Pro Silva Ireland

Tour to Romania

26th April - 2nd May 2004
Editorial

"What a magnificent sight: range after range of afforested mountains as far as the eye can see. Only in Brazil have I seen anything like it."  (overheard)

Romania is justly proud of its forests and its age old tradition of forest management. We were fortunate to see woods which would be inaccessible without the organisation of the Romanian Forest Service, and to be guided by knowledgeable and enthusiastic foresters.

We are particularly grateful to Florian Borlea. His invitation to Robert Tottenham, when they met at an international meeting of Presidents of Pro Silva, triggered the visit of Pro Silva Ireland to see Romanian forests and their close-to-nature management.

The scale in time and space challenges the imagination. It took eight hours to walk through a natural beech forest. It was an inspiration to see how managed oakwoods (rotation 120 years) can regenerate naturally and provide continuous cover.

Mixed woodland needs skilled management, and this must accommodate not only the timber industry but use of the forests by visiting sportsmen and gatherers of mushrooms as well as wildlife conservation, protection of water quality and recreation. And this integrated approach is shown to be profitable. No government funding is needed to support forestry in Romania.

Above all we related the experience to Irish forestry and the tradition of hardwood and permanent cover which has been lost here. Only by seeing at first hand the tradition continued for many generations, as in Romania, can we begin to envisage how our own hardwood tradition can be regained.

It was a highly enjoyable and instructive visit and Romanian hospitality lived up to its reputation.

Many thanks to all the scribes and photographers who recorded their experiences for this report.
See our website for more details - www.prosilvaireland.org

Elizabeth Tottenham  (editor)

Members of Pro Silva on the tour:  Robert Tottenham, Donal O’Hare, Michael Purser, Helen Purser, David Brabazon, Dilly Brabazon, Mickey Gabbett, Will Gabbett, Ben Jobling Purser, Huw Denman, Phil Morgan, Trish Morgan, Franz Waldburg, Anthony Keane, Gionata Spazzi, Marie Christine Flechard, Richard Tottenham, Elizabeth Tottenham.
The initial party (those from Ireland, less Robert Tottenham who was unavoidably delayed) arrived in Timisoara in the late afternoon. There we were met by Florian Borlea and companions. After installing ourselves in our hotel we went to the head office of the Regional Forests Administration (Directorate) Timisoara, which controls six forest districts. The director Toth Francisc outlined for us both the nature of the forest region and various common facts and characteristics of Romanian forestry in general.

AN OVERVIEW

The Timisoara region is only 11% forested, compared with a national average of some 20%. This is because the region, the Banat, is essentially low-lying fertile land traditionally used for agriculture. There are some 80,000 hectares of state-owned forest and 10,000 hectares privately owned but administered by the state forest service, Romsilva. The private forests include land confiscated under the communist regime and recently handed back (maximum 10 hectares per person) and other types of property, e.g. formerly communally owned – which was common further east in the ‘Saxon’ areas. There is apparently considerable confusion over the private forests, heirs of former owners knowing that they ‘own’ a (part of a) forest but not knowing its precise extent nor location, and having no proper documents etc..

The altitude of the Timisoara region lies between 90 and 1000 metres, and the rainfall is 600 to 800 (in higher areas) mm per year. The dominant species is oak (40%), then beech (28%), other broad leaves (22%) and the balance is conifers. Romsilva would like to extend its areas of forest in the Timisoara region by further purchases.

Normal practice is to sell standing timber, and foreign buyers are welcome subject to certain controls – which include a requirement for the buyer to invest in the country (in some acceptable form) as well as removing timber.

At the national level we were told that natural regeneration is promoted, and is the standard practice in the country, and we were to see much of this later in our visit. Clear-felling (except sometimes of spruce) is prohibited. This ban was made after disastrous floods in 1986. Generally speaking, we were told, forest management in Romania does not contradict Pro Silva principles.
HUNTING

We were given beautifully illustrated leaflets about the region, as we were at all subsequent ones. It became clear at once that hunting is a major source of income for the forest administration, and all regions had their leaflets about wolves and bears; deer, chamois and mouflon; wild boar; lynx; capercailzie, pheasant; et cetera. It is the business of the forester to know the game population, and licences for hunting are granted which take into account the percentage annual cull desirable – not forgetting poaching. Hunting lodges of excellent standard are available for renting. Throughout our visit we were to see that deer are not the plague they are in Ireland, no doubt partly owing to the presence of their natural predators, the wolf and the bear.

