

# Exploring Woodland Heritage: Workshop run for CWA at Granttown-on-Spey, Oct 2011



Coralie Mills & Peter Quelch  
November 2011



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# Exploring Woodland Heritage: Report on workshop run for Community Woodlands Association in Grantown-on-Spey in October 2011

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**Prepared for** Community Woodlands Association

**Prepared by** Dr Coralie Mills & Peter Quelch

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**Enquiries to** Dr Coralie Mills  
31/3 Brighton Place  
Portobello  
Edinburgh  
EH15 1LL

**W:** [www.dendrochronicle.co.uk](http://www.dendrochronicle.co.uk)  
**E:** [coralie.mills@dendrochronicle.co.uk](mailto:coralie.mills@dendrochronicle.co.uk)





## 1 Introduction

- 1.1 This report focuses on the Exploring Woodland Heritage training workshop delivered as part of the CWA Knowledge and Skills Development Scheme 2011/12, which is supported by the Scottish Government Skills Development Scheme and the Robertson Trust. This event took place on 27<sup>th</sup> and 28<sup>th</sup> of October 2011, training a total of 11 people. At the suggestion of CWA, the workshop was held in Granttown-on-Spey, making use of the adjacent community woodland owned and managed by a CWA member group, the Anagach Woods Trust, our host body. This report summarises the workshop and gives feedback on the success of the project.
- 1.2 The purpose of the event was to introduce participants to woodland heritage studies, through a combination of field evidence and documentary research, complemented by other approaches, and using the case study woodland to illustrate. The course introduced participants to the various strands of evidence and methods which may reveal a woodland's history, and provided information and resources which would assist them in starting to research their own woodland's history.



Plate 1 Peter Quelch discusses Anagach pine woodland history and age structure with the group on Day 1  
*Photo: C Mills*



Plate 2 Examining historic pine timbers from a dismantled 19<sup>th</sup> C building which has been subject to dendrochronological analysis, now stored at the Granttown Museum, Day 1  
*Photo C Mills*

## 2 Course objectives

- 2.1 The field of woodland heritage is a large and complex one, and professionals in this field spend many years training as woodland history specialists, archaeologists and/or landscape historians, so our objective was to introduce participants to the concept and meaning of woodland heritage, and to introduce the research methods which may be applied. On successful completion the participants would have a much better understanding of what woodland heritage comprises and would have the means to start researching aspects of their own woodland's heritage. They would also have a better understanding of what the objectives of studying woodland heritage might be, and how that information could be deployed in the conservation, management, community engagement, interpretation and

outreach in their own woodlands. They would also gain an understanding of what they might realistically achieve themselves, and when it would be appropriate to obtain professional input, for planning control and formal conservation management planning issues for example. Copies of the main teaching slides and handouts are provided in Appendix 1. Please note that these teaching materials are protected by authors' copyright and are not for reproduction.

### 3 Trainers & participants

3.1 The tutors were Scottish native woodlands expert Peter Quelch and dendrochronologist/environmental archaeologist Dr Coralie Mills, who have worked together on many Scottish woodland history projects. More information about our approach, projects and publications is available on [www.dendrochronicle.co.uk](http://www.dendrochronicle.co.uk) website. We are both members of CWA, and Peter is also involved in member group AGWA in Argyll. Peter Quelch trained as a forester at the University of Aberdeen and for much of his career worked for the Forestry Commission in Scotland as a District Manager and latterly as their Native Woodlands Advisor, before becoming an independent woodlands consultant with a strong woodland history slant and now undertaking consultancy alongside sawmilling. Coralie Mills originally studied botany & physical geography, in an unusual degree called 'Environmental Plant Geography' at Reading University before undertaking a Masters in Environmental Archaeology and a PhD in Dendrochronology at the University of Sheffield, where she trained in the English Heritage Dendrochronology laboratory and applied her research to Exeter Cathedral's roofs and their source woodlands. Coralie has spent most of her working life, since 1988, in the Scottish heritage sector and was for many years Executive Director of AOC Archaeology Group, managing its operations UK-wide and responsible for its strategic business development, while keeping her dendro and landscape history interests progressing. Coralie left AOC in 2009 to devote more time to Scottish wooded landscape history and dendrochronology as a freelancer and also holds an Honorary Research Fellowship at the University of St Andrews. Both tutors are experienced community educators and committed to promoting and sharing Scotland's rich woodland heritage with others.

**Table 1 Participants**

<b><u>NAME</u></b>	<b><u>GROUP</u></b>
Robin Jackson	Laggan Forest Trust
Beth Alder	Laggan Forest Trust
Ros Mills	Community Woodlands Association
Phil Reilly	Individual CWA member
Veronica Ross	Non-Member
Irvine Ross	Non-Member
Pete Robinson	Cree Valley Community Woodlands
Alistair Boulton	Individual CWA member
Basil Dunlop	Anagach Woods Trust
Eamon King	Kilfinan Community Forest Company
Christine Matheson	Abriachan Forest Trust

3.2 The participants and their CWA member group, if any, are listed in Table 1. Six of the 11 represent CWA member groups or CWA itself. Three are individual members of CWA. Two are non-members but involved professionally with forest management and woodlands, and with a strong community involvement in Scottish archaeology. Several participants are also members of the Native Woodlands Discussion Group ([www.nwdg.org.uk](http://www.nwdg.org.uk)), a not-for-profit interest group with which CM and PQ are closely involved, CM being NWDG history rep and committee member and until recently PQ being treasurer. Cross-advertising between the CWA and the NWDG was undertaken as part of the promotion, and will have raised the profile of CWA more widely to NWDG members and may result in some more joining CWA.

## 4 Course activity

4.1 The two day course was arranged as per the programme below, as given to the participants; it was split into two morning indoor sessions, at the Grantown-on-Spey council offices, and two outdoor applied sessions in the adjacent Anagach Woods in the afternoons, with lunch plus tea, coffees and biscuits provided during the workshop. Handouts for each section of the course were given to every participant, including resources sheets, and supplemented with free copies of the RCAHMS excellent SRP (Scotland's Rural Past) Practical Guide to Recording Archaeological Sites, and the SRP community archaeology in action book.

**Table 2 Woodland Heritage Workshop: programme**

Day 1 (27 Oct)	What	Where	Who
9.15-9.30	Registration	Meeting Room	
9.30-9.40	A1: Welcome, housekeeping	Meeting Room	Coralie
9.40-10.00	A2: Introduction: What is woodland heritage? Overview of evidence types.	Meeting Room	Coralie
10.00-10.30	B: Types of historic woodlands, veteran & worked trees, ecological evidence	Meeting Room	Peter
10.30-11.00	C: Tree-ring evidence	Meeting Room	Coralie
11.00-11.30	<i>Tea break / look at books/ tools display etc</i>	<i>Meeting room</i>	
11.30-11.55	D: Woodland archaeology	Meeting room	Coralie
11.55-12.15	E: Woodland Industry & crafts	Meeting room	Peter
12.15-12.30	F: An introduction to Anagach Woods	Meeting Room	Basil Dunlop
12.30-1.30	LUNCH	Meeting Room	
1.30-4.30	G: Overview visit Anagach Woods. On return, visit Museum yard to see dismantled 19thC pine building	Assemble car park	Peter & Coralie
Day 2 (28 Oct)	What	Where	Who
9.30-9.40	H: Introduce the day's activities	Meeting Room	Coralie
9.40-10.10	J: Introduction to field techniques & to documentary evidence & resources	Meeting Room	Coralie
10.10-11.00	K: Historic map evidence & introduce Anagach Case study tasks	Meeting Room	Peter
11.00-11.30	Tea break	Meeting Room	
11.30-12.30	Historic map desk work in prep for fieldwork	Meeting Room	Coralie & Peter
12.30-1.30	LUNCH		
1.30-4.00	Field studies in Anagach Woods: plane-tabling survey of sawmill and tree-coring to age early pine plantation at Kyntra in Anagach Woods, in two groups, swapping over	Kylintra, Anagach	Coralie & Peter
4.00-4.30 ish	Final round-up /tea	Meeting Room	

- 4.2 On Day 1, talks in the morning introduced the concept of woodland heritage and the approaches to researching it, and the slide shows were broken up by a session on woodland crafts and industry where Peter demonstrated his fine collection of woodland craft tools and products, making the point that as a society in Scotland we have become quite disconnected from woodland use and knowledge, but that only a few generations ago our rural ancestors would have been expert at many aspects of wood craft, and that this connection may be rebuilt in part by investigating a particular woodland's history of use. During this first morning, Basil Dunlop of Anagach Woodland Trust kindly gave us an introductory talk about Anagach woods, their character, history and the means by which the Community purchased and manages them. This timed well, just before our first 'overview' visit to the wood that afternoon (Plate 4), when we explored its origins, age structure, silvicultural history, regeneration, bog pines and so on, and looked amongst other things at the difference that land-use history makes to species, structure, ecology, understorey and so on, contrasting previously managed sections with areas of croft woodland and natural regeneration. We also examined a very old 'fir-candle' pine tree (Plate 3), which has had resinous wood strips axed from it in the past, a traditional practice in the Highlands by the rural poor as a substitute for candles. On the way back to base at the end of the afternoon we stopped at the Granttown-on-Spey Museum grounds where the timbers from a 19<sup>th</sup> C dismantled post-and-beam structure are stored under a shelter (Plate 2). These very likely hail from local woodlands, and make the point that in the past local woodlands supplied local construction. We also examined traditional wood-working marks, such as axe and adze marks, plus some early circular-sawmilling marks which led to a discussion of the history of sawmilling in Scotland and on this part of the Spey in particular.



