

Introduction



Haymaking was happening everywhere we travelled across Transylvania in Romania, from the outskirts of the city of Timisoara to the heart of the Apuseni Mountains, a few days before midsummer in June 2011. Wooden carts pulled by glossy chestnut brown horses trundled along the roads, laden with loose piles of fresh green hay. From first light to dusk, groups of two or three people laboured in the small rectangular fields, using wooden forks and rakes to turn and gather in the hay, tossing it up into conical stacks built around a central wooden support. This might be a sturdy forked branch stuck upright in the soil, a tripod or four-legged frame, or a post with several cross-bars nailed together, the top invariably poking out above the haystack like a short mast.



The fields were busiest in the evenings; many people have other jobs to go to during the day. But hay is needed to feed and warm their animals through the long, cold winters that Romania experiences; and hay is made in exactly the same way as it has been for hundreds of years, using hand-crafted wooden tools.

As well as haystacks, there were piles of wood everywhere, from bundles of twigs in the yard ready to kindle the fire or still, to neatly stacked planks for sale beside the road; wood of every size and shape for fuel, fencing, building, tool making and carving – clear evidence that wood plays a significant role in these people's lives. I work for Falkland Centre for Stewardship as Woodland Learning and Development Manager; central to my remit is seeking ways to support the revival of woodland culture in Scotland. I went to Romania hoping to find a living tradition of forests being managed and used for multiple benefits, to see what can be learnt that might be helpful as we try to create opportunities for people in Fife and beyond to get involved with managing and using our own forest as a place for learning, working and living with wood.



This study tour of local and traditional forestry was organised by ARCH with funding from the European Commission's Leonardo da Vinci Education and Culture Programme, and International Year of Forestry. The tour was planned and led by Oprean Monica¹ of *Satul Verde* (Green Village, a Romanian organisation promoting sustainable culture and nature), and Martin Clark of ARCH, who has extensive experience of European forestry. In the group were Amanda Bryan, a rural development consultant; James Ogilvie, Social and Planning Policy Adviser for Forestry Commission Scotland; Keith Logie, Parks Development Manager for City of Edinburgh Council; Robin Callander, an expert in managing natural resources, especially wood, for community benefit, and myself.

¹ Romanian names are written with last name first

The wood craftsman

Badau Traian still makes the useful and beautiful wooden hay rakes and forks we saw in use on every farm. He lives near the village of Girbovita in the Apuseni Mountains; a fit man, perhaps in his mid thirties, he walked 7km down the valley to meet us, then guided our vehicles up the steep, winding new dirt road to his farm, perched high on the mountainside in a verdant clearing. Up there the meadows had not yet been cut, and the wildflowers were a rich tapestry of colour – the kind of meadow we dream of being able to recreate in Scotland, and find nearly impossible to achieve.



Traian learnt his skills from his father and grandfather, and inherited their farm, woods, workshops and tools. When he needed some new tools to be made eight years ago, there was still a local craftsman to make them; that man has since died, and there's no-one to take his place.

As well as forks and rakes, Traian makes wooden pails for milking and churns for cheese-making, all from Norway spruce. Mulberry wood is best for the large barrels he makes, but it's hard to get; beech, cherry, plum or oak can be used instead. These barrels are for storing *palinca*, the potent plum brandy moonshine that we were offered everywhere we went in Romania, at all times of day (including breakfast) and for which we increasingly acquired a taste. He also makes jugs, bottles, beer tankards and small pails, left plain or decorated with patterns of dots using pyrography.



Wood craftsman Badau Traian and his work

Traian still takes his goods to market by horse and cart, although he can borrow a car from his cousin for longer trips. In winter, he uses snowshoes or skis to get down the mountain on foot, carrying his wares on his back.

Traian make roof shingles from Norway spruce; when electricity reached his home nine years ago, he bought a machine to shape them – but there is no demand for them at present, as shiny metal roofing sheets and tiles have begin to replace the wooden tiles. On our way to meet him, we had stopped at the Memorial Museum to Avram Iancu, in the village named after this much-loved freedom fighter (1824-1872). The beautiful wooden museum building is being painstakingly restored. We admired the slender wooden roof shingles being used, made from slow growing, high altitude Norway spruce with dense grain, allowing them to be cut thinly. But Traian was unimpressed; they are too thin, he told us, so they need to use three layers where one should do. His are made in the traditional local way, triangular in cross-section;

intersecting neatly together and being single-layered, they are more water-resistant and dry out more quickly.