Some random, general, side remarks:
Foresters wear uniform, with military-style insignia, when meeting a delegation like ours.
There seems to have been a recent and major shake-up in Romsilva. Florian had lost his high position a few weeks previously, as had our later host in Sibiu – Mr. Cortulea. (Both had been appointed in Ceaucescu days.)
There appears to have been a recent proliferation of forestry training schools/universities in Romania, which Florian deemed to be unsustainable. The traditional, highly regarded centre for forestry education is Brasov university.
A visit to a forest is inevitably accompanied by the consumption of tuicâ – home-distilled plum brandy.
Monday 26th April

TAPIA, VALLE LUNGA and FAGET

By Michael Purser

The morning of our first full day was spent visiting two forests (Tapia and Valle Lunga) in the Lugoj district. After an excellent (but heavy and protracted) lunch, we proceeded to the Faget district. The principle objective was to see natural regeneration of broad leaves, with its associated problems.

At Tapia we saw an oak wood which had in the past been coppiced, and which was producing sub-quality, often rotten timber. This was not helped by the impermeable nature of the soil, on which water would lie for weeks in wet weather; and which in recent years had then so dried out in the hot summer that many trees had died from drought. As a consequence, in 1999 it was decided to reduce the planned final cut of the existing timber from 70 to 25 years, and to foster regeneration of stronger, healthier new trees. The traditional Romanian technique of ‘eyes’ was employed. A small opening in the canopy is created wherein regeneration can take place, and year by year this is extended. The result is an oval with the taller (older) saplings in the middle and the small ones on the periphery, beside the uncut mature trees. Eventually the eyes join. The natural regeneration in these eyes was spectacular. The management required consisted essentially of thinning out the unwanted species or poor quality specimens. Hungarian oak (Q. frainetto) was to be favoured over the Turkey oak (Q. cerris), although the latter is much more prolific at the site. Also, certain varieties of Sorbus and Prunus, yielding high quality wood for veneer, were encouraged.

At Valle Lunga we saw somewhat less successful regeneration. Brambles had taken over where there was an open area in the canopy and some drastic clearance had been necessary. Unwanted hornbeam (Carpinus) had seeded itself in profusion in the more favourable spots, to the exclusion of everything else. There was also much critical discussion about the thinning and harvesting policy for the mature trees.

IN THE AFTERNOON NEAR LAKE SURDUC (a reservoir) we looked at more oak (47% of the forest), beech (22%) and hornbeam (21%). This was on a steep slope, and the oak included a substantial proportion of sessile (Q. petrea). Regeneration was taking place under the cover of the older trees, which were being taken out at five year intervals, starting in 1988. Their age was approximately 130 years.

Apart from extracting value from the cut timber and fostering regeneration of oaks there are two important subsidiary objectives: the protection of the reservoir’s water supply whose source is the whole forest basin, and the encouragement of the regeneration of the sorbus and cherries which yield the valuable wood for veneer.

Back in Timisoara we were joined by the Welsh contingent but Robert Tottenham remained AWOL.
Instruction at Faget

Quercus frainetto
Tuesday 27th April

NERA RESERVE

By Gionata Spazzi

This rare untouched beech forest is located on the South part of the Semenic mountains between 250 m and 1500 m of altitude. It covers 5000 ha and since 1975 is a designated Forest Reservation: no management is in place here and there is no record or evidence that any management ever did take place. The Nera Reserve is the largest beech virgin forest in Europe. Beech is found here to reach 350-400 years of age, with a standing volume/ha between 450 and 1000 m³! Tree height is higher at lower altitudes and reaches 45m. Height, volume and age all tend to increase as altitude decreases. The forest area is very rich in springs with a constant flow and very good quality. The water from this area supplies the town of Resita.

