University of Dundee

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The University of Dundee Botanic Garden and its precursors: a 50th anniversary survey

Kevin Frediani

The University of Dundee Botanic Garden was founded in October 1971 and celebrated its 50th anniversary during 2021–22. This is an appropriate time to place the garden in historical context and also discuss how the role of the garden is being explored to help inform its direction for its next 50 years.

Botanic Gardens are initially encountered during the Italian Renaissance. The concept spread initially as Hortus Medicus, and Northern Europe saw gardens being founded in the Netherlands at Leiden (1590) and Amsterdam (1638). The first stand-alone Physic Gardens that were not under religious stewardship in the UK, were established at Oxford (1621), Edinburgh (1670), and Chelsea Physic Garden (1673). Now this raises the question – what is a botanic garden? All these early gardens contained mainly medicinal plants as aids to the training of doctors and apothecaries. The creation of botanic gardens coincided with the importation of large numbers of unfamiliar plant species to Europe, so we see a rise in scientific botany, in particular in the pursuit of classification, and a change in these institutions from purely physic gardens to plant research gardens with an element of public display.

The Dominican Garden
The first significant garden recorded in Dundee was probably associated with the alms house or hospital of the Dominican Black...
Heathers.  

The macromicro studio now the Living Lab. The evolution garden. © Moira Lyne

Scottish native plants.  

Desert habitat; wildlife friendly annuals; South American plants. © Andrew Hogarth

Tropical habitat in the glasshouse.

The macromicro studio now the Living Lab. The evolution garden. © Moira Lyne
Friars, whose religious house had a brief and unfortunate history. It was founded around 1521 and probably largely destroyed by 1548 when Henry VIII’s English army sacked Dundee during the war of 1543–1551. The Dominicans would have succumbed in any case to the Scottish Reformation and their land, including the garden, was in the hands of the town after 1560.

A town council minute of July 1559 reads ‘pay to Findlo Dunckan fifteen shillings for the skaith [damage] of the herbs and kale growing there until’. Duncan was probably a former friar who was working as a chirurgian or surgeon so the garden was probably a physic garden with medicinal herbs, along with food plants like kale which seem appropriate for a garden serving a hospital.

The location of the Dominican Garden is unknown. But the Blackfriars is referred to as ‘lying betwixt the Nethergait Port and the WestPort’, that is, outside the burgh boundary and to the south of the west port, the east wall of the friary forming part of the town wall.

**Patrick Blair**

Patrick Blair (1666 or 1675–1728) may have been born in Perth or Dundee but, by 1702, he was working in Dundee as a surgeon-apothecary. In 1706, he famously dissected an elephant (a first in Britain) which had died on the road near neighbouring Broughty Ferry, while travelling around the country with its Dutch showman-keeper. Blair published an illustrated account of the dissection under the title *Osteographia Elephantina* which he sent to Hans Sloane at the Royal Society. Blair was a considerable botanist and he refers to ‘a Physik Garden, whereof I am overseer’, somewhere in Dundee established by 1708. Its location is unknown, though Blair owned land in the town centre, but it was only the fourth earliest botanic garden in Britain, after Oxford, Edinburgh and Chelsea Physic Garden.

Later, Blair served as a surgeon with the Jacobite army during the ill-fated Rising of 1715, was captured at the Battle of Preston and duly condemned to death as a rebel. Through the good offices of Sloane and others, he was reprieved, although only hours before his scheduled execution, and spent his last years botanising and writing on botany in Lincolnshire – he never returned to Scotland.

