
Grigadale Arboretum

RODERICK CAMERON writes about the arboretum that his parents created in Argentina.

Grigadale Arboretum owes its existence to its founders, Bridget and Duncan Cameron—and to Napoleon. As a former Spanish colony, Argentina's inheritance law follows the Napoleonic code rather than primogeniture. The couple lived for the first 30 years of their married life on the homestead of the farm, where Duncan managed the property owned by his extended family. By 1990 the strains of co-ownership began to show and in 1991 the *estancia* was divided among the cousins. Lots drawn from a hat dictated that Bridget and Duncan had to move to a section of the farm with no homestead, where they had to start from scratch. The result was a garden and arboretum whose creation occupied the golden years of their lives and which now stands as their legacy.

The original property had been acquired by Duncan's grandfather, Alec Cameron, a New Zealander who immigrated to Buenos Aires in 1893 and was a pioneering sheep farmer in Tierra del Fuego, at the southern tip of South America. Alec's father John had moved to New Zealand from Ardnamurchan on the west coast of Scotland, where he had also farmed sheep. When Alec retired in 1914 he sought a property in Argentina's fertile Pampas and after a long search opted for 5,000 ha of prime farming land some 500 km south of Buenos Aires. He named it *Estancia Maori*, after the original inhabitants of his native land. It was managed by his eldest son Archie and subsequently by his grandson Duncan.

To name the section of Maori that was now his own, Duncan reached further back in his family history and chose the name of the small sheep farm on Ardnamurchan that was home to his great-grandfather John: Grigadale. The meaning of the name is unclear (it is Griogadal in Gaelic), save that it is of Norse origin and refers to a valley (dale). Whether it belonged to a certain

Gjotgardr, presumably a Viking marauder, is only speculation. It is a slight misnomer for the Argentine version, which occupies 1,300 ha of unrelentingly flat land at an elevation of 45 m, on latitude 38.3° S (similar to Melbourne—and equivalent to Lisbon or Washington DC in the Northern Hemisphere). Annual average rainfall is 900 mm and temperatures range from -5 °C to 35 °C. The soil, slightly acidic at pH 6, is rich in nutrients due to its origin as pampean loess—silt and sand blown across from the



Bridget and Duncan Cameron, founders of Grigadale Arboretum.



Grigdale Arboretum, ca. 1992, from the south-west, showing the first plantations. On the right: a block of eucalyptus, the only trees on the site when plantation of the arboretum began. Many of these eucalyptus were toppled in a cyclone and most of the rest felled. The lake had just been formed and was still mostly covered by vegetation. Three coipus or nutrias (*Myocastor coypus*) were later introduced, and they bred quickly and maintained the surface of the water clear.



Duncan Cameron watering young conifers in the wind baffle, ca. 1992. The cane 'wigwams' behind him were installed to protect newly planted seedlings. Note: these coverings can be seen casting their shadows in the photo above, just below the road running horizontally from left to right.

Andes—and yet, like the rest of the Pampas, the land in its natural state was a treeless plain. The reason for the lack of trees may paradoxically lie in the soil's fertility: grasses grow so fast and copiously that tree seeds don't stand a chance.

For Bridget and Duncan, having lived in an established and enclosed garden, the prospect of moving to a bare field was daunting. The site was chosen because of the tacit presence of a small lake, spotted by Bridget on old aerial photos as what she first thought to be an acid stain. Coaxed by some extra irrigation and later by run-off from the windmill that would provide water for the new house, this water feature was central to the design of the park. It attracted birdlife and provided a focal point of interest as the homestead plantation became established. It remains a salient attribute of the park, occupying



photograph © Luis Lera, Diálogo Imágenes

Same view as the photograph **opposite**, taken in 2018, only 26 years later. The decorative windbreak and wind baffle run left to right across the middle of the photo. The main statement of the landscaping design is evident: open to the Pampas to the north-east, enclosed and protected on the other three sides.

photograph © Roderick Cameron



A view of the house across the lake, from the north.

about 1.5 hectares and maintained during dry spells by a pump.

The landscaping concept at Grigadale responds on the one hand to the desire for an unencumbered view to the north-east of the lake and the endless horizon, and on the other hand to the imperatives of wind. Aside from being flat and fertile, the Pampas are windswept, and establishing trees around a homestead is as much a functional concern as a decorative one. Traditionally, homesteads in this area are fully enclosed, shutting out the relentless plains with serried rows of Tasmanian blue gum (*Eucalyptus globulus*) and *Pinus radiata*, creating a protected enclave where a European-style garden might be grown. Here elegant borders would remind their owners of the cultured countries they had come from to tackle this stubborn land. Grigadale contravenes this practice by maintaining an arc of almost 120 degrees of open vista to the stark

horizon. Here, as in many cases of successful landscaping, the most significant decision in laying out the arboretum has been where *not* to plant trees. The main structure of the plantation consists of various barriers, baffles, and windbreaks protecting the homestead from the predominant winds from the west and the bitter gales from the south and south-east. This duality implicit in the design could be interpreted as an expression of Bridget and Duncan's background as Anglo-argentinians. They were proud inheritors of the culture of their British ancestors who had arrived in Argentina several generations ago, but they also were open to and were moulded by the environment they lived in.