We walked through this magnificent forest with local foresters for the entire day, descending 1000 metres from its upper limit to the valley bottom. Here we were received with a wonderful display of much appreciated and needed hot food and drinks!

The upper area was still partially covered in snow and the trees carried the sign of their struggle to grow at such altitude, being stunted. The canopy also was sparse with areas of advanced regeneration.

The leaf litter seemed very thick and dense (packed by the snow?) with little visible woodland flora. Deadwood was plentiful, both standing and lying. The general feel was of a dark and inhospitable place!

As we started descending more life appeared. We heard and saw the signs of woodpeckers and saw some unidentified vernal woodland flowers pushing through the leaf litter. Where a tree fell the forest soil was disturbed and offered an ideal seedbed for plants and tree species. The canopy height and density slowly increased as we descended. Progressively tree form and height increased together with timber volume.

During the walk we had many interesting conversations with our Romanian hosts. Some of the topics regarded the way the forest cultivates its own soil and the concept of Bio-groups: the possibility that a small number of neighbouring mature trees could link at roots or branches level to constitute a larger organism. In this case the management unit (if management was in place) would shift from single tree to groups of connected trees.
There was a clearance half the way through our walk. We speculated on its origin which is unknown. Deer grazing is now keeping it open.

As we continued the forest became more magnificent with large, tall, straight beech trees. In the last part of our walk, at the lower altitude, some leaves started to appear on the trees and the beech forest finally merged into a mixed green broadleaved forest with helm, hazel, birch and willow/alder on the valley bottom.

The day spent in the Nera forest was the best day of all the Romanian tour and a moving experience on professional and personal level.
Wednesday 28th April

ABOVE BAILE HERCULANE

By Ben Jobling Purser

Breakfast was at Ferdinand Hotel - cold meats, scrambled egg and cereal as usual.

Four 4x4s and Silviu’s Passat leave Baile Herculane for the Musuroaie Hut with the whole party on board. We take the main road down the valley for about ten minutes and turn off over a bridge onto a dirt track. We stop off at a fish farm at the base of the ascent for about fifteen minutes. It is stocked mainly with rainbow and some brown trout. They seem to be killed at a smaller size than Irish farmed trout (we eat them later on in the trip and they are only about seven inches long). Silviu’s Passat gets left here and we carry on the journey. We drive along a very slow bumpy road for about an hour. Those of us in the front vehicle see what we think was an eagle owl about four hundred yards before the next stop. At the nursery we are shown a very small scale system, probably less than ten thousand trees in total. There there are about six or seven peasants that are having some breakfast. It is explained that the nursery is only needed for places where there is no natural regeneration. The workers have a bucket that is full with black pine nuts being moistened ready for planting. By the time we leave they have prepared quite a bit of the seedbed. It looked like the whole lot came up the mountain on a tractor and trailer that is parked in the woods.

We get back in the 4x4’s and travel to the Musuroaie Hut where there is a picnic table prepared with soyka and locally made pastry with sheep’s cheese inside. Mickey goes for a jimmy riddle behind the hut and sees a giant red squirrel; Huw comes to have a look and gets out his trusty ID book - it’s a beech martin!

The group split up here, the energetic young ones including Michael Purser went straight up onto the Domogled peek and the others went straight down the Jelarau Valley the so-called easy way.

Silviu and his associate took the young ones up to the peak. On the way up we saw a few specimen Service trees. Silviu told us that the timber goes for up to £900/m3 for veneer. It was a sunny, humid day so the visibility was quite good but it was very sweaty. Once at the top the view was of spectacular forests for as far as the eye could see. We could see the Danube which is the border between Romania and the Serbia at that at that spot. Alpine swifts were playing about on the thermals around us. They are about twice the size of the common swift with a brown lower back. Rock martins were flying amongst them as well. On the top there were classic limestone pavement clints and grikes as on Burren, and the floral species were very similar too.
It was amazing to see both sides of the mountain from the top. The conifers on the exposed side and hardwood all the way to the top on the lee side. The conifers were silver fir, Norway spruce and black pine. There was a lot of hardwood but mainly beech. There was a big forest fire on the mountain in the late nineties and the pine was most affected.