Plate 3 The 'fir candle' tree, Anagach Woods, part of our Day 1 field visit *Photo P Quelch*



Plate 4 Peter Quelch leads Day 1 discussion in the field of Anagach pine woodland history *Photo C Mills*

- 4.3 This sawmilling discussion tied us in nicely into Day 2's activities which included researching and recording archaeological remains of the old Kylantra sawmill at the west end of Anagach woods. This was preceded by an introductory morning of talks and hand-on work regarding woodland heritage research methods, both documentary and in the field, including use of historic maps, a crucial element of any landscape history work. We provided each participant with a copy of the RCAHMS excellent SRP practical guide to recording archaeological sites



and the SRP community archaeology book. Other online resources were also given in handouts. In the afternoon, we split into two groups to undertake plane-tabling survey of the Kylantra sawmill's archaeological remains with Peter and to core some pines associated with an early field dyke re-used as a boundary for some of the earliest (mid-18thC) pine plantation at Grantown-on-Spey. Coring was undertaken with the kind permission of the Anagach Woods Trust, and the ageing results will be given to them when the sample analysis is completed. The two groups switched over half way through the afternoon so that everyone had a chance to participate in both plane-tabling and tree-coring. These were brief taster sessions inevitably with the limited time available, but gave people an understanding of what such approaches could achieve in terms of understanding and recording a woodland's history.

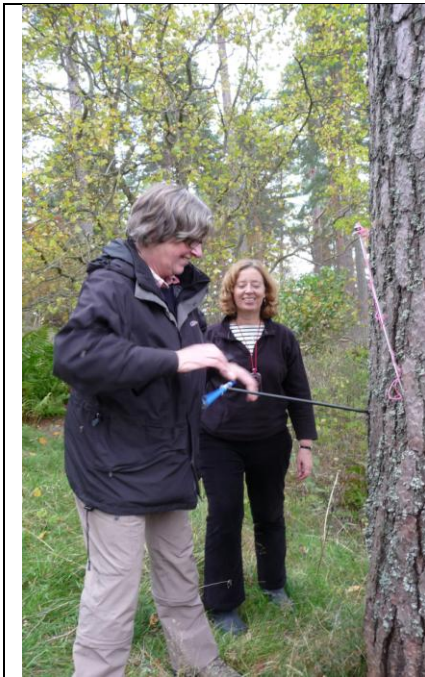


Plate 5 Beth tries her hand at coring in one of the older sections of Anagach woods



Plate 6 One of the cores taken at Anagach by the participants, for tree-ageing purposes

## 5 Conclusions

- 5.1 The group, despite mostly having no prior heritage experience, were very engaged during the workshop, and could see how they might apply their new knowledge to their own woodlands and projects, for a range of purposes including community engagement, education, interpretation and management. They asked many intelligent questions and indeed made very good observations including when we were working on the casework tasks. Understanding woodland history requires a multi-disciplinary approach and of course each individual can bring their own expertise to bear in a different and complementary way.
- 5.2 In the process of the workshop we uncovered some of the fascinating history of Anagach Woods and its intimate connection with the development of an 18<sup>th</sup> C New Town (Grantown-on-Spey), but the real point was to convey the research methods that the participants could apply to their own woodlands elsewhere. From the comments at the end of the workshop

and the feedback it would seem that the participants went away informed and enthused about taking such applications forward.

- 5.3 Originally designed for a maximum of 12 attendees, the level of interest was high and we were asked by CWA to allow for up to 16 attendees; some 19 individuals had signed up at one stage or another, a measure of the level of interest, though some had to withdraw before the workshop due to other demands on their time. We subsequently ran a shorter version of this workshop, a 1-hour taster event, at the CWA conference on 12<sup>th</sup> November, and were oversubscribed with folk standing in the doorway to hear, and we think over 20 attendees. We have also been asked by another CWA member group about running the course again for them in their woodland. The point being made is that there is a groundswell of interest in woodland heritage within the CWA membership, which is so far largely untapped, and it could be a powerful means of expanding community engagement as well as having great potential for attracting new sources of grant-funding.
- 5.4 The workshop also flags up the issue of CWA groups as landowners and land managers requiring to understand the legal requirements and good stewardship guidelines on caring for the Historic Environment, and to recognise when professional heritage assistance is required to meet their obligations. This is perhaps an area that requires further development and education within CWA.

## 6 Feedback

- 6.1 A total of 10 feedback forms were received, and the responses were collated by Rosslyn Mills, as laid out below.

### Introduction to Woodland Heritage - 27th & 28th October 2011

#### Grantown on Spey, Anagach Woods

#### How did you hear about this event?

NWDG Mailing List x1

Friend x1

CWA x 2

Email x2

	V.Good	Good	Fair	Poor	V.Poor
Location	6	4			
Organisation	10				
Catering	8	2			
Facilities	5	5			

#### Do you feel this event delivered your expectations?

Yes	10
No	
Partly	



**Why did you want to take part in this event?**

I am married to a forester - I am getting more and more interested in archaeology  
 To learn about woodland heritage to stimulate attitudes - future forest management  
 Personal interest in archaeology and personal and professional interest in woodland history  
 To understand why woods are the way they are better - hoping to gain some future work in this topic  
 To learn more about how to research woodland heritage  
 To increase my knowledge and understanding of the history of woodlands and forests  
 To experience tree coring and to see some old maps  
 to learn about woodland archaeology  
 Personal interest in the subject and I wanted to learn more

**What benefits did you gain?**

A whole new world of woodlands has been opened up to me! I will no longer judge a tree by its size!  
 I learnt a lot and was introduced to some very useful techniques  
 Some excellent reading material references / books and leaflets  
 Map recognition / tree history / how the land changes with the woodland development  
 A good grounding in the fields thought and good networking opportunities  
 Hope to be able to start to undertake woodland history studies on my own woodland  
 Consolidated some scattered bits of information already held and gained new techniques, skills and knowledge  
 Ideas, information, networking ESPECIALLY links to resources  
 Consolidated my limited knowledge

**What will you do with the skills & experience you have gained in attendance?**

Will assist with out tree survey work, will look at woodland with a greater knowledge  
 Share with board, history groups - develop projects  
 Carry out further archaeology / history research on local woodlands and sites of interest  
 Remember as much as I can by investigating local woods, maybe with other people  
 An application for funding for a new 3 year project including woodland heritage  
 Apply the skills to my role as a forest development manager  
 Build on the skills at further workshops  
 Share knowledge and use educational materials  
 Ponder, share and research further

**Would you recommend this event to a friend?**

<b>Yes</b>	10
<b>No</b>	

**Comments (from yes)**

Great people, interesting topic  
 Excellent balance of talks / practical work, very interesting topics covered - a very stimulating 2 days  
 I think it was an excellent idea and was well run, provided excellent information  
 Training / seminars in our area (D&G) or at least a little closer

Woodland improvement - future development & "working with forests in their true form"

Dendrochronology, Mapping

Practical survey work

**General Comments (NB some comments written before 2<sup>nd</sup> afternoon surveying archaeology in the woods)**

excellent, well designed and delivered

12 attendees was a good number, helped with discussions etc. Not too many! Great tutors, great PowerPoint

Excellent leaders and lovely venue. Good tips from other event attendees

All good - keep up the good work!

Hold workshops on weekends

Excellent tutorials, felt participants were part of discovering the history of the woodland

Well organised event - well done!