Planting trees in a treeless plain is of course an *opus contra naturam*. Only a handful of tree genera have any hope of growing unassisted in these conditions (e.g. *Salix*, *Eucalyptus*, *Populus*, and *Casuarina*). The rest require considerable care. Aside from the competition from grasses, seedlings need protection against wind, summer drought and heat, rodents, and the infamous Argentine ants that can defoliate a young tree overnight. Bridget and Duncan devised several original solutions for these challenges: branches of *Eucalyptus cinerea* inserted around a seedling kept away the hares and may also have helped keep ants at bay; larger seedlings were enclosed by 'wigwams' of dry canes



Quercus robur 'Concordia' in the quercetum. Duncan chose this golden oak to plant in commemoration of Queen Elizabeth II's Golden Jubilee in 2002. Bridget decided that Her Majesty should be informed of the fact and duly wrote to Buckingham Palace. The reply was framed and displayed at the bar at Grigadale. A similar exchange of correspondence occurred when a *Quercus petraea* 'Purpurea' was planted to mark the occasion of the Diamond Jubilee.

Commemorative plantings were not infrequent at Grigadale: a *Sequoia sempervirens* was planted for the 500th anniversary of Columbus' arrival in America, and a *Sequoiadendron giganteum* for the beginning of the new millennium.



The decorative windbreak (left of the road) and a section of the wind baffle on the right. Left to right: *Thuja occidentalis* 'Fastigiata', *Eucalyptus cinerea*, *Cedrus deodara*, *Cupressus sempervirens* 'Stricta'.

to provide shade and protection; a wooden stake was placed next to young conifers so that the chimangos (*Milvago chimango*, a local bird of prey) would perch there rather than on the fragile leader of the conifer which might break under its weight. Watering was a major concern and plantations were watered every fortnight throughout the summer months, unless 50 mm of rain had fallen. A watering tank was drawn round the plantation by a tractor and every seedling thoroughly drenched.

Neither Bridget nor Duncan were particularly interested in trees prior to creating Grigadale. Their homestead at Maori had no need for significant tree planting while they lived there. Duncan was occupied with farming and Bridget with gardening (the garden at Grigadale is outstanding but has not been covered in this article). Their knowledge and interest in trees was sparked by this project and blossomed when they joined the International Dendrology Society soon after starting the plantation. The IDS tours were always a highlight of their calendar and Bridget diligently wrote up each trip they participated in. After she brought back some rare oaks from a visit to the Chelsea Flower Show as a gift for Duncan, he began an oak collection and they joined the International Oak Society. Thanks in great part to IOS's contacts, conferences, and seed exchanges, he was able to establish specimens of over 100 oak taxa.

The original entrance drive was planned to imitate a winding stream. Duncan and Bridget's first tree-planting project early in their married lives



Acacia dealbata in full bloom, August 2011. Yellow was a colour that Duncan favoured, mainly because he could distinguish it, unlike green and red. The blue-grey backdrop of *Eucalyptus cinerea* can be glimpsed to the left.

had been a plantation of willows and poplars on the banks of a stream that ran through the homestead at Maori. The drive at Grigadale was an echo of that plantation—in fact, many of the trees planted were grown as cuttings taken from the trees growing along the stream—and it was designed to anticipate the aqueous theme of the lake as one entered the park. It was also hoped that the meanders of the drive would slow down hasty drivers. Subsequently a more rain-resistant access road was created leading out of the opposite side of the park, towards a paved road. The winding drive hence became a path towards the guest house and an attractive feature throughout the year. The 400 trees planted along it were all, barring five *Alnus incana*, grown from cuttings in Bridget's nursery three years before leaving Maori. Selected due to their waterside associations, the species include poplars (*Populus nigra* var. *italica*, *P. alba* 'Nivea', *P. alba* 'Pyramidalis'), willows (*Salix babylonica*, *S. alba vitellina*), pin oaks (*Quercus palustris*), and pampas grass (*Cortaderia selloana*).

The current entrance to the park runs down a line of *Eucalyptus cinerea* planted to the east of the park as a blue-grey backdrop for some widely spaced groups featuring yellow foliage. The reason for this particular palette was practical rather than aesthetic and derived from Duncan's colour-blindness: he was more sensitive to blues and yellows than to greens and reds, which he hardly distinguished. Yellow foliage and flowers are provided by *Robinia*

pseudoacacia 'Frisia', *Gleditsia triacanthos* f. *inermis* 'Sunburst', *Ligustrum lucidum* 'Aurea', *Ulmus glabra* 'Aurea', *Melia azedarach* 'Variegata', and *Acacia dealbata*. This section also includes 'roughs' or areas where the grass is left to grow tall and mowed only once a year in late autumn. When the arboretum was newly planted, these areas of tall grass created structure and visual interest in the years before the trees grew sufficiently to take over. The roughs create a pleasing effect, introducing sweeping curves into the mown areas and a graceful movement when the grasses are flowering. Their fresh green colours in spring turn to yellow in the summer as the grass dries, and greyish in the autumn. Also in the early years two further groups of trees were planted closer to the lake, named the Oxbow and the Teardrop because of their shapes. The names turned out to be prophetic, as they were mostly wiped out by a rare flood in 2002. Some observers commented that it was Nature protecting the original design, as these plantations interfered with the concept of a completely open horizon in front of the house.