The descent was a relief for about ten minutes and then the knees and ankles started to feel it. It took about three hours to get to the town from the top. It was a steep thin track on the way down and we nearly started a few avalanches. We arrived down two hours late at four o’clock and ate a very late lunch.

IN THE AFTERNOON WE WENT UP THE CERNEA VALLEY, beyond the Iovanu Dam, to see oak. At the top we looked across the valley at ranges of afforested hillside, patchworked according to age and management.

Spread out before us we could clearly see a site thinned at 60 years. Near it was a site thinned at 80 years, when only the best oaks would be left as a seed source; and beyond, a site clear-felled at 120 years, revealing the natural regeneration, these trees being by now up to 40 years old. In another 20 years they in their turn will be ready for their first thinning.

It was perhaps the most remarkable view we had of the oak rotation which has for innumerable generations been the policy of Romanian forestry.

On the way back we passed the natural hot springs where Romanians were having their evening bathe.

Black pine above Baile Herculane
This was essentially a transfer day, a very long drive to bring us all the way to Targoviste in the forest district of Dambovita.

On the way we had the opportunity to visit two forest locations.

The first stop was the nature reserve of Saeca-Optasani where they had managed to preserve a rare and endemic plant species: Peonia Romanica.

The forest type is here mixed oak with Quercus frainetto as main species on a heavy clay soil. In 1965 this area, measuring 136 ha, was designated as a Nature Reserve. At present the average age is of 150 years, with some under storey reinitiation. Given the soil type (=poor drainage) the forest floor is partially flooded in the winter and presents drought cracks in the summer.

These extreme ground conditions explain the apparent sparse nature of advance natural regeneration. Given the high quality of Quercus frainetto here present, this stand is used as a source of seed for nurseries.

The second stop was a production unit: a conversion of former oak coppice into high forest. The goal here is to promote regeneration from seed and phase out the coppice stools. The reason for this is the marked tendency of stems from coppice stools to develop but rot as they mature. The system used here is progressive felling with the typical "eye" coupes.

Gianata shows rot in stool growth
Northern peaks of the Transylvanian Alps

Timisoara
Brasov, university town and centre of forestry education

One of the fine forest lodges

Romanian hospitality

Orthodox church at Herculane
Pro Silva Members and hosts near Lake Surdac

Semenic...

...at the end of an eight hour walk
Friday 30th April

BRASOV FOREST DISTRICT

By Gionata Spazzi

Today we leave Dambovita Forest District to enter Brasov Forest District, driving up the valley leading us from Targoviste to Campolung. This area is renowned for its tradition of fruit orchard cultivation. Given the time of the year we were able to witness the rare sight of hundreds of hectares of flowering fruit trees in full sunshine.

The highlight of the day is the visit to the Dambovicioara Nature Reserve.

This nature reserve occupies gorges and steep slopes on the south side of Piatra Craiului Mountain covering 6000 hectares and it is characterised by calcareous sandstone formations. The area is wildlife rich and is managed primarily as a Chamois reserve (population of 50). Bears (20), wolves, pigs, wild cat, lynx and red deer are also present.

The tree species composition is mainly beech/ Norway spruce with some larch and silver fir.

Our first stop within the nature reserve was at a fish farm unit owned and managed by Romsilva.

Here brown and rainbow trout together with a local trout variety (Salmo fontanellis) are bred and sold both as food and for restocking of local streams. Our guides for the day were Hicoloe Busiou, production units authority, and Adrian Patrescu, National Park authority.

Romsilva directly administers fishing permits for the area, generating revenue from this natural resource. Last year production was of 12 tonnes of fresh fish fed on crushed wheat.

From here and through spectacular gorges we reached the upper valley where a short walk led us into the forest area.

Here we discussed the ongoing management for the area.

