

Report of the *Forth Naturalist & Historian* 'Man and the Landscape'
Symposium Saturday November 13th 2010

Trees, Woods and People

Several exciting developments, both in our understanding of the human history of woods and their future in the Forth Valley, made 2010 a significant year for the *Forth Naturalist & Historian* to focus in its 36th annual symposium on woodland history, ecology, conservation and restoration in future decades.

Christopher Smout (St. Andrews University) is the leading environmental historian in Scotland, and woodland history is his particular specialism in several major works, including in 2003, *People and Woods in Scotland. A History*, and in 2005, *A History of the Native Woodlands of Scotland, 1500-1920*, with Alan R. MacDonald and Fiona Watson, both published by Edinburgh University Press.

Professor Smout opened the symposium, speaking to the title, *Learning to Love Them: Changing Attitudes over the Centuries to Trees and Woods*. Professor Smout in fact argued that people in Scotland did not have to learn to love their woods: regard for them has been a constant theme over at least the last c. 500 years. When first recorded, woodlands and forests were seen as 'fair' and 'beautiful', regarded with warmth and familiarity rather than fear or hostility. This view might be traced to the profound regard for nature (animism) of the Gaelic world, with its way of embellishing different tree genera with human characters, passed down to us from Irish traditions. This is not to deny an intimate knowledge of the economic value of trees and woods or the innumerable uses to which wood was put by all social classes, from construction to tan-bark, coppicing for charcoal and simply the conservation of woods for sheltering livestock.

The uses of woods began to be contested in the 18th century. Woods gained value for timber by landowners and tenant access for fuel began to be denied. But the romanticism that acted as counterpoint to this new hard-edged world also encouraged new planting of trees simply for their beauty and aesthetic value. Wordsworthian respect was the natural precursor to the more ordered sense of landscape promoted in the early 19th century by authors such as Gilpin, and later Ruskin, who viewed utility with hostility. Contemporaries of Ruskin shifted focus also, from woods to trees, with the rise of arboreta and the extraordinary journeys of the Victorian plant hunters. This fascination with novelty faded in the early 20th century, particularly as the new science of ecology asked us to re-evaluate our own woodland heritage. Tensions between conservation and afforestation built, but from World War II, but with the advent in the First World of a post-industrial society has come a more nuanced, multi-layered appreciation of the value of woods to our health, leisure and

well-being. We may not have rediscovered Gaelic sensibilities, but we have perhaps reached a new balance between economy and ecology.

Coralie Mills is a dendro-chronologist and Honorary Fellow at St. Andrews University. For the last few years she has worked with **Peter Quelch**, a woodland ecologist, and **Mairi Stewart**, a historian, in reconstructing the *Woodland History around the Bealach nam Bo, the 'Pass of the Cattle', above Loch Katrine*.

The project was undertaken for the Forestry Commission, to further plans to restore woodland and conserve biodiversity, and working closely with the Great Trossachs Forest Project: a summary is accessible on (www.dendrochronicle.co.uk). The study area is on the southern shore of Loch Katrine, off the beaten track, though readily viewed from the SS Walter Scott steamship. Early documents from the late 14th C record a royal hunting forest, Glen Finglas, and this declined only from the late 17th C, a time of general decline in Scottish Hunting Forests. By In AD1669 timber had overtaken hunting interests. There were also farms within the forest, though, with estate documents indicating livestock production and dairying: rents were paid in cheese.

The hills here have extensive wood pastures, areas used to support animals as well as maintain trees for economic use. A difference existed between the forest, which was out of bounds, and the wood pasture which was an accepted part of a farm's resources. The woods are of oak and ash, with oak pasture having widespread archaeological remains of settlements, agriculture and woodland use. Analysing tree rings from ash trees demonstrated cyclic patterns of growth reduction and recovery in the 18th C, probably from pollarding on a 10-12 year cycle for fodder, poles and fuel at the adjacent pre-improvement farm. Over the *bealach* is open oak wood pasture, with squat, low, burry oaks with birch, alder and crab apple. The oaks were not pollarded, although their shapes suggest they had been coppiced early on, and they survived the arrival of large sheep flocks, perhaps protected by a substantial stone-faced dyke. Bark for tanning was the most important product of coppiced trees, with charcoal for the burgeoning iron industry.

The project has shown the history of a wooded cultural landscape where people lived and worked, where hunting, farming and woodland use co-existed for many centuries. These uses helped shape the biodiversity and landscape that is valued today. The challenge now is how to manage and conserve these qualities when traditional land management has long elapsed and the people gone.

