ORYX

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Notes and News

15 Nations Ratify — but not UK

On July 1st the Convention on International Trade in Endangered Species came into force, following ratification by the necessary ten signatories – in fact there were twelve: Canada, Chile, Cyprus, Ecuador, Mauritius, Nigeria, Sweden, Switzerland, Tunisia, United Arab Emirates, Uruguay and the USA; and Costa Rica, Nepal and Peru later added their names. But not the UK, and, despite earlier assurances, no firm date for our ratification seems to be forthcoming. The most likely explanation is that one or two dependent territories (not apparently Hong Kong) will not agree to bring in the necessary legislation until they have seen our new legislation. Some idea of the British Government's thinking was given to FPS members at the Society's annual general meeting by Mr Peter Archer, the Solicitor General, and a report of what he said on this subject is on page 125. No other member of the EEC has yet ratified as we go to press; Mr Archer believed that if the nine were to ratify together 'the whole thing would work more effectively and we would carry a lot of other people along with us'. We are informed that the UK may implement before ratifying, but the FPS certainly regrets that on July 1st, 'a red-letter day for conservation', as Mr Archer called it, the UK was not in the van.

Proposal for a Sudan Reserve

The possibility of a new game reserve in a 6000-square-mile area of Southern Darfur, in the Sudan, was investigated last year at the request of the Sudan Government by P.A.G. Field, aided by an Oryx 100% Fund grant. His report shows that the area holds a wide range of mammals, including the rare giant (Lord Derby's) eland – one herd of about 50 was reported – roan and greater kudu, but numbers were low. The picture might be very different, however, if the poaching could be controlled. The poachers are not just the local people, although an increasing number of settlers has its effect, but include Arabs and armed gangs coming down from the north. The area is close to the border with the Central African Republic,

where there is a fauna reserve and a national park close to their side of the frontier, also being heavily poached. The report suggests that at least a substantial part of the area could be made a game reserve that would protect especially the giant eland and allow wildlife numbers to build up, and might in time justify the creation of a national park, although tourism in such a remote area is not yet a practical possibility. What is important, however, is that the Sudan Game Department should make its case for reserving at least one major part of the area for wildlife as soon as possible, because desert encroachment in the Sudan has intensified the pressure on land for settlers and their cattle. Hitherto tsetse has afforded some protection, but political pressure could induce the Government to eradicate tsetse in the interests of cattle.

Expensive — but it saves the Wildlife

Early this year the Netherlands Government decided, after much pressure from conservationists, to amend the Delta Project. This huge engineering operation, designed to protect south-western Holland from a recurrence of the disastrous 1953 floods, when over 1800 people died, involved closing off four wide estuaries on the North Sea. One of these, the Oosterschelde, is a major marine habitat, covered by the Wetlands Convention, where at low tide nearly a quarter of its 400 sq. km. is exposed and provides feeding grounds for hundreds of thousands of birds of 80–90 species. With some 70 species of fish, 600 species of benthic fauna and 300 of plankton, it is an immensely complex and important community. Instead of a solid barrier, the Netherlands Government has agreed to build a partially open barrier, which will allow the free flow of the tides, and with mechanically operated gates that can be lowered for exceptional tides or storms and thus protect the farmland. This of course is a much more expensive building operation.

Badgers and Tuberculosis

The problem of tuberculosis in British badgers appears to be a local one confined to the south-west; the number of infected animals is small, and no other wild mammal or bird appears to be affected. These are the findings of the Ministry of Agriculture after a careful study and the examination of 700 badger carcases. More than one-fifth were infected, but all came from small areas in Cornwall, Avon and Gloucestershire and one from Wiltshire. The conclusion is that in these few areas badgers were passing tuberculosis to cattle – it was the high incidence of tuberculosis in the local cattle that brought the problem to light. (Whether it was the cattle that originally infected the badgers is another matter and hardly helps.) It is obviously vitally important to contain the infection, and the Ministry has concluded that infected sets must be destroyed and gassing is regarded as the most humane method. The new Wild Creatures and Wild Plants Protection Act empowers gassing by a Ministry official where necessary.

The British Wild Creatures and Wild Plants Protection Act became law on August 1. This is a major conservation achievement which the FPS has fully supported. Any animal or plant that becomes rare can now be protected by addition to the Schedule of the Act, which already includes three mammals, two reptiles and 21 plants – see *Oryx*, April 1975, page 2.

