

Out of Africa

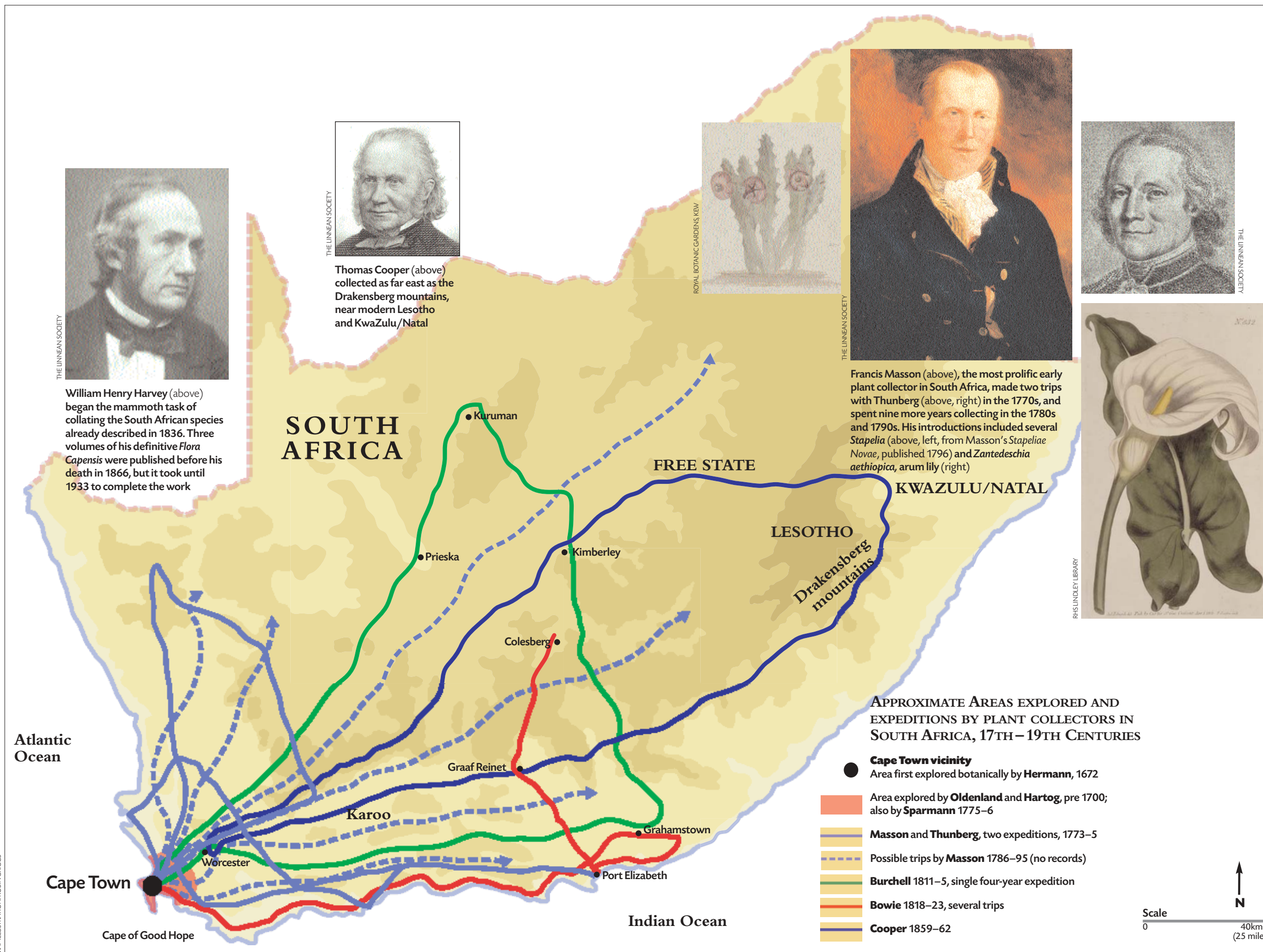
The sheer richness of the flora of South Africa has been drawing plant collectors for nearly four centuries, and as the recent discovery of a new species of *Clivia* shows, is by no means fully documented. TOBY MUSGROVE charts the courses of the plant-hunting pioneers

'FAIREST CAPE in the whole circumference of the globe' wrote Sir Francis Drake in June 1580 as he rounded the Cape of Good Hope on his return to England. Had he stopped and seen the plants growing there, he may have been even more eloquent, for the Cape floral kingdom is one of the world's richest, most diverse botanical regions, home to **more than half** of South Africa's 24,000 plant species.