Syd House, Conservator for the Forestry Commission Perth and Argyll Conservancy explored the role of *State Intervention in Forestry* – the ever-changing role of the Forestry Commission in Scotland's rural scene from 1919 to the present day. After World War I, Scotland had around 4 % woodland cover, the lowest in Europe. Imports, principally from Russia, fed timber

requirements. Tree planting was by enthusiasts and through bodies such as the Royal Scottish Forestry Society. But World War I was the stimulant to establish new woodlands, with the Acland Report of 1917 recommending state intervention in the need to secure a timber reserve in time of war. Afforestation was seen as a way to increase productivity and population in 'waste' lands.

The Forestry Commission was formed in 1919, with the earliest plantings in Moray, the Great Glen and Wester Ross, science-led, matching softwood species to site properties and using mainly Norway spruce, Scots pine and European larch. Poorer and wetter ground demanded ploughing, draining and fertilising, suited to Sitka spruce. Significant complaints about the predominance of conifers emerged before World War II, mainly in England, and a demand for greater access to the countryside led to National Forest Parks, the first Argyll Forest Park, established in 1935.

The new forests were too immature to contribute to war effort, and timber shortages re-emphasised the need to maintain afforestation after World War II. The Forestry Act of 1945 made the Forestry Commission answerable to a Government Minister. Despite grants for private forestry targeted mainly at restocking felled woods, private forestry proceeded only slowly, and the Forestry Commission was again the main driver, and with competing interests for the land from farming, forestry was more confined poorer ground. In 1949 some 6.5 % of Great Britain was covered in trees, with 545,000 ha in Scotland, compared to 400,000 ha in 1919.

The 1957 Zuckerman Report emphasised the economic and social benefits to the country, and further emphasis on Sitka spruce. Rapid expansion was driven by targets such as 15000 ha planted per year for 1969 and 20000 ha per year in 1976. Almost all new woods were coniferous, with new industries developed such as the Corpach pulp mill and forest villages constructed for workers. At the same time due regard was given to wildlife and woodland conservation, and the beauty of the countryside stressed by the appointment in 1964 of a landscape architect in 1964, and public access granted to all Forestry Commission forests was followed by visitor facilities from the 1970s (the David Marshall Lodge was opened in 1960).

The removal of tax incentives for planting trees in 1988 indicated that public benefits rather than simply timber production should be a goal. A policy of planting broadleaved trees was introduced driven by environmental, and later social, objectives that led to the managing of woodlands for habitat, access and landscape enhancement as well as community engagement. By 2005 there was 17 % woodland cover, 10,000 people employed, 10,000 ha of new woodland planted per year and 8,000 ha replacing felled trees, contributing around 5 million tonnes of timber harvested per year. The Forestry Commission had become the largest provider of outdoor recreation facilities in Scotland, being awarded a World Wide Fund for Nature's 'Gift of the Earth' in 2001, the first state forest service in the world to receive this. And the future?

The vision is that Scotland will be renowned as a land of fine trees, woods and forests which strengthen the natural environment and which people enjoy and value.

Ancient trees or 'veterans' are today valued for their rarity and their romanticism as well as their antiquity. **Edward Parker** is Project Manager of the *Ancient Tree Hunt* for the Woodland Trust, working with the Ancient Tree Forum and the Tree Register of the British Isles, with support from The Heritage Lottery Fund and the Esmée Fairbairn Foundation. Scottish Natural Heritage is a partner in Scotland.

The UK is one of the richest parts of the world for ancient trees. Many have historical associations. Some might link the present day with the original wildwood. All carry messages about conservation and diversity into the future. 'Ancient' trees are described as being in their third and final stage of life, of great interest biologically because of the complex ecosystems they support as well as aesthetically and culturally. 'Veterans' are mature trees, in their second stage, and 'notable' trees of local importance or of personal significance, the next generation of 'veterans'. Ancient trees survive in former Royal forests, as trees used in the past to mark boundaries, on common land, in 18th century parkland and in churchyards where they are revered. The Fortingall Yew on Tayside, for example, is perhaps 5,000 years old, believed to be the oldest tree in the British Isles, maybe the oldest living thing in Europe.

