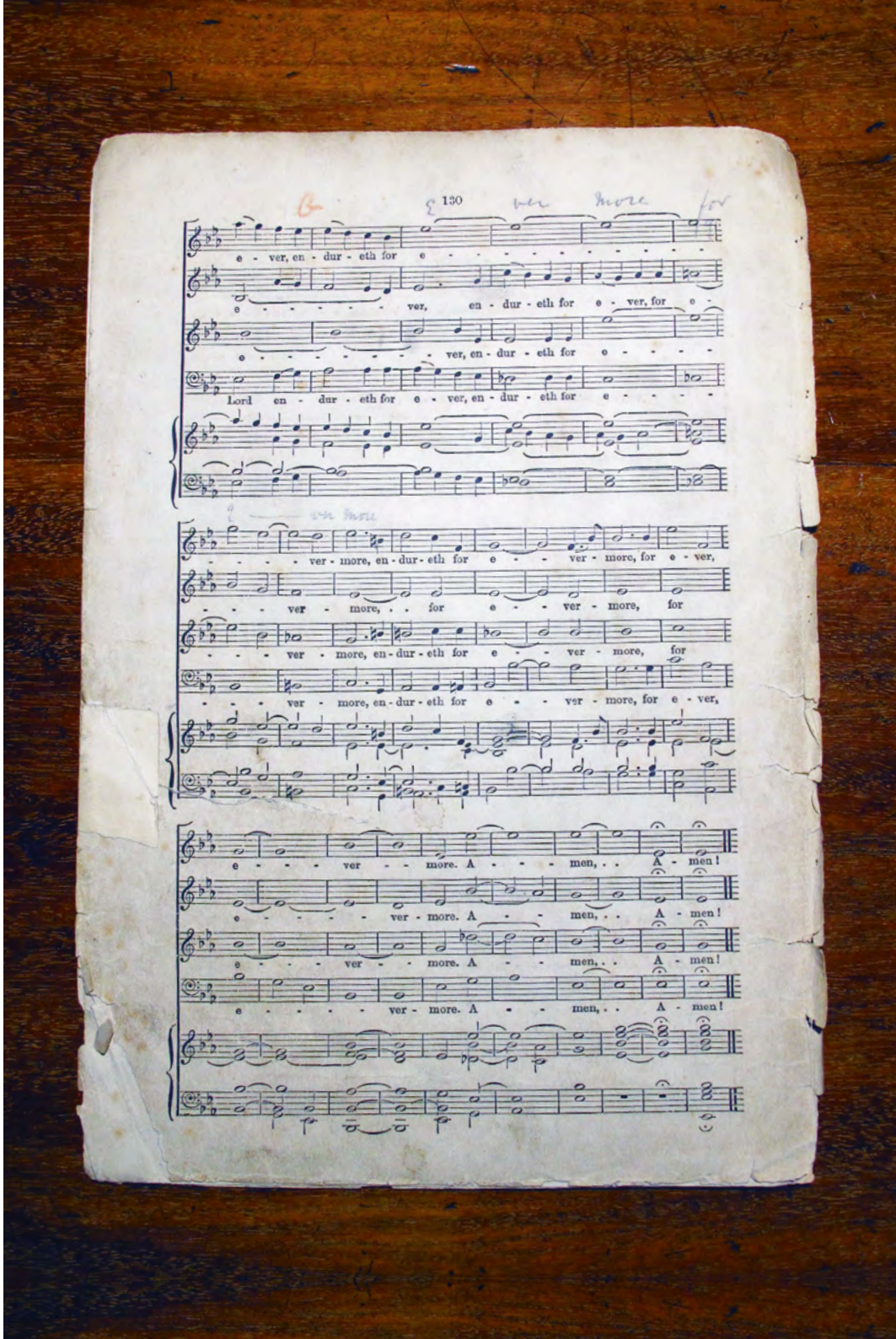
In January the setting sun,
        in its southward course,
forms a nimbus behind the
        cathedral's triple spires.

A miracle occurs.

Colossal trilith becomes diffraction grating,
        unnoticed slits (three simple, two paired),
pierced by the dying rays
        render its mass translucent.

As though an unseen force
        at its eastern end,
has transformed the chasm
        of Melville Street
into a wave-particle accelerator.

31 i 2021



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II. Mark Watson for the 1905 Hamilton Buchanan photograph of *Rhododendron campanulatum*.

III. The portrait of Marmaduke Ramsay was supplied by Robert Athol and is reproduced with the permission of Jesus College, Cambridge. Isabelle Charmentier provided a copy of Ramsay's Linnean Society election certificate.

IV. Michele Rodda, for conversations on the Japanese nature prints of the *fuki*; Jim Kay kindly sent me a copy of his article on the Kew print, of which the image is reproduced courtesy of the Royal Botanic Gardens Kew.

v. The Ruskin drawing is reproduced with the permission of the Ashmolean Museum, University of Oxford.

vi. Sally Dawson, Royal Botanic Gardens Kew, kindly facilitated access to the Lightfoot herbarium; Tom Kennett provided information about James Edward Smith.

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xi. Professor Anna Dallapiccola for advice on matters Indological.

xii. Andrea Deneau photographed the *Melanorrhoea*, which is reproduced with the permission of the Linnean Society of London. The photo of the mosque niche as it stood in Elgin until the 1950s was kindly supplied by Friederike Voigt and is reproduced with the permission of the National Museums of Scotland.

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