Report on the Forth Naturalist & Historian Conference Saturday November 12th, 2016

Our Urban Heritage: Gardens and Wildlife Past & Present Richard Tipping

This year our attention was drawn to gardens and urban spaces. Much of the Forth Valley is today an urban environment and most of us live in towns. Before this though, apart from country-dwellers, most people saw farmland as utilitarian: it served a function - to feed us. But green spaces were set aside. With the emergence of wealthy landowners, large landscapes were designed and many of these were created in central Scotland. Designed landscapes seemed almost to try to improve on nature. From the 1750's, with the industrial revolution, new land uses appeared in the countryside. Some of these were industrial landscapes, now mostly derelict, and we are looking for new uses for these abandoned spaces. They have become the focus of much new innovative nature conservation. Even in the middle of towns, nature conservation and nature are thriving.

The focus of the morning session was the history and conservation of our designed landscapes. Catherine Middleton has been at Historic Environment Scotland since 2003 and has been responsible for casework relating to gardens and designed landscapes on the Historic Environment Scotland (HES) Inventory of Gardens and Designed Landscapes for over 10 years (www.historicenvironment.scot). She introduced us to the Inventory, which covers 373 sites, all of national importance. The criteria for determining national importance are their value as a work of art and/or their historical, architectural, horticultural, arboricultural, silvicultural, scenic, nature conservation and archaeological value. Gardens and designed landscapes offer significant opportunities for education, employment and recreation and serve as important links in the 'green network' throughout central Scotland. Designed landscapes are grounds consciously laid out for artistic effect. They are the estate policies we most often think of. Estates like Touch or Hopetoun House were designed for pleasure as well as the production of resources. Enclosed by boundary walls, they include mansion houses, avenues forming vistas, formal and informal gardens, terraces or grottoes, water features and archaeological remains. The Inventory also includes other types of site, such as botanical gardens and horticultural collections, urban parks and even cemeteries.

The Inventory informs the management of change. To ensure that the most important gardens and designed landscapes survive, change needs to be managed to protect and, where appropriate, enhance the significant elements. One of the most recent additions to the Inventory was the Japanese-style garden at Cowden in Clackmannanshire in 2013. It was designed for Ella Christie, a dynamic and visionary female landowner and explorer in the first decades of the 20th century, by Taki Handa, a Japanese female garden designer. The garden was seriously vandalized in the 1960s, but much of its essential structure endured and it is currently being restored. Cowden now survives as an exceptional example of the Japanese-style garden tradition in the UK and is once more Shah-Rak-Uen, 'the place of pleasure and delight'.

Marilyn Brown was an investigator at the Royal Commission on the Ancient and Historical Monuments of Scotland from 1978 until her retirement in 2012. She had particular responsibility for designed landscapes and garden archaeology, an interest which culminated in the publication of Scotland's Lost Gardens in 2012. Marilyn discussed the King's Knot, Scotland's finest surviving early modern garden, created for James VI and I as part of more extensive gardens beneath Stirling Castle. This is a distinctive formal design, with a two-stepped hexagon elevated some 3m above its surroundings and a lower, simpler square to the west. It has survived largely through the grounds being converted to pasture, though the construction of a turnpike road in 1813 cut across the west end. It was thought that the King's Knot had no close parallels in Scotland, but detective work has revealed two others. At the Lincluden Collegiate Church in Dumfriesshire, an early earthwork motte was re-moulded to create raised, star-shaped terraces. These were first described by Thomas Pennant in 1769 and, like the King's Knot, were possibly prepared for James VI and I. This design re-emerged in 1922 and has been reconstructed. Closer to Stirling, it is now realised that a terraced garden surrounds Linlithgow Palace, again for James VI and I, built perhaps in the 1630s. This is clear from the sketch made by John Slezer (1659-1717). In 1680 there were two terraces, which later became five, leading down to the Watergate. The closest parallel may have been Somerset House in London, constructed for Anne of Denmark but destroyed a century later. These designs would have been much more intricate than the grass we now see, with low hedges, paths coloured with coal-dust, brick or gravel and features such as a sundial, or maybe a fountain. There would also have been parterres, ornamental arrangements of flower beds.

The history of Callendar Park in Falkirk was reconstructed by **Geoff Bailey**, Keeper of Archaeology & Local History at Falkirk Museum since 1984 and author of publications ranging from the Antonine Wall to Falkirk's maritime contribution to WWII. Geoff made the point that public access to the grounds of Callendar has been the norm rather than the exception, and that

the boundaries had been relatively 'porous'. The site has great antiquity and continuity as a centre of power from the late Iron Age hill-fort, found only 15 years ago, to the Wall, incorporated into the later park, a large 9th century AD timber hall and to the medieval thanage. A "strong" 15th century castle was accompanied by a deer park, but there were common rights to fuel. Timber was used in Linlithgow Palace and south of the castle the estate became more of an industrial site when coal began to be worked.