Initially at least, collectors were limited to the area around the Cape itself. The first visitor to gather plants seems to have been a Dutch missionary, Justus Heurnius, who, in 1624, explored the shores of Table Bay while the crew of his ship, *The Gouda*, made repairs. His countryman Jan Van Riebeeck established the first permanent European settlement in 1652, which later became Cape Town.

It was not until 20 years after this, however, that the first professional botanist, Paul Hermann (who explored when his ship put in en route to Sri Lanka), collected at the Cape. There he found the first pelargonium, *P. cucullatum*, and is remembered in the genus *Hermannia*, which contains herbaceous

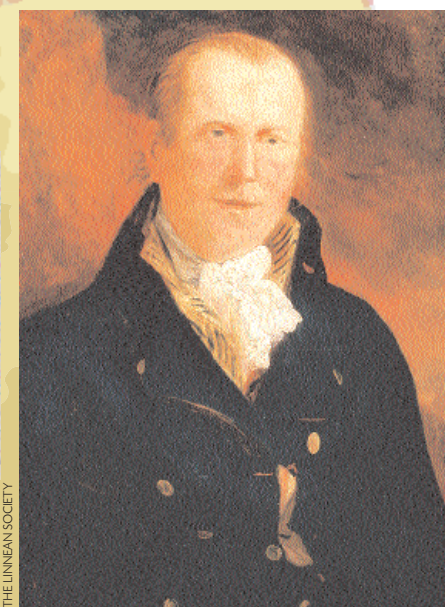
MAP ILLUSTRATION: ROBIN GRIGGS



William Henry Harvey (above) began the mammoth task of collating the South African species already described in 1836. Three volumes of his definitive *Flora Capensis* were published before his death in 1866, but it took until 1933 to complete the work



Thomas Cooper (above) collected as far east as the Drakensberg mountains, near modern Lesotho and KwaZulu/Natal



Francis Masson (above), the most prolific early plant collector in South Africa, made two trips with Thunberg (above, right) in the 1770s, and spent nine more years collecting in the 1780s and 1790s. His introductions included several *Stapelia* (above, left, from Masson's *Stapeliae Novae*, published 1796) and *Zantedeschia aethiopica*, arum lily (right)



and subshrubby species bearing bell-shaped, honey-scented flowers.

On his return to Holland, Hermann inspired one of his students, a Dane, Hendrich Oldenland, to become the second botanist to explore the Cape. Oldenland's workload – he held, among other positions, gardener to the Dutch East India Company's garden, superintendent of roads, town engineer and land surveyor – was so strenuous that he seems to have worked himself into an early grave. Thankfully, however, his collection of herbarium specimens survived, as did those of his successor, Jan Hartog.

Hartog also ventured inland, and on one occasion sent back to the Governor a package containing '62 sorts of seeds, four sorts of aloes, two sorts of bulbs, two packets of dried plants and one of herbs'.

By the turn of the 18th century, around 1,000 Cape species were known to science, but, remarkably, things then went quiet until the arrival of three plant hunters in 1772. Apart from the area around the Cape itself, South Africa's flora remained a largely untapped source of riches, and the subsequent history of plant collecting mirrors (or in some cases preceded) the movement of farmers and settlers further and further east and north, into what was to become the Free State, Lesotho and KwaZulu/Natal.

Andrew Sparrman and Carl Thunberg, both Swedes, landed in April 1772, followed in October by Francis Masson from Aberdeen, a passenger aboard *HMS Resolution*. Sparrman joined Captain Cook's ship (in Masson's berth) as *Resolution* continued on Cook's second circumnavigation, returning to the Cape in March 1775. He collected here until his return to Sweden in 1776. Sparrman's most spectacular discovery was spiky-flowered *Pananomus sceptrum-gustavianus* (Gustav's sceptre), a member of the protea family he named for his monarch, Gustav III.

Prolific collectors

While Sparrman was voyaging with Cook, Thunberg made a number of plant-hunting expeditions at the Cape, including two with Masson, who was to be the most prolific of the late-18th-century trio.