**Demographic of those who returned feedback sheet (where completed)**

**Sex**

Male	4
Female	3

**Age Group**

16-25	1
26-40	2
40-60	1
60+	3

**Ethnicity**

British	1
White British	1
Scottish	3
White	
Irish	1

## 7 Acknowledgements

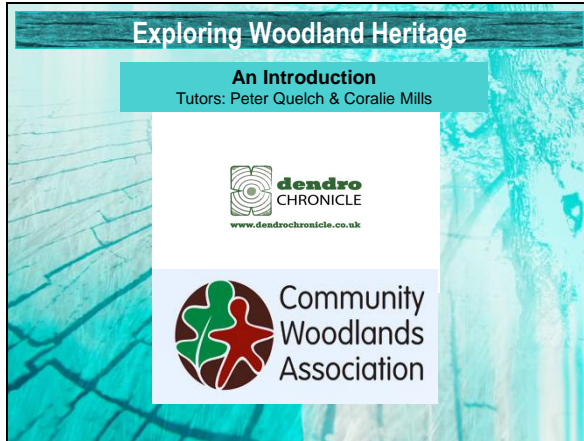
Coralie Mills and Peter Quelch would like to thank CWA most warmly for inviting us to give this workshop, and Rosslyn Mills in particular for all the help and support she gave us. We are grateful to the busy people who found time to attend the course; they were an enthusiastic group and a delight to work with. We are most grateful to Piers Voysey for suggesting Anagach as a workshop location, and for information on archaeological sites within it, and to the Anagach Woods Trust and to Basil Dunlop and Richie Hart in particular for making their beautiful wood available to us, and for all the additional support they provided. Basil Dunlop most kindly spoke to the group about the woods, made time to see us during a preparatory field visit and provided us with invaluable information to assist our preparation. We are very grateful to the RCAHMS for loan of a plane-tableting kit and for provision of copies of the SRP field recording guide and community archaeology book for our participants. Sally Duncan of the Council Offices in Grantown-on-Spey deserves a special mention for being so helpful during our use of their building's meeting facilities. We are also grateful to the staff of the Grantown-on-Spey Museum for help and information.

## APPENDICES: Slides/handouts

Please note that these teaching materials are copyright protected by the authors, and are not for reproduction. They are provided here for CWA to include as evidence in their report to funders only. *These represent the handouts given to the attendees, in the case of CM talks the slides were printed as handouts, in the case of PQ written handouts captured the information given while using slides of various case study trees, woods and maps, or in the case of woodland crafts, showing everyone the historic tools and woodland products which Peter brought with him from his personal collection.*

### PART A: Welcome & introductions

Slide 1



Slide 2



Slide 3

Outline for the course: Day 1

Time	Activity	
9.15-9.30	Arrival and registration	
9.30-9.40	Welcome, Housekeeping & Introductions	
9.40-10.00	PART A: Introduction: What is woodland heritage?	Coralie
10.00-10.30	PART B: Types of historic woodlands, veteran & worked trees, ecological evidence	Peter
10.30-11.00	PART C: Tree-ring evidence	Coralie
11.00-11.30	TEA BREAK – and look at books & display materials	
11.30-11.55	PART D: Woodland archaeology	Coralie
11.55-12.15	PART E: Woodland industry & crafts	Peter
12.15-12.30	PART F: An introduction to Anagach Woods	Basil Dunlop
12.30-1.25	LUNCH : AFTERWARDS TAKE ALL POSSESSIONS WITH YOU Not returning to meeting room today. Put on outdoor gear in time for 1.30 departure!	
1.30-4.30	FIELD VISIT Anagach Woods. Assemble car park behind venue; prompt departure 1.30	All
4.30 to 5 ish	Walk back to town. Disperse for the day	
Day 2	Start again Fri 9.30 prompt in meeting room (bring field gear) Day 2: Morning indoors, going into wood after lunch	

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Slide 4

**Part A: What is woodland heritage?**

Woodland heritage. *The legacy of the past expressed in a wooded landscape (Mills 2011)*

Any wooded landscape has heritage: does not have to be ancient woodland, or always to have been wooded.

Inevitably, in woodland, there is an inseparable interplay of cultural and natural heritage.

In Scotland virtually all woodland has been shaped by the activity of people in the past.

Best understood through multi-disciplinary approach: woodland archaeology, ecology & history combined.

Glen Loy



Slide 5

**Field evidence**




To understand history of a wooded landscape, a combination of field and other evidence is needed.

**Field evidence**

1. Evidence from the woods and trees (woodland type, tree forms, ecology)
2. Tree-ring evidence / chronology
3. Woodland archaeology ('in', 'under' and 'of the wood')

Balgownie, Fife

Katrine

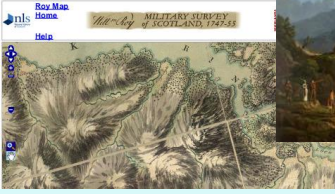


Slide 6

**Historic / documentary evidence**

Field evidence on its own rarely reveals the whole story. Documentary and other historic evidence is needed too.

1. Documentary evidence
2. Historic maps, plans, photographs
3. Artworks

Katrine

Slide 7


**Tangible and intangible heritage**

Intangible facets of heritage may also be important in understanding the woodland heritage


Intangibles include:

- Oral history & local knowledge
- Folklore & legend
- Songs & music
- Beliefs & rituals
- Historical associations
- Aesthetics

*Clootie Well, Munlochy*



Both tangible and intangible facets are important in any formal assessment of cultural significance



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Slide 8

**Motivation**

Reasons for studying woodland heritage include:

- To understand why a wood is how it is
- Personal interest
- Encourage group work / perfect for team work
- Education & outreach
- Interpretation
- Enhance visitor enjoyment & appreciation
- Conservation & management

*Katrine*



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**Talk B by PQ. Types of Historic Woodlands etc – 30 mins. [following Intro talk by CM]**

**What are historic woodlands?** No strict definition – all woods have a history! Trees are long-lived beings – a woodland, a population of trees, soon becomes a historic site, even during the first ‘rotation’ of trees. However the historic woodlands we are likely to study will have carried at least one previous generation of trees, and probably more. They do not have to be of natural origin to be worthy of study, as we will see at Anagach.

Also of course almost all land in the UK carries the traces of our ancestors, whether currently woodland or not. Woodlands after all are only a type of vegetation cover! This gives rise to the distinction of archaeology of the woodland, relating to its own past as a woodland, as compared to archaeology in the woodland, which is incidental to the woodland, and may well have been created during a non-wooded period in that site’s history. Woodland archaeology looks at both types of evidence, in and of the wood, including the old trees themselves.

**Main types of historic woodland - depending on origin and naturalness.**

Natural/Primeval/post-glacial remnants and their self-seeded descendents (do they exist in Scotland?)

Ancient seminatural – the norm, emphasising the ‘semi’ natural

Early plantation, native or introduced species

Designed landscapes

20<sup>th</sup> Century plantation, mostly introduced, sometimes quite exotic species.

nb: WWII artefacts are seen as archaeology – so are early 20<sup>th</sup> C plantations ‘historic’? (some stands could be, especially if mature trees are retained)

**Woodland structure**

Woodland structure can vary over time as woodlands mature, develop, and stands are replaced or managed.

Ecotypes, habitats or biotopes depend on climatic conditions and especially soil (edaphic) factors.

NVC woodland types in the UK, also Peterken stand types, as ecological or vegetational classifications. These classifications are valid whether a woodland is historic or not. Certain vegetation assemblages can point to past human use, especially plants responding to nutrient enrichment around middens etc, such as nettles or elder.

**Influence of past management**

Woodland structure is often, perhaps usually, a result of past management, regardless of soil or ecological conditions. So all these types of structure (below) can be found in say oak-birch woodlands in any one district and on similar soils, depending on past management:

- High Forest
- Coppice (either current, or typically, long-abandoned)
- Young regenerated stands
- Open pasture woodland
- Wood pasture and parkland

**Biodiversity**

The biodiversity of a woodland is thus partly derived from natural factors such as soil, exposure, terrain and climate, and both the longevity and continuity of woodland cover. But biodiversity is also heavily influenced by the woodland structure and so by past management. Understanding the history of a woodland is therefore essential in helping decide the best management for its future, particularly when the woodland’s biodiversity is important.

**Veteran and worked trees**

Although all veteran trees are interesting regardless of what type of woodland or other habitat they inhabit, they make more sense and become of even greater interest when related to the woodland structure and past management of their context in the landscape. Of course they may not be in woodland at all (many Lakes pollards) or they may be survivors from past woodlands long since gone or fast being lost (like many giant oaks in the highlands.)



Others are trapped in PAWS situations, while only a very few are part of mixed aged high forest of natural structure (cf Bialowieza National Park, Poland, or other natural structure old growth forests in Europe or North America).

In UK many veteran trees have survived because they have been **worked** in the past, which often prolongs their lives. They are typically worked by **pollarding** (cutting at head height) which shortens their height and makes them less prone to windthrow, or by **coppicing** (cutting at ground level) which like pollarding also rejuvenates the tree, but in this case both shoots and roots, whereas pollards retain an old lower stem.

### **Recognising worked trees – tree form.**

Basically there are 3 main types of tree form: maiden, coppice and pollard, with variations in all three.

**Maiden tree** is a tree growing more or less naturally, either planted or naturally regenerated, and which has not been lopped or topped, only perhaps pruned. Of course that tree can be part of a stand that has been thinned, and most modern forestry deals only with maiden tree forms.

**Coppicing** is the repeated cutting of broadleaved trees at ground level to produce small pole sizes over a short rotation. Usually whole stands are dealt with in this way as plenty of light is required to allow coppiced stools to send up new shoots. If occasional maiden trees are retained within the coppice, this is termed **coppice with standards**, an important woodland management system in past centuries.

