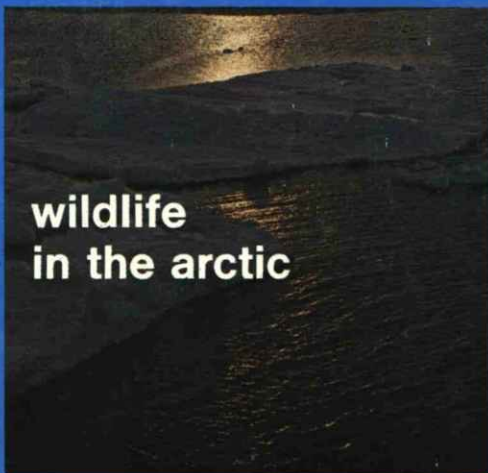
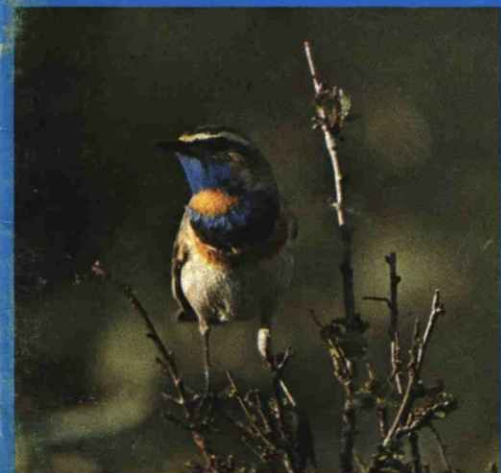
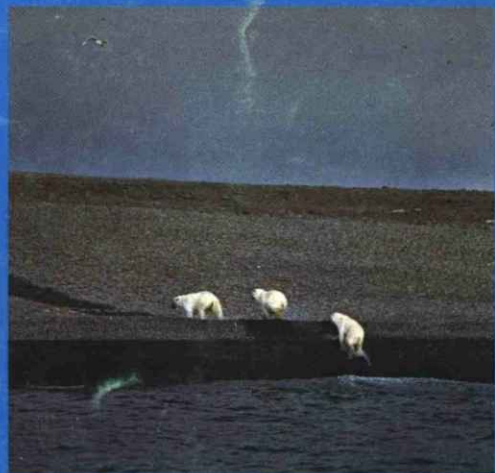
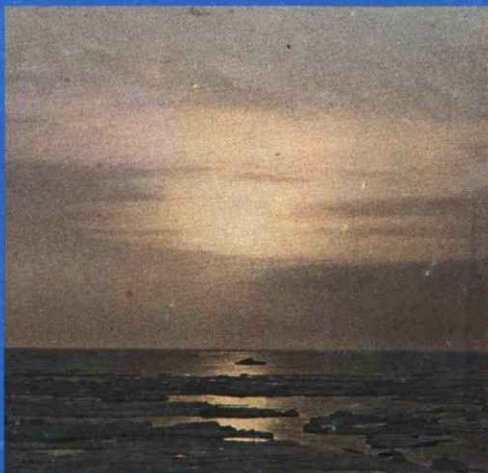
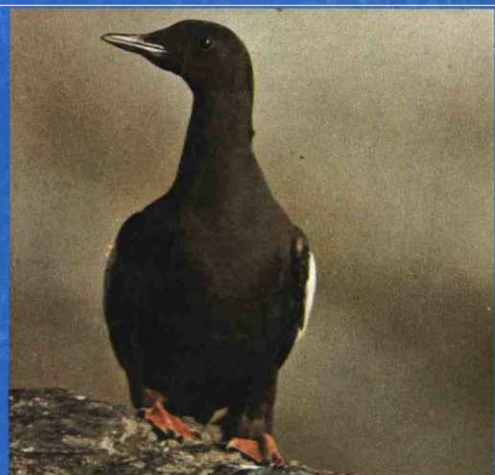
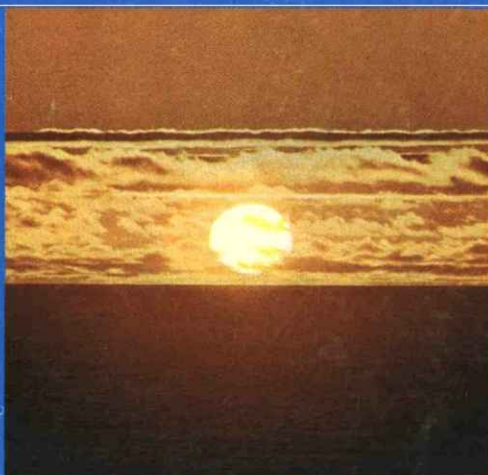
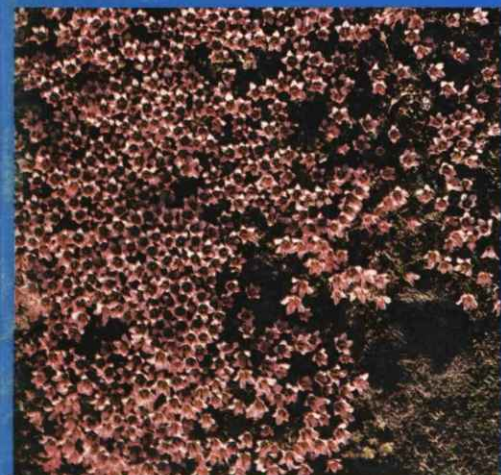


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bulletin
of the european
information centre
for nature
conservation
council of europe

NATURE IN FOCUS



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**THE RIGHT HONOURABLE
DUNCAN SANDYS M.P.**

President of «EUROPA NOSTRA», an international federation of associations for the protection of Europe's cultural and natural heritage.

EDITORIAL

Everywhere the ancient cities and picturesque villages, which we love and which tourists come from afar to admire, are being progressively demolished or mutilated for commercial gain or the convenience of motor traffic. If this process is allowed to continue unchecked, Europe's distinctive character will soon be totally destroyed. All that will be left will be a few isolated monuments retained as lifeless museums in the midst of a jungle of ferro-concrete and tarmac. Whether it be the historic centre of a famous town — such as Chartres, York, Bruges, Sienna or Copenhagen — or a charming old village whose name is little known, it forms part of our common European heritage, which we have a common interest and responsibility to defend.

We must sound the alarm and call for action before it is too late.

The campaign initiated in the European Nature Conservation Year of 1970, successfully awakened the peoples of all our countries to the dangers which menace their natural environment. The battle against the pollution of air, water and countryside is of the highest importance. But it is only one half of the problem of Conservation. The grave threats to our urban environment are equally serious and demand equally urgent action.

We therefore confidently look to the governments to declare 1975 as a European Urban Conservation Year, as requested by the Consultative Assembly of the Council of Europe.

In the interval between now and then, intensive preparations will have to be made at the European, national and local levels. For it is not enough merely to draw attention to the dangers. If the campaign is to produce concrete results, we must, by the beginning of 1975, be in a position to present in all our countries numerous practical examples of successful action. These might, among other measures, include: the restoration of old buildings and their adaptation when necessary to modern uses; the strict control of new construction in ancient cities to preserve their special char-

acter; the building of roads to divert traffic away from areas of architectural interest or to by-pass charming villages; the elimination of car-parking in fine squares and streets; the creation of pedestrian precincts; the removal of unsightly outdoor advertising, overhead wires and other ugliness; the careful planning of new development in areas of scenic beauty on the coast, in the countryside or in the mountains; the introduction of more trees and grass in towns and villages; the elimination of dirt, decay and untidiness of all kinds; the construction of new buildings, the design of which shows respect for their older neighbours; and, most important of all, measures to encourage our fellow-citizens of all ages to take pride and interest in the quality of their surroundings.

In preparation for the European Urban Conservation Year, governments, local authorities, industry and commerce should be urged to initiate action of this and other kinds — both for its own intrinsic value and as an example to stimulate similar action by others. There are those who regard the preservation of treasures inherited from the past as old-fashioned and backward-looking. But that shows a complete misunderstanding of the trend of present-day thinking. As the level of general education rises, the peoples of all our countries are showing increasing appreciation of their historic and cultural heritage and recognise the importance of protecting it for their own enjoyment and that of future generations.

Growing popular interest in conservation is, in fact, a marked feature of our modern educated society. If therefore a clear lead is given, wide public support is assured.

TRANSFRONTIER NATURAL PARKS

DR HERTHA FIRNBERG

Minister of Science and Research, Austria

Projects for European bilateral or multilateral natural parks have been under discussion for years: certain projects have reached the practical planning stage and some progress has been made with the preliminary work. Europe Park No. 1, the Luxembourg-German Natural Park, is already a reality. The State Treaty providing for the setting up of a joint natural park by the Rhineland-Palatinate and Luxembourg was concluded on 14 October 1965 and the park constitutes the first example of a West European bilateral natural park: it is therefore an example of particular significance for the Council of Europe's endeavours. A number of natural parks are situated in the frontier area between two countries, and in some cases parks adjoin one another directly at the frontier, as do the Italian Gran Paradiso and the French La Vanoise parks. There are opportunities in Europe for setting up bilateral or multilateral natural parks astride national frontiers and thus for preserving landscapes of unusual beauty integrally on both sides of the frontier and making them accessible to the inhabitants of both or of several countries as areas of rest and relaxation. In addition to promoting nature conservation and to their recreational value, these parks are an important factor in the unification of Europe and a means of direct contact and mutual understanding between peoples. They give, as was said in the speeches made on the occasion of the ratification of the Luxembourg-German state Treaty on the joint natural park, a further, human impetus by the people towards the political extension of the European unification movement. It is therefore unquestionably in Europe's special interest to promote projects for transfrontier natural parks, nor must the fact be overlooked that the joint planning and preparation of the complex work entailed in setting up a joint natural park, and at a later stage its joint administration and de-



Parco Nazionale Gran Paradiso

velopment, will make a further contribution to planned European collaboration. The setting-up of a bilateral natural park calls for extensive preliminary work on both sides and harmonious joint action. This is shown clearly by the example of the Luxembourg-German Natural Park. First the areas are chosen on both sides of the frontier. A joint committee agrees on the park's lay-out, equipment and finances. Common protective measures are laid down but are implemented by each country in its respective section of the park. Then the legal aspects of frontier crossing and customs formalities are settled to facilitate the visiting of the whole of the park, that is, a park encompassing two state frontiers. The most important provisions of the State Treaty stipulate: Desirous of

safeguarding the territory along the two frontier rivers, the Sauer and Our, according to principles which are as uniform as possible, and of maintaining it as a recreational area, a joint natural park shall be set up. The Contracting Parties shall ensure that such parts of their territory as are included in the natural park preserve their character of protected landscapes and shall promote their adaptation as a rest and relaxation area for large sections of the population. The protected area measures 725 km², situated in roughly equal halves on either side of the German-Luxembourg frontier and the two States are continuing to work on plans to extend it. In Western Europe, a series of bilateral parks is projected. Already in 1955 the wish for the development of



Parco Nazionale Gran Paradiso

tional Park was opened on the border with Spain and on the Spanish side of the border a hunting reserve has been established. Portugal's first National Park, Peneda-Geres, which was inaugurated on 11 October 1970, consists of some 60 000 hectares of mountainous area on her northern border with Spain. The creation of bilateral and multinational parks has been discussed in the Nordic Council. There are several possibilities: the region of Femundmarka-Rogen between Norway and Sweden, given the extension of the Rogen National Park to the Swedish side of the border; the Borgefjell Sanctuary, which was enlarged to 1065 sq km in October 1971 and made into a National Park which now touches the Swedish border; the region of the Anarjokka river if the Finnish National Park of 'Lemmenjoki' is extended to the Norwegian frontier. Most important is to realise the great project for the 'Rago' National Park in Norway (created in January 1971), linking it with the giant nature conservation complex of Swedish Lapland, which is made of three National Parks: Padjalenta, Sarek and Sjöfallets, the largest parks in Europe. In Finland, Eastern Lapland is to be managed as a national park whose surface area will be 380 000 hectares and the 'Lemmenjoki' National Park will cover, after extensions, 190 000 hectares. It should be added that attempts are being made by Finland, Norway and Sweden to transform these two parks into transfrontier parks. It is worth noting that in the Czech-Polish frontier area there are already three joint natural parks (Upper Tatra, Pieniy, Riesengebirge) covering in all about 592 000 hectares. Another example is the 'Kremenece' reserve which encompasses frontier areas of Poland, Czechoslovakia and the Soviet Union. The overall surface measures 1282 hectares.