Dwindling Mediterranean Monk Seals

In the western Mediterranean the monk seal has almost completely vanished from the northern shores; it is still widely if thinly scattered along the African coast – Morocco, Algeria and northern Tunisia – but even here the outlook for it is bleak. These are the conclusions of Jean Boulva in a report on his survey made for IUCN and the International Fund for Animal Welfare. Although officially protected in all these countries, monk seals are still shot by fishermen, who complain of the damage they do to their nets as well as eating the fish. In Tunisia, where protection is enforced, the largest group of seals had nevertheless decreased from 30 in 1950 to 2 in 1974, and in Algeria, which has the largest population in the area, reports now are usually of seals seen singly, or in twos or threes. Last September a seal in a well known group of 4/8 animals at the Grotte de Novi was shot and the carcase placed in front of the cave in an effort to frighten away the other seals. Seals are also accused of damaging vines in vineyards close to the sea and are shot by the owners. With the greater use of firearms and the complete lack of enforcement of the protection laws in Algeria, the monk seal faces extinction there. In Corsica seals were quite common as late as the 1950s, but hunting by fishermen has almost eliminated them; in 1973 they were reported from only four localities. The Natural Regional Park of Corsica, created in 1971, came too late to protect them; the last two seals in the park limits were shot by fishermen in 1970. In Sardinia one small group survives. The colony in southern Spanish Sahara, on the Atlantic coast, reckoned at 50 in the last census, is fortunately very remote and reasonably safe. There is a small breeding colony of 20–30 in Madeira, where also their protection is enforced.

IUCN and Turtle Farming

IUCN has approved a statement of principles on the commercial utilisation of the six species of marine turtle, all of which are declining and believed to be in danger of extinction. This was drawn up by a Task Force and endorsed by the Survival Service Commission. The statement says firmly that no exploitation for meat, hide or eggs should be allowed except for local use by local people traditionally dependent on the turtles, and then only if the populations can stand a harvest; moreover harvesting methods should ensure the minimum waste. Souvenirs made from turtle products should be strongly discouraged; trawling nets should be designed to minimise the inadvertent catching of turtles (and research for this funded); there should be no mass transfers of either turtles or eggs for ranching

projects – both because of their effect on the populations and the dangers of mixing stocks. On the controversial subject of farming, the statement says that farming projects which lead to the expansion of existing markets are unacceptable, but controlled turtle farming (i.e. an operation completely independent of wild stocks) which supplied products to replace the wild-caught products in existing traditional markets could be accepted; ranching (which depends on getting eggs or turtles from the wild for breeding in enclosures) could only be acceptable if it satisfied the other stated conditions, and, says the IUCN, there is no current large-scale commercial marine-turtle operation that conforms with all these principles. The statement adds that funds should be provided to publicise these principles and immediate action taken where required.

Porpoises and Tuna Fishing

The problem of porpoises being incidentally killed in great numbers in the eastern tropical Pacific, in the course of commercial fishing for yellowfin tuna, is no nearer being solved, and the US Marine Mammals Commission is taking a stern line. The annual report for 1974 shows that 387,378 porpoises were incidentally killed in 1972, and 192,982 in 1973. But the Commission has little confidence in the figures because of the limitations of the data. The tuna fishermen set their nets on three porpoise species (spotted, spinner and the common dolphin), encircling them with a purse seine, in the hope of getting a school of tuna with them. After half the net has been brought aboard the skipper tries to spill the porpoises out and back into the sea by backing and turning his boat. Inevitably some porpoises get entangled and drown. Those that drown get counted, but, as the author of a large report sponsored by the Marine Mammal Commission, William E. Clark, points out, injured porpoises that die later do not, and there could also be later deaths due to disruption of the porpoise schools; in 1973 alone $1\frac{1}{2}$ million spotted porpoises (the commonest of the three species normally netted) were caught; when only part of a school was captured a comparable number escaped. Nothing is known about the size of the tuna populations, but the Commission's scientific committee suggests that they may have declined significantly and the decline may be continuing. They describe the National Marine Fisheries Service research programme as 'seriously inadequate', and demand quick action on restructuring it. The Marine Mammals Commission was formed in December 1972 to administer the new Marine Mammal Protection Act, which banned all taking of marine mammals except by Government permit. The aim was not only to protect endangered species and 'preserve the stability of the marine ecosystem' but also to curb practices which many people found objectionable, such as the clubbing of new-born harp seals and this porpoise-killing by the tuna fishermen. This year new regulations have established a Federal programme to increase research on marine mammals – the Fish and Wildlife Service specifically mentions polar bears, walruses, sea otters, manatees and dugongs.