Coppice stands had to be protected from grazing livestock for several years after cutting, and many have boundary banks or walls of turf or stone. What we now cannot see is that many coppice stands were also protected by temporary wood and stick fencing, or dead hedging as it is now known. Historically this temporary fencing was known as 'stake and rice', rice being an old Norse word for sticks or cut branches.

**Pollarding** is very different - it means cutting trees roughly at head height to keep re-growth out of the reach of livestock and deer. Thus it is a system of grazed pasture woodlands, wood pastures, parklands, or other trees on farms. Interestingly from the woodland archaeology point of view, a pollard may be found today within a denser woodland, but if the tree has been worked by pollarding in the past, it retains that tree form for the rest of its life. So the past management of that woodland or stand can be inferred from current tree form.

Pollarding is primarily a farmer's way of dealing with trees, and has traditionally been looked down on as a technique by foresters and landowners, as it spoils the timber value of the tree. It is now carried out only on urban trees as a form of tree surgery, or occasionally to maintain historic landscapes.

Coppicing on the other hand survived into modern times as a technique, despite the costs of frequent fencing and the need to be vigilant in protecting the re-growing stools from livestock and deer. Coppicing survived in some districts because it provided a number of unique woody products, such as barrel staves, charcoal, tanbark or poles for hurdle-making or for hop growing etc. However most of those uses and trades are themselves now bygone. Some coppicing is now carried out to maintain open and light glades within woodlands to support traditional biodiversity (such as butterflies and certain woodland plants) which depend on well lit glades.

### **Silviculture**

Manipulation of a stand of usually maiden trees by foresters, to increase the value and utility of the mature trees, and later to promote natural regeneration of the stand, is known as silviculture (cf agriculture, horticulture, arboriculture). Regular thinning of stands is a normal part of this work. We will see good examples of the forester's work in our visits later to Anagach Wood.

There are side effects of improving the value of crops through silviculture, which can result in fewer tree species, no shrubs, poor ground flora due to less light reaching the forest floor, a simpler structure, and consequently lower biodiversity. There is much advice for owners on how to carry out ameliorating actions to help improve biodiversity of managed forests (see Greener Forests book from Sweden).

However there are **alternative silvicultural systems** which can give good biodiversity and good yields of timber, such as the Continuous Cover systems, but they demand more not less silvicultural skills. Such systems minimise canopy disturbance and are often suitable for stands of high amenity or heritage value, as here at Anagach.

### The heritage value of previously well managed stands

It is apparent to many foresters and others now responsible for managing woodlands that many of the most impressive stands of trees did not gain their structure and timber value by chance. Anagach is a good place to see the types of woodlands that can be created from scratch in 250 years, on a site which our history studies show was unwooded moorland in the mid 18<sup>th</sup> C just before Grantown on Spey was created. Now it has valuable timber stands alongside apparently natural bog pine woodland. Old planted trees are acting as seed sources for new stands of regenerated pines, more broadleaves are appearing in the mixture, and overall the stands are naturalising and increasing in biodiversity. So much depends on how those stands are managed into the future.

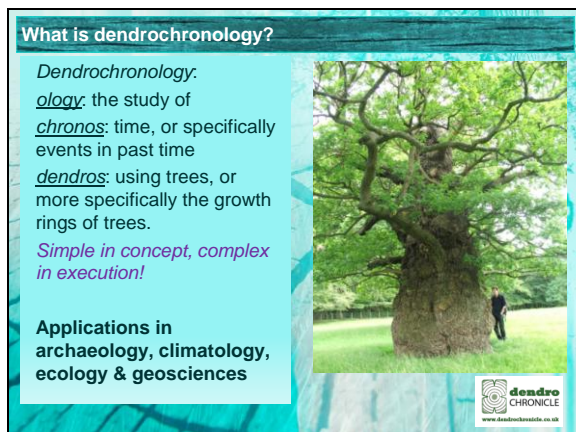
P R Quelch  
25.10.11

## Talk C: Tree-ring evidence, Coralie Mills

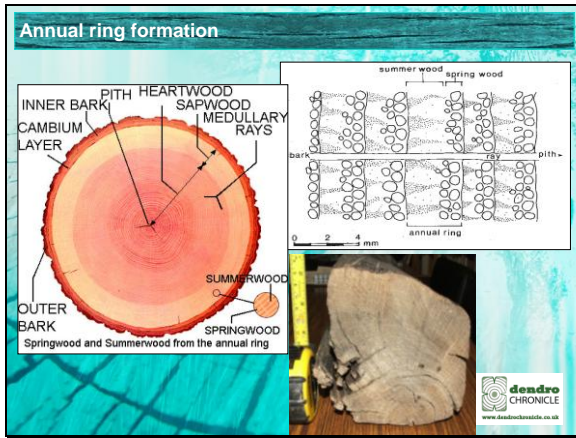
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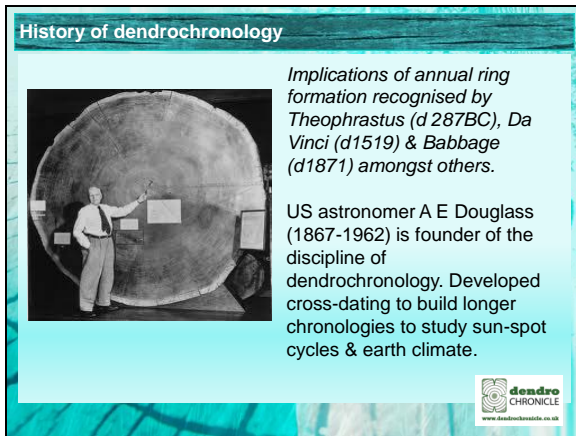
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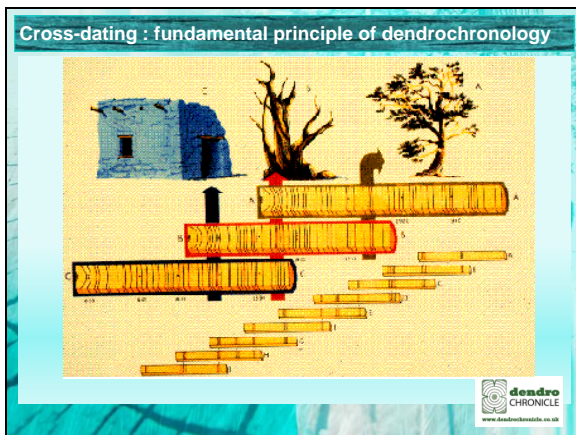
Slide 3



Slide 4



Slide 5






Slide 6

**The Principle of Aggregate Tree Growth**

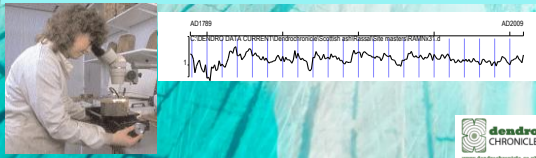

Any individual tree-growth series is an aggregate of environmental factors, both human and natural, that affected the patterns of tree growth over time.

$$R_t = A_t + C_t + \delta D1_t + \delta D2_t + E_t$$


Slide 7

**What are we measuring?**

Archaeo-dendrochronologists work with tree-ring widths.  
 Dendroclimatologists also use ring density *inter alia*.  
 So we measure annual tree-ring widths, with sample under microscope and on a travelling stage which transmits sequential measurements to special dendro software.  
 Creates a ring-width sequence, can be graphed over time (x-axis), with peaks (wide rings = good years for growth) and troughs (narrow rings = bad years for growth).

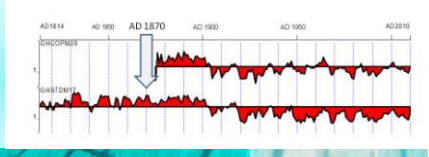




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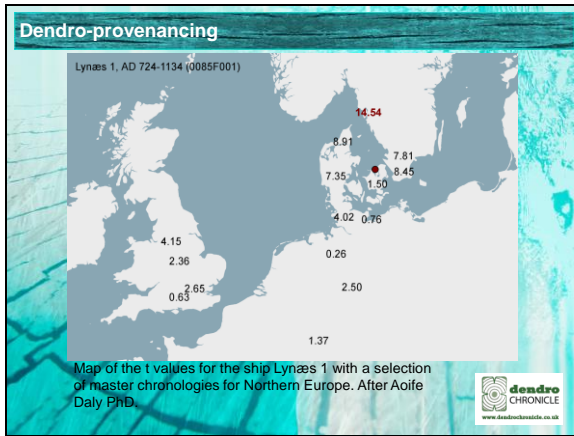
**Cross-matching: how do we get it right?**