The magnificent blooms of *Strelitzia reginae*, brought to Britain by Francis Masson, Kew's first professional plant collector, as early as 1775

Masson's collecting trips not only encouraged further exploration, but also cemented the foundations of Kew as the world's premier botanic garden. Joseph Banks, who had sailed with Cook on his first epoch-making voyage aboard *Endeavour* (1768–71) and briefly stopped at Cape Town, could not join Cook's second expedition, and instead began establishing a policy to study the flora of the growing sphere of British influence overseas scientifically. As he needed patronage, he set about persuading King George III that as 'the world's most important monarch' it would be fitting for him to have the most comprehensive plant collection.

And where better, he suggested, than His Majesty's favourite royal garden at Kew, which already housed his mother's exotic plant collection? To justify his costly dispatch of plant hunters around the world and to prove the validity of his policy, Banks needed an early success. Remembering his brief, dazzling encounter with South Africa's flora, he decided it was the perfect destination for Masson, Kew's first professional plant hunter.

During his first stay of 30 months, Masson made three exacting major trips. His first expedition lasted 4½ months and covered 1,000 miles. He arrived back from the third in Cape Town on 29 January 1774, with the beautiful *Strelitzia reginae* (bird of paradise, above), *Erica tomentosa* and *Amaryllis belladonna* among scores of new species.

He returned to Britain in 1775 to great plaudits: as the Rev M Tyson observed in a letter dated 5 May 1776, 'Mr Masson showed me the New World in his amazing Cape hothouse, erica 140 species, many proteas, geraniums and cliffortias more than 50'.

Banks was of course delighted, and sent Masson collecting to Iberia, the Azores,

Madeira and the Caribbean before allowing him to return to South Africa in January 1786. He remained until March 1795, when growing political unrest forced him to return to England. He resolutely ignored the prohibition the Dutch authorities placed on him not to travel further than a 40-mile radius from Cape Town, making a series of long clandestine treks into the interior. Sadly, little is known of his precise movements, but in March 1786 he sent Banks seed of 176 species including more Cape heaths and *Zantedeschia aethiopica* (arum lily).

Masson's legacy

In terms of South African plant hunting, Masson was the key that unlocked the door and revealed the full diversity and beauty of the country's flora. He discovered in excess of 400 new species, including gladioli, amaryllis, *Cineraria*, *Streptocarpus*, proteas; 88 species of heath, 9 different *Kniphofia*, agapanthus, *Ixia*, 47 *Pelargonium*, lobelias; and bulbous plants including *Sparaxis*, *Watsonia*, *Haemanthus*, *Tulbaghia* and oxalis.

Masson died a sad and lonely death in the frozen North American winter of 1805 (not before introducing *Trillium grandiflorum*), but perhaps his most enduring memorial is the cycad *Encephalartos alternsteinii*. His original introduction from 1775 still grows in the Palm House at Kew, surely making it one of the world's oldest pot-plants.

Little is known of the travels of another Scot, James Niven, who arrived three years after Masson's first collecting period, in 1778. Employed by George Hibbert, a rich amateur, he remained for five years, sending home a 'valuable herbarium of native specimens' and new plants, including five new species of proteas – Hibbert's passion.

Early 19th century

Niven spent a brief three months back in Britain in 1803 before returning south for a further nine years. This time his employer was a syndicate that included the nursery firm of Lee and Kennedy and – despite the fact the Napoleonic War was raging – the French Empress Josephine. Niven was able to boost her collection of heaths at her garden in

Malmaison from 50 species in 1805 to 132 – 30 of them newly described.

On his arrival back in Britain in 1812, Niven quit botany and went into business in his native Pennicuick, dying in 1827. He is remembered in the genus that bears his name – *Nivenia*, the shrubby 'bush irises'.

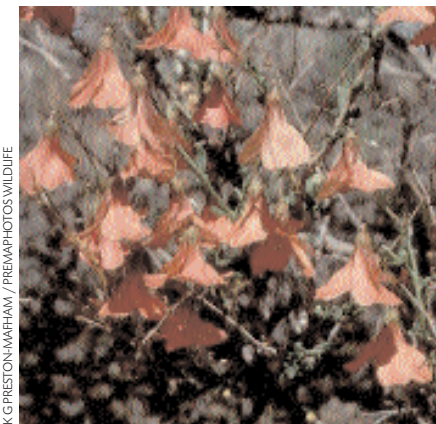
The next great plant hunter, William J Burchell, son of a Fulham nurseryman, travelled to South Africa in 1810 (after his fickle fiancée ditched him in favour of the captain of the ship that was bringing her to him in St Helena). Instead of a wife, Burchell dedicated himself to botany.