The project began in 2006, with the aim of ensuring as many ancient trees as possible will survive for as long as possible, with the main objectives being to record 100,000 'veteran' and 'notable' trees by 2011, when the project ends. The main activity is finding out where ancient trees are, mapping their survival, with the help of the public. The project has already recorded 65,000 such trees, 4 years into the project, and the public are encouraged to record trees they know of but which might otherwise go un-recorded, and record visits to trees already known (www.ancienttreehunt.org.uk). For each tree, the location, species, girth, form or shape are recorded, dead wood in the crown and on the ground, and the holes and hollows that are typical of such trees and which support components of the intricate ecosystem that characterise these trees; their fungi, invertebrate fauna, epiphytes and parasites and bats. Training events are organised in the collection of these data. A comprehensive map will help make the public more aware of these trees and their significance and beauty, allow monitoring of current threats and future losses, provide evidence for their greater protection, plan how best to conserve them and campaign to ensure that trees in the countryside can become the 'ancients' of the future.

Simon Rennie is Project Manager for the Central Scotland Green Network, and considered the need for and the value of the major new initiative, the *Central Scotland Green Network and Ecological Corridors* (www.centralscotlandgreennetwork.org). Initiated in 2009, this is a major governmental National Planning Framework 2 programme, the only project to relate directly to improving the environment. All relevant national and local governmental have come together

in a long-term vision for central Scotland, including the Forth Valley, over the next 20 years. Goals have been set for 2030: to ensure every home in central Scotland is within 300 m of an attractive, safe and well-maintained green space or accessible countryside; to improve the green infrastructure; develop a high-quality environment for business, with derelict land being made-over; create a three-fold increase in community allotments, gardens and orchards; increase by 50 % the woodland cover; generate an integrated habitat network providing corridors for wildlife; make green space accessible to all; providing a community resource, improving health and well-being, enhance the nature and landscape of central Scotland and help mitigate climate change.

The initiative is responding to the need for a step-change in environmental quality in a region typified by historically high levels of social deprivation. 19th century coal mining left a derelict, devastated region. Trees and woods nevertheless make up 12 % of the land in the Central Region, though much grows uncared for on waste land. One aim of the project is to achieve a 50 % increase in woodland cover, to 24 %. In addition to enhancing environmental quality for residents, there is a need to enhance the biodiversity value of the region, and to absorb or sequester CO² in mitigating for 'global warming'. Ecological corridors provide much more, though. Strategic tree planting will link together the denuded, fragmented landscapes of today, providing routes for migration of animals and herbs, ensuring the mixing of otherwise isolated populations and the survival of genetic diversity.

The Science of Woodland Restoration and the application of genetics to future woodlands in particular were highlighted by **Cecile Bacles** of Stirling University. Cecile described her work at the new native wood of Carrifrans in Moffat Dale in the Southern Uplands (see Ashmole, M. and Ashmole, P. 2009. *The Carrifran Wildwood Story*. Jedburgh: Borders Forest Trust). The mission statement of the Carrifrans Project is to re-create in the Southern Uplands of Scotland an extensive tract of mainly forested wilderness, with most of the rich diversity of native species present in the area before human activities became dominant. Around the world ecologists are developing techniques to restore degraded and exploited ecosystems in restoration ecology, linking the past with present day interventions and to the future, ensuring the sustainability of interventions. The need is to create a dynamic and expanding woodland resource which has the capacity to evolve in the future and respond to evolutionary changes. It is the genetic resource of tree populations that must provide this resilience, through planting of locally collected seed and allowing only natural, not human-aided regeneration.

The science of population genetics is a detective story. A seed is formed usually from two parents. A DNA profile can be extracted from the seed. The seed falls close to its parent and neighbouring trees, but the other parent that supplied the fertilizing pollen is not necessarily one of these. To identify potential parents and potential parent-pairs for a given offspring seed there is the need to locate all potential trees. To find the parent-pairs of ash trees

(*Fraxinus excelsior*) at Carrifrans, the DNA profiles of 150 mature trees were extracted from five separate forest remnants of varying size and isolation. From these the genetic compatibility between offspring and potential parents could be found. Some parent trees grew many kilometres from their seeds at Carrifrans, because in such an open landscape, wind dispersal allows pollen to travel a long way, and although far apart, ash forest remnants can be genetically connected and genetically diverse, so that genetic diversity can be maintained in future generations. Restoration must maintain this natural connectivity. The maintenance of this diversity is critical for the future, because only by mixing the DNA of parents tolerating different soil and climatic conditions can new trees evolve to meet a changing environment.