◀ The alpine marmot (*Marmota marmota*) and the ibex (*Capra ibex*) are just two of the many animals which thrive in the mountainous frontier region between Italy and France, protected by laws in the Gran Paradiso and the Vanoise National Parks, respectively.

a 'European climate' was expressed in war-torn areas of adjacent Western countries. This led to the setting-up of the 'Groupement Européen des Ardennes et de l'Eifel' whose objective is to establish transfrontier natural parks. In 1957, the President of the Verein Naturschutzpark, Dr Toepfer, proposed that such international parks be set up on Germany's Western and Eastern frontiers. In the Northern Vosges it is planned to create a French Regional Nature Park which will be joined up with the already existing Pfälzerwald Natural Park. On 3 February 1971 an agreement was signed between Belgium and the Federal Republic of Germany on the joint 'Nord eifel-Hohes Venn' Natural Park, the second European Park. This 'bilateral' park covers an area of some

230 000 hectares. Efforts are now being made by the Netherlands and West Germany to create a German-Dutch natural park of 'Maas-Schwalm-Nette'. A national park will eventually be created in the region of Berchtesgaden. This will extend into the region of Königssee and will assure a continuation with Austrian national parks. There are also possibilities for an Italian-Swiss transfrontier park, as the Swiss National Park is already established at the border. The meeting of the French National Park of La Vanoise with the Italian Gran Paradiso Park affords an opportunity for joint settlement of frontier questions. The French are also planning a national park of 'Mercantour' in the Maritime Alps on the border with Italy. On 9 October the East Pyrenees Na-



NJ Norenind/Tiofoto

A similar project is planned by Yugoslavia and Rumania (Djerdap Danube gorge).

Conclusion

The significance of natural parks will grow as man's leisure time gains in importance and length. The establishment of long-term plans for the provision of recreation areas for the future is an important present-day task. Individual European countries have not only recognised this but have also tackled the task by preparing plans for extensive natural parks and recreation areas. Many industrialised European countries no longer possess much free land of scenic beauty suitable as recreation areas. Industrialisation, the traffic network, the population's growing desire for weekend dwellings and the constant building-over of land have made recreational space scarce. Natural parks must therefore be regarded as an essential component of the social, health and cultural infrastructure. In national and European development plans this question must be given equal space with production sources, housing and traffic networks. Work and recreation are both integral components of our

way of life. There must be room for both technology and nature in the Europe of tomorrow. In this sense the question of natural Europe is a problem of concern to all European people. One of our tasks will be not only to promote the setting-up of transfrontier natural parks in general but also to devise techniques to facilitate this complex scheme.

Political frontiers cut up natural landscapes of particular beauty in an inorganic way not only between the countries of the West but also between East and West. It is wholly feasible to plan natural parks at the intersection of the political frontiers between the countries of Eastern Europe and Western Europe, all the more so as the Eastern countries have always shown great interest and understanding for all nature conservation questions as they have proved at many conferences and in writings. The planning of natural parks between Eastern and Western Europe could play a highly important role: as a means of contact, coordination and cooperation and therefore also as a means of European détente precisely because these questions are concerned with people and nature.

▲ **This raging mountain torrent, one of the last untamed rivers in Europe, adds grandeur to the Swedish National Park of Rogen.**

NATURE and history: a common heritage for conservation

BERNARD CHAMPIGNEULLE
Vice-president 'Ligue Urbaine et Rurale', Paris

Most conservation societies nowadays take an interest in protecting not only monuments but also nature and natural sites. This is a fairly recent development. At the end of the last century the few voluntary societies interested in protecting the national heritage were preoccupied with historic monuments and archaeological sites. The authorities were mainly concerned with classifying Gothic churches and a few important castles. With negligible resources at their disposal, amateurs tried to make up for official shortcomings. It should be added, however, that the majority of archaeologists contented themselves with

describing, listing and dating, without worrying about the fact that the very object of their studies was deteriorating. A few writers tried to alert public opinion in the face of a more or less general lack of interest. Some people even felt a sort of romantic attraction for decaying ancient monuments and displayed a pronounced preference for ruins.

Venice in decay

The advent of industrial civilisation forced people to take stock of the realities of the situation. Were the beloved urban or natural landscapes not falling prey to mechanisation? And did not the evolution of society itself and the diverse technical innovations which it set in motion pave the way for the constant ravages wrought on our inheritance from the past? Venice is a typical example. The town has attracted greater and greater crowds of admirers. But it required the flood disaster of 1966 to make people realise the dangers and become concerned at the ecological imbalance of the lagoon, the eroded stonework of churches and palaces, the air pollution caused by the industries of the nearby coast, in fact all the evidence that a wonderful and fragile city was being threatened by the damage that men had inflicted on nature. The international institutions and voluntary associations of Europe and the United States, which are contributing to the restoration of Venice, constitute ample proof of the capital importance of the psychological evolution that has taken place in almost every country in the field of conservation.

Until recently, operations were isolated: a beautiful monument was re-

A delapidated mill, fallen into disuse... but much appreciated when restored as a monument to man's past life in the countryside.

stored or an outstanding site protected without much thought being given to their surroundings.

But what would the Mont Saint-Michel be without the surrounding sea, which also needs protection? What would be the value of keeping an ancient castle on a hill with its bizarre silhouette outlined against the sky, if the slopes around it were covered with sheds, factories or ten-storied blocks of flats? We are daily becoming more aware that nature is the indispensable setting for man's works.

Versailles led the way

What appears today as a new realisation of the natural order of things has in reality a long-standing tradition. Town-dwellers who could afford it and had the necessary space possessed a garden at least equal in area to that occupied by their house. Castles were surrounded by parks and game forests. When Louis XIV decided to erect the Palace of Versailles in one of the most unpromising spots in the neighbourhood of Paris, the first thing that was done, before any building took place, was to design the gardens, artificial lakes and tree-planted avenues, which were skilfully grouped and organised so as to converge upon the centre of the future edifice.

This intimate contact between man



Paul Nathrath/Bavaria



Arthur Christiansen

Improving the quality of life by simply cleaning up the immediate urban surroundings.

and vegetation, which has allowed so many admirable works to find such dignified expression, surely symbolises the necessity of combining the protection of works of art with the preservation of nature. The latter cause, in view of the accumulation of the destructive consequences of technology, demands that all human resources should be mustered in its favour. No longer for mere decorative or aesthetic reasons, but for physiological reasons: today, it is the survival of species that is at stake — our own species.

The appeals of those who deal with such problems are becoming more and more anguished in tone. When, about ten years ago, Roger Heim gave the exhibition he had organised in the Paris Natural History Museum the title: *Man Against Nature* ('L'homme contre la nature'), people were surprised. No-one would be surprised today. Man long believed that nature could supply an inexhaustible fund of treasures. Population forecasts have compelled him to think again.

Nature conservation has now become a major preoccupation. The very principles on which it was established have evolved. Whereas it used to be thought sufficient to repair a classified monument, it is now felt that such a monument can only maintain a healthy and dignified existence if restored in its appropriate setting; the surroundings must also be maintained in order to be fully appreciated. In France, for example, legislation has therefore been passed to safeguard views, classified groups of buildings and finally the old quarters of towns. At the same time, a stricter definition of what was implied by the term 'site' was worked out and was linked to the conservation of natural resources; the endeavour was made to give whole regions a special status (regional parks, national parks). Similar legislation, although perhaps more fragmented, has been passed in Britain and some other European States, although several countries still lack adequate legislative protection for their nonetheless important historic and natural heritages. The situation is very well summarised in a comparative analysis of legislation for the protection of immovable cultural property of member States of the Council of Europe by Mr Cravatte.*



Crime against nature

Aesthetic considerations and nature conservation cover essentially the same ground. When hedgerows and copses are destroyed in order to create one vast farming wilderness, not only is the picturesque character of the land impaired but it is also deprived of useful biological life, it is exposed to the winds, etc. Felling trees, destroying a copse or a wood, setting up some industry in the midst of a pleasant landscape, building swarms of multi-storey blocks along the coasts, all this not only sullies the beauty of the places concerned, it amounts to a crime against nature, which, sooner or later, will take revenge for the destruction of the natural balance.

It is for this reason that the European associations belonging to *Europa Nostra***, even if their basic objective is the protection and restoration of national monuments or the promotion of town-planning which is better adapted to human life, feel obliged to take the environment into consideration as well. The limits of this environment are being pushed back more and more as the demographic and technological pressures of the modern world make themselves more keenly felt. This is why an alliance of cultural preservation societies with nature conservation societies is so vital. Only in this way can a united front be presented to safeguard Europe's heritage as a viable whole. The same unified action is now being taken at intergovernmental level. In 1971 the Council of Europe included in its Directorate of Environment and Local Authorities a special Committee on Monuments and Sites with the specific objective of promoting close cooperation at European and national levels between the public authorities responsible for monuments and sites and public authorities responsible for regional planning.

* Available from the Council of Europe, Strasbourg. Report to the Consultative Assembly, 18 Sept 1970 (Document 2819).

** 86 Vincent Square, London, S.W.1.



CONTROLLING TRAFFIC IN WILD ANIMALS

MISS MOIRA AG WARLAND

Staff Executive Officer, IUCN Survival Service Commission, Morges, Switzerland

Modern societies make exorbitant demands on the world's fast-dwindling populations of wild animals and plants. Reflect for a moment on the popularity of alligator leather, for example, which is much sought after for shoes, handbags, belts and other expensive and fashionable products. Tons of hides are needed to supply this market even in a single country. Without controls, alligators and all crocodilians would soon be extinct.

Consider the varied demands on animal for furs, for zoo display, for pets of all kinds, for wool, leather, bone, ivory, teeth, oil, meat, trophies, souvenirs, for medical experimentation and testing of drugs and cures, and even for satisfying superstitious rites. With exploding populations of people, and expanding demands all over the world, it is no wonder that a number of species of wild animals and plants are threatened with extinction as a result of international traffic in these species or their products. A few examples from the long list are the

orang-utan and chimpanzee, the giant otter, tiger and vicuna, and several crocodiles.

Convention deposited in Switzerland

The problem is not new. At the IUCN 8th General Assembly in Nairobi in 1963 control was suggested through an international convention to regulate traffic in species of wild animals and plants threatened with extinction, or approaching that condition.

A first formal draft was prepared, and in September 1967 it was sent to 90 countries for comment. A second formal draft, modified in the light of the comments received, was sent to governments in August 1969. A third formal draft has been developed in the light of further comments received and after discussions with FAO, the Customs Cooperation Council, the Scientific Committee on Antarctic Research, and the Secretariat of the General Agreement on Tariffs and Trade.

This included revised appendices of threatened and declining species prepared by the IUCN Secretariat in collaboration with consultants and endorsed by its Survival Service Commission.

The Swiss Government has formally agreed to act as depositary for the Convention and it is proposed that IUCN provide the Secretariat for the Advisory Committee to be established under the Convention.

The third draft has been sent to Governments for Consideration with a view to concluding the Convention. It now seems likely that an intergovernmental meeting may be convened early in 1972 to settle the text and open the Convention for signature.

Discussions at the second meeting of the Preparatory Committee of the UN Conference on the Human Environment (Stockholm 1972) culminated in the decision that the Convention should be available at Stockholm for further signatures.

Effect on European countries

European countries, in particular Belgium, France, the Federal Republic of Germany, Italy, the Netherlands, UK, and USSR, are the main importers and exporters of wildlife and their products, together with Hong Kong, Japan and the USA. Once these countries have signed the Convention, it will be incumbent upon them to introduce appropriate regulatory mechanisms to ensure that the terms of the Convention are respected.