The main windbreaks lie to the south-west and west of the house, and incorporate species of contrasting colours to add decorative interest. To the south-west, several *Fraxinus excelsior* 'Aurea' are prominent in autumn against a backdrop of *Pinus pinea*. A grouping of *Betula nigra* and *B. alba* stand at the entrance to the driveway, opposite two pencil willows (*Salix humboldtiana* 'Pyramidalis', rare in Argentina, and as yet not invasive as in Australia). Other tones are provided by *Eucalyptus cinerea*, *Pyrus salicifolia* 'Pendula', several flowering cherries, *Amelanchier* sp., *Acacia retinoides* and *A. dealbata*, amongst others. To withstand the prevailing winds, fast-growing bulky conifers were planted to the west of the house, including \times *Hesperotropis leylandii* (\times *Cupressocyparis leylandii*), *Cupressus arizonica*, *C. lusitanica*, *C. torulosa*, and a belt of *Pinus elliotii* intermingled with *Tilia* sp., *Liquidambar styraciflua*, *Fraxinus* sp. and *Quercus palustris* to add deciduous interest.

As further protection from the cold southern winds, a 'wind baffle' was planted behind the main decorative windbreak. It is a mainly coniferous plantation and consists of irregular lozenge shapes with a good 10-metre gap between groupings with taller trees in the centre, thus 'baffling' and dispersing the winds rather than have them rise up and thump down on the garden side, as would be the case with a straight uniform line of trees. Species include *Thuja occidentalis* 'Fastigiata', *T. plicata*, *Thujopsis dolabrata*, *Cupressus sempervirens* 'Stricta', *C. macrocarpa* 'Goldcrest', *Juniperus virginiana* 'Grey Owl', *J. chinensis* 'Pfitzeriana Glauca', *J. chinensis* 'Pfitzeriana Aurea', *Libocedrus decurrens* 'Aureovariegata', *Cedrus deodara*, *Grevillea robusta*, *Robinia* \times *ambigua* 'Decaisneana' and *Cinnamomum camphora*. Snuck inside the microclimate of this plantation, a rare *Araucaria cunninghamii* cautiously rears its head. Beyond a small field originally devised as a paddock for the dairy cow, a second barrier is provided by a line of mixed groupings of five or seven specimens of contrasting species. As a result, the garden at Grigadale is effectively shielded



Above, left, new growth on *Quercus baloot* in the quercetum, obtained from James Harris's Mallet Court Nursery, grown from seed collected by Shaun Haddock in Pakistan in 1995. Planted out in 1998, the tree has grown to over 6 metres, surpassing other known *ex-situ* specimens.

Above, right, the plaque presented to Grigadale Arboretum in 2010 by Mary Carey-Wilson, Vice President for Argentina, on behalf of the International Dendrology Society.

from the brunt of the wind.

An S-shaped line of *Populus deltoides* extends the western windbreak at one end and at the other runs through what started off as a 'European mixed wood' where Duncan planted various species he brought out from Scotland as root plugs. Later this area was taken over by his oak collection. Today the quercetum is one of the most comprehensive collections of *Quercus* in South America, including the *ex-situ* champion *Quercus baloot*, grown from seed collected by Shaun Haddock in Pakistan's Swat Valley in 1995, a *Q. semecarpifolia* from a collection by Patrick Forde in Nepal in the same year, and outstanding specimens of *Q. dentata*, *Q. rugosa*, and *Q. rysophylla* (see *IDS Yearbook 2015*, p. 30, in 'Tree of the year' by Allen Coombes), to name but a few.

Bridget and Duncan were able to enjoy Grigadale for 15 years prior to their untimely death in 2008. By their own account, it was an enriching experience that motivated the latter part of their lives, providing an opportunity to engage intimately with Nature, working both against and with it, to create a place of beauty and botanical interest that perpetuates their memory. For a few years following their death, the garden and arboretum were opened to the public and visited by gardening enthusiasts and landscaping professionals from far and wide in Argentina and neighbouring countries. Currently the oak collection continues to be maintained and expanded and is open to visitors on annual open days each April. In 2017, Grigadale Arboretum became the first arboretum in South America to be accredited (at Level I) by The ArbNet Arboretum Accreditation Program and The Morton Arboretum, for achieving particular standards of professional practices deemed important for arboreta and botanic gardens. The arboretum may be visited on request (visit www.grigadale.org for contact information).