Visual matching  
 Statistical matching  
 Replication

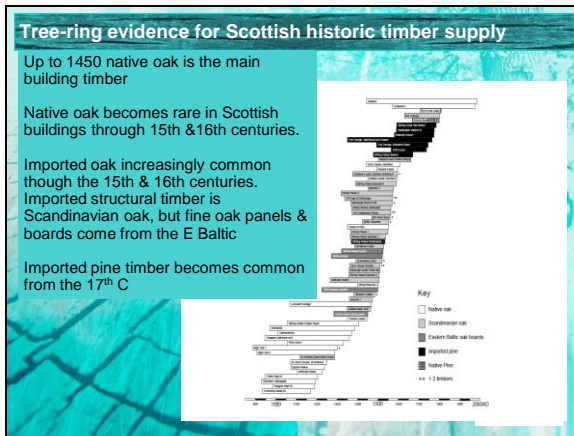
- within site or phase
- match with several independent chronologies
- results could be replicated by another analyst

Slide 9



Slide 10




Slide 11

Slide 12

**Extending native pine chronologies**

**Ancient pine woodlands – new longer chronologies**

Glen Loyne: AD 1459 - 2001  
 Ballochbuie: AD 1589 -2003  
 Glen Affric: AD 1709 - 1996  
 Mar Lodge: AD 1629 – 2004  
 Mar, Glen Derry AD1477-2008



*Glen Derry at Mar Lodge, ancient pine in scree – slow grown and stressed*

Slide 13


**First ever native pine buildings dated : Mar**

Vernacular buildings recently dated at Mar; pine cruck frames.  
*First ever dendro-dating of native pine buildings in UK* : Dated against our local living pine chronologies; buildings used local timber

**Felling Dates**  
 Red House: AD1799 & 1808  
 Inverey Byre: AD 1799/1800, extended 1815

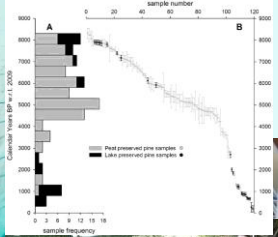





Mills, C 2008 'Historic pine and dendrochronology in Scotland', *Scottish Woodland History Discussion Group: Notes XIII (2008)*, 9-14. ISSN 1470-0271

*Still many undated pine buildings – eg post & beam building from Grantown. Dismantled, in Museum.*



Slide 14

**The Scottish Pine Project, University of St Andrews**

[www.st-andrews.ac.uk/~rjsw/ScottishPine/](http://www.st-andrews.ac.uk/~rjsw/ScottishPine/)

**dendro**  
 CHRONICLE  
 www.dendrochronicle.co.uk

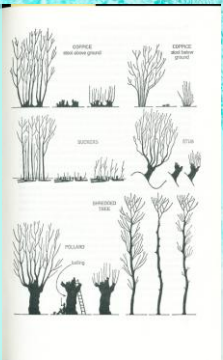
Slide 15

**Broadleaves: Tree forms and tree-rings**

**Tree-forms**

- Maiden or standard: single stem
- Pollard, cut 'high', well above browsing height, 'candelabra'
- Stub pollard, shorter /irregular
- Coppice: cut near the ground, many stems

**Dendrochronology provides:**  
*tree-age for maidens*  
*tree-age & possibly cutting history for pollards*  
*Stem age/ date of last coppice cut but not organism age for coppice*




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Slide 16

**Case study: woodland history at Loch Katrine**

Based on a project by Coralie Mills, Peter Quelch & Mairi Stewart  
 Funded by Forestry Commission & LL&T National Park



The evidence of tree forms, tree-rings and dendrochronology history around Bealach nam Bo, Loch Katrine.  
 Coralie Mills, Peter Quelch & Mairi Stewart  
 2011


www.dendrochronicle.co.uk

Slide 17

**Woods either side of the Bealach nam Bo**

At Katrine, oak and ash wood pastures found only in SE corner -  
 found in two distinct areas either side of *Pass of the Cattle (Bealach nam Bo)*

- To east of pass, open ash woodland, on steep slopes, close to site of an old farm
- To west of pass, areas of oak wood pasture alongside overgrown oak coppice; associated with archaeological remains



**Ash of pollard form**

**Coring in the old oak coppice**


**Squat wood pasture oaks**

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Slide 18

### Bealach nam Bo - Ash dendrochronology




Dendrochronology – to study management history and date events precisely.

- The big ash (top) has a pollard form and much greater girth than the 'maiden' (below).
- Dendrochronology showed both originate in the late 17<sup>th</sup> C – so they are same age despite size difference
- Tree-rings show cyclic pattern of growth reduction and recovery in big ash during 18<sup>th</sup> C. Most probably explained by cutting back branches on 10-12 year cycle.
- Cutting high keeps re-growth above grazing level; provides leafy fodder, poles for structures, wood for fuel.
- Occupants of nearby 'pre-improvement' farm probably managed the ash trees closest to the farm.

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Slide 19

### Murlagan farm and the ash woodland



Stobie 1783 shows a building in a clearing E of Bealach nam Bo, we suggest is *Murlagan*

- The last farm tack for *Murlagan* in estate rentals starts in 1779.
- The farm has disappeared by the time of the OS first edition in 1860.
- Farms were amalgamated as sheep farming took over by early 19<sup>th</sup> C.
- The farm settlement survives as archaeological features.

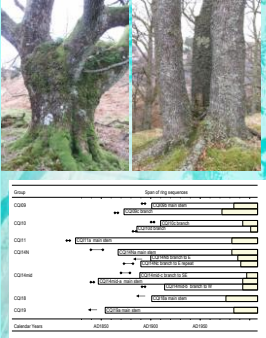
*Our project indicates the oldest ash trees (in background) were cut repeatedly by its occupants in 18<sup>th</sup> C.*

www.dendrochronicle.co.uk Copyright: © Mills 2010

Slide 20

### Glasahoile : oak dendrochronology results

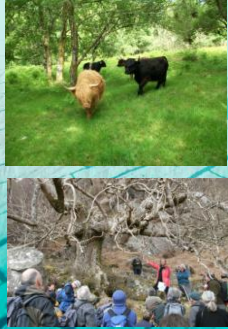
- no tree-ring evidence of pollarding in squat oaks
- no oaks older than early 19<sup>th</sup> C
- some squat oaks are complex forms: lobed, fused multiple stems
- the wood pasture oaks are the graze-damaged remnants of a once more extensive 19<sup>th</sup> C coppice system
- Main coppice areas continued to be protected by enclosures until after last cut in early 1870s, but the peripheries were let go progressively from about the 1830s.
- The coppice contracted as prices fell after Napoleonic Wars.



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Slide 21

### The future at Katrine



Our work shows the history of a cultural wooded landscape, where people lived and worked

- These historic uses shaped the biodiversity and landscape that is valued today.
- The challenge is to conserve biodiversity after old ways elapsed and people gone

FCS cattle fold to graze Katrine open woodlands is a positive step

**Our work is intended to:**  
 inform management and interpretation  
 encourage outreach and participation

Thanks to FCS, GTF, NP and many individuals who have helped the project

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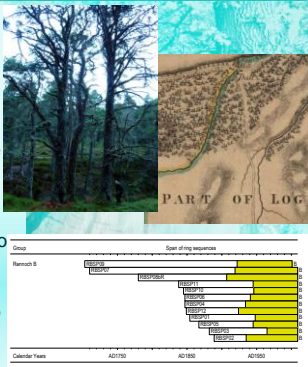
### The Black Wood of Rannoch, Perthshire

Project commissioned by Woodland Trust Scotland, opposing development threat.

Dendro-dating revealed evidence of a once more extensive old pinewood to the east of the current core of the Black Wood.

Late 17<sup>th</sup> C living pine dated to the east of main wood.

Backed up by mid-18<sup>th</sup> C map evidence.



Slide 23

### Historic Parks, Forests and Ancient Oaks




Figure 7.6: Size series comparing the British AD 985 to 1975 chronology

Location	Start of ring sequence (approx. AD)	End of ring sequence (approx. AD)
LOCKWOOD	1000	1800
HAMILTON	1100	1700
PARK	1200	1600
LINCLUDEN	1300	1500
CAERLAVEROCK	1400	1450
GLASGOW	1500	1600

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**Resources**

**English Heritage Dendrochronology Guidelines**  
<http://www.english-heritage.org.uk/publications/dendrochronology-guidelines/>  
 1998 version - UPDATE IMMINENT

**Baillie, MGL** 1982 *Tree-Ring Dating & Archaeology*. Chicago Press.


**Baillie, M G L** 1995 *A Slice Through Time: Dendrochronology & Precision Dating*. Batsford.

**Crone, A & Mills, C M** 2002 'Seeing the wood and the trees: dendrochronological studies in Scotland', *Antiquity* 76, 788-94.

**Mills, C** Report summaries free on Projects page of [www.dendrochronicle.co.uk](http://www.dendrochronicle.co.uk)

*For woodland history in Scotland, read Prof Chris Smout's books, especially Smout et al 2007, A history of the native woodlands of Scotland 1500-1920 EUP.*

**Henri Grissino-Mayer** The Ultimate Tree-Ring Web Pages  
<http://web.utk.edu/~grissino/>



**PART D: Woodland Archaeology (CM)**


Slide 1

**Part D: Woodland archaeology**


To understand history of a wooded landscape, a combination of field and other evidence is needed.