In 1681 a formal, walled garden with an avenue and other roads was laid out for the Earl of Callendar, and when William Forbes bought the estate in 1783, 15 foot (4.6m) high stone walls seem to have excluded other people. Despite this, there was farmland in view at the front of the house. Common rights were, however, revoked and innovative piped drinking water which went to Falkirk was re-directed to the estate stable-block. Forbes introduced a 'naturalistic' parkland and prevented the Edinburgh & Glasgow Union Canal from spoiling the view, followed in turn when the railway was kept at bay in the 1840s. Now only the mausoleum is owned by the Forbes family, lying within the Forestry Commission-owned woodland. Since 1963 the park has been owned by Falkirk Council. Much of the former grandeur has survived amid plans for re-development and open spaces lie cheek-by-jowl with public tennis courts and facilities.

Lorna Innes graduated in archaeology at the University of Glasgow in 1993 and, despite spells away from Orkney to Essex and five years as the first St Kilda Archaeologist for the National Trust for Scotland, has always been drawn back to central Scotland. She introduced the Glorious Gardens project, which she manages through Northlight Heritage. This project, its 'pilot' stage coming to fruition, is funded by Historic Environment Scotland and the Heritage Lottery Fund. It has focused on the Falkirk region, south and east of the town of Falkirk and the Clyde Valley between Hamilton and Lesmahagow. It introduces volunteers to the varied techniques of documentary and archaeological surveys in exploring designed landscapes, some of which are neglected and forgotten. Volunteers record the properties, studying photographic records, recording trees and gardens, undertaking documentary research. This includes visits to the Royal Commission on the Ancient and Historical Monuments of Scotland and the National Library in Edinburgh, where they explore family histories and old maps.

Powfoulis, for example, was a large estate on the Forth estuary between Airth and Grangemouth. The estate has shrunk and is now the site of the Powfoulis Manor Hotel, approached from the west. Originally, in the 1680s, the driveway was from the east, from the river Forth, and the original gateposts still survive. Cartographic sources like Pont's map of the 1590s and the mid-18th century Roy Survey aid archaeological investigation of, for instance, the newly discovered heated walled garden. Similarly,

Muiravonside can be traced on Pont, its subsequent formal gardens later replaced by parkland. Carronvale House is a category A listed country house in Larbert, a large two-storey house with neo-Georgian details. Its outer walls date from the 18th century, with two new wings added in the 1820s and then extensively remodelled in 1897. Such designed landscapes were frequently redesigned and earlier features now lie derelict to be re-discovered in the Glorious Gardens project.

Urban landscapes were the focus in the afternoon, and their futures as reserves for wildlife. The British Trust for Ornithology initiated its Garden Birdwatch Survey in 1994, a simple enough concept in which volunteers in houses throughout the UK record each week the maximum number of each species of bird to visit their gardens. Some 15,000 volunteers return 6.7 million weekly reports. It is the largest year-round garden bird survey in the world and unique in its scale. John Wilson, Garden Birdwatch 'ambassador' for Lothian, revealed some of its 17 years of findings. House sparrows, despite their name, have declined steadily in towns as well as in rural areas, perhaps as nesting sites have been lost. Starling populations have also fallen, maybe for the same reason. Numbers of greenfinches have also declined, possibly as trichomonosis jumped species from collared doves. 'Winners' include wood pigeon, which increasingly displaces collared doves in our gardens. Goldfinches are also thriving in our gardens having moved from farmland, where they are in decline, for reasons not yet clear but which probably include increasing mortality in the wild in 'hard' winters. Nuthatch populations can be seen to be moving north into central Scotland, probably as a result of climate change. Redwing, a winter migrant from Scandinavia, was widely reported in gardens for the three years 2010-2012. In England blackcaps are now finding it easier to migrate from the continent, avoiding those difficult and energy-consuming, longer journeys and some are overwintering precisely because of the provision of supplementary foods and the reliability of bird food supplies in British gardens.

Human or anthropogenic habitats are now critical for species like sparrow, blackbird, greenfinch, starling and robin. Some rural species readily move into gardens in bad weather because we put out food and long-tailed tits can be seen in built-up parts of Glasgow. Scottish gardens are best for brambling and siskin, the latter reliant on Sitka spruce seed. In general, garden birds are thriving – species numbers in gardens are increasing - but we should be aware that this may indicate that things are not so good further afield.