The prime objective here is nature conservation but within this frame timber and non timber production takes place. Timber is harvested using low impact systems. This takes the form of progressive felling with successive felling confined to areas of less value to wildlife. The rotation is of 120-140 years with extraction carried out by horse and tractor/ winch. Natural regeneration is generally achieved with some minor deer browsing on fir and larch. Traditional activities such as sheep grazing are here maintained as well as hunting which is allowed under licence. However poaching is a problem. Christmas trees are sold from naturally regenerating silver fir and Norway spruce up to 3 metres high for €10-15 each, collected. The best logs produce veneer and second quality are sold as sawlogs.
All the lower grade timber is sold, split and stacked, as firewood at £15 per m³ collected, or as standing thinning after marking of the stand has been carried out. Some charcoal is also produced. Collection of edible mushrooms, herbs and forest berries is carried out by local people and small processing enterprises. This activity is regulated by Romsilva: an annual quota per year is fixed and distributed between a number of collectors and, for commercial users, the price is agreed on a weight basis.

A programme of wildlife monitoring is in place to make sure that all species populations are in a healthy state. For this purpose several observatory points are arranged throughout the park.

The area and its natural beauty attracts many visitors. This supports a local vibrant tourist industry including a restaurant owned by Romsilva where our group had the opportunity to enjoy some pan-fried local brown trout.

The sale of products and services from the Nature Reserve, while being compatible with the nature conservation programme, makes this natural resource profitable: a rare example of sustainable forest management.

![Steep slopes in Dambovicioara nature reserve](Image)
Saturday 1st May

PIATRA CRAIOULI NATIONAL PARK
and COTUL DONOLU

By Gionata Spazzi

This is the last official day of our visit to Romanian forests and a very promising one. The programme of the day includes a visit to Piatra Craioului National Park in the morning and to mixed managed stands in the afternoon.

The Piatra Craioului National Park with its spectacular limestone ridge is of high scenic beauty and attracts national and international visitors. Elevation varies from a few hundred metres to over 2000 metres with annual average rainfall of 1000-1300 mm. The park, covering 14,800 hectares, was instituted in 1938 and recently received funding from the World Bank to develop during a five year programme as a model of integrated, sustainably managed forest. Local community outreach, a new visitors’ centre and eco-tourism programmes are at the core of this development programme. The Park is wildlife rich with chamois and bears as main fauna features. Flora is also very rich with some protected endemic species (Dianthus spp) and many alpine meadows. The main tree species here is Norway spruce with some beech, larch and silver fir.

After a technical presentation in the visitors’ centre we spent the morning walking through the surrounding forest discussing management issues with local foresters. We were guided by our host, Tudor Stencioiu, of the Romanian forest service.

The area we visited had minimal intervention prescription to maximise its recreational value. Beech and Norway spruce were managed under natural regeneration. Some felling took place along paths to remove potentially dangerous trees. No active habitat creation programme is in place. A non interference approach with as little as possible intervention is the prescription. Where compatible some small amounts of quality timber is, however, extracted. This small regular harvest keeps this forest in a dynamic state - allowing, for example, the streamside to be partially open and alive with wildflowers. We saw marsh marigolds along the stream, and there was a certain amount of deadwood about.

In the afternoon we visited a managed stand in the Brasov area: Cotul Donolu forest. It is constituted mainly of Norway spruce / silver fir/beech mix being at an altitude of
1000 metres.
The average age is of 140 years which from a timber management point of view makes it over mature. The optimal rotation for this stand is of 115 years. It was previously managed as seed stand and in 1996 initiated transformation to regenerate it. The system chosen was progressive felling as some patches of advanced regeneration were already existing. Further felling occurred in 1999 to release new regeneration and more is planned for next year. The pattern used is the usual eye-shaped coupe.

This case is very interesting as many old estates in Ireland and UK present a structure similar to this stand pre 1996: an over mature canopy with patches of advanced regeneration.
2nd May 2004

SIBIU FOREST AND FOLK MUSEUM

By Mickey Gabbett

Left the hotel at 8.15 am with Florian and Tudor on the bus.