Top: new roof of thin shingles on the museum
Below: Traian's traditional shingles on his storehouse

We crowded into his small, orderly workshop to watch him make a small horn (*tulnic*) from a piece of Norway spruce about 30cm long. He still works mostly by hand; the wood for small items would just split on a lathe. To make a *tulnic* he starts by roughly shaping a piece of wood with an axe, working outside under the trees. Indoors, sitting astride his shave-horse, positioned to make best use of natural light coming through the small window and open door, he shapes it with a succession of different sizes of drawknives until it's smooth and evenly tapering. Then

he carefully splits the wood in two along the length, so he can hollow out the middle. Finally the two halves are fitted back together and bound with strips of hazel, the join nearly invisible. Some he decorates with dots, others he leaves plain. Two or three metre long versions of these wooden horns were used in the mountains by shepherds and cowherds to communicate with each other across the valleys, either warning of wolves or bears, or simply for companionship in their solitary lives. We saw an old black and white photo in the museum showing two women in traditional dress using *tulnic* high in the mountains. These days the much smaller versions Traian makes are mainly used for festivals, or as ornaments.



Traian demonstrating making a *tulnic*

As happened everywhere we went, we were offered refreshments before we left. Traian's wife brought strong black coffee from the kitchen to the dining room – like most of the homes we visited, they had different buildings for cooking, eating, sleeping and sitting. The small wooden cabin in which Traian now uses as a store for his finished work was his grandparents' home. The building where we had coffee was around 80 years old, he told us; besides the big table we sat around, it had an ornate stove, and a simple homemade wooden

dresser in the corner. Cooking and heating, everywhere we went, used wood fuel; most homes had a stove in every room.



Traian and his wife have 20 ha of land, including woodland and meadows. There was a pig in the shed beside his workshop, hens scratching around, the horse and probably a cow or two off grazing somewhere nearby, and the inevitable barking guard dogs – as essential for keeping wild boar from the crops and livestock as warning of human intruders. Under the trees were piles of neatly stored timber for different purposes: sharpened staves and riven oak posts for fencing, planks of different sizes, logs ready to be processed, offcuts for firewood. Some he cuts from his own woods, some he buys and carts up the mountain with his horse. The careful, orderly way all his wood and tools are stored indicates the way they are valued.

Perhaps this was the closest we got to the traditional forest culture I was seeking on this study tour; I was left with the impression of a true craftsman, at ease with himself and his life, confident of his skills and producing high quality products for which there was a market. But for how much longer, I couldn't help wondering? Who will make and mend his tools when they wear out? Will he have a son or daughter wanting to carry on the tradition? The nearest neighbouring houses have become holiday homes belonging to people living outside Romania. When Traian and his wife grow old, will their way of life still be sustainable?



Wood stored by Traian's workshop

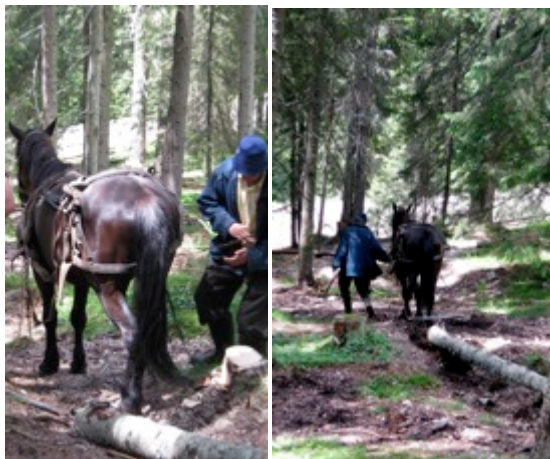
The woodsman

Life in Romania, as in most parts of the world, is changing rapidly. Since the fall of Ceausescu in 1989, people have experienced freedom and opportunities that were impossible under the Communist regime. However, these changes are not universally welcomed, as we heard from Giurgiu Dumitru from the village of Horea in another part of the Apuseni Mountains. Our meeting place was by the bright yellow digger he was using to quarry road materials; the dirt road that links the scattered villages is soon to be surfaced with tarmac, and he's supplementing his income doing this work as well as forestry, farming and house building; just like a Scottish crofter, he can and needs to turn his hand to almost anything to get by.