A LARGE MANATEE in the Crystal River, Florida. The sunlight through the water gives the dappled effect. *Daniel A. Hartman*

Below

BEFORE AND AFTER: *Left* A canal in the Botanic Gardens in Georgetown, Guyana, choked with rooted aquatic weeds; *right* a neighbouring canal in which a manatee was placed to control weeds. *N. D. Vietmeyer*

Manatees and dugongs, the only large herbivorous mammals living in shallow waters, both fresh and marine, have been exploited in many parts of the world to the verge of extinction, as Dr Colin and Dr Kate Bertram showed in their very valuable survey published in 1973*.

To the Rescue of the Sirenia

Yet potentially the Sirenia are of immense value to man, and new efforts are being made to conserve and utilise them. Last year a specialist Workshop in Guyana proposed that an International Centre for Manatee Research, to promote conservation and utilisation, be set up, and a Steering Committee, chaired by Professor Amoroso FRS, is now at work. If farming proved feasible the manatee might be converted into a new domestic animal, not only for its very good meat, but primarily as a consumer of uncontrollable freshwater weeds, such as the water hyacinth which has choked waterways all over the tropics. FAO has set up an Advisory Committee on Marine Resources and Research, and in January this year Dr Colin Bertram chaired a group meeting in Nairobi at which plans were drawn up for a survey, by aerial or satellite means, to identify the most important dugong areas on the East African coast, and possibly get some idea of numbers. Another specialist conference is planned in Australia, where the world's largest residual dugong stocks are to be found (in northern waters) and are taken (legally) by the Aborigines for food. One result of this might be the scientific utilisation of the carcases after the meat has been taken.

* *Biological Journal of the Linnean Society*. See also *Oryx* XII, 4, page 406.

The international treaty of 1911 that governs the North Pacific fur seal harvest (between Canada, Japan, USA and USSR) is being renegotiated. This is the treaty that ended the uncontrolled pelagic hunting that nearly exterminated the fur seals; since 1911 the killing has been limited to two island groups, the Pribilofs and Commanders, the US managing the former and the USSR the latter, with a 15 per cent share of each going to Japan and Canada. The aim was stated to be to ensure the maximum sustainable yield to provide the greatest harvest. The USA, with its new approach signified by the 1972 Marine Mammals Act, wishes to change this to the 'optimum sustainable population with due regard to the aesthetic and recreational values of the resource and subject to the necessity of maintaining the health and stability of the marine ecosystem'. Conservationists in the USA would like the Pribilofs declared a sanctuary, where only native people would be allowed to take a harvest, but Japan objects that the fur seals are too numerous and are damaging her pollack fishing in the Bering Sea. Behind all lurks the threat that Japan might return to pelagic seal hunting.

New Aims for Fur Seals

After a 15-year study of the grizzly bears in and around the Yellowstone National Park, John J. Craighead, Frank C. Craighead and Joel R. Varney predict that the population, which they say has declined from 245 in 1967 to 136 (maximum) in 1974, will continue to decline, and will not stabilise until reproduction increases and man-caused deaths decrease. The park authority's removal of open garbage pits to put an end to the nuisance and danger of bears in camping grounds may have affected the bears – the animals have had to find new sources of natural food and the decrease in easily available supplies could have affected their reproduction rate. The implication is that management should be very chary of 'controlling' (i.e. killing) 'rogue' bears as has been done in the efforts to get bears away from people. There is no room for wastage. Their estimate of the entire grizzly population in the 48 continuous states (excluding Alaska, where, as in Canada, they are relatively numerous) is only 600 to 700.