Especially important from the European point of view will be the controls on imports and on transit conditions of a vast traffic in wild animals passing through European international airports every year. At London airport (Heathrow) for example, a private body, the RSPCA (Royal Society for the Prevention of Cruelty to Animals) has a hostel which handles a million animals a year.

What does the Convention hope to achieve? The Convention is designed to regulate traffic in threatened and declining species of wild animals and plants. Information gathered by various bodies throughout the world and correlated by the Survival Service Commission of IUCN shows that a considerable number of species of wild animals and plants will become extinct unless urgent conservation action is taken. The principal reasons for this situation are over-exploitation of these populations and modification of their habitats.

The Convention is concerned with species of animals and plants threat-

ened or declining because of over-exploitation, particularly those that enter international commerce. Two categories are distinguished: those species that are already threatened with world-wide extinction; and those which are approaching this condition. Regulation is primarily at the point of origin through the institution of export permits for both categories, with control exercised by the competent authority designated in the exporting country, which will limit the number of permits granted so as to avoid over-exploitation. In the case of threatened species, a further control is included by the prerequisite of an import permit, issue of which is controlled by a scientific authority in the importing country and authorized only when adequately justified and then only for a scientific purpose. By the very nature of this category, it is not expected that a large number of permits will be issued and it is here that European States can play a very significant role in safeguarding the threatened wildlife of Africa, Asia, South America and the polar regions. Overall supervision is undertaken by an International Advisory Committee appointed by representatives of the Contracting States. Although border checks on permits at exit and entry are important elements in the regulatory mechanism, it is implicit that internal checks at various points in the marketing chain will also be involved. Much of the regu-

These tigers were found dead at London Airport. An international convention could prevent such events. On 20th February 1970, the Council of Europe's Convention on the Protection of Animals in International Transport came into force in Europe.



WR Price/Cotswolds NFC/C for N

latory mechanism will presumably be the concern of the authority responsible for conservation in the country in question.

National measures

The Convention requires Contracting States to take certain measures to make the Convention effective, as follows:

1. Contracting States are to prohibit and penalize trade in specimens and their products in violation of the Convention. Exhibition and offering for sale of material illegally imported are to be prevented, and provision made for confiscation of such material. (These measures are of special importance if the Convention is to have any meaning. It is expected that a suitable system of inspection and administration will be created to give effect to the legislative measures).

2. Appropriately, qualified persons are to be involved in implementing the measures called for under the Convention.

3. Clearance of specimens through border formalities is to be carried out with the minimum of delay. For this purpose, States may designate ports of exit and ports of entry (at which there will be adequate staff and facilities if they so desire).

4. When claims are made that material is not covered by the Convention because it is an animal bred in captivity, or is of a species not listed or that it was imported or acquired before the Convention came into force (this may relate to an animal in a travelling exhibition, for example) the onus of proof is on the person so claiming. States may, if they wish, issue certificates of origin or other documents, or institute a registration system to provide such proof. (Some States are apparently already contemplating some form of registration of certain animals).

5. Scientific Authorities are charged with the return of confiscated living specimens to their place of origin or to a rescue centre.

6. The advice of an Advisory Committee is available in connection with the matters covered in paragraph 3.

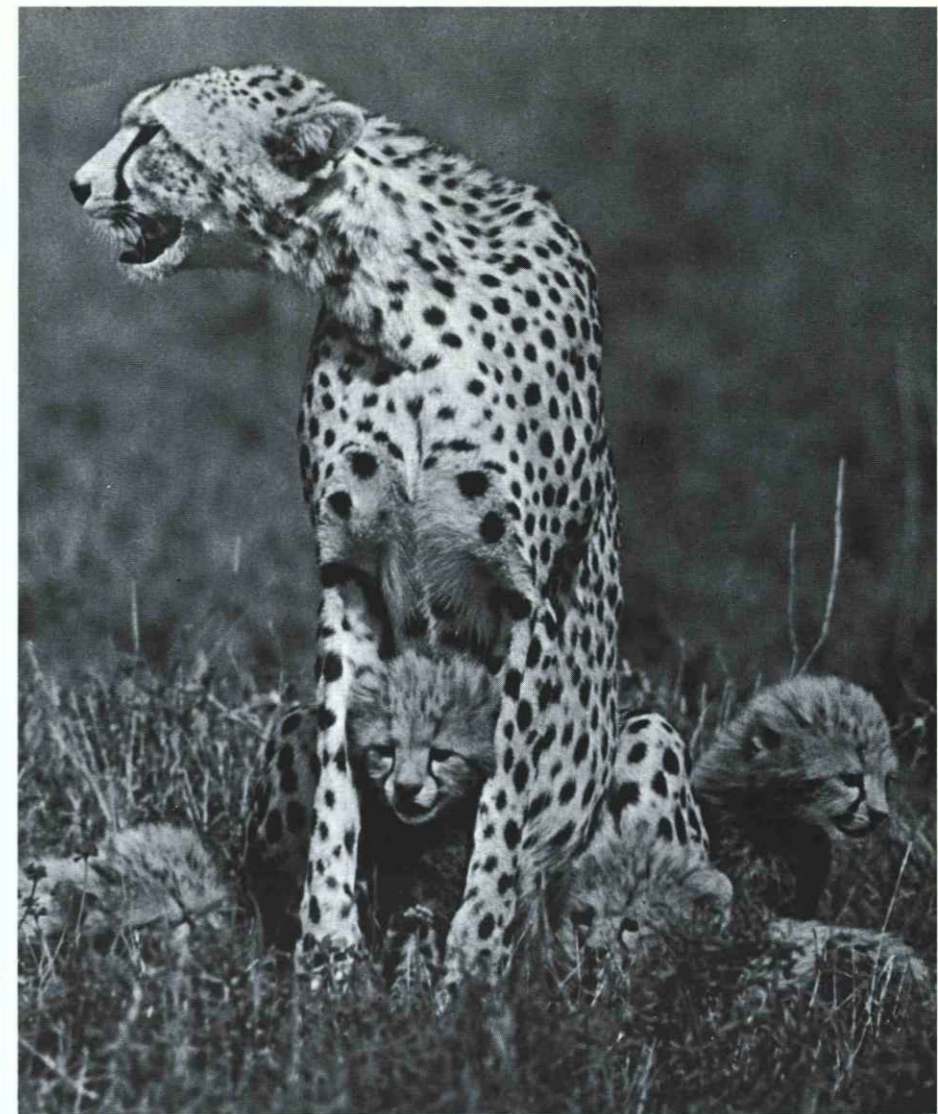
Implementation

If the Advisory Committee considers that the Convention is not being respected by a Contracting State or that too many Export Permits have been issued for a species, it can reach agreement with the State concerned and/or undertake an enquiry on the spot.

If the State does not agree to an enquiry, or does not reply within four months, the Advisory Committee will inform the Contracting States. They will also be informed if the enquiry shows that the Convention is not being observed or that restrictions should be made on the export of certain species from the State concerned, and the State does not remedy the matter when asked to do so. In such cases, the next meeting of representatives may decide to recommend that all Contracting States cease trade in specimens and their products with the State concerned until the matter is remedied.

Effect on legislation

The Convention does not prevent Contracting States from imposing, under their own legislation, stricter measures affecting trade in specimens or their products than under the Convention, or from applying the Convention provisions to additional species. The Convention does not affect national legislation or international conventions covering other aspects of trade in specimens and their products, or related matters including customs, public health, veterinary or quarantine aspects.



Norman Myers/Photo Res

Conclusion

The Convention is not regarded as the panacea for controlling the trade in wildlife and its products. Nor is it in any way aimed at the most crucial of decimating factors — the destruction of habitats. It will, however, provide a tool for checking over-exploitation of threatened species of wildlife which, in some cases, can be more serious than modification of the habitat. The traffic in wild animals, hitherto totally unregulated and chaotic, brings little economic benefit to most nations. But every nation involved would benefit if trade moved through open and legitimate channels and effective management were achieved. The Convention can be considered as a first step towards regulating the trade in threatened species of wild animals and plants.

▲ A cheetah family — there are at present about one thousand threatened species of vertebrate. High on this red list figure the spotted cats, mercilessly killed off until a short time ago but now the target of fur traders — an industry that threatens to exterminate jaguars, ocelots, leopards, tigers, etc.

Species threatened with world-wide extinction, the export, import and transit of which must be subject to particularly strict regulation in order to ensure their survival and only authorized in exceptional circumstances.

Animals

Mammals	
All species of Indriidae and Daubentoniidae	Sifakas and Aye-aye
All species of <i>Cacajao</i>	Uakaris
<i>Chiropotes albinasus</i>	White-nosed saki
<i>Brachyteles arachnoides</i>	Woolly spider monkey
<i>Callimico goeldii</i>	Goeldi's tamarin
All species of <i>Leontideus</i>	Golden tamarins
<i>Pongo pygmaeus</i>	Orang utan
All species of <i>Pan</i>	Chimpanzees
<i>Gorilla gorilla</i>	Gorilla
<i>Pteronura brasiliensis</i>	Giant otter
<i>Paraonyx microdon</i>	Cameroon clawless otter
<i>Panthera tigris</i>	Tiger
<i>Panthera uncia</i>	Snow leopard
All species of Sirenia	Sirenians
<i>Tapirus pinchaque</i>	Mountain tapir
<i>Tapirus bairdii</i>	Central American tapir
<i>Rhinoceros unicornis</i>	Great Indian rhinoceros
<i>Rhinoceros sondaicus</i>	Javan rhinoceros
<i>Didermocerus sumatrensis</i>	Sumatran rhinoceros
<i>Vicugna vicugna</i>	Vicuna
All species of Bovini except <i>Bos banteng</i> , <i>Syncerus caffer</i> and <i>Bison bison</i>	All wild cattle except the Banteng, the African buffalo and the American bison
<i>Oryx leucoryx</i>	Arabian oryx

Species not yet threatened with world-wide extinction, but the export, import and transit of which must be subject to control in order to avoid undue exploitation incompatible with their survival.

Animals

Mammals	
All species of Primates *	Primates
<i>Thalarchos maritimus</i>	Polar bear
<i>Lutra platensis</i>	La Plata otter
<i>Lutra provocax</i>	Southern river otter
<i>Enhydra lutris</i>	Sea otter
<i>Felis nigripes</i>	Black-footed cat
<i>Felis serval</i>	Serval
<i>Felis pardalis</i>	Ocelot
<i>Felis wiedi</i>	Margay
<i>Felis tigrina</i>	Tiger-cat
<i>Neofelis nebulosa</i>	Clouded leopard
<i>Panthera pardus</i>	Leopard
<i>Acinonyx jubatus</i>	Cheetah
<i>Arctocephalus philippii</i>	Guadalupe fur seal
<i>Odobenus rosmarus</i>	Walrus
<i>Choeropsis liberiensis</i>	Pygmy hippopotamus
<i>Llama guanicoe</i>	Guanaco
<i>Moschus moschiferus</i>	Musk-deer
<i>Bos banteng</i>	Banteng
<i>Kobus leche</i>	Lechwe
<i>Kobus megaceros</i>	Nile lechwe
<i>Hippotragus niger</i>	Sable antelope
<i>Oryx tao</i>	Scimitar-horned oryx
<i>Addax nasomaculatus</i>	Addax

Birds

All species of Falconiformes *	New World vultures, Secretary birds, hawks, eagles, harriers, Old World vultures, ospreys, falcons and caracaras
<i>Gallus sonneratii</i>	Grey jungle fowl
All species of <i>Grus</i> except <i>Grus grus</i>	All species of crane except the common crane
All species of <i>Amazona</i>	Amazonian parrots
All species of Strigiformes	Owls
<i>Pharomachrus mocinno</i>	Quetzal
All species of <i>Rupicola</i>	Cocks-of-the-rock
<i>Leucopsar rothschildi</i>	Rothschild's starling

Birds

<i>Pithecophaga jefferyi</i>	Monkey-eating eagle
<i>Oreophasis derbianus</i>	Horned guan
<i>Rhynchoceros jubatus</i>	Kagu
All species of <i>Picathartes</i>	Rock fowl

Reptiles

<i>Testudo elephantopus</i>	Galapagos giant tortoise
<i>Testudo radiata</i>	Madagascar radiated tortoise
<i>Crocodylus cataphractus</i>	African slender-snouted crocodile
<i>Crocodylus intermedius</i>	Orinoco crocodile
<i>Crocodylus moreletii</i>	Morelet's crocodile
<i>Crocodylus niloticus</i>	Nile crocodile
<i>Crocodylus rhombifer</i>	Cuban crocodile
<i>Osteolaemus tetraspis</i>	Dwarf crocodile
<i>Gavialis gangeticus</i>	Indian gaviol
<i>Varanus komodoensis</i>	Komodo Island monitor

Plants

Nil

Reptiles

All species of Testudinidae *	Tortoises
All species of Cheloniidae	Sea turtles
<i>Dermochelys coriacea</i>	Leatherback or leathery turtle
<i>Podocnemis expansa</i>	South American river turtle
<i>Podocnemis unifilis</i>	Terecay turtle
All species of Crocodylia *	Alligators, caymans, crocodiles and gavials
<i>Cyclura baelocephala</i>	Andros Island ground iguana

Plants

All species of Bromeliaceae	Bromeliads
All species of Orchidaceae	Orchids
All succulent species of Aizoaceae (Ficoideaceae)	—
All succulent species of Cactaceae except <i>Opuntia</i> species	Cacti except prickly pears
All succulent species of Crassulaceae	—

* Excluding species in first list.