Dumitru directed our vehicles deep into the forest, explaining along the way that his small village is one of seven that make up the commune. He told us proudly that only a handful of young people (from a population of 2000 adults registered to vote) had migrated away from the area in recent years; they may go off to high school and university but nearly all come back, "even the doctors and lawyers". What, we asked

him, was the secret, when so many rural areas in Romania as well as Scotland are suffering severe depopulation? "Youth clubs, discos and excursions to the spa!" More seriously, he puts it down to the fact that every individual in the commune is entitled (from birth) to 5 cubic metres of wood a year (which they are responsible for extracting themselves, or paying someone to do on their behalf). Every young couple getting married is given 20-30 cubic metres of timber to build themselves a home. People are also entitled to collect mushrooms, fruit and other non-timber forest products from the collectively-owned woodland. This is wealth they would not find in the city.

Plot of forest up to 11 ha have been restituted to former owners since the end of communism. Dumitru has 2 ha, on which he pays a small tax which goes towards the salary of the area forester. Everyone must get the forester's approval (and stamp) to cut dead wood, wind-blow or mature trees on their own or the commune's land; once felled the wood is theirs to use or sell. Dumitru appears to have a good relationship with the forester, and said he can get permission retrospectively if the forester is not available when wood needs to be cut. For 15 years Dumitru had his own portable sawmill but he recently sold it.



Speedy horse logging

When we reached his plot in the forest, we were met by two friends of Dumitru with a horse. In minutes – too quickly for my camera! – they had felled a Norway spruce using a chainsaw, stripped it of branches, hitched it to the horse's harness with a chain and dragged it down the steep slope to the roadside. Dumitru then led us up through his

plot to the meadows above. On the way he demonstrated how to collect Norway spruce resin which is sold to the church for incense.



Dumitru demonstrating resin collection

We stopped by a spring of clear, sweet water to rest and eat our lunch of delicious *placinda* (chapati-like 'pies' filled with cheese - sweet and savoury, potatoes, apple or cabbage) which we'd brought from the guesthouse where we stayed the previous night; freshly made that morning, they were still warm.

On the common land in clearings above the forest Dumitru's family had grazed their animals for generations. Now his mother is too old to walk there, no-one else in the family has the time or inclination, and natural regeneration of spruce and other trees is quickly taking over the flower-rich meadows; some small trees are cut for Christmas trees.

Rootling wild boar dig up the pasture, and a few tumbled stones is all that remains of the summer shieling huts. Dumitru is a cheerful, enthusiastic man who clearly enjoys life, but he freely told us that he preferred his quiet, stress-free life under Ceausescu. There was full employment; everyone was allocated work, in textile factories, mines, sawmills, building sites or making roads. The forest belonged to the government, but people were still allocated one or two cubic metres each (they shared a chainsaw between six families). There was more animal-rearing than now because it was compulsory – all livestock had to be sold to the government.

Dumitru's forest plot is valuable because it's near the road and has water; he could get permission to build a house there if he wished. However he's currently building a holiday chalet further up the valley in an

area that has recently been parcelled out for sale; local people could buy at preferential prices, with the rest being auctioned. Proceeds from the land sale went to the commune to maintain roads and meadows. Now a dozen or more holiday chalets are being built, using timber cut from the forest and processed on site by local craftsman. A ski slope has also been cleared of trees, and once the road is surfaced, they hope tourists will follow.



Later, we met his mother, wife and daughters in their newly built farmhouse high on a steep hillside overlooking a beautiful valley. The old wooden house where his grandparents had lived is now a storehouse. His mother sleeps in the kitchen building, warm from the baking she'd been doing all day for our visit. In the main house we were served more delicious cheese pies and marble cake, washed down with black coffee, *palinca* distilled from their own plums and apples, and cordial freshly made that day from elderflowers and spruce tips collected from the forest.

They proudly showed us round the new house; there's a traditional stove in every room but they are not used as Dumitru has installed central heating radiators run from a woodburning boiler. We were also taken to

see the cow with her calf in the byre and the pigs in their sty; hens clucked around our feet. Each year they slaughter four pigs, two calves and enough hens to feed themselves and their seasonal help. They grow lettuce, carrots, onions and potatoes, but it's too high up for much else.