The Declining Grizzly in Yellowstone

Some years ago when, in an effort to build up stocks of the endangered blackbuck *Antilope cervicapra* in Pakistan, animals were imported from a ranch in Texas, it was said that there were probably more blackbuck in Texas than in the whole Indian sub-continent! An interesting paper in the *Bombay Natural History Journal* by two Americans, Ernest D. Ables and Charles W. Ramsey, shows that seven species of Indian ungulates have been introduced on private ranches in the USA, mainly in Texas, and a census in 1963 showed that four had become established with numbers exceeding 4000. Cheetal and wild boar each numbered over

Indian Animals in Texas

10,000; nilgai were 4500 and blackbuck over 4000. One ranch had between 2200 and 2400 nilgai, reproducing well and still expanding. Originally the American ranch owners imported these exotics in order to have new, free-ranging game animals to hunt – the ranches range in size from a few hundred to over 10,000 acres; now they also offer trophy hunting to other hunters who pay. One advantage of the exotics is that unlike native American animals they are not protected by state game laws, with bag limits and restricted seasons; a group of exotic species can provide year-round sport. Today there is some interest in the possibility of farming exotic species for meat, some of them being much better adapted to the arid or semi-arid conditions of Texas than domestic livestock.

Wild Asses in the Gobi Desert

Professor Bannikov, FPS Consultant in the USSR, estimates that there are some 8000 wild asses *Equus h. hemionus* in the Gobi desert, and about 15,000 in the whole of Mongolia. This was the result of his August 1974 visit to Mongolia, when he estimated the wild camel population at around 900 – see the last *Oryx*, page 12. On a previous visit in the 1940s he found that domestic cattle had driven the asses from the northern parts of their range, and this in turn had reduced the size of the herds – an average of 11 wild asses to a herd where earlier he had sometimes seen 300 and occasionally even 1000. In 1974 one-third of his 65 sightings in the Gobi were of single animals, a quarter of two animals; only twice did he see as many as five together, and only once did he see six, seven, and ten. However, 18 young animals were seen, which he considers reflects a fairly satisfactory reproduction rate.

Manipur Deer Down to Fourteen

In March this year M.K. Ranjitsinh, who is Deputy Secretary in the Indian Department of Agriculture and a vice-chairman of SSC, flew over the sanctuary which harbours the entire Manipur brow-antlered deer population, and, under very favourable conditions, was able to state categorically that there are only 14 deer left in the sanctuary – five stags, six hinds and three fawns. This is the world population in the wild. (For what it is worth they breed well in captivity, and Delhi Zoo has 12.) His report suggests that the State Government has not carried out all the earlier recommendations for safeguarding this vital sanctuary and that poaching and domestic stock grazing continue. Another threat that clearly could be the *coup de grâce* for the deer is the Log Tak dam, due to be completed next year, which will permanently raise the water level in the sanctuary. At present the sanctuary consists of a morass of floating islands of dead and decaying vegetation, to which the deer with their long hooves are specially adapted but which is very difficult for man or cattle except in the dry season. Raising the water level would keep men and cattle out, but the effect on the complex marsh ecology is unknown and can only be discovered by research; it could be fatal to the deer.

The numbers of Kashmir deer, the hangul *Cervus elaphus hangul*, are thought to be 'stable' at the very low figure of about 150 in the mountainous Dachigam sanctuary; nowhere else in the last two years have any hangul been sighted at all. This is the depressing report of the Cambridge World Wildlife Study Centre expedition to Kashmir in 1974, which was assisted by the FPS Oryx 100% Fund. The Government sheep-breeding station inside the sanctuary is still a major source of disturbance, and whereas expert advice some years ago suggested a ceiling of 900 sheep the station now boasts 2700. The station itself 'resembles a small village'; cattle and other domestic animals are kept to supply the staff, some of whom keep dogs, and there is a constant flow of traffic consisting mainly of lorries; the sheep's winter feed is supplied by cutting vast areas of herbage. The main concentration of the deer is above the station, which prevents them from moving down into the valley in winter. The staff complain of being hindered by bears, which they want killed, and at one point started to clear a large area of the slopes above them to protect themselves before being stopped. The result is that an area normally said to have numerous hangul had one small group of five or six and even these moved out of the sanctuary altogether. Buffalo grazing and goat grazing, often high in the sanctuary, are even more serious in their effects on the deer than the sheep, and the restoration and enforcement of the ban on domestic grazing is regarded as essential (it had been relaxed in 1974 after exceptionally severe weather). The report offers detailed suggestions for the difficult task of minimising the effects of the sheep-breeding station, which, unfortunately, is very important to the Government and their great hope for producing improved sheep breeds.