**Field evidence**


1. Evidence from the woods and trees (woodland type, tree forms, ecology)
2. Tree-ring evidence / chronology
3. Woodland archaeology (other than the trees) ('in', 'under' and 'of' the wood)



*Katrine*



*Balgownie, Fife*




Slide 2


**Woodland archaeological remains survive as:**

- Living & dead trees (and woodland biota generally)
- Soils, sediments & buried deposits, including ecofacts & artefacts preserved within
- Built structures & ruins, eg stone buildings, walls
- Earthworks, eg banks, ditches, platforms, pits
- Material scatters and find sites, eg flint


*Hallow Way hidden under modern sitka plantation, Balgownie*



*Old farmhouse, S Katrine*



*Field banks under oak plantation on Bute*





Slide 3

**Woodland archaeological remains may relate to:**

- Boundaries (land ownership or management)
- Woodland processes and products
- Industrial processes & extraction
- Agriculture
- Settlement sites, burial sites, ritual monuments
- Recreational activities
- Any other past cultural activity which leaves a physical trace

Slide 4

**Archaeology of the wood vs. archaeology in the wood**  
 With thanks to Ian Rotherham for this useful concept

**Archaeology of the wood**  
 Evidence of human activity that is related to the use of the woods and the trees in a wooded landscape

**Archaeology in the wood**  
 Evidence of human activity which happens now to be in the wood but is not related to the wood or the trees.

Many Scottish woods are planted or regenerated over earlier cultural landscapes. We refer to these earlier landscapes as being **'under' the wood**.

Slide 5

**Case study: Balgownie Wood, Fife**  
 Subject of a recent case study for FCS by PQ & CM

Balgownie, a lowland FCS plantation of mainly commercial conifers

Old oak coppice stumps everywhere under the conifers

A 'dendro CHRONICLE' logo is in the bottom right corner.



Slide 6


**Balgownie: approach**

Essential to use a multi-disciplinary approach, including

- Archaeological survey
- Historic tree survey & ecological observations
- Relationship between the trees & archaeological features
- Historic documents (incl 2 wood cutting contracts of 17thC)
- Historic map research & 20<sup>th</sup> C forestry history
- Would like to add dendro as a next stage

*Measuring oak stool circumference*

*GPS locating a tree feature*



Slide 7

**Balgownie's archaeology**

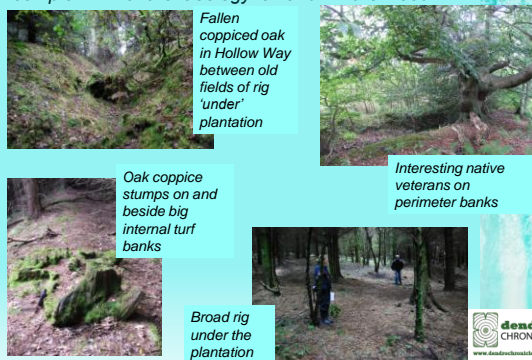
*A complex mix of archaeology 'of' and 'in' the wood*

*Fallen coppiced oak in Hollow Way between old fields of rig 'under' plantation*

*Oak coppice stumps on and beside big internal turf banks*

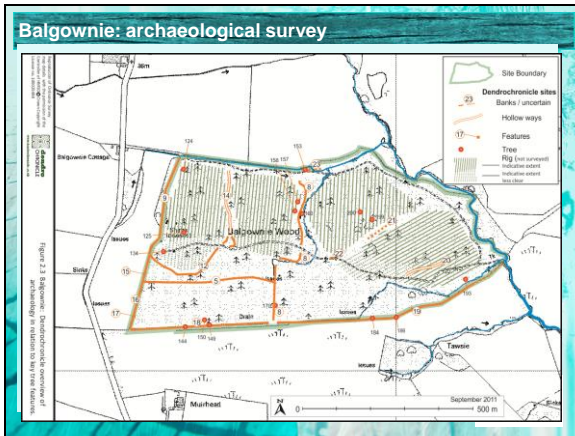
*Broad rig under the plantation*

*Interesting native veterans on perimeter banks*



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Slide 8



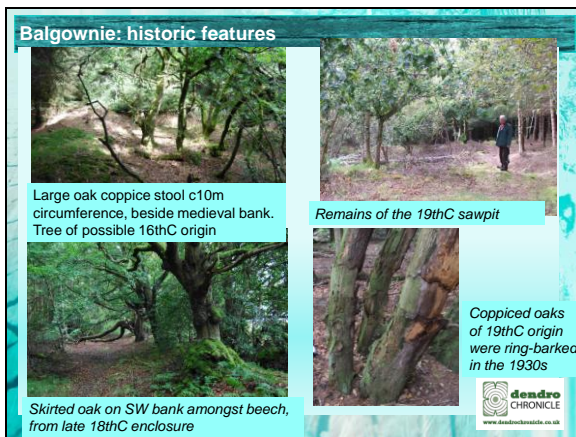
Slide 9



Slide 10



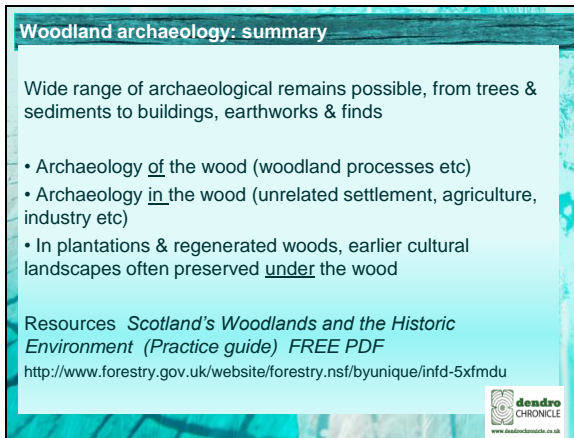
Slide 11



Slide 12



Slide 13



**Talk E by PQ**

**Woodland Industry and Crafts**

**What were the main uses of woods and trees in historic times?**

Many and varied uses of wood and timber compared to now. Alternative materials such as metals and pottery were always more expensive than wood, so poorer people especially had everything domestic and on the farm made of wood, to an extent we can no longer easily imagine.

*(See display board showing the names of hundreds of items made originally from wood, and a display of a range of typical wooden artefacts).*

**Fuelwood** has always been important to communities, including towns and cities, before coal and then oil. Use of fuelwood is now increasing as a renewable fuel due to the rise in prices of fossil fuels.

Faggots – that is small branchwood and twigs in bound bundles was also an important fuel, eg for heating bread ovens and kilns.

Also before coal, many types of kiln were fired by wood, eg limekilns, corn kilns, glass and pottery kilns.

**Charcoal** was an important fuel, burning hotter than wood, and was essential in many types of metal smelting and forging. Charcoal accounted for a great deal of industrial use of wood in the early modern period.

Charcoal was also used as a main ingredient in **gunpowder**, much of which was made in rural water driven mills. Various tree or shrub species had charcoal of particular qualities and uses, for example alder for gunpowder, oak and birch for iron smelting, juniper for distilling etc.

### **Tar and resin**

Resinous trees, mainly pine in Scotland, were tapped for resin, while Stockholm Tar was produced by distillation of pine wood and stumps. Tar was very important in wooden ship and boat building and maintenance of boats to keep them waterproof. Much tar and resin was imported, from the Baltic and later from North America.

### **Chemicals from wood**

Broadleaved trees were distilled in Pyroligneous acid works for a variety of chemicals such as acetic acid, methyl alcohol, naphtha etc, an industry which continued into the 20<sup>th</sup> C. Coal products and then oil derived chemicals made the wood chemicals industries redundant. In some well wooded countries vehicles are still run on wood derived alcohol, while steam trains can use wood as fuel.

**Wood bark** was a very important woodland product, supplying the tannins needed to produce leather from animal hides. The combined uses of coppiced oak in Scotland for charcoal for iron furnaces and tanbark for tanneries accounts for a major rural industry during the 18<sup>th</sup> and 19<sup>th</sup> C. Quantities required of these wood products rose hugely during the industrial revolution, but smaller amounts had been used in previous centuries in smaller scale workshops, for forging and for making iron in bloomeries. Tanning also took place in smaller more local works.

**Sawmilling** was and still is a major user of larger timbers from maiden trees. Only the technology of driving the mills has really changed. Most earlier mills were powered by water wheels. After the Second World War sawmilling was still largely a rural affair, with many small and medium sized sawmills throughout the land. Only over the last 30 years or so has sawmilling concentrated into relatively few and very large automated mills which have to compete in a world market.

The earliest form of milling logs was a hand held frame-saw or pitsaw, and these are still used in some developing countries. Occasionally a sawpit is found in woodlands as a leftover from the 19<sup>th</sup> C. Most water driven sawmills used circular saws, with a moving rack holding the log, known as a rack-bench. Anagach Wood has the remains of such a mill, which operated into the 1950s.