The family farm and forest

Oprean Monica's family farm is lower down, in the village of Girbovita, not far from the historic town of Alba Iulia. Her grandmother Spinean Eleonora is in her eighties but still works the land, helped by Monica's parents Spinean Emil and Tarca Silvia, Monica and other members of the family. In the yard behind the house, every building was made of wood; wooden tools and ladders leant against wooden walls; every corner had bundles of twigs, willow, round wood, chopped wood and sawn timber stacked ready for use. An old, unproductive mulberry tree had recently been felled (against Monica's wishes) to make a new shed.



In the cool, dark cellar below the house, Eleanora showed us her stores of dried herbs, jars of fruit and pickles, bottles of elderflower cordial and barrels of wine and *palinca* made on the wood-fired still in the front garden. She has a wide, shallow wooden

trough to make bread for the family. The kitchen garden by the house produces a range of fruit, vegetables, herbs and salad; the vines behind and around the house supply the extended family with wine. In the yard they keep pigs, numerous rabbits and hens, as well as several dogs and cats.



Eleanora and some of her dried herbs

The cow was away grazing with the village herd; after morning milking, one person goes with the herd up to the common grazing meadows above the village, and brings them down in time for evening milking, each cow finding her own way home. Monica bought her grandmother one of Traian's fine wooden pails for milking. We walked up to the meadows on the edge of the forest, above the basket-making willows and potato fields guarded by chained dogs whose job is to bark a fierce warning when marauding wild pigs appear. Some of the wood the family uses comes from the plot they own in the forest, where they gather firewood, fruit, fungi and wild plants. Earlier in the day, we met their local forester.



Forest above the village of Girbovita

The area forester

Legeanu Nicolae covers Alba county around Alba Iulia. He's an area forester like the one who authorises Dumitru's felling plans. Nicolae has been in post since 1984, and was a forester for 10 years before that, but told us that he still earns only 200 Euros a month, with a tied house and 3 ha of land in a clearing on the edge of the forest. He needs to farm to supplement his income and afford to build a house to live in when he retires, but said he's a happy man. He's invested in expensive grass-cutting machinery to keep the area around his house neatly mown; he grows corn, potatoes and wheat and keeps hens. His wife makes and sells candles.



Monica talking to Nicolae in the forest near his home

He oversees 945 ha of forest; it used to belong to the government but now has eight different owners including the City Hall (450 ha), Forestry department (360 ha), three churches (22-30 has each) and a few private owners. Management is carried out by a roving team of two men with chainsaw and tractor, covering an area of 20,000 ha.

Local people can gather dead wood for fuel, plus mushrooms and fruit (sloes, dogwood berries, rose hips, brambles) for personal use but not for sale, although in the Communist era, people were obliged to collect many tonnes of wild produce for export – Monica told us that each child had a quota they had to meet and take to school.



Mushroom gatherers we met in forest near Meziad

We were puzzled that the forest (mainly hornbeam and beech), although beautiful natural woodland with an important conservation role preventing soil erosion, did not appear to be well-managed for growing good timber. However Nicolae explained that the main value of the forest is for hunting, let on a 10 year lease to an association. He didn't know the income but suspects it's more than the timber brings. Each hunter (mostly local people, but foreign visitors can also pay to hunt) must be a member of the association and pay a fee of 600 euros a year to the forest owners, but gets to keep all they shoot (mainly boar).

Effectively the game belongs to the hunters; landowners cannot even shoot a boar that's damaging their crops. The hunters are meant to feed animals in the forest to prevent them from straying into farmland, and should pay compensation for any damage they cause, but Nicolae said they rarely do either and it's very hard to get resolution through the courts because the mayor, judge and lawyer are likely to be hunters themselves! Few farmers can afford the high fees to join the association, and some are forced to abandon their land because of repeated damage.

The district forester

Our understanding of the way forests are managed was significantly improved by the final and most senior forester we met, Stefanica Adrian, who is responsible for 4700 ha of private (formerly government) forest in the area around Meziad. 4200 ha belongs to local villages, but 500 ha is privately owned by families who were originally given the woods as compensation for losses suffered during the 1914-18 world war. Adrian oversees eight area foresters like Nicolae, each of them managing 5-800 ha. Their salaries are paid from timber sales, and that income is also used to maintain forest roads and bridges, so they guard the wood against theft and aim to manage it well. Adrian showed us the tool used to stamp every tree when it's authorised for felling; a detailed inventory is kept and all timber extracted must match the stamp.