The future of forest restoration in the Forth Valley was outlined by **Liz Shortall**, now Development Officer for the Forestry Commission in Scotland, but until recently the Project Manager for one of Europe's most exciting forest restoration programmes, *The Great Trossachs Forest* (www.scottishforestalliance.org.uk). This involves all the major woodland conservation bodies in Scotland, The Woodland Trust, the RSPB and the FCS, supported by British Petroleum: no wonder that Ms. Shortall subtitled her talk, '*Why Working Together Achieves So Much More*'. One of the partners working together in the Great Trossachs Forest, the RSPB, was represented by **Fraser Lamont**, Site Manager at the Inversnaid Reserve, who outlined the work undertaken to re-afforest with native trees Inversnaid and the adjacent Garrison Estate, *From Loch side to Mountain Top*.

The vision of the Forest Alliance is truly far-reaching, some 200 years into the future. The needs are pressing, the trees planted to conserve and enhance biodiversity and make a major contribution to absorbing and locking away carbon. This process, sequestration, is predicted to capture 377,830 tonnes of carbon or the equivalent of nearly 1.4 million tonnes of CO² in the first 100 years of the project.

The forest covers an area of 16,650 hectares of plantation forestry and rough pasture, converting to a more natural mix of habitats, with moorland, montane scrub, wetland and pasture the land east of Loch Lomond from Inversnaid to Loch Katrine and Glen Finglas. At Inversnaid there are 450 ha, across which 16,000 trees are established or planted. In 200 years the plan is for more than half of this (some 250 ha) to support 125,000 trees. At Inversnaid and Garrison the estates together are home to many characteristic birds, redstarts with eleven calling birds when last monitored in 2007, pied fly-catchers, black grouse, the rare twite, and the territories of two golden eagles include the reserves. Woodland restoration sometimes creates tensions between divergent conservation needs. The complex habitat demands of black grouse are typical. They need open ground for leks, wet areas and mires for insect food and woodland to shelter in winter. The estates are also managed to support highland cattle and more than 1000 sheep, and pressures exerted by these livestock have an impact on forest restoration plans. Conventional tree

exclosures, surrounded by fences to keep livestock from seedlings, are harmful to many birds, particularly low-flying black grouse, but attempts to establish seedlings without erecting fences has failed. With forest restoration having a higher profile, solutions to this problem has led to the erection of fences which are made more visible to birds by vertical struts.

Further east the land around Loch Katrine, 900 ha are home at the moment to 300,000 trees but 800 ha will support 1,183,000 trees in the year 2200, and in Glen Finglas, more than 1 million trees across half the 2110 ha.

Richard Tipping

BOOK REVIEWS

Rebirth of a Palace. The Royal Court at Stirling Castle by John G. Harrison (2011). Edinburgh: Historic Scotland. ISBN 978 1 84917 055 0. £22.95.

This sumptuous, richly illustrated book is a celebration of the ten year effort, led by Historic Scotland, to interpret in stone, wood, fabric, costume and jewellery the Royal Scottish Court at Stirling, the palace within the castle as it was in 1549. It is written by one of our most eminent local historians, John Harrison, who himself was engaged over the decade of the work and the translation of archival details into the real 'world' that we can now be a part of. As we learn in this book, the palace we see is an interpretation more than a reconstruction. It is an evocation of a particular spirit and a precise time in history as well as a stunning tourist attraction.

The palace is a complex of eight rooms. Four are for the King, James V; three for his Queen, Mary of Guise. The two bedchambers were side by side but with access controlled by Mary! In the middle was an inner courtyard, the 'Lion's Den', though there is no evidence that this was the predecessor to Blair Drummond. One of the guiding principles of the project has been that everything we see has been deeply researched: *there is a rationale for the inclusion of every feature and artefact* (page 32). This attention to detail can be seen in the reasons for 1549 to be that one point in time. Though James V ordered the building of the palace in 1538, and some work was underway in that year, his death on Solway Moss in December 1542 means he may not have seen its completion. The palace in 1549 represents the complete work. But without a King, his chambers are presented more starkly than those of his widow.