**Patrick Geddes in Dundee and his garden projects**

Patrick Geddes was a remarkable man who should be better known. He was a prophet of humane urban planning as well as a biologist and was Professor of Botany at Dundee from 1888 to 1919. Our garden’s motto *By Leaves We Live* is taken from Geddes’s farewell address when he left Dundee:

*This is a green world, with animals comparatively few and small, and all dependent on the leaves. By leaves we live. Some people have strange ideas that they live by money. They think energy is generated by the circulation of coins. Whereas the world is mainly a vast leaf colony, growing on and forming a leafy soil, not a mere mineral mass: and we live not by the jingling of our coins, but by the fullness of our harvests.*

Geddes used assorted glasshouses and plots around the university to provide botanical teaching materials, but he longed for a proper botanic garden. The *Dundee Advertiser* of 14 September 1906 sets out a plan for a substantial public garden to be located at the west end of the Magdalen Green, less than a mile from the present garden. The scheme would have been expensive and, sadly, the ‘generous citizens’ called for in the article never came forward. Geddes had at least three other public park or garden spaces proposals for Dundee, but none was ever established. He also had schemes for school gardens, and one was realised at Ancrum Road school despite its high cost of £100; a contemporary London school garden was expected to cost less than £20.

**The University of Dundee Botanic Garden**

Dundee, having originally been founded as the free-standing University College Dundee, became part of the University of St Andrews,
The Good Grief Garden.

Autumn artwork.

Tree covering. © Alan Whittle

Logs in a wildlife friendly pattern.

Info board. © Claire Ross

Resilient tree species planting.
eventually as Queens College. The University of Dundee was founded in 1967, thus becoming independent once more, and the Botanic Garden was approved by the first Principal James Drever and opened in 1971. The botanists of the old Biological Sciences department and the garden’s first curator Eddie Kemp (1971–1980) with Dr Hugh Ingram established a garden with a central native plants area laid out on ecological lines with the plants associated together in their native habitats. The garden is laid out geographically around the native area, displaying plants from the Mediterranean, the Americas, Australasia and Asia. There is also a substantial glasshouse, with temperate and tropical compartments, exhibiting many economic plants from around the world and a good collection of desert plants from America and Africa. Les Bissett was curator from 1980–1998, when he established a public education programme, visitor centre and collection plan. Alasdair Hood (1998–2018) developed the evolution garden and conservation collections. Kevin Frediani arrived in 2019 and has established the Living lab research hub, the Good Grief Garden, Green Room Gallery, and Over the Garden Wall projects using nature-based solutions.

In its 50 years, the Dundee Garden has expanded as a visitor attraction, with a visitor centre (1984), gardens of evolution and genetics, a focus on public education and a rebuild of two areas of the garden; the Australasian section and the native area were remodelled from 2014 to align the latter more closely with local habitats and their associated plants. In more recent times the garden has been exploring projects that engage with people.

The first project in the lead up to the 50th anniversary was a publication that sought to capture and showcase the emotional connection that the community has developed over the years. The anthology, *Our Botanic Garden, A Place to Bloom*, comprises work by professional and amateur artists, photographers and writers. The project was initiated in 2017 by the Friends of the University of Dundee Botanic Garden (FUDBG) in a bid to raise awareness of the attraction and raise funds to support its continuing role in conservation and education. Through the anthology, they aimed to raise the profile of the venue across the wider Tayside area. Incorporating stories, poetry, sketches and paintings. The publication reflects visitors’ emotional response to the garden in all seasons, exploring and emphasising the importance of the space, which many consider a hidden jewel of the city.

The realisation of this project coincided with the appointment of the new curator, Kevin Frediani in 2019. A building with a view was created, to provide shelter within the garden and help improve the visitors’ experience. The view of the River Tay and airport below the garden boundary on its southern edge presented an excellent space to create a framed view within a sheltered structure. The project building has become the ‘green room gallery’, framed with a green roof and home to future art exhibitions. It was opened in summer 2022 to the public, as part of a planned events programme with local artists. The third and final project initiated by the Friends, was a green health and wellbeing initiative to help patients of NHS Tayside who had disorders that could benefit from a green health and wellbeing intervention, within the safe space that the garden offers. This project has subsequently been included within the Tayside Green Health Partnership, a wider initiative involving multiple GPs, NHS Tayside and Dundee City Council working with many landscape managers to bring benefits through a green prescription service being successfully piloted in the region.

**The emergent role**

Botanic gardens around the world are looking to nature and community-based solutions to help communities adapt to and mitigate the climate emergency. Dundee Botanic Garden, with the support of a wide stakeholder review, has begun to take forward a new strategy, realigning the garden to the university, the city
Preparing the ground to add trees to a housing estate; Planting trees with a local community.