Photo by Amanda Bryan

Continuous cover is maintained with selective thinning at maturity. Natural regeneration is usually adequate so that replanting is not often required. Above 1000m the forest is mainly fir and spruce, with oak dominating lower down. They have some problems with pests and diseases (it's a conservation area so they cannot use any chemicals) and we noticed a number of trees had been damaged low down on the bole either by careless extraction or perhaps by grazing cattle; the timber value will be significantly reduced when these trees are felled at maturity, but Adrian shrugged resignedly when we mentioned this – it happened many years ago, in Communist times, when things were not so well managed as now.



Damage at the tree base Photo by Amanda Bryan

Hunting is let on a 10 year lease in this forest as well; Adrian is himself a hunter and explained that two years experience and proven competence to a high standard are required before anyone can join their association, which has 27 members hunting over an area of 12,700 ha. The state authority allocates a game quota; Adrian reeled off the numbers: 25 boar, 122 pheasant, 20 stags (over 400kg in weight), 7 roe deer, any number of foxes and carrion birds (the legs have to be produced in evidence that they're keeping numbers down), and 50 hares. which they don't hunt at present.

The ladder makers



Monica with one of the ladder makers of Cresuia

Adrian took us to meet the ladder makers in the village of Cresuia. We entered through a high gateway straight off the road running through the village. It was Saturday afternoon, and people were decorating their doorways with sprigs of lime leaves in preparation for the feast of the Ascension next day. The square courtyard inside was shaded by vine trellis and surrounded by the different household buildings. Through a small wooden gate opposite the main entrance was the back yard where the ladders are made, with hens poking in the midden, pigs grunting in the sty and a playful puppy trying to chew people's bootlaces. Beyond was an enclosed orchard where more ladders were stacked, providing perches for more hens.



Photos by Amanda Bryan

There are six ladder makers in this village, making two different styles in several sizes. The traditional version – we saw one in nearly every home – is made entirely with hand tools, the sides from one round stripped Norway spruce pole split in half lengthways and the rungs from hazel shaped with a drawknife. Until electricity arrived recently, this was their only tool along with the axe and awl. Now they can make more modern folding ladders from sawn lengths of Norway spruce. We debated whether this solid,

functional design would meet European health and safety standards, even with a chain attached to keep the two sides in place; the ladders makers were confident of the quality and durability of their product.

The lime burners

Our final two days were spent in Meziad village as guests of the lime burners' families, Inceu Dafin and Ana and their daughter Andreea, and Vesa Dumitru and Silvia.



The lime kiln and wood stacked ready for firing
Photos by Amanda Bryan

It wasn't possible to fire the lime kiln in the time we were there, but Dumitru showed us the way it is constructed with rounded river stones and clay, filled with chunks of limestone carted in from the hills nearby, and kept burning fiercely for several days and

nights using wood from the local forest. In the central courtyard of their home, Silvia showed us how simply slaking one of these lumps with water in a battered old zinc bucket produces the required mixture that is used on most of the older buildings, inside and out, often coloured with local earth pigments to achieve some lovely hues that mellow with time. While we were there a couple came to Dumitru and Silvia's door to buy a bucket full of the solidified chunks of powder to lime wash their kitchen.



Silvia demonstrating slaking lime
Photo by Amanda Bryan

Lime wash, a durable, breathable coating that hardens with time, is also used for harling old buildings in Scotland, where the Scottish Lime Centre promotes its use and teaches the traditional methods. Several times they have come to Falkland's Big Tent environmental festival to demonstrate this sustainable, low-carbon process. Recently Martin arranged for the Romanian lime burners to visit Cumbria to demonstrate their skills; another trip is planned and he hopes the Scottish Lime Centre will buy some of the product. So it's quite possible that next time there's a demonstration in Falkland, it might be using lime produced by the families we stayed with in Meziad.