The Hangul hangs on — but only just

In 100 years or less northern Somalia has been changed from a fertile woodland savanna, with streams, rich grasses, and forests on the mountain slopes, to near desert – by man's goats and cattle; and they are continuing the destruction. Rivers are now dry, soil eroded to bare rock, grasslands overgrazed; trees and bushes are destroyed for bedding and fodder. Kai Curry-Lindahl's findings after his 1972 survey are set out in a report to UNESCO, and they endorse those of earlier investigators. His restoration plan demands a drastic reduction in the livestock and a survey to produce a land-use plan which would recognise the value of the wild animals. He urges that large mammals that have been exterminated should be brought back to help to restore the habitat and to provide protein for the people, particularly animals that require little if any surface water, such as oryx and gerenuk. In the lower Juba area, in the south, which he also surveyed, and which has the highest rainfall in Somalia, although there is nothing like such destruction, the land was clearly under severe pressure from increasing domestic stock, the result of an increased human population, so that there was no hope of regeneration without some action; if nothing is

Somalia's Destructive Livestock

done increasing erosion will ultimately lead to collapse. If livestock were reduced there is still a reservoir of wild animals whose numbers could be built up – elephant, warthog, giraffe, gerenuk, two dik-diks, beisa oryx, Grant's gazelle, lesser kudu and waterbuck; predators include lion, leopard, cheetah, wild cat, two jackals, two hyenas and bat-eared fox. All are shy due to hunting – despite the prohibition on all hunting. Burchell's and Grèvy's zebras and Hunter's antelope are believed to have been exterminated here. Two marine turtles breed on the coast, and the whole Somali coast would repay an investigation to find out the status of both turtles and dugongs.

Shrinking Rhino Habitat in Sumatra

The Sumatran rhino's only hope for survival is in the vast Gunung Leuser Reserve in north Sumatra, according to Marcus Borner, who has now investigated all likely areas in the island in a WWF survey. Even in the Gunung Leuser, which also harbours orang utans and the Sumatran tiger, he estimates the numbers no higher than 30–50 scattered in an area of 3000 sq. km. He himself saw only one and found the tracks of eight others. In central and south Sumatra, once the main habitat, he found no trace of rhinos at all. The only other area where he suggests there is a chance of rescuing the rhinos is in the west central part of the island, the Kerinci-Seblat area, but as it would call for the creation of a new reserve of at least 2000 sq. km. this seems to offer little hope in view of the heavy human population pressure and the cost. The Gunung Leuser also harbours at least a third of the orang utans in Sumatra, but according to Dr H. and Dr A. Rijksen, at least half the orang utan area will be logged in the next 15 years.

Elephant Deaths in Tsavo East

Before 1970 some 20,000 elephants in the 8000 sq.-mile, semi-arid Tsavo East National Park in Kenya were causing widespread anxiety that they would destroy the habitat. But the low rainfall of 1970 and the failure of the April rains were followed by drought, and in September came the first reports of dead elephants. At the request of the East African Wildlife Society, Tim Corfield, already studying elephant ecology in the park, collected and examined jaws and tusks from carcases, and found that normal calf mortality had been increased, and also now applied to older juveniles, and that the normal adult pattern (of more male deaths) had been reversed: it was adult females that had suffered most. Many of the dead elephants were found near water – drinking may have caused starving animals to collapse. The females, handicapped by their calves, could not travel as far as the males, and food near water would be used up first. Some 6000 elephants died before the drought ended in November 1972, and the preponderance of female deaths means, of course, a reduction in births. Immigration of elephants from outside the park is decreasing, says Tim Corfield; in fact the park is likely to become an island as far as elephants are concerned, or at

least part of an ecosystem with two-way elephant movements. He discounts the fears of those scientists who, some years ago, suggested elephant reproductive capacity would be so reduced that numbers might plunge catastrophically because he believes that East Tsavo's regenerative capacity is sufficient to permit a diverse natural vegetation to grow up, provided the park is not reduced in size (which would threaten the diversity of habitats), and provided that natural processes, such as predator/prey relations and natural burning, are not interfered with.

