

Tree Ring expert visits Wardlaw Mausoleum



Dr Coralie Mills, a dendrochronologist and environmental archaeologist from the University of St Andrews, recently visited the mausoleum and other historic buildings in and around Kirkhill to examine their timbers. She analyses the tree rings in samples from suitable timbers to record their ring-width patterns to establish the date when the tree was cut down and therefore the age of the building, or at least when these timbers were added. She is part of a bigger project that is seeking to create a 2000-year climate record of Scotland using native Scottish pine, as the width of the rings you see when you cut a tree down give an indication of the growing conditions in that year and therefore the climate. Pine is especially good for climate reconstruction work. Her visit was part of an assessment phase, looking for buildings with suitable timbers to return to sample for the project.

Her particular interest on this visit to the Highlands was to identify buildings that may have used pine timber from Glen Affric and Strathglass that pre-date the Jacobite rebellion in 1745. The mausoleum was remodelled in 1722 by Simon Lord Lovat, the 'Old Fox' of the '45 Rebellion so it would fit this timescale. It had been built by Hugh, Lord Lovat, in 1634 to house the remains of his father and other Fraser relatives. At that time Glen Affric was part of the Clan Chisholm lands but to get the timber to a market it would have been floated down the River Glass through Fraser lands to Beaulieu. Here it would have been used locally for building houses or ships (Beaulieu was a centre of ship-building at this time) or exported by sea to other parts of Scotland and England. It could therefore be the source of the roof timbers in the mausoleum.

Dr Mills visited the mausoleum and was assisted by Fred Geddes, architect of the restoration in 1998 and a Trustee of Wardlaw Mausoleum Trust, his son George, an archaeologist with RCAHMS in Edinburgh and Erik Lundberg from KBCT. She climbed a long ladder up to the attic and examined the roof timbers, almost all of which were able to be retained during the



restoration project. Unfortunately the sections she examined did not have enough rings for her to take a core and determine a date. For this she needs an absolute minimum of 50 rings, preferably 100, as the rings are read like a bar-code in a supermarket and insufficient rings don't allow a reading to be made. This means that the trees were cut down before they could grow more rings, after 20 or 30 years at most. While disappointing for us, this was interesting in

itself, as together with the preponderance of young timber in other 18th century buildings, it may indicate that plantations of timber were being laid out by Highland landowners around 1700 more extensively than previously thought. She had more success with the pine used for the hatch cover to the crypt, which Fred advised was present before the restoration. The hatch is made of substantial pine boards most of which have 80 to 100 rings. The ring sequences were photographed by Coralie; she will measure the tree-ring width sequences from the images and report back any dating results for the timber.



Dr Mills was based in Beaulieu for this visit and examined other buildings in the wider area that could fit her timescale. In Kirkhill she looked at the Old Post Office House on Wardlaw Road, owned by Mark Lomax and Karen Williamson. It was occupied by Cumberland's Redcoats after the Battle of Culloden and therefore is of the correct period. Unfortunately she identified its roof timbers as dating from the 19th century when it must have been reroofed, possibly after a

fire or decay. The tell-tale signs are circular saw marks, nailed joints and slim rectangular cross-sections to the timbers.

She then looked at Wardlaw Church, assisted by Alasdair Morrison, an Elder in the church. It was built in 1790, and therefore out-with the desired dating but could have contained re-used

timbers as part of the walls were built using stone taken from the original church in Wardlaw Graveyard. The remains of the church can be seen on the west end of the mausoleum. In this case she identified the roof timbers as freshly cut for the 1790 construction, with no obvious evidence of recycled earlier material, and at this sort of date, for a large roof like this, the timbers could easily be of Baltic origin. At that time much timber was imported from this region as it was found to be straight and strong and was used extensively in Fort George for example.



She next looked at the Old Schoolhouse, opposite the church, owned by Robert and Judith Livingston. This was the original school and schoolmaster's house for the village and one its earliest buildings. While the timbers in the oldest parts of the building are original, with vertical saw marks and carpenter's marks (incised Roman numerals to help in assembly), they have too few rings to be dated, estimated as being cut from

pinus which were 30 to 40 years old when felled.

The next building to be examined was Wardlaw House owned by Gordon and Sue McLaren. This was Wardlaw Manse until it and its Glebe Lands were sold off in 1934. The glebe was the ground given to the minister to grow food and keep a few animals and stretched from Lantern Cottage on Wardlaw Road to the graveyard extension. Wardlaw House replaced an earlier manse in 1776. This is also after the preferred date but it could



have used older timbers. Coralie examined the roof timbers in the oldest part of the house; they are original 18th century timbers, with vertical saw marks or adzed surfaces, carpenter's marks in Roman numerals and dovetailed joints on the collar ends, but again all the timber is young, with around 30-50 rings at most. It also has interesting 'wattle and daub' partitions in the attic.



She also examined the steading in the garden. We wanted to explore the possibility that this could be an extended form of the previous manse occupied by James Fraser, minister here 1662-1709 and the author of the Wardlaw Manuscript. The building appears to have been used for the minister's coach and horses with an attached cow shed but the spans and form indicate that it was more likely to be a 19th century building for the most part, although the rear part did

have some timberwork which was more 18th century in character, with dovetailed joints, and in keeping with the style of the 1776 manse roof. On inspection, it seems unlikely that the stable block is the former manse.

During the visit Dr Mills heard of a cruck frame cottage in the village that could be of interest as this is a very old type of Scottish house. It is in land at the rear of Fingask Drive and appears to have been unoccupied for some years. The ownership of the house has yet to be established but peering through a window it looks very interesting. It was visited by Inverness Field Club in 1989 and their photographs are recorded on the Historic Scotland Canmore website. Very little has changed since then, apart from the trees growing around the house and largely hiding it from view. It merits further detailed inspection on her next visit if permission can be obtained.

You can find out more about the Scottish Pine Dendro Project here st-andrews.ac.uk/~rjsw/ScottishPine/ and about Dr Mills' work more generally at dendrochronicle.co.uk. If you would like to know more about Wardlaw Mausoleum or to arrange a visit contact Erik Lundberg, Kirkhill & Bunchrew Community Trust on 01463 831742, erik.lundberg@btinternet.com. There is also information on kirkhillandbunchrew.org.uk. Coralie would like to extend her sincere thanks for all the generous help received with access and information regarding Kirkhill's old buildings.

Erik Lundberg

November 2014