Bonnie Dundee’s sunflower give away.  Wee forest info board.

Flowering Dundee. © All photos on this page Bonnie Dundee
of Dundee and the global challenges of biodiversity loss, increasing urban populations and climate change. This strategy has recognised that each of the University of Dundee’s landscapes provide multiple benefits, or ecosystem services, that are not yet fully recognised. As a steward of land, and a partner to Dundee’s development, it is no longer expedient to maintain landscapes to provide only amenity. There is a need to enable local solutions that provide resilient landscapes for the future and help address growing global challenges. Climate change requires sustainable urban landscapes while conservation requires opportunities for plants to thrive in landscapes that will serve people’s needs. These new landscapes should provide opportunities to involve local people in local placemaking. An evidence base can grow to help inform change in Dundee and elsewhere. This is the ‘Garden and Grounds’ equivalent of the University’s mission through a public visitor attraction and a local centre of applied research and education: ‘Transforming lives, locally and globally through the creation, sharing and application of knowledge.’

Within this strategy it is recognised that the Botanic Garden is a leading visitor attraction in Tayside and Dundee city. It provides space for research and education, and the site’s amenity offers recreation and enjoyment through engaging place-based experiences. It is a university asset where nature-based solutions, conservation of biodiversity and human wellbeing are being explored using STEAM (Science Technology Engineering Maths together with Art). Staff and students use the Living Lab, which is based within the previously vacant Macro Micro building. The Macro Micro building was an experimental building designed and built by students, staff and external partners as the first zero carbon building in Scotland in 2013. Today it hosts the Leslie Bisset Library, which is the home to the Living Lab, a research hub established during lockdown in 2020 and now consisting of seven PhD students and an academic cross school community, who are researching different facets of education for sustainability.

The year 2020 marked the beginning of the COVID-19 global pandemic. With an enforced national lockdown, the garden’s collections were serviced with minimal staffing for essential duties only. Progress behind the scenes included planning for reopening, for new projects with and within the garden and progressing of existing projects. These projects include a full ecosystem service audit of the garden’s plant collections facilitated through student research; a new family-orientated interpretive trail based around fairy doors; a Good Grief memorial garden to support those who lost loved ones during COVID-19; in 2023 upgrading the plant record data base to facilitate technology-supported interpretation of plant collections; realisation of new community urban green spaces as part of the Rewilding Dundee project; the first garden events programme for 2022 to help celebrate the 50th anniversary year. We are developing a new business plan to identify the potential for sustainable growth of the visitor attraction, education and research living laboratory to utilise Endowment Trust funding to support a sustainable future business model.

Reflective thoughts
Dundee Botanic Garden has evolved and innovated over its 50 years, during which time it has grown an important community of interest within the city, in partnership with its Friends. From an institution that supported university undergraduate education, it has jumped the garden gate to begin the critical journey to help extend the benefits of nature-based solutions across the city, contributing to the wider community, while offsetting some of the carbon used by the university. This role means its future work is even more significant than that already achieved, given that two out of every five plants globally is threatened with extinction due unsustainable land use accelerated through human activity and climate change.

References
Professor Chiotha plants Trees of Hope with Dundee's Chancellor Professor Gillespie as part of our African initiative; herbs and edibles in the city centre.

Our shop and café.


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Canmore website. (part of historic environment Scotland) http://canmore.org.uk/site/33501 under Canmore ID 33501.

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This article began with Dr Neil Paterson prior to his untimely death in September 2021 in the lead up to the 50th anniversary celebrations and was completed and updated by Kevin Frediani in 2022. Kevin has a diverse background in applied plant science and sustainable land use gained over 35 years of study and work in many organisations. From Dartmoor to Wester Ross, via Amsterdam and London, he has learned and practiced the art and science of how spaces become places through the actions and reactions of people and the environment. Since 2019 he has been the Curator of Botanic Garden and Grounds at the University of Dundee.