Occasionally water driven mills employed a frame-saw or gang-saw, which have a series of short straight saws held in a strong iron frame which reciprocates up and down. The log seems to feed in slowly, but the saw cuts all the boards at once! Frame-saws were more popular on the continent of Europe, and some are still available. Bandsaws are a more modern invention and are very effective - they use a continuous ribbon of blade tensioned between two iron pulley wheels.

### **Bobbin mills**

Other water driven mills made turned wood products, especially textile bobbins, known as pirns in Scotland. This was a fairly recent trade and there are several Pirnmill place-names in Scotland today, and other sites of known bobbin mills. Finzean near Aboyne is unique in having three water driven wood mills surviving, a sawmill, pirnmill and also a wooden bucket mill. Finzean also had an early water powered electricity generator.

### **Barrel making**

The cooper was the person who made and repaired wooden barrels and a big trade that was, especially in Speyside with all its distilleries. Unusually that is an old wood using trade that still thrives, for obvious reasons! Interestingly, barrel making is such a skilled and specialised trade that it continues largely as an industrial process rather than as a hobby or leisure activity as so many other woodland crafts are now practiced in the UK. There is a working cooperage museum at Craigellachie in Speyside itself open to the public ([www.speysidecooperage.co.uk](http://www.speysidecooperage.co.uk)).



### **Hewing of wood**

Not so well known is that earlier building timbers and also ship or boat building timbers were not sawn but were split by wedges and hewn by axe to shape. Adzes were used to work the surfaces of these timbers. Often a log would be hewn square in the forest to make it easier to transport, before it was later sawn into planks. It is quite possible to build whole structures from timber which has never been through a sawmill. Some timbers such as curved roof crucks and braces cannot be easily sawn and usually they are hewn to shape with a one-sided axe known as a side-axe or broad-axe. This is surprisingly faster and easier to perform than you might imagine, given the right axe on green (freshly felled) timber. The distinctive tool-marks of the various tools can still be seen in old timbers in building roofs.

*(See display of various typical old tools, many familiar but including some which are not! These were all used in old ways of working wood.)*

### **Rafting of timber**

There is a history of rafting of logs down river to sawmills both along the Spey, including the mill at Anagach, and at the mouth of the Spey, where larger sea-going ships could be built. We are familiar with the idea of lumberjacks floating timbers in NW America, but few realise that this was normal practice in Scotland (and also in Scandinavia and no doubt other parts of Europe). On the Spey coracles were used by the floaters to accompany the rafts, and they carried them home on their backs after the logs had been delivered!

### **Woodland crafts today**

Although many woodland crafts almost died out after the second world war, a few traditional workers continued their skills and importantly were willing to pass them on to younger people, either as a potential trade or for the satisfaction of using old tools to work wood. So there has been a revival of interest in woodland crafts from the days when authors such as Herbert Edlin were describing the trades and crafts before they finally died out.

Now a glance at a magazine such as 'Living Woods' shows how healthy this scene is in the UK. There are many courses for traditional skills and tutors to run them. Also there are suppliers of traditional woodworking tools, many made in equally traditional forges.

*(See display of selected books and magazines on woodland crafts).*

Apprentice schemes are being run in traditional woodland crafts, particularly around the coppicing of broadleaved woodlands. A prime example is the apprentice scheme named after Bill Hogarth, a woodland craftsman in the south Lake District who passed on his skills and whose example now inspires many more young people to continue that work, see ([www.coppiceapprentice.co.uk/](http://www.coppiceapprentice.co.uk/)). That website also contains links to another very active body continuing the coppice tradition, Coppice Association North West, also based just over the border in Cumbria.

### **Woodland crafts and community owned woodlands**

A number of community woodlands in Scotland are supporting and encouraging woodland craftspeople and host training courses. The story of the once widespread use of wood in everyday life shows that before WWII wood played a much larger part in manufactured items and in society in general. Plastic has now supplanted many wooden items, yet we know it is not sustainable, and many people do not like using it. Perhaps wood may have its day again? At least the woodland crafts revival is keeping the necessary skills alive and options open.


**Talk F: An Introduction to Anagach Woods by Basil Dunlop used no slides or handouts.**

**Day 1 afternoon: Field visit, overview visit to Anagach Woods as described in report.**

Talks H and J are within same presentation at start of Day 2 (no Talk I).

Slide 1

Outline for the course: Day 2		
Time	Activity	
9.30-9.40	H: Introduce the day's activities	Coralie
9.40-10.10	J: Introduction to field techniques & to documentary evidence & resources	Coralie
10.10-10.40	K: Historic map evidence	Peter
10.40-11.00	Anagach as a case study	Peter
11.00-11.30	Tea break	
11.30-12.30	Maps & Intro by Peter/ Desk work in prep for fieldwork	Peter/All
12.30-1.30	LUNCH ( <i>if you may have to leave early take all belongings after lunch – no access to meeting room during the afternoon</i> )	
1.30-4.00	Field studies in Anagach Woods (probably in 2 groups)	All
4.00-4.30ish/5ish	Final round-up /tea back at meeting room	All



Slide 2

**Part J: Introducing field techniques & doc sources**

To understand history of a wooded landscape, a combination of field and other evidence is needed.



*'In this paroch was a forest of red deer called the forest of Monteath. But after the death of the late earl of Monteath [1684] and that it fell into the family of Montrose the forest was neglected and there are noe deer in it now', Alexander Graham 1724.*




Slide 3

**Field techniques**

Project objectives & resources determine method:  
 Work out what and why you want to record - eg are you trying to map veteran trees or survey one building?

- Gather info about site before & check for existing surveys
- Best tool of all in understanding historic landscapes – your eyes – keen observation
- Mechanical survey alone answers very little, must think holistically at landscape scale, interpret & test interpretations
- Share your results publicly (Canmore, Regional SMRs, DES)



Slide 4

**Field techniques: Resources**

**Scotland's Rural Past**  
<http://www.scotlandsruralpast.org.uk/>  
 Lots of guidance and help as free web content & downloads, including excellent videos

**SRP Book: A Practical Guide to Recording Archaeological Sites ( as given out ).**

Cairngorms SRP-style project is just getting off the ground, being led by RCAHMS staff, Steve Boyle & Amy Gillespie. Is likely to include survey training opportunities


**Contacts**  
 steve.boyle@rcahms.gov.uk 0131 651 6745  
 amy.gillespie@rcahms.gov.uk 0131 651 6793



Slide 5

**Resources for woodland heritage specifically**

**Forestry Commission: guidance**  
<http://www.forestry.gov.uk/forestry/infd-5xf1s7>  
 Peter Quelch's guide to Ancient Wood Pasture  
 Overview of the Native Pinewood Inventory  
 Overview of native woodlands




Various items on Historic Environment including PDF of 'Identifying the Historic Environment in Scotland's Forests & Woodland'

**Also has sections on:** Landscape & Biodiversity  
 See also Forest Heritage Scotland: (incl. summary of Loch Katrine project)  
<http://www.forestry.gov.uk/forestheritagescotland>

**Woodland History Projects by Coralie & Peter** summarised on [www.dendrochronicle.co.uk](http://www.dendrochronicle.co.uk) – see Projects page especially

**English guidance:** *The Woodland Heritage Manual*, 2008, by Ian Rotherham, Mel Jones, Lindy Smith & Christine Handley. Wildtrack Publishing: Sheffield.




Slide 6

**Field recording & survey techniques**

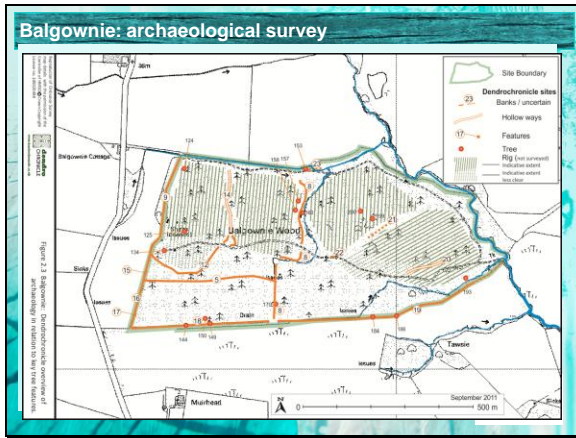
**Methods we use for woodlands include**

- Handheld GPS: tree & feature locations & for linear features
- Measured sketch or plane table for archaeological sites
- Photography
- Expert help for instrument survey, large areas & GIS work
- Expert help for new aerial survey, laser scanning & LIDAR



*Balgownie GIS overlay of our survey data over 1st edition 6" OS map*

Slide 7



Slide 8

**Researching the documentary evidence: SRP guidance**

**Scotland's Rural Past:**  
**Guide to research using historic documents**  
[http://www.scotlandsruralpast.org.uk/index.php?option=com\\_content&view=article&id=35&Itemid=51](http://www.scotlandsruralpast.org.uk/index.php?option=com_content&view=article&id=35&Itemid=51)

Where to start

Using archives

Printed material

Maps & plans (Peter's talk)

Aerial photography

Estate papers


Taxation records

Census records

Other archival resources

Bibliography

Historic documents  
*"Information from original documents can fill in gaps left by the archaeological record and add much detail to our understanding of the past. This document will guide you through some of the most useful and accessible historical sources available for studying deserted rural settlements and landscapes in Scotland."* SRP 2011

 **dendro**  
 CHRONICLE  
 www.dendrochronicle.co.uk

Slide 9

**Researching the documentary evidence: where to start**

**Where to start**

The best starting point is normally your local archive, local studies library, or museum. Also speak to landowners, land managers and older local people especially.