'On the Verge', founded in 2010, is a young affiliation of volunteer conservationists who are demonstrably changing our urban spaces in Stirling. **Leigh Biagi**, its founder, gave us some insights into their work. Alerted by Professor Dave Goulson at Stirling University and the Bumblebee Conservation Trust, and concerned at the near-extinction of bumblebees and

the failure of pollination, Leigh and 10 like-minded volunteers began to sow seeds of wild flowers on road-side verges. They engaged with community groups, schools, allotment-holders and Stirling Council. Permissions were gained, ground was prepared and then planted, maintained and scythed. Stirling Council allowed them to work on 25 large sites and became willing partners. The Council policy is now to sow wildflowers as it is good public relations and there are significant savings in maintenance as grass-cutting is needed much less. Seed selection is critical. 'On the Verge' does not sow just the pretty annuals, though these catch the eye. It's not cost-effective and perennials are needed to attract bees. The mean number of bees visiting perennial species in years 2-3 is seven times that visiting annuals. It's worth listing the flowers in the mix which feeds the pollinators in Stirling's urban spaces: Yarrow, Kidney Vetch, Clustered Bellflower, Common Knapweed, Meadow Cranesbill, Field Scabious, White Deadnettle, Meadow Vetchling, Toadflax, Ox Eye Daisy, Birdsfoot Trefoil, Selfheal, Yellow Rattle, Red and white Campion, Red and White Clover, Ragged Robin, Bush Vetch and Hedge Woundwort.

Falkirk has inherited an industrial past. The final two talks of the day looked at two different ventures to bring wildlife and a sense of the countryside to the town. Clare Toner began working for the Scottish Wildlife Trust in April 2016 as the Seasonal Ranger at Jupiter Urban Wildlife Centre, and is now the Falkirk Reserves Ranger, also looking after five other reserves in the Falkirk area. She studied zoology at Glasgow University and fell in love with the Scottish countryside. The Jupiter Centre is an un-prepossessing 4.2 hectare strip of land in Grangemouth, formerly an ICI dyeworks, adjacent to a railway sidings and a DIY warehouse. Work began in 1992 when contaminated soil was stripped and replaced, ponds dug and pathways laid. The Centre intended to create habitat diversity, demonstrate the value of wildlife gardening, create a resource for local people and provide formal and informal environmental education opportunities.

Today there are in this small space wildlife gardens meadows that were planted up and are scythed rather than cut, eleven ponds, a wetland and woodland. The trees in the woodland area are all self-seeded, not planted, and include birch, alder and hawthorn. The gardens have different styles with an inventive use of recycled materials. There have been 360 plant species recorded, including four species of orchid (broad leaved helleborine, northern marsh, common spotted, common twayblade), early bloomers like primrose, cowslip and snowdrop, encouraging early pollinators, later flowers like bluebell and lady's smock, and aquatics: yellow flag iris, water crowfoot and reed mace. There are 13 butterfly species, eight species of dragon-flies and damsel-flies and 50 species of birds, including coot, mallard, moorhen (for the first time in 2016), tree-creeper and a heron, and bullfinch and thrush, both on

the Falkirk Biodiversity Action Plan. Foxes, rabbits, hedgehogs, rats, mice, shrews, voles, soprano and pipistrelle bats have all been seen or captured by remote cameras. The Centre also welcomed over 10,000 people in 2015, and outreach is directed to schools and community centres to continue to inspire people to learn more about and care for nature.

The Falkirk Helix, just across the road from the Jupiter Centre, is a different 'beast' in scale and funding but has a similar origin in the demise of the industrial landscape, including land contamination, closure in the 1960s of the Forth-Clyde canal and its subsequent neglect and the removal of many iron foundries in the 1970s. **Keith Jones**, a volunteer at the Helix, was our guide to its recent blossoming as the district began to revive in the 1980s as the population grew. In the 1990s the canal was restored and road-links upgraded and in the 21st century work was undertaken at the Falkirk Wheel and Falkirk Community Stadium and with community groups such as the Communities Along the Carron Association (CATCA). More emphasis was placed on green-space initiatives for community health benefits and 'green' tourism. The Helix is named from the structure of DNA. It is the 'green heart' at the centre of Falkirk, a visible connection between diverse communities, combining and inspiring culture, heritage, recreation, sports, arts and education.

The concept was first elucidated in 2003, a community centre built in 2007, and funding from the Big Lottery in 2011 allowed construction and moulding of the site, the shaping of the Lagoon, its beach and its wetland boardwalk. The iconic Kelpies were created in 2013, the park was opened in 2014 and the visitor centre was opened in 2015 by Princess Anne, indicative of its increasing national and global significance. It welcomed 1,000,000 visitors by April 2015 and 2,040,000 visitors by September 2016.