On the morning of our last day in Meziad, we had the only free time of the entire tour. It was Sunday, so both families were able to relax a little, having put a great deal of effort into looking after us during our visit. We sat chatting on the terrace of the Inceu family's home under the shady vine trellis, eating sun-warmed cherries just picked from the trees around us, drinking *palinca* and elderflower and lemon cordial. I reflected that I had

washed that morning in water heated by the efficient old wood-fired boiler in the bathroom and had eaten a generous breakfast cooked in a wood-fired oven, soon to be followed by lunch featuring a variety of home-grown and home-made ingredients.



Photos by Amanda Bryan

Reflection

Here in Scotland, we know the immense benefits of time spent in woodlands and other green spaces to our health and wellbeing, but few people ever have the chance to do more than simply pass through the trees as a visitor, an observer. Forest Schools and the Forest Education Initiative, supported by the Forestry Commission, have begun to encourage young people to spend longer periods in the woods, learning the characters, properties and many uses of trees, becoming at home in the woods. In Falkland, we encourage people of all ages to come to work and play in the woods, learning how to make fire safely, build shelters, forage for fruit and fungi, weave with willow, whittle and carve, and care for

trees at every stage from planting to seed collection. We are exploring the best ways to grow good timber and make it into something useful while maintaining the landscape, amenity and conservation value of our forest.

It's a start; we may be still a long way from a thriving local woodland culture, but what I saw in Romania inspired me with some new approaches to achieving this vision. We saw several kinds of forest in different parts of Transylvania being managed sustainably, maintaining continuous cover to conserve the soil, yet producing significant quantities of wood and non-timber forest products. We cannot make a direct comparison without some statistical analysis of growth rates and productivity in relation to population². However, to achieve the target set by Scottish Government of increasing forest cover from the current 18% to 25% by 2050, we need to make wood as relevant to the daily lives of people in Scotland as it is in the parts of Romania we visited.

The key factor in Romania was that the people we met have some ownership of woodland and wood products – whether individually or collectively – and it has significant economic value, in cash or in kind. A combination of management by individuals and by foresters working for landowners, including the local community, delivers multiple benefits including landscape and conservation value.

A week is a very short time in which to learn about and try to understand a different culture. All I have been able to record is a few impressions; I need longer to reflect and fully appreciate what I have seen. I hope to meet the lime burners when they are in Britain again; I have a new appreciation of this ancient craft, and when we start making charcoal in Falkland in the autumn, perhaps this would be a way to use it.

I was delighted to find whittled spoons, spatulas and wooden choppers in the market in Timisoara on our final morning, made by Chira Nicolae and Calin of Avram

² The population density of Romania is 95.5 people per sq.km, with 27% forest cover. Scotland has 66 people per sq.km.

Iancu and being sold by their elderly aunt, Zanfina; we have a strong interest in wood woodcraft in Falkland and I shall take their work, as well as that of Traian, to show participants in the woodcarving courses running this summer, perhaps to inspire future projects.



Photo by Amanda Bryan

I couldn't bring back a ladder, but when we plant the community orchard we are planning in Falkland, I hope we'll be using wooden ladders to pick the fruit from our first harvest in a few years time. It may even be possible to invite Traian and the ladders makers here to teach their skills, or perhaps send people to Romania to learn from them.

Seeing the ways in which people use every part of the tree for fuel and other purposes in every household we visited showed what might be possible here in Scotland, as the cost of gas, electricity and oil-dependent resources soars. The number of beautiful wooden buildings was inspiring; right now we are starting to start to build with timber from the Forest of Falkland, and some of my photos may offer new design ideas. Learning about the various ways individuals and communities manage and use their woodlands in Romania suggested a variety of approaches to draw on as we seek ways to engage local people in the Forest of Falkland and its future development. It was an intense week, and very worthwhile.



Moving timber the traditional way, Apuseni Mountains
Photo by Amanda Bryan

Acknowledgements

My thanks to ARCH, the EC and International Year of Forestry funding, and Falkland Centre for Stewardship for making it possible for me to go on this study tour. To Monica and Martin, heartfelt appreciation for all the effort, patience and determination that made the week so worthwhile. And to the team, my thanks for all the interesting questions and conversations, and especially to Amanda for the photos and for being such an uncomplaining room mate. Finally, I would like to express my warmest appreciation to all the people we met in Romania, who so generously shared their knowledge and skills and welcomed us into their homes.