Rebirth of a Palace is as much a story of the conservation and re-presentation to the public as it is a history, presented in seven wonderfully informative chapters over 165 pages with beautiful colour illustrations on almost every page. We learn the background to James' vision in Chapter 1. James was no marginal monarch: he was deeply receptive to continental ideas and images. His first young wife was the daughter of the French king; his second, Mary of Guise, almost as well-connected. James could build with *magnificence hitherto unseen in Scotland* (p. 16), "telling the world that he understood what being a Renaissance king on a European model was about" (p. 22). In Chapter 2 we learn how the palace survived, through James VI becoming James I of England, and the slow decay that ensued but which led in 2001 to the £12 million rebuilding. Subsequent chapters describe the architecture of the building, its statuary and interpretations of the many sculptures, the furniture and furnishings of the rooms, the tapestries and carpets and the costumes and jewellery recreated for today's guides and interpreters. We meet the conservationists who were engaged on the project, the heraldic expert, the stoneworker, painters, embroiderers, painters and furniture-makers, though not the candle-stick makers, although the candle sticks themselves are included, as too is the conspicuous consumption of candles in the Royal household. Embedded in the writing are little illustrations like this, which emphasise the role that theatre and display played in the Royal household, even in where doors in the rooms were placed to maximise the obeisance and deference of the Court to the monarch. The text has a deft, light touch. You learn effortlessly. Throughout there are lovely and often surprising observations: carpets were too expensive to have most people walk on them; the king gave used clothes away to his courtiers; Scots greyhounds were among the most highly prized hunting dogs.

And then there are the Stirling heads, reserved for the final chapter. Thirty four survive in some form from a total that might have exceeded 45. Oak for the heads was sourced in modern-day Poland from trees cut in 1539, but the wood may have been re-used from barrels rather than especially commissioned. Nevertheless they were an

extravagance, even for a king, and all about display and dynasty. The replica heads we see, also carved in solid oak, were painted after their installation on the ceiling: a touch of the Sistine Chapel. Many of the heads are photographed in this volume, with several presented as whole-page illustrations. They are superb. So is this book, a rich tapestry in its own way.

Richard Tipping

A History of Stirling in 100 Objects by Elspeth King (2011). Stroud: The History Press. ISBN 978 0 7524 5932 5. £12.99

Elspeth King will be familiar to many as the Director of the Stirling Smith Art Gallery and Museum. Some of the objects in this book have appeared as weekly instalments in the Stirling Story in the *Stirling Observer*, but here they are brought together in a celebration of the city. Inspired by the collaboration between the British Museum and the BBC Radio series, *A History of the World in 100 Objects*, Elspeth presents her own history of Stirling in this delightful pocket-sized little red book. In the deservedly warm introduction, Councillor O'Brien, Provost from 2003-2007, explains the purpose of the book to be a history of Stirling seen largely through the collection housed in 'The Stirling Smith'. This is no straightforward academic history, then. What define Stirling here are the artefacts people have made over the centuries. These give insights that are more tangible, more intimate and more individual than a history based on documents. Everywhere is different to everywhere else, and should be.

The core of the book is in six chapters laid out in chronological order. Each page relates a story about or around an object. The objects are diverse, from footballs to jewels, carvings to lino-cuts, paintings and sculpture. Every object is illustrated, and the two photographers, Michael McGinnes and Silvia Anestikova of the Museum, have provided exquisite illustrations to Elspeth's text. Of the 100 objects, 55 are illustrated in colour. The book begins with Medieval Stirling, which is a little disconcerting when objects and artefacts are among the few sources from which to understand the period before history. Chapters follow on to the Renaissance, here reckoned to be the 16th and 17th centuries, the 18th, 19th and 20th centuries, the last incorporating the first decade of the 21st century, with the most recent object a sketch of Judy Murray, mother of Andy and Jamie, in 2008. With one page to an object, there are 17 from the 300 years of the Medieval period, 12 from the 16th and 17th centuries, 9 from the 18th centuries, and 62 from the last 200 and a bit years.

The real delight, to me, was the wonderfully imaginative way in which the illustrations allow the mischievously skittish text to flow across the centuries, making connections only someone steeped in Stirling's story could find, weaving a delightful temporal tapestry. As examples, the first illustration relates to Alexander II awarding a market to the royal burgh in 1226 but the illustration is the early 20th century stained glass window from the Municipal Buildings, and the essay links the monarchies of Alexander II to George V. Bannockburn is illustrated across two pages but the first is a 1930s cigarette card and we learn about Stephen Mitchell's tobacco company and his daily journey to work from Boquhan to Glasgow. I started to conscientiously read the book in order, as a history, but the real pleasure, I found, is in just dipping into it almost randomly. Each story is self-contained though the sequential writing for the *Stirling Observer* means some information is repeated here on occasions. As a history it is quirky, deliberately so, and fun. You absorb the information almost without knowing, by a form almost of osmosis. And at the end you stand back, and like looking at a tapestry, you can't see the threads but you can see the picture, and this tapestry is delightful to behold.

Richard Tipping