The EVOLUTION of our mountain landscapes

PROFESSOR V GIACOMINI
Institute of Botany, University of Rome



Mountains have long been the place where men meet with nature, forest, meadow and wildlife in its purest form. We go off to the mountains in search of all that is lost to us in the plains, trying to get far away from the artificial, mechanical life of our towns and, more and more frequently, of our villages and countryside too. We thirst for natural landscape or at least fragments of natural landscape. Unless we are lucky enough to go to some exotic land or island that has

managed to escape modern tourist development, we turn to our European mountains, so close at hand and easy to reach. But do our European mountains still retain their pristine beauty and can they still provide us with sources of health and repose? There is alarming evidence that mountains are not immune to the changes that are affecting the earth's surface at such frightening speed. The process might well be termed «anthropogenic» consisting as

it does of an accumulation of human activities and the irresistible growth of population and technology, and of the demand for space, materials and power. There is one burning question. How much have mountain landscapes changed since the time of our forefathers — or even of our grandfathers? Can we still check the galloping disease caused by a multitude of changes? This twofold question takes us to the heart of the problem of the new rela-

tions between man and nature in the particularly critical environment of the mountains. Clearly, the fate of the plains and hillregions was decided long ago or if not it is reasonably foreseeable; changes taking place there depend on the amount of development to which the land, urban or rural, is subjected. But mountains are exposed to an explosion of change whose consequences cannot be easily foreseen; all too often decisions, functions and development are incoherent and improvised.

The old and the new

A gripping drama is going on in the mountains. No other European environment is affected by such a sharp contrast between past and present, conservatism and progress. This struggle will not last very long, however; there is little doubt that modernisation will win the day. We have on the one hand the time-honoured way of life of the people who live permanently in the mountains and whose livelihood springs from the mountain's natural resources; and on the other we have the periodic rush to the mountains by the people of the plains, frenzied, unable to accept the age-old patterns, avid for leisure and comfort, demanding amenities, space and manpower.

The conflict between the two should not be treated lightly. It would be too easy to condemn or uphold either. Both have their pros and cons. Both constitute the frightening problem which nowadays preoccupies statesmen, sociologists and economists in every land — it is the problem of the mountain regions.

The conflict between the society whose roots are in the mountains and the uprooted men of the plain may well affect the whole future of mountain landscapes. Mountain landscapes are the product of the struggles between the physical, biological and human patterns of mountain life and the forces to which they were exposed.

We need to study landscapes therefore with a multi-disciplinary approach and inter-authority cooperation; geology, climatology, geomorphology, biology, anthropology and history must all play a role. A detailed comprehensive, geographical survey needs to be done of clearly defined territories together with an ecological analysis.

Geographically speaking, a landscape is a unit of space; from the ecological point of view it is a constellation of ecosystems.

A careful, coordinated survey of a mountain landscape should help to identify all the factors in the life of the mountain, in the overall and in-

tegrated context that is proper to a modern ecological approach. The life of the landscape must, however, be seen in relation to man. It may therefore be assessed in terms of 'habitability' for the men who live there permanently and for the men who go there occasionally in search of recreation. Harmonious fulfilment of the requirements of these two different groups of people would be a near-perfect situation.

The mountain problem is this. How can we maintain human life in mountains, that is not divorced from plant and animal life? How can we preserve the essential physical, biological and human balance?

Natural factors

The changes in European landscapes have been different from region to region depending on the basic physical characteristics. We do not intend to uphold the deterministic view of geography which validates any kind of landscape, including man made ones, in terms of geographical or geomorphological necessity; but there is no doubt that physical necessity cannot simply be set aside. The Mediterranean mountains have undergone a profound transformation since their origin — and the process is not yet over — because they are subject to unfavourable climatic conditions which have aggravated the effects of thousands of years of destructive human action.

Regional conditions also may be the product of present or past factors, which may be natural or artificial. It is not easy to draw clear distinctions between the two. There are certain natural factors which would not play a very great role without the interference of man.

Regional differences are first and foremost differences of zone depending on latitude. European mountains thus fall into fairly clear groups:

- Mediterranean (peninsular and insular)



- Alpine (including pre-Alpine)
- Central European
- Scandinavian

The natural history of these types is, above all, the history of climatic events resulting from the advance or withdrawal of glaciers during successive ice ages, and continued post-glacial fluctuations. Pollen analysis of peat bogs gives a picture of vegetation changes in prehistoric times and makes it possible to draw a time-chart of forest ages and other prehistoric periods. Human activity entered the scene gradually. There is no doubt that Neolithic man formed part of forest ecosystems quite naturally in the same

way as any other 'consumer'. It was in the Bronze Age that man began to clear forests in central Europe for the sake of agriculture. The seriousness of the effects depended on the original wealth of vegetation which in turn depended on latitude. The forests of central Europe were far more scanty than the Mediterranean forests; the forest of the Breton Massif for instance originally contained at most fifty species of tree and the only havoc wrought by humans was the removal of the yew which was harmful to flocks. We might say that the changes that took place throughout past ages in the countries of the north were changes of quantity rather than quali-

ty; in the south both quantity and quality suffered. But regional differences are also due to altitude. We can thus point to a number of critical areas in mountains. Climatic layers, which are most readily revealed by the different belts of vegetation imply the existence of areas of transition from one layer to another: such areas of transition are places of competition or fluctuation where human intervention can result in considerable change. The most critical transition area is doubtless the upper limit of the forest, which has practically everywhere been lowered as a result of tree-felling; the damage is irreparable.

Zonal factors, in conjunction with layering have been decisive in the history of mountain landscapes. Scandinavian-type mountains have no meadow layer which is extensive in the Alpine type (the equivalent in the mountains of northern Russia are the tundras). Mediterranean and all dry regions have forests only at a very low level between the foothills and the meadows which are few and far between and have an arid appearance. It is obvious that grazing and deforestation have done irreparable harm to such areas. The mountains of Greece, the Italian islands and Spain are dramatic examples.

Artificial factors

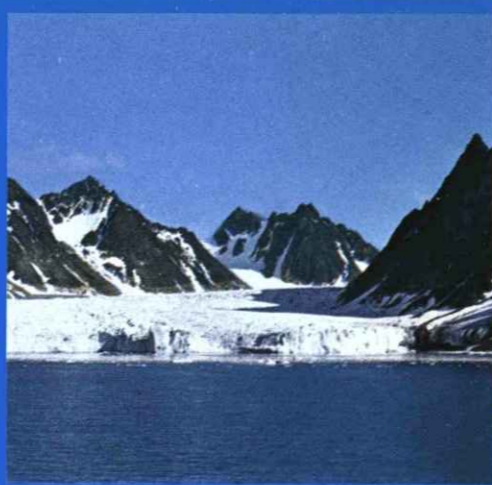
The age-old factor in mountain landscape changes is certainly grazing which has done extensive damage to vegetation especially in the Mediterranean basin. Heathland, moor, thorny or poisonous scrub (sometimes, it is true, producing splendid blooms) these dominate the rocky slopes of islands and peninsulas and are the dramatic result of thousands of years of despoliation. Referring to Corsica, Tricart speaks of a 'gradual smothering of the countryside with gravel' (ennoyage progressif du pays sous la pierraille). In the mountains of central Europe grazing has had a far less destructive effect; it has led to the creation of a widespread type of forest landscape — the forest park, thinly-wooded and interspersed with meadow. Such forests are not very productive and are not well-suited to protect slopes from erosion.

Fire has become fairly common in sheep-grazing areas in the inter-tropical regions and is an extremely important geomorphogenic factor. All the various European regions, not only the Mediterranean ones, are far from immune, and fires which are not always accidental are becoming more and more frequent in temperate forests. Landscapes comprising ericacea are encouraged by fire and grazing. Vast expanses of the large fern called *Pteridium aquilinum* are characteristic of a good many southern and Atlantic mountain landscapes, giving them a colour that varies from green to russet. This is another result of deforestation and fire.

In chronological order, agriculture follows grazing. At the present moment it is declining; but there were times when it expanded enormously as a result of economic demand in post-war periods. Agriculture first ex-