**National sources include:**

- National Archives of Scotland (NAS)
- National Register of Archives (NRS) includes private archives
- National Library of Scotland (NLS) incl. historic maps online
- RCAHMS incl Canmore, Airphotofinder & Pastmap
- School of Scottish Studies
- Scottish Archive Network (SCAN) local authority archives
- Archives Hub (UK University-held archives)



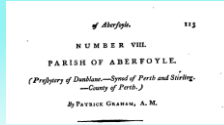
## Slide 10

**Researching the documentary evidence: archives & printed****Using archives:** Follow SRP website guidance

Remember why records created, be aware of bias etc  
 Work back from recent to more distant past methodically  
 Lists sources of help in reading old docs (palaeography, language etc)

**Useful printed sources include:**

OS Gazetteers (incl notes on history, archaeology, ownership)  
 Statistical Accounts of Scotland (now online)  
 Trade & postal directories  
 Local & parish histories  
 Burkes peerage  
 Newspapers



## Slide 11

**Researching the documentary evidence: estate papers etc****Maps & plans:** Peter's talk & see SRP website

**Aerial photography:** see SRP website, RCAHMS collection and Google Earth also carries some historic coverage.

**Estate & Family Papers: very useful for landscape work**

- Settlement and landscape change
- Estate maps and plans extremely useful
- Land-management and farming practices
- Building developments
- Business interests & legal disputes
- Communities and individuals

Estate papers normally in local archives, National Archives of Scotland or with their owners Check the [National Register of Archives](#) to discover where your local estate papers are held.

## Slide 12

**Researching the documentary evidence: tax & census****Taxation Records:** NAS holds several types

Especially valuable are land tax valuation rolls

Loretta Timperley used the older ones to write *A Directory of Scottish Landownership in 1770* (Scottish Record Society, Edinburgh, 1976), shows all named landowners in 1770 plus names & values of their properties. In reference libraries

**Census Records: Useful for settlement & land use history**

Every 10 years from 1801 (head counts), expanded format from 1841 to record names of everyone living in a household: Age, Occupation (or, scholar, unwaged, etc), Place of birth, Relationship to head of household (from 1851), 1st language & any other spoken.

Census records 1841 – 1901 available in local studies libraries, archives & in General Register Office in Edinburgh. They are also available on-line, via the [Scotland's People](#) website

## Slide 13

**Documentary evidence: other archival sources**

See SRP website for full list and links:

- Registers of Sasine (transfers of land ownership)
- Church records: Baptism, marriage, burial
- Civil Registration: Births, marriages, deaths (compulsory records since 1855)
- Collections of old photos (Museums, archives, SCRAN, Am Baile etc)



Forestry Socs & Journals, Agricultural Clubs  
Diaries & Travel journals

Scottish Government Records incl. Forfeited Estates  
Court records – incl. 19thC 'Division of Commonities'  
-common land divided up between 'owners', + rights to hunting, grazing, turf, peat & wood.


*Bealach nam Bo, Katrine, 1863*  
SCRAN



## Slide 14

**Other resources: landscape research**

- Oral history
- Place-name research



See SRP website for bibliography & resources for documentary and other sources.

Look at Scotland's Places website: useful facility to search on a location or placename and link into documentary and archaeological records (though it is not comprehensive)  
<http://www.scotlandsplaces.gov.uk/>

**Talk K by PQ: Historic Map Evidence**

Use of a sequence of maps is extremely helpful in woodland history. Find and use all available maps and plans, from any source – get help from antiquarians, archivists and historians to find them. Ask the local estate office, factor or land agent to see what they have. You are building a 'Map Regression' from current modern OS to the earliest historic maps.

Some maps and plans are available online, mainly on National Library of Scotland website <http://maps.nls.uk/>,  
Scran ( [www.scran.ac.uk/](http://www.scran.ac.uk/) ),  
Scotland's Places ( [www.rcahms.gov.uk/scotlandsplaces](http://www.rcahms.gov.uk/scotlandsplaces) )  
and other web sources.

Other maps and old plans can be found in documentary searches of estate records, though many are in the public domain. Some may be frustratingly missing, lost in old estate record fires etc.

**Online maps**

The main maps available online on the NLS website include:

### **Timothy Pont 1580s and 1590s**

Can be very illuminating, eg by confirming that a named village, township, farm or woodland existed in the late 16<sup>th</sup> C. Small scale but well annotated and detailed land use given in some areas – good descriptions of woodlands. Only available in certain localities, and Strath Spey is one of them.

### **Blaeu's Atlas 1654**

Pont's manuscript maps were later used in the Joan Blaeu's Atlas of the World, including Scotland, published in Amsterdam, 1654. Much info on the NLS website about the contribution of Pont's survey and other information from Robert Gordon in the making of this early atlas.

### **Military Survey of Scotland (General William Roy) 1747-1755**

Excellent coverage of most of Scotland. Shows natural woodlands remaining, and early plantations and land improvements beginning. A good starting point for most areas.

### **Late 18<sup>th</sup> and early 19<sup>th</sup> C estate plans**

Often at large scale, and can be very detailed. Carried out on many estates across Scotland by skilled land surveyors for estate owners and their land agents who were considering land and farm improvements. Often details minutely the existing land use, and individual farm boundaries.

### **Late 18<sup>th</sup> and early 19<sup>th</sup> C County maps**

Some excellent county-wide surveys available in some districts which pre-date the First Edition OS, and so can show some older settlements and land-use patterns. eg James Stobie's Counties of Perth and Clackmannan 1783, or John Thomson's Atlas 1832.

### **First Edition Ordnance Survey** from 1847 onwards, typically around 1860.

Detailed, accurate and well surveyed map showing all woodland at the time. A good but rather late baseline. Surveyed after most improvements have been made, and many antiquities like old field systems and even old settlements omitted. Records the largely improved landscape before modern plantations and urban spread. Invaluable.

Main survey scale 6 inch to mile, but also available in 25 inch to the mile, and one inch to the mile.

**Second and later editions of OS maps.** Similar content to First Edition OS but with interesting expansions or losses of woodlands and settlements. Can be a very clear record of the landscape before modern forestry starts. Second Edition at six inch scale not available online. It is possible to order and purchase good digital or paper copies of early OS and other old maps.

### **Modern maps**

The 1:25 000 OS Explorer Maps are the best general modern base map for woodland history studies, as they show much more detail and more place-names of farms etc than does the 1: 50 000 OS series, though the latter are of course useful looking at a district at a wider scale. Obtaining 1:10 000 OS sheets for the woodland of your particular study is worthwhile. However if working at that scale you may well be using digital or GIS mapping, especially to capture your own survey data, a process which is beyond the scope of this information note.

### **How to use the old maps**

Overlaying maps surveyed before the first OS may not be realistic as the old maps are generally not to scale or spatially accurate enough for use on GIS overlays. However all maps can be good for checking changes in woodland boundaries, and for narrowing down the dates of creation of enclosures and plantations, the abandonment of settlements etc, and of course to see the place-names recorded at the time.

A most useful recent innovation on the NLS website, is the facility to view many of the map sheets by 'plug-in'. This means following directions on that website to download certain map viewing software, which makes the task of saving and printing high quality selected map images very much easier.

Note that the online maps may be used in personal and group researches, but permission will be needed if the map images are published or distributed widely.

### **Day 2 fieldwork & prep**

After Talk K, which was illustrated with historic maps, including for Anagach and Grantown on Spey, we supplied copies of selected historic maps to the participants who worked in pairs. This was in preparation for the Day 2 fieldwork, around the old sawmill site at Kylintra. We researched the maps for this area in particular, and traced the development of the sawmill and the changes in field patterns, lochs, drainage and plantations through time, in relation to the development of Grantown on-Spey which was an 18thC new town created by the Grant family, the Anagach Woods being the result of deliberate native pine plantation which started at about the same time. This was then followed up in the field by examining and plane-table surveying the sawmill archaeological remains, and looking at its lade and reservoir system, with PQ. Old plantation pines just north of the sawmill pond, along a pre-Grantown field dyke, were cored by the group, under the supervision of CM, to learn about the application of dendrochronology and tree-ageing in wooded landscape history. Once those cores have been prepared and measured, CM will provide the results to the Anagach Woods Trust. The participants were split into two groups, and switched over activities half way through the afternoon, so that everyone took part in both activities.