DISCUSSION on private forest ownership and some of the problems facing them;

a. Lack of control of felling in privately owned land in the Nature Reserves.
b. Individual owners get a free management plan every 10 years, but municipal owners pay £10 per ha and so don’t get it done. Private owners can choose who manages their woods.
c. Allowable clearfell of 3ha. Some timber is stolen from private forests, but the forest laws have no teeth.

Tudor thinks that the hillsides that are now grazed will soon revert to forests as the economics of shepherding (typically one man to 20 sheep or goats) and the exodus of young people to the towns take effect. The pioneer species will be Birch.

Private persons can own 200ha, but there is no top limit for companies. West Romania has now a Roman invasion where Italian companies have bought up a lot of land. Forest land can be bought for £700 - £2000 per ha.

Veneer prices £180-220 per cu/m roadside
Standing price average £14-15 per cu/m

In general Protection forests are on the slopes, Production forests on level ground.

We passed a huge urea factory, described as a dinosaur, which had changed hands for one euro. In the distance we also saw the incredible home of the king of the gypsies, looking like a stainless steel copy of a Disneyworld castle. Shepherds in this area were able to remain independent of the communist regime and became very rich as a result.

SIBIU FOREST DIRECTORATE

We arrived at the Sibiu forest directorate headquarters at 11.45 am for a presentation where we learnt:-

Total forestry is 187,000 ha, 34% of the county is covered with forest, 40% conifer 60% broadleaf, 120,000 ha private (more than 2000 owners)
The directorate runs several hunting lodges and paying guests can hunt the following species:
Capercaillie, Brown bear, Red & Roe deer, Wild Boar, Pheasant, Duck, Woodcock. 10 to 12 bear are shot every year in the area out of a population of about 200.

The local population is Saxon and indeed the local mayor is German. The Bruckenthal museum was established in 1875, before the Louvre in Paris, and the first rocket propelled missile was built here in 1526.

THE FOREST
We then left the classroom to see the woodlands behind the headquarters, part of a 2000ha forest around the city, managed as "protection with social factors". The soils are clay over clay, making them difficult for regen because of lying water. Mainly Quercus Robur of even age - 150 to 160 years - now being manipulated to uneven aged structure to maintain CCF, yield class 4 – 376 cu/m per ha. First sanitation thinning occurred where most regen exists, then scarified and seed spread. Other species are welcomed in regen; species diversity will help health and appearance. Species observed include: oak, beech, cherry, lime, field maple, hornbeam, ash, hawthorn, blackthorn, bird cherry, dogwood, and spindle. Fencing of the site 20 years ago has made all this possible. An attack from Melocontha Melocontha moth is expected. One of the outstanding factors was the number of woodpeckers that we saw in this wood. Maybe they were waiting for the moths!

Woodpeckers in mixed woodland near Sibiu
THE FOLK MUSEUM
From here we went on to the Folk Museum in the outskirts of Sibiu. Established in 1964 on 100ha, it has 300 plus houses and other buildings that were sourced all over Romania and which were dismantled and re-erected here. The collection is absolutely fascinating and well worth a visit. It included: a water mill with six stones, each driven by its own wooden impeller, a water driven reciprocating sawmill; a small wooden church, beautifully painted on the inside - and many more which I did not have time to see because our leader had decreed that we must be back on the bus by 2pm; everyone was late because it was so interesting. We said goodbye to Michael and Helen Purser who were staying on for a few days and visiting friends. Our hosts provided us with enough sandwiches to feed a large army, some of which we ate before presenting Mr Cotarlea Ioan with a bottle of Irish whiskey and exchanging gratitudes.

SEBES
In the bus Florian, who had referred to our leader as Mr Tottenham or Mr Robert throughout the trip, got his tongue twisted and called him "Herr Rotterdam". Rumours of a very old oak tree and Brother Anthony’s pleas persuaded Mr Rotterdam to stop the bus to visit the church in Sebes. We were in luck and the very impressive church was open. Built in the 13th century by the order of Cistercians, the altar is one of the biggest in southeast Europe, 13m high and 6m wide. Much of the original church was destroyed by the Mongols in 1241. In 1453 the church was extended by 2m each side to accommodate a growing congregation, and in 1518 the tower was raised one storey (there’s more, kindly translated by Franz from the German leaflet, but this is meant to be about trees, isn’t it?)