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WILDLIFE IN THE ARCTIC

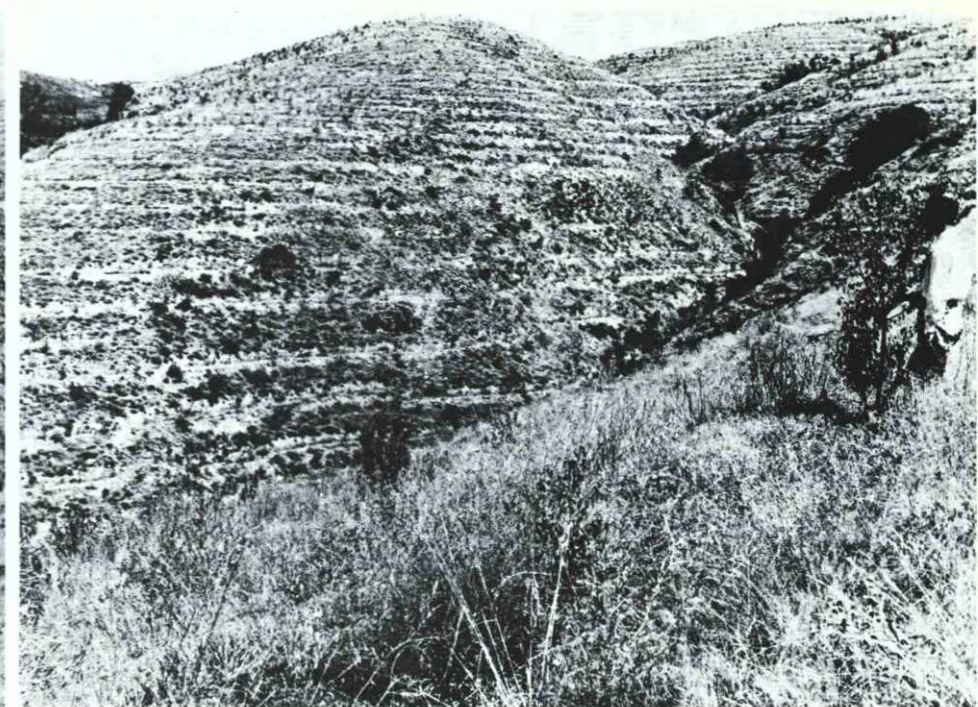
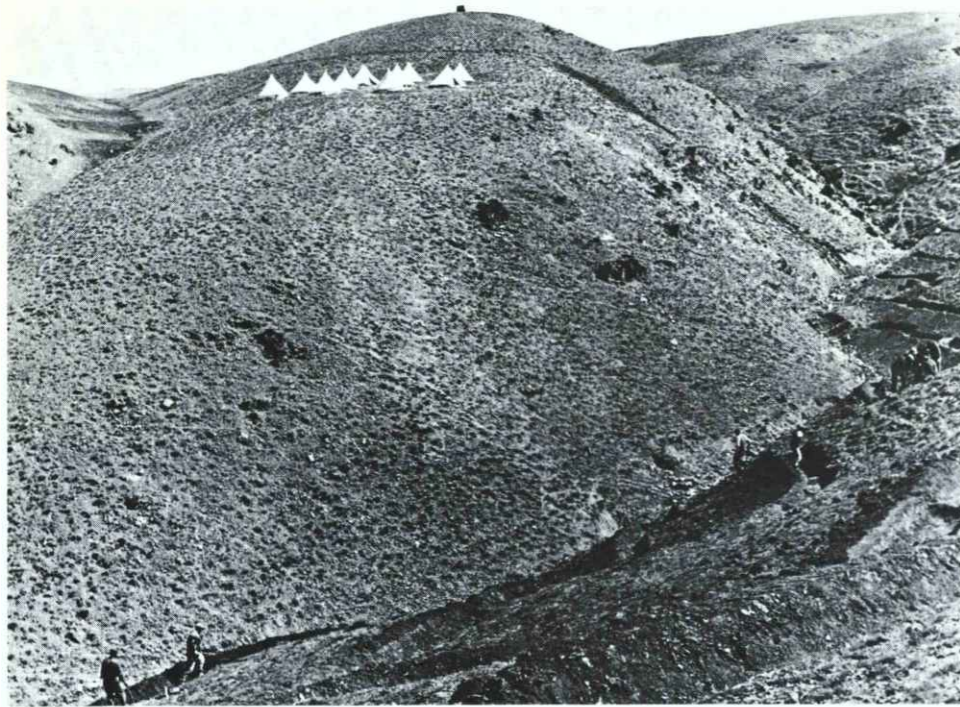


Nature's seemingly inexhaustible variety has never ceased to fascinate man. In Europe's last vast wilderness, the high North, this richness reveals itself in all its splendour, when, after a long and dark winter, the lakes, tundras and hills explode in a brilliant feast of life.



Man exploits this earth's wealth and in so doing often leaves deep and lasting scars. Because of its unique character, the North deserves our particular care.





M. Geyik

hausts the store of fertility built up by the forests, then impoverishes the soil (chemical erosion) and finally abandons it to swift and severe deterioration (physical erosion). The stage after erosion is the formation of ravines, which can produce truly lunar landscapes, as may be seen in certain mountains in the south (for example, in Sicily and Calabria). Such processes come to an end only when erosion has destroyed the last vestiges of soil and laid bare the rock which is then exposed to the relentless grinding erosion of the elements. The resultant gravel and scree landscapes are very numerous and are a familiar sight in the Mediterranean regions. The process also occurs in humid mountain areas, for example the Jura and the Alps, but in marly areas in particular the vegetation has great powers of recolonisation and can put back the covering within four or five years.

New landscapes have been formed through efforts to combat erosion; we need only think of the familiar terraced slopes in Mediterranean countries, particularly frequent in the hills of Tuscany together with the characteristic lines of Cyprus trees. The dangers of clearance, fire and over-intensive use are all too well known. We should give particular emphasis to the clearance of whole regions and to the lowering of the upper limits of forests, forming unprotected pseudo-alpine meadows at the summit.

The present

The changes that are of vital interest to us today are the ones that are going on now with irresistible momentum, in answer to a series of new human requirements.

Progressive depopulation of mountain regions is a process that is leading to the destruction of the age-old balance between man and mountain. The abandonment of an environment which for a long time allowed of harmonious coexistence means the decline of permanent, natural patterns of life connected with the regular use of meadows, water systems etc., not to speak of the traditions, customs and crafts, which are among the riches of human life in the mountains.

A counter-process has built up as a result of tourism which is invading the mountains and increasing from one year to the next, assuming the dimensions of a seasonal internal migration. The mountain thus takes on new and very sizeable economic functions that were not even suspected before; it becomes a target for builders of roads, houses, holiday villages, hotels and other amenities. A number of economists think that the mountains may revive and depopulation be remedied, but a good many others doubt whether the remedy will be effective and warn against haphazard development, the destruction of the physical and biological balance of the natural landscape, the despo-

liation of natural beauty and economic decline. The most reasonable thing to do is to combine the development of tourism with improved living conditions for the local inhabitants.

Naturalists and ecologists hold tourism responsible for the destruction of flora, vegetation, wildlife, soil and biological patterns that have existed for thousands of years. Forests are under a special threat; it is vital to adopt a new planning and administrative policy on forests. The various uses have to be properly allocated and cannot be allowed to overlap. Special recreation areas have to be provided in forests if they are not to be completely submerged.

Winter sports pose the problem not only of roads and hotels but also of ski-lifts which are a source of concern in all the snow-capped mountains of Europe. Close cooperation is required between ecologists, urbanists and geomorphologists to produce economically and aesthetically acceptable plans in accordance with conservation requirements.

One final very important question is that of hydro-electric dams. It has often been discussed and was given special attention at the Caracas Congress in 1952. A great many scientific and aesthetic natural resources have been sacrificed on behalf of hydro-electric dams and there is a risk of more to come.

There are remedies to all these things but they vary in efficacy. The replace-

Immense labour and countless frustrations are the price of thoughtless deforestation — not to mention the change in climate and eroded topsoil.

Terracing and reforestation to prevent soil erosion in Turkey. Photos of the same slope in 1962, 1963 and 1966.

Where man has not scarred the landscape... but managed to blend with nature.



Werner Stuhler/Bavaria

ment of forests that have vanished, by other forests (for example, with conifers) can have very serious biological consequences, whereas the concealment of buildings, roads and slopes with trees makes a valuable contribution.

The best remedy is reconstruction on the basis of the natural laws, using the spontaneous impulses that arise in the various zones in the various

altitudes. This can be particularly easily achieved in national and regional parks but also in less well protected areas and even in reforested areas. We must go back to the only genuine school — the school of nature. The uses to which mountains are put will thus endure, because the conservation of nature is the conservation of nature's productivity.

...NEWS...NEWS...NEWS...NEWS...NEWS... FROM STRASBOURG

A CURRICULUM FOR THE ENVIRONMENT

The principles of nature conservation and ecology should be introduced into educational programmes at all levels and in all appropriate disciplines. This recommendation, with the educational principles set out below, was addressed to the governments of member States by the Committee of Ministers on 30 June 1971.

It would be presumptuous to set out to make fundamental changes in educational structures and curricula in the near future, but it is essential to study now how ideas of nature conservation and ecology may be inserted into the traditional disciplines concerned, that is, arts, natural sciences and applied sciences.

As the child grows, it must become aware that man implants himself in nature (of which in fact he is a part) and that he transforms and exploits nature. The problems created by these activities can be dealt with only by using a multidisciplinary approach.

It will thus be valuable to deal with these problems by themes, in the light of the various disciplines concerned, and adapted to the level of education involved.

Nursery schools

Respect for all forms of life.
Care for animals (food, drink, shelter, nesting boxes, etc) and plants

Primary schools

Study of the environment

Awakening a general interest in nature and study of the environment; introduction to:

- the interdependence of living creatures through study of natural communities (pond, beach, copse, forest, mountain, etc) and also artificial communities (park, field, towns, etc)
- the influence of man on nature and vice-versa
- the vital natural resources: water, air, soil, flora and fauna.

Civic education

(ethics and religion)
respect for the life of other living creatures

the duties of young people and particularly their behaviour towards nature. Much time should be devoted to field study, nature observation and practical conservation work.

Secondary schools

Biology

basic principles of ecology

- interdependence of living creatures and the physical environment, plant and animal communities

- notions of the biosphere

- food chains

- energy flows

- CO₂, N₂, H₂O cycles (see geography)

- ecological pyramids, population surges, natural selection, overpopulation

- natural balances and their dynamics, disturbances of the balance, for example, by introducing unsuitable species

- sequences, climax, ecosystems man's effect on the distribution of species

- importance of protecting genetic assets

- significance and importance of nature reserves and other protected areas
- the effects of pesticides on the natural balance.

Geography

notions of the biosphere (see biology)

the water cycle (see also physics)

land formation and evolution

man's influence on the countryside: possibilities, limits, dangers, balance-sheet

- study of some interesting development techniques (irrigation, drainage, afforestation, dryland farming, game cropping, sea farming, etc)

- study of various types of phenomena such as erosion, eutrophication, formation of deserts, over-grazing and salination

- distribution of natural resources throughout the world (see also economics)

- requirements and assets renewable and non-renewable resources; their rational management.

Chemistry

C, O₂, H₂ cycles of synthesis and decomposition (see also biology) especially in the photo-chemical process of synthesis with chlorophyll. The role of CO₂, CO₃, HCO₃, etc study of pollution and the damage it does

- air: sprays, smokes, CO, SO₂, H₂S, O₃, NO, NO₂, etc

- fresh water: phenols, detergents

- sea water: oil

- soil

Physics

the water cycle (see biology, geography and chemistry)

air pollution: sprays (see chemistry)

fresh water pollution: phenols and detergents (see chemistry)

sea pollution: oil (see chemistry)

effect of radiation: radio-activity and radioactive wastes.

History

the main steps of man's history and his increasing mastery of nature — from the prehistoric tool to modern technical methods

examples of wrong use of natural resources contributing to the decline of civilisations.

Economics

(if there is no economics course, the following items might be included in the geography curriculum):

wise and unwise management of natural resources

world famine: origins, evolution of the situation, remedies, new sources of protein, etc

economic consequences of destruction of national balance, for example by introducing unsuitable species.

Man in society: politics, civics, ethics, morals, religion

respect for life

civic duties and responsibilities towards the environment

obligations of each man to his fellows and to future generations, international cooperation

demography and the consequences of a population explosion, responsibilities in this field

behaviour in the countryside.

EUROPEAN AGREEMENT ON DETERGENTS

Notable improvements in washing and cleaning resulted from the introduction of synthetic detergents, and about fifteen years ago their use began to grow. This caused difficulties in sewage treatment, and led to a new form of water pollution, the main visible effect of which was the formation of objectionable quantities of foam on rivers. In agreement with public authorities, manufacturers fairly quickly introduced products of a different type. The surface active agents in these new products are biodegradable (so called 'soft' in contrast with those formerly used which were 'hard'). They are to a great extent eliminated by normal sewage treatment, and the self-purification occurring in water courses also helps.

In many countries measures have been, or are about to be, taken by public authorities to restrict the use of 'hard' detergents.

In 1968 the Council of Europe (Partial Agreement) established a 'European Agreement on the restriction of the use of certain detergents in washing and cleaning products'. This aims to reduce water pollution and so protect fresh water supplies for the population, agriculture and industry, besides contributing to the conservation of nature.

This Agreement indicates a degree of biodegradability of 80% as the minimum acceptable, each country

remaining free to fix the exact degree of biodegradability required, 80%, or over, to suit their own conditions. The Agreement entered into force in February 1971, having been signed by the United Kingdom and Denmark, not subject to ratification, signed and ratified by Belgium, France and the Netherlands and signed (although still subject to ratification) by the Federal Republic of Germany and Luxembourg. Various methods have been proposed for ascertaining, by the determination of the percentage biodegradability, if the surface active agents in detergent products on the market comply with these requirements. The OECD has recently recommended testing methods for international adoption. These involve a screening test, and a more complicated confirmatory test based on the simulation of the conditions in biological sewage treatment works.