Whittling away a Game Reserve

From being 'the largest game reserve in the world in 1971', Etosha, in South West Africa, has been 'whittled away to nothing', says *African Wildlife*, journal of the Wildlife Protection and Conservation Society of South Africa. In 1971 the Government lopped off about half (rejecting the Tinley plan recommendations, see *Oryx*, May 1971, page 96), and recently the Society discovered that plans for a power line and a canal, which would slice their way through the remainder, were too far advanced to be altered. By the time the public heard of it the bulldozers were already clearing the powerline route, which moreover had been altered to run in a more direct line through the park to cut the cost of a détour. When the Society protested, the precedent of power lines already crossing the Kruger National Park was quoted – which only shows the danger of allowing precedents to be created. The canal route is not certain, but is believed to be in a more damaging position than the official plan originally showed, and if it is to be fenced, as one report suggested, it would provide a barrier that would effectively isolate part of the reserve. The Society is already very concerned about the effect of the fence erected along the reserve's western boundary which is reported to have cut the old animal migration routes.

The Journey that Got Longer

Why do green turtles living on the coast of Brazil swim 2000 kilometres to Ascension Island in the middle of the Atlantic to breed and nest? And how do they find their way to that small dot in the vast ocean? In a fascinating paper in *Nature* (May 10, 1974) Professor Archie Carr and Dr Patrick J. Coleman suggest that the seafloor-spreading theory is the key. About 100 million years (myr) ago, before the American and African continents had drifted apart, there were marine turtles of the *Chelonia* type in the seas between America and Gondwanaland. The north coast of South America was a suitable habitat for these ancient herbivorous turtles; they found the protected shallow-water pastures they needed on the mainland coast and surf-built beaches free from nest predators on offshore islands. The final separation of America and Africa some 80 myr ago and the creation of a ridge system on the sea floor resulted in volcanoes that sometimes emerged as islands, which, as spreading continued, became inactive and were carried outwards and downwards, being replaced by new volcanoes,

the effect being that the islands moved further and further from the continent. Very gradually, over millions of years, the turtles would thus migrate further and further; by 70 myr the authors estimate that the ancestors of the Ascension Island colony were travelling up to 300 km., and had an inherited tendency to swim in a particular direction, roughly WNW-ESE, a path that could be followed by using the rising sun as a beacon. Leaving the north coast of Brazil in December, and heading directly in to the rising sun every day, resting at night below the current, their route would describe a gentle southerly arc bringing them to the streamline of solubles from Ascension Island carried by the equatorial current which gives the turtle its pathway to the island.

Conference on Captive Breeding

Professor Ernst M. Lang, Director of the Basel Zoo, will be Conference Chairman at the Society's second International Conference on Captive Breeding of Endangered Species to be held in the London Zoo on July 6–8 1976, jointly with the Zoological Society of London as part of the senior society's 150th Anniversary celebrations. The first conference was held jointly with the Jersey Wildlife Preservation Society in Jersey in 1972. The topics to be covered in major contributions include genetics and behaviour as well as general management, and ample opportunity will be given for discussion and exchange of ideas. FPS members received booking forms in September; additional forms can be had from the Conference Organiser, Zoological Society of London, Regent's Park, London NW1 4RY. Please send completed applications as soon as possible.

FPS Overseas Consultants

Four new appointments to the FPS Overseas Consultants are:

Finland: Martti Montonen
Malaysia: Ken Scriven
Nepal: Hemanta R. Mishra
Trinidad and Tobago: Richard ffrench

John Blower is now a Consultant for Indonesia, having left Nepal, and Melvin Bolton is a Consultant in Nepal, having left Ethiopia. The FPS now has 100 Consultants in 67 countries.

Research Station in Peru

Felipe Benavides, FPS Vice-President in Peru, who was awarded the first J. Paul Getty Wildlife Conservation prize, is putting the whole $50,000 towards the establishment of a scientific station at Paracas, 200 km. south of Lima. This is a splendid area of coastal desert with high cliffs, which it is hoped will soon be declared a national park, with fur seals in considerable numbers, Andean condors and guano birds. The Peruvian National Appeal of WWF, PRODENA (Pro Defensa de la Naturaleza), will help in establishing the station.

Endangered Species Course

As already announced a short course on 'Endangered Species of Britain and the World' is being run jointly by FPS and BBONT at Missenden Abbey, Bucks, November 21–23. Details on page 224.