Once finding 105 species in the space of a mile, Burchell (accompanied by a group of missionaries) set off in January 1811 on an epic four-year journey that took him east and north from Cape Town to beyond Kuruman. At ZandVlei in the Prieska district, Burchell picked up a 'pebble', only to find it was a plant – now *Lithops turbiniformis*. Turning south from Kuruman, on 15 September he crossed the Orange River near the centre of modern South Africa, where he discovered the country's only poppy, *Papaver aculeatum*.

Burchell returned slowly, heading South to Grahamstown, then west, reaching Cape Town in April 1815. Packing his finds, he set sail for home with 40,371 preserved plant specimens and accompanying notes, seed of more than 2,000 species, and 270 bulbs.

Before his death in 1820, Banks sent

Hermannia stricta (honeybells) was named for South Africa's first plant explorer, Paul Hermann, who visited the Cape in 1672



K.G. PRESTON-WARHAM / PIREMA PHOTOS/WILDLIFE

another plant hunter to the Cape. James Bowie, son of another London seedsman, had spent four years collecting for Kew in Brazil before being dispatched to South Africa, where he spent seven years. After a year and a half collecting near the Cape, Bowie began to move further afield.

He made one inland journey in 1821 north from Algoa Bay to Graaf Reinet and Erste Poorte in the Coleberg district, otherwise he explored east along the coastlands, reaching as far as Bathurst, Grahamstown and the Great Fish River. Bowie found *Streptocarpus rexii*, but his most important introduction was probably *Clivia nobilis*, still a popular house plant, which he discovered on the Quagga Flats by the Great Fish River.

Other collectors who visited in the 19th century included German Johann Franz Drege who hunted from 1826–34, amassing a collection of about 200,000 specimens representing some 8,000 species. Drege is best remembered, however, as the pioneer of South African biogeography, being the first to establish its distinct botanical regions.

In the Victorian era

From 1859–62, Thomas Cooper worked for Wilson Saunders (and the botanic gardens of Kew, Edinburgh and Dublin) in order to fill his famous garden at Reigate, and is perhaps not justly remembered for his exploits. Instead of Cape Town, he used Worcester, a little inland, as his base, and his journeys to Natal, the Drakensberg mountains and the Orange Free State make him one of the furthest travelled of South Africa's plant hunters. Among his discoveries were two succulents that bear his name, *Aloe cooperi*, and *Stapelia cooperi*; *Asparagus setaceus*, still a popular house plant, and *Galtomia candidans*.

With Ludwig Pappe's appointment as the first Colonial Botanist in 1858 – his task 'to perfect our knowledge of the flora of South Africa' – botany became even more of a British 'home industry'. Yet Pappe's work had been given a kick-start by all the earlier active collectors – and by one notable, more sedentary botanist. William Henry Harvey, an Irishman, arrived at the Cape in 1835, but his appointment as Colonial Secretary the

following year prevented him from travelling and collecting widely. Instead he began compiling the first comprehensive tome on the South African flora already described.

In 1838 the first volume of *Flora Capensis* (The Genera of South African Plants) was published, but three years later, worn out from his full-time job and full-time hobby, Harvey returned home to become Professor of Botany at Dublin. To give an indication of his achievement, the third volume of his *magnus opus* was published a year before his death in 1866; the fourth ran to six parts; and the task was finally completed in 1933 – almost a century after Harvey began it.

More contemporary findings

Perhaps the last word in the history of South African plant hunting should be reserved for the foursome who visited in 1927: Laurence Johnston of Hidcote fame, Collingwood (Cherry) Ingram, Reginald Cory and George Taylor. Times had changed since Masson and the like explored on foot or horseback. As their ship docked, this intrepid group set off in two motor cars on their three-month, 6,000-mile expedition northeast to Pretoria. There were still gems to discover, however – the most notable from this trip was probably *Kniphofia triangularis* subsp. *triangularis*.

But this was by no means the end of plant exploration and discovery in South Africa. Only two years ago, 'home-grown' botanists found a previously undescribed species of *Clivia*, dubbed *C. mirabilis*, in a nature reserve in the semi-arid Northern Cape. Unlike other clivias it is adapted to summer drought so may make an excellent house plant.

In the 422 years since Drake's famous words, South Africa has yielded up her botanical treasures to a succession of devoted, brave and (sometimes) eccentric individuals. Many of their trophies continue to grace our gardens, conservatories and homes. Sadly, the men who risked so much to bring us such an abundance of beauty are too oft forgot. I, for one, salute and thank them. 🌿

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