The introduction of biodegradable products has not solved all the problems connected with synthetic detergents, (for instance sludge digestion, toxicity, and interference with oxygen transfer) but it has made a significant improvement, and work in these fields is still being pursued.

The river Lee in Hertfordshire, England, before the limitation on the use of non-biodegradable industrial detergents.



DIPLOMA FOR THE SIEBENGEIRGE...

The ancient series of volcanic hills, which lie to the east of the Rhine just south of Cologne, forming the Siebengebirge nature reserve, one of the most famous in Germany, was awarded the Council of Europe's Diploma for nature conservation at a special ceremony on 15 October 1971.

Despite its proximity to the densely populated areas of the Rhine valley the German authorities have succeeded in maintaining the essentially wooded character of this fine landscape. It attracts not only tourists from the Rhine pleasure boats but also excursions of geographers, geologists, botanists and zoologists. The Universities of Bonn and Cologne have had this marvellous site for field work, carefully protected and almost on their doorstep, since its establishment as a nature reserve in 1922.

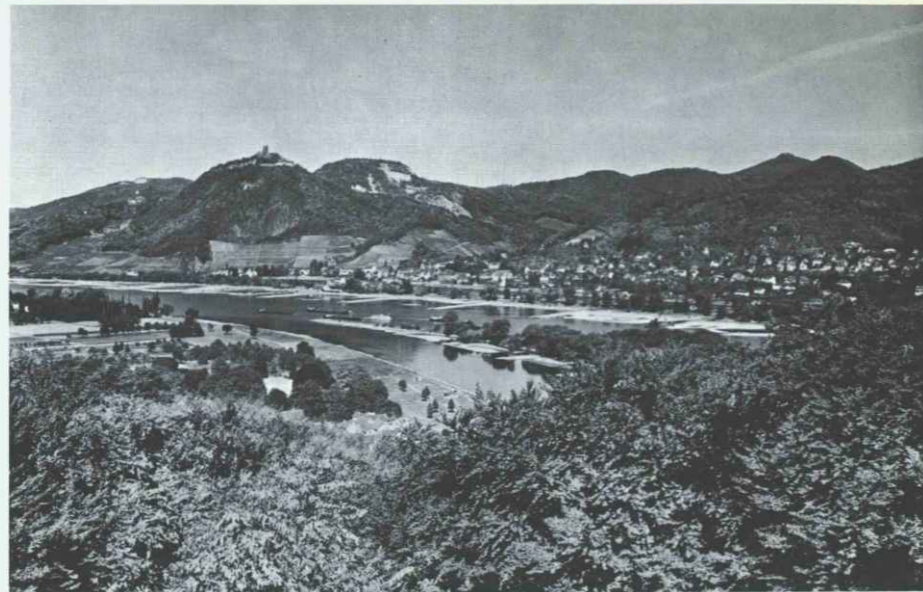
After exhaustive investigations, the Council of Europe's study group on Flora Fauna and Landscapes felt confident that the German authorities' present controls and future plans for the area justified the award of the Diploma for a five year period. To ensure that management standards are maintained the park authorities have to submit an annual report to the Council of Europe.

...AND THE ABRUZZI

The same award has also been made this autumn to the authorities responsible for the Abruzzi National Park in the Central Appenines of Italy where bears, wolves, wild cats, otters, chamois and roe deer are among the wild animals protected. Many of the smaller mammals have developed races characteristic of the area, for example, a local variety of hedgehog (*Erinaceus europaeus meridionalis*) and a mole (*Talpa romana major*) which is bigger than the common mole.

Even the bear has developed a characteristic variety (*Ursus arctos marsicanus*) and the local wolf (*Canis lupus italicus*) is larger than the European wolf (*Canis lupus lupus*) and of a different colour.

Certain parts of the forest have never been exploited in living memory and there are thick oak forests which retain a rich ground flora. Among the many interesting flowers of the Abruzzi are the lady's slipper orchid (*Cypripedium calceolus*) and the al-



Panorama of the Siebengebirge from the Rhine with five of the «Seven Mountains» in the background.

Dr H Offner



A view in the famous Abruzzi National Park, with a group of chamois perched on a rock in the middle-distance.

Paul Gérardet/WWF

pine buttercup (*Ranunculus alpestris*), which grow in the meadows; the sweet william catchfly (*Silene armeria*) and the saxifrage (*Saxifraga cuneifolia*) in the woods; and, growing among the rocks, the soapwort (*Saponaria bellidifolia*).

That the area is open to tourists and yet can still serve as a refuge for such a wide variety of characteristic plants and animals speaks well for the park's management.

FIVE YEARS OF THE EUROPEAN DIPLOMA

The Peak District National Park in Britain, the Haut Fagnes Nature Reserve in Belgium and the Camargue Nature Reserve in France all had their European Diplomas for nature conservation renewed this year for a further five year term placing them under the sponsorship of the Council of Europe until 1976.

Although in the five years since the Diplomas were first awarded the pressures on these three famous sites have considerably increased, the European Committee found that appropriate measures were being taken to keep these pressures under control and was able to recommend the renewal of the Diplomas, subject to the regular receipt of satisfactory annual reports.

ENVIRONMENT AND HUMAN RIGHTS

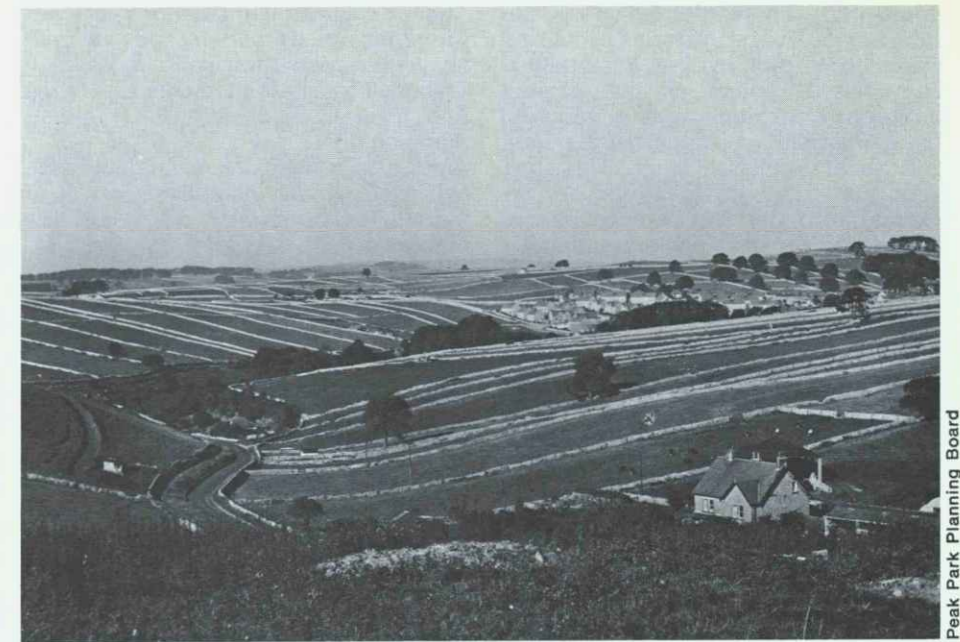
'What rights should be taken into consideration in a society characterised by demographic expansion and possessing techniques which give man almost boundless power over matter...?' 'Should new human rights be instituted in those fields where man's protection has become vital: the right to an environment fit and safe to live in...?'

These were among the subjects discussed by parliamentarians and legal experts who met in Vienna from 18 to 20 October in a Parliamentary Conference on Human Rights organised by the Consultative Assembly of the Council of Europe. The Conference showed that progress in this field will be difficult, especially in view of the dilemma that proposals to institute a right of individuals to an environment fit and safe to live in involve at the same time obligations on the society of which the same individuals form a part.

Nevertheless, following a referendum earlier this year, a clause has been inserted in the Swiss Constitution to the effect that the Confederation should enact laws 'on the protection of man and his natural environment against noxious or inconvenient influences'. It seems that, despite legal difficulties, progress will be made in this field.

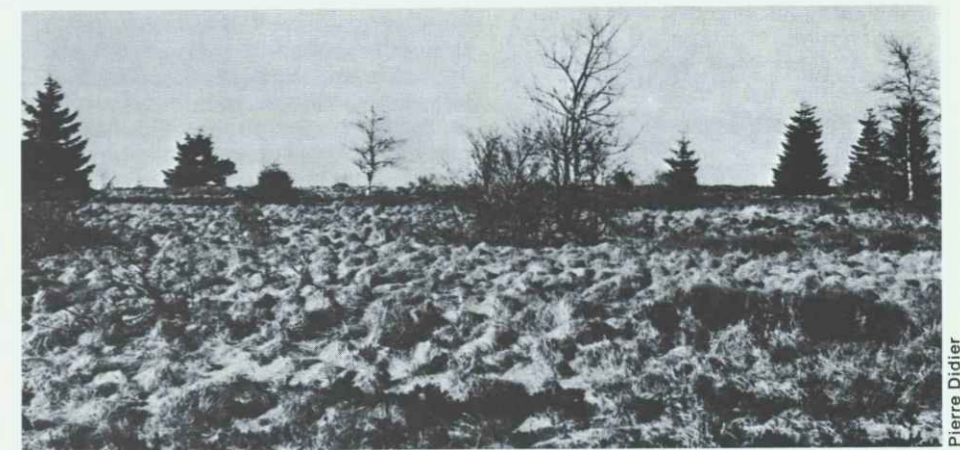
CONSERVING HISTORIC SITES

The Council of Europe's campaign for the preservation and rehabilitation of ancient buildings and sites of historic or artistic interest was the centre of attention at a recent Symposium organised by the European Conference of Local Authorities in Split, Yugoslavia. In view of Yugoslavia's special experience and achievement in this field, it was most appropriate that this should be the first Council of Europe meeting to take place in that country.



Drystone walls in the Peak District reveal the pattern of medieval fields.

Peak Park Planning Board



The ancient bogs of the Hautes Fagnes, site of pollen analysis studies by many European scientists.

Pierre Didier



The Camargue, "last stronghold of wild horses and cattle" but most of all a still largely unspoiled river delta where many rare birds thrive.

Conseil de l'Europe

Some 150 representatives from Europe's outstanding historic towns and cities took part in the Symposium. They heard reports on the Council of Europe's previous work in this field at parliamentary, intergovernmental and local authority level. This has been aimed at providing for an exchange of local and national experience and defining an internationally agreed approach to the basic economic, social and technical problems now facing Europe's rich and diverse heritage of buildings. In addition, with the aid of specialist speakers, the participants considered some of the detailed planning and financial problems arising from urban renewal and the revitalisation of historic centres, many of which can, indeed must, be resolved by local authorities on their own initiative.

The Symposium concluded that an organised system for the exchange of ideas, experience and information amongst the historic towns and cities of Europe would go a long way towards safeguarding the unique value of our common heritage. Its proposals to this end are now receiving urgent consideration by the Council of Europe through its newly created Committee on Monuments and Sites and through the European Conference of Local Authorities.

FIVE YEAR PLAN FOR EUROPE'S MONUMENTS

The first stage of a five year programme to develop cooperation in the conservation of Europe's historic sites and monuments was put into effect when the newly established Council of Europe Committee on Monuments and Sites had its inaugural meeting in Strasbourg from 29 November to 3 December 1971.

Since as long ago as 1963 the Council of Europe, and in particular its Consultative Assembly, has been campaigning for the conservation and rehabilitation of groups and areas of buildings of historic or artistic interest. The European Conference of Local Authorities has carried this work into local level and a conference of Ministers responsible for the cultural heritage of monuments and sites was held in Brussels in 1969. Now representatives of Ministerial Departments responsible for the cultural heritage on the one side and of Departments responsible for regional planning on the other, will meet regularly in the new Committee on Monuments and Sites which forms part of the Council's Directorate of Environment and Local Authorities.

The Committee will thus promote co-operation at European and national levels between the public authorities responsible for monuments and sites and those responsible for regional planning.