Our knowledgeable guide, Tudor, who had recently returned with a degree from Berkley university reading "the effects of light intensity stimulating natural regeneration" left us. He lived nearby and had hitched a ride; in parting he gave us a bottle of the local 100% proof plum brandy.

6.05 pm Arrived at the Roman ruins at Sarmizegetusa, consisting of an amphitheatre and associated ruins, not very well presented and we left with many questions unanswered.

We dined in a small country restaurant which, Florian knew about, where we had a really good 2 course meal with lots of local wine and beer ---- the cost? ---five euro a head!!!

11pm And so finally back to the hotel after a long and very interesting day. Brother Anthony had used his influence and the weather was glorious, in fact we were blessed with good weather for the whole trip. The younger members in the party decided to do just that and stayed up all night I think.
Monday 3rd May

TIMISOARA

By Brother Anthony Keane

Monday the fourth of May was a gentle day for visiting the countryside around Timisoara and the city itself.

Through vast expanses of verdant wheat whose heads were already swelling and which would turn golden in a few weeks time, Florian and Daniel lead us to a young forest of Quercus cerris which is managed primarily for hunting. Sixty year old stems hold a light canopy over a shrub layer of oak, acer campestre and acer tataricum, all maintained by the fallow deer at a height of one metre to give everyone a sporting chance.

Great rides, some fifty metres in width, converge on tall timberbuilt panopticon shooting towers which are well positioned to sweep away anything that might venture out onto the grass.

As this was our last day in Romania, we left behind in Timisoara a cultural embassy to visit the Romanian Orthodox, Serbian Orthodox, Lutheran and Roman Catholic churches of the city and to re-enact the riots of Romania's dramatic 1989 revolution.

Remains of the amphitheatre at Sarmizegetusa
PRO SILVA IRELAND

Pro Silva Ireland is a non-profit organisation established in June 2000, made up of foresters and forest owners. Pro Silva Ireland is linked under a European umbrella group, Pro Silva, which was founded in Slovenia in 1989.

Members believe that there are four issues of major importance to present-day forest management. These issues concern:

1. The basic principles of responsible forest management and forest utilisation;
2. The maintenance of biodiversity;
3. The use of exotic species;
4. The ecological role of forests in the landscape.

Together with an emphasis on sustainability, Pro Silva promotes forest use which follows natural processes. By these means ecological and economic risks are reduced. Pro Silva members believe that it is possible to commence a change from a regimented, monocultural type of forest management to alternative forms of management and silviculture (including Continuous Cover Forestry) at almost any time during a stand rotation.

Pro Silva supports the implementation of such management in the following ways:

1. Exchange of information within regional working groups such as Pro Silva Ireland;
2. Establishment of demonstration forests;
3. Meetings and excursions in demonstration forests;
4. Cooperation with educational and scientific institutions and other bodies.

Pro Silva Ireland recognises and values the unique history of Irish forestry and its past, current and potential contribution at local, regional and national levels. Members are convinced of the need in Ireland for a greater range of management skills among foresters and forest owners. Pro Silva Ireland will attempt to promote understanding and practice of alternative silvicultural systems to clearfelling in Ireland.

Please turn over for MEMBERSHIP APPLICATION FORM
HOW TO JOIN

Intending members should fill out this membership form and return it with the appropriate membership fee to

The Membership Secretary,
Pro Silva Ireland,
36 Fitzwilliam Square,
Dublin 2

Email: prosilva@eircom.net

MEMBERSHIP APPLICATION FORM (Please print)

First name
Surname
Address

Telephone
Email

Joining fee (E10) enclosed
Annual subscription (E40) enclosed
Total sum enclosed
Please make cheques payable to Pro Silva (Ireland)

Signature
Date

Membership number ............ (Pro Silva Ireland use only)