Among the tasks the Committee has set itself is the establishment of a system for information exchange, the elaboration of a charter for the conservation of monuments and sites, and the launching of a European cultural heritage year.

HUMAN HEALTH AND THE ENVIRONMENT

Unclean food, bad housing, unmanageable waste and pollution were the subjects of a detailed and strongly worded resolution aimed at European governments by 150 politicians, technicians and administrators who attended a Council of Europe symposium earlier this year. The symposium called for a legally enforceable minimum standard of housing, and for international harmonisation of food hygiene regulations, particularly those concerning tolerable residues found in food. It also sought international collaboration in establishing environmental quality criteria and monitoring systems and in preventing coastal pollution and dumping of wastes at sea.

DEMOGRAPHIC REVOLUTION

The demographic revolution, which has been going on in the human race for two centuries and which is unique in the history of life on earth is without a doubt one of the major factors affecting the future of our environment. For hundreds of thousands of years mankind has survived with a very high uncontrolled fertility, balancing an equally high mortality rate. A fall in mortality rate, leading to substantial and permanent increases in population, was the first phase of the revolution. The second has been a decline in fertility, gradually reducing the population increases of the previous phase. In a third and final phase, which we are now approaching, controlled fertility and mortality could be achieved.

The detailed implications of this demographic revolution were considered in depth by some 200 population scientists, parliamentarians and representatives of international organisations at the second European Population Conference organised by the Council of Europe in Strasbourg last September.

During the debates, with their essentially practical tone, it soon became clear that the science of demography which is a comparatively new discipline, has developed considerably under the impetus of the first European Population Conference in 1966. Moreover, one of the main aims of the second Conference has clearly been achieved: the public authorities are now much more acutely aware of the far reaching consequences of the demographic revolution.

MEDITERRANEAN MONK SEAL IN TURKEY

Following the note on the Mediterranean monk seal (*Monachus monachus*) in Nature in Focus n° 8, Spring 1971, the Centre's National Agency in Turkey has sent the following information on the status of this rare and endangered mammal in their country. Monk seals are found on the coasts of the Black, Marmara, Aegean and Mediterranean Seas of Turkey. Scientific inventories have not been completed but fishermen report that their numbers are decreasing, possibly because of shooting and disturbance at their breeding sites (caves with submarine entrances).

At present there is no protection for this mammal in Turkey, but the proposed plan to establish the Bodrum Peninsula as a National Park would protect seals in that area. Further studies will be made which it is hoped will lead to complete protection of monk seals throughout Turkey.



SHORT NOTES

Air pollution kills

An estimated 10 000 deaths a year in New York City may be attributed to air pollution according to a report from the Albert Einstein College of Medicine. Over 500 000 death certificates, daily SO₂ concentrations and smoke shade estimates, and daily weather variations were studied for a six-year period. These showed that every year about 10 000 people died who would not have died at the time they did if there had been no pollution on the day of death or on the immediately preceding days.

Airwater pollution report 1971 9 (27) 271.

Wetlands conservation group

A Working Group, consisting of representatives nominated by FAO, IBP, ICBP, IUCN, IWRB, SIL and UNESCO, has been set up to provide for consultation between the various interested organisations and to define action needed in relation to various aspects of wetlands conservation.

The terms of reference of the Working Group are:

to provide a mechanism for consultation between various organisations interested in wetlands;

to provide IUCN and other organisations concerned with general advice in connection with the coordination of activities affecting Projects AQUA, MAR and TELMA;

and to provide IUCN and other organisations concerned with general advice in matters relating to wetlands and, in particular, in matters relating to the proposed Wetlands Convention and any other action necessary for the implementation of wetlands conservation measures.

IUCN Secretariat is providing an Executive Officer to service and to follow-up specific action decided on.

Industrial pollution control and international trade

A study with this title has recently been published by the secretariat of the GATT (The General Agreement on Tariffs and Trade).

It gives a broad analysis of the implications which the widespread introduction of measures for the control of industrial pollution might have for

international trade. Mr Olivier Long, Director-General of GATT, notes in the preface to this study that: 'if suitable common principles can be evolved for pollution control measures taking account of the special situation of the developing countries, it should be possible for governments to act to protect and improve the environment while continuing to foster the growth of world trade. If this opportunity is let slip, there is, on the contrary, a real danger that in attempting to combat pollution, governments may unwittingly introduce new barriers to trade'.

The study makes it clear that industrial pollution control might raise prices by as much as ten per cent, depending on the products and the countries concerned. The developing countries in particular may have good reasons for refusing to accept unduly exacting norms, in the expectation that in the longer run technological progress will reduce industrial pollution control costs and that continued growth of national income will make these costs easier to bear.

The GATT experts have noted three basic alternatives on who is to pay the cost: either the polluting industry is made to bear the full cost, or these costs are passed on to the consumers, or again provision is made in the national budget.

The GATT study concludes that, over the long term, the economic consequences of more effective industrial pollution control will be inextricably bound with as yet unpredictable technological developments, both in the area of pollution control technology and in that of production proper. It is therefore important for governments which will be called upon to assist in certain pollution control financing difficulties, to resist being rushed into short-term expedients the effects of which could disturb the flow of international trade and thus, in the long run, hamper the advance of a more effective, environment-oriented technology.

Technology and society: A challenge to private enterprise

This was the principal theme of the 23rd Congress of the International Chamber of Commerce held in Vienna in April 1971.

The Congress, which was addressed by Sir Solly Zuckerman and M Edmond Giscard d'Estaing and leading industrialists from the United States, Brazil, Africa and Japan, dealt with the following main themes:

use of the world's resources; social cost of economic growth; responsibilities of government and business; technology and developing countries; and international cooperation in environment control.

The conclusions of the Congress showed that the ICC accepts the challenge to industry arising out of the impact of technology on society. Moreover it is examining the possibility of establishing a body, including scientists as well as businessmen, capable of guiding its future work on environmental problems. All the principal recommendations and conclusions of the Congress will thus be subject of further study. They are published together with the Congress statements of eminent politicians and businessmen, in English and in French and are available from the International Chamber of Commerce, 38 Cours Albert 1er, 75 Paris 8e. The full proceedings are also available in the ICC Monthly Bulletin vol. XXXVII - 5-6.

Gymnogyps beats the oil men

To protect the nesting sites of the last Californian condors, oil prospecting rights have been refused by the US Department of the Interior. Three-quarters of the 60 to 80 surviving members of this species (*Gymnogyps californianus*) the largest flying bird in the world, breed in the sanctuary of Sespe which is included in the national forest of Los Padres, about 80 km to the west of Los Angeles. This



FC Sibley/WWF

is exactly the area in which the Royalty Oil Corporation wished to prospect for oil and natural gas. The Secretary of the Department of the Interior, Mr Rogers CB Morton, justified his refusal of prospecting rights on the grounds of this bird's extreme sensitivity to noise. This great bird of prey, one of the most menaced in the world, could be frightened for ever from one of its last refuges.

Golden eagles breed in England

Probably for the first time since the 18th century golden eagles (*Aquila chrysaetos*) have bred in England. Last year a young one flew safely from an eyrie in the lake district. The nest had been guarded day and night by the Nature Conservancy and local naturalists.

Hunting ban in Russia

Hunting was completely banned in the spring this year over the whole of the territory of the Russian Federation (the largest of the Soviet Republics). A similar ban was enforced last year. The aim is to restore wildfowl populations which have not yet recovered from being decimated during particularly hard winters.

(IUCN Bulletin 2 (19) 164)
See also 'Nature in Focus' No 10. Autumn 1971, p 10.

Fruit trees doomed

One million fruit trees will be cut down over the next five years in Switzerland under a government supported campaign. In France 10 510 hectares of fruit trees have already been cleared and 10 358 grants have been requested for the clearance of trees over a further 23 528 hectares. In many areas these trees are an important feature of the landscape and make a significant contribution to the total agricultural ecosystem. It may be asked whether the ecological effects of encouraging such a sudden and drastic change in an established agricultural policy have been thoroughly thought out, especially in the hilly regions where tree clearance is most intense.

An Olympia National Park

The site of ancient Olympia, of inestimable historic value, and the surrounding region which includes the oak forest of Capillis and the lagoon of Augoulinitza, is being proposed as a national park. This is one of several conservation projects being studied by experts from IUCN, FAO and the US National Park Service at the request of the Greek government.

The lagoon, which has been partly drained within the last two years, still holds the largest concentration of red-crested pochard (*Netta rufina*) in eastern Europe and is an important escape station for wintering ducks when other

places in northern Greece are frozen. The Olympia site has also been proposed as the location of an International Olympic Academy with a large complex of modern buildings, gardens and athletic facilities.

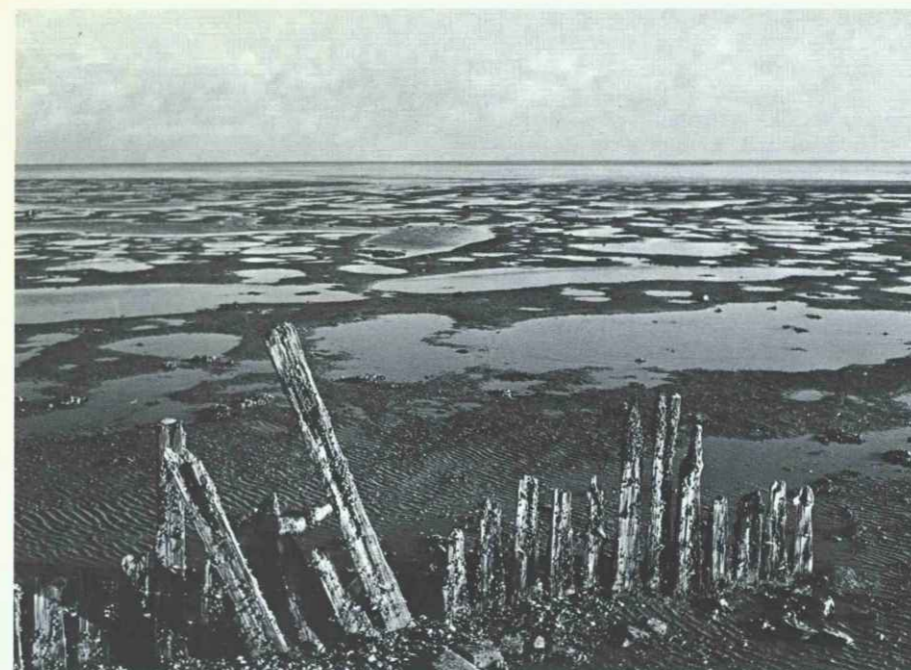
The conservation of an historic monument integrated with its natural setting is more in line with the most recent planning thought. It is to be hoped that Mount Olympus, of all places, will be conserved in a national park rather than be built over. This will obviously have advantages in the long term over the out-of-date short-term view promoted by developers.

Wildlife across Czech/Austrian frontier

Development plans affecting an important wetland area in Czechoslovakia adjoining the new Marchauen/Marchegg reserve in Austria (see 'Nature in Focus' Autumn 1970 p 19) will take into account the need to conserve the region's value as a sanctuary for breeding and migrating birds in central Europe. The WWF is to help the State Institute for protection of historic monuments and nature conservation preserve the wetlands between the confluence of the Dyie and Morava rivers south of Brno. A research station, dykes, pumping stations, channel dredging and island construction are among the measures to control floods and the hydrological system in general which will maintain the area's value for wildlife. This is the first time the WWF has granted-aided a project in Czechoslovakia.



Jan van de Kam



Jan van de Kam



F. Vollmar/WWF

German National Park for Wadden Sea

An area of about 1400 square kms south of the Danish-German border in the Wadden Sea is to be established as a National Park. It will be the second National Park of the Federal Republic of Germany. A large part of the Bavarian Forest was declared as the first National Park in October 1970 (see Nature in Focus Autumn 1970 p. 21).

The planned «North Frisian Wadden Sea National Park» will contain ten of the finest nature reserves in Western Germany with big dune areas, two sand cliffs of geomorphological interest and very important colonies of sea birds, besides having sites of cultural interest such as stone graves from the stone age and areas of once inhabited land drowned by floods in the 14th and 17th centuries.

Professor Bernhard Grzimek, the Federal Government's Commissioner for Nature Conservation, has suggested that an Information Centre, a Field Study Centre and a Research Laboratory be established on the islands. The centre of the National Park will be the isle of Hooze with 180 inhabitants, which will not come under full protection but will be declared a landscape reserve.

Giving this part of the Wadden Sea the status of a National Park will prevent the area from being used as a military firing range and from severe impacts to be expected from growing tourism at the coast. The State government of Schleswig-Holstein, where

the planned National Park is situated has thus responded to the recommendations of the International Conference on the Conservation of Wetlands and Waterfowl in Ramsar (Iran) this year and the WWF-Conference in London last year. The hope has been expressed that Denmark will also take steps to protect the Wadden Sea area adjacent to the Park.

The Frisian Islands: a unique area

The Frisian Islands have their own special place among the still unspoiled natural regions of Europe. They extend from the northernmost tip of the province of North Holland in the Netherlands along the North Sea coast of Germany as far as Denmark. They form a fascinating, dynamic landscape; an amphibious world where the ebb and flow of the tides carve out capricious patterns with timeless regularity.

The islands lie along the boundary between the North Sea and the Wadden Sea, with which sea and with the coastal region of Friesland they form an inseparable whole. They have already partly been declared a nature reserve and together with their surroundings, they constitute one great natural area of unusual beauty and irreplaceable scientific value. The Frisian Islands with their villages, which are an integral part of the landscape, represent a cultural and historic heritage which has succeeded in preserving its own distinctive character. The value of the Wadden Sea region lies in its richness and variety. The plant and animal life on the islands is largely determined by their isolated situation and much of what lives and grows on the Frisian Islands could not thrive there but for the Wadden Sea.

Here hundreds of thousands of migrating birds find a stopping place which offers them much-needed rest, and food in abundance. The continued existence of the Wadden Sea will play a decisive part in determining the bird population in large areas of northern Europe, northern Asia and even in the north of North America. No less important is the fact that the Wadden Sea is of essential significance to fish in the North Sea. The shallow water with its strong currents and great wealth of food is the nursery for many species of fish. The fishing industry earns millions of pounds every year. The Wadden Sea is the only region in the Netherlands where, until recently, seals were found in

considerable numbers and they could start breeding there again.

Their very isolation makes the Frisian islands a place where thousands of people can find real rest and relaxation year after year. The opportunity for angling, walking over the mud-flats and sailing in the Wadden Sea are attracting visitors in increasing numbers.

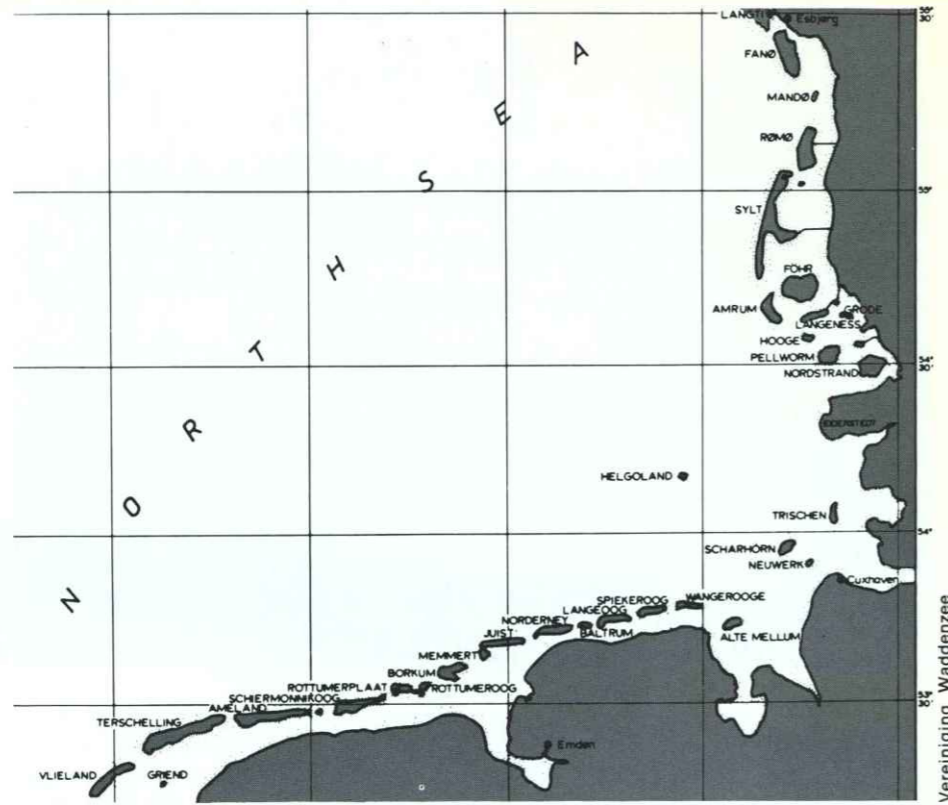
A threatened link

Unfortunately the irreplaceable value of the Wadden Sea region is far from being recognised everywhere. It seems so tempting and obvious to make use of this area for the benefit of the densely populated land of Holland. This is already happening to an increasing degree and more radical plans lie ready on the desks of technocrats and administrators. Losing sight of the scientific and natural history importance of the area, they also forget that the unspoilt Wadden Sea region can offer people a place of refuge, contrasting as it does with the cramped, industrialised urban environment.

Decisions of far-reaching importance which may be taken now — decisions which could involve irrevocable interference in the existing natural balance — may be regretted in the very near future. It is impossible to over-emphasize the warnings against the disastrous consequences which the implementation of short-sighted plans would entail.

The threats are manifold. There are small-scale plans which apparently do not interfere unduly with the environment: the reclamation of mud-flats, resulting in the loss of feeding places for countless birds; disturbance of the prevailing peace; the establishment of industry and ports in the event of partial reclamation, with the inevitable water pollution this entails; high structures on the islands which would interrupt the magnificent views and constitute a mortal hazard for the birds; drilling for oil, natural gas and salt which, with their artificial islands and off-shore drilling rigs, not only represents a visual invasion of the flat landscape but brings an unacceptable risk of calamities which could be fatal to the highly vulnerable life in the Wadden Sea.

And there are even larger-scale projects whose consequences have by no means been thoroughly investigated. For example, one or two traffic-carrying dams to Ameland which would cut the Wadden Sea in two — with still unforeseeable consequences on the course of the water, the bird life



and the state of the fish stocks. And the most repellent of all: the sewage pipes, both existing and planned, which are to discharge into the Wadden Sea and the arms of the sea flowing into it, quantities of unpurified sewage equal to those from cities such as New York, London or Tokyo.

Wisdom before technology

Finally there is the threat to dam up and reclaim the whole Wadden Sea region. This is the last great challenge to the technical skill and reputation of the Dutch as land reclaimers. But common sense tells us that sometime we must call a halt to building dykes, reclaiming land and pumping polders dry. No plan which involves interfering with the whole Wadden Sea region can even remotely be justified on economic grounds. A natural region of irreplaceable worth, and a cultural and historic heritage of the Dutch nation must not be sacrificed for all time to the urge to perform a first-class feat of engineering. Slowly the realisation is growing that the planners are on the wrong track with schemes such as these. It is time — high time — that we put human values and human wisdom above mere technical skill. It is high time that biological and ecological laws were given more weight than technical and economic laws; even if only in the interest of human self-preservation.

International link delayed

Construction of the long-awaited road-rail tunnel under the Öresund which would link Elsinore in Denmark with Hålsingborg in Sweden may be delayed because of warnings from marine biologists. They claim that the water balance of the Öresund may be totally upset if the engineers carry out their present plans, which would probably affect water circulation drastically. This would reduce marine life and increase the effects of the constant heavy pollution in this narrow sea passage.

EFTA bulletin 12 (5) 13.



NATURE IN FOCUS LOOKS AT BOOKS

THE LIFE OF THE FOREST

People like trees and the forest has always inspired a certain fascination but few books on the forest are at the same time so readable, interesting and informative as this one. The role of the forest in the history of the earth and its place today are clearly explained. The wildlife and ecology of the forest is excitingly described with simple yet accurate drawings, charts and diagrams. There is a chapter on the exploitation of forests and another on the influence of the forest on climate soil and water resources.

The processes of colonisation by forests are also described and the great enemy of the forest — fire — is not forgotten. A short chapter at the end describes briefly the finest forests of France and if these few pages were appropriately altered, this excellent book could easily be translated and published in almost all European languages. The design and illustrations are quite magnificent. In fact the book seems to lend itself to multi-lingual publication. The only drawback is that in a book so full of useful information, there is no index.

La Vie de la Forêt
Bernard Fischesser
Horizons de France, Paris

BUTTERFLIES OF EUROPE

All the 380 species of butterfly to be found in Europe, and every important subspecies, sex and brood form, are illustrated (in colour) in this handy, pocket-sized 380-page book. It follows the same wellproven format as Petersen, Mountfort and Hollom's «Field Guide to the Birds of Britain and Europe», already known to thousands of naturalists.

Each entry includes common names (in English and usually also in French, German, Swedish and Spanish as appropriate); details of size, markings and characters important for identification; flight months, habitat, food-plants, altitude, range, distribution and rarity; other species with which it might be confused; and references to its illustration and map.

The simple identification system be-

gins with end plate illustrations of characteristic butterflies within each family. These lead to the appropriate group of plates on which the species found will be illustrated. Opposite each plate is a page of captions giving notes for identification and a page reference to the text description. This book will thus serve the butterfly specialist and the general public who may simply want to know the name of the beautiful insect he spots while on holiday. The introduction, glossary, checklist, selective bibliography and index make it a most valuable work of European status.

A field guide to the butterflies of Britain and Europe.
L.G. Higgins, N.D. Riley and B. Hargreaves
Collins, London, 1970
Guide de papillons d'Europe
Delachaux et Niestlé, Neuchâtel, Suisse, 1971

(German, Danish, Finnish, Swedish, Norwegian, Spanish and Italian editions are in preparation).

ITALIAN VEGETATION AT A GLANCE

Two vegetation maps have been published recently in Italy under the auspices of the Ministry of Agriculture and Forestry, the one of actual, the other of potential vegetation.

The scale of both maps is 1 : 1 000 000 and each is accompanied by a booklet giving detailed and well-documented explanatory notes and an extensive bibliography.

The map of potential vegetation, prepared as part of Italy's contribution to European Conservation Year 1970, is based on ecological areas and shows the vegetation which may be expected to develop in each without human interference given the existing state of flora and fauna. The map will be a valuable aid in the preparation of land use and management plans.

The map of actual vegetation, because of its small scale, shows only the main species, concentrating on the ones which are typical of the various ecological areas and grouping them according to the level at which they are found (lowland, upland or alpine). Each booklet contains a translation (English, French, German) of the main data shown on the map — which will help make this excellent peice of work understandable all over Europe.

Rome, Ministry of Agriculture and Forests, 1970.

R. TOMASELLI: **Carta della vegetazione naturale potenziale d'Italia, Note illustrative, Collana verde N° 27.**

L. FENAROLI: **Carta della vegetazione reale d'Italia, Note illustrative, Collana verde N° 28.**

THE ENDANGERED WOLF

Here is a most thorough account of the biology of the wolf, one of the most persecuted of all mammals. The book is based on years of field research and the rich scientific literature of North America and Europe. It is of genuine value to the biologist and yet is comprehensible to the layman interested in the wolf. The author shows that «...there is no basis for the belief that healthy wild wolves in North America are of any danger to human beings... wolves in Eurasia, however, may on rare occasions be harmful to humans, although even there the danger from this species seems to have been greatly exaggerated».

This quotation is taken from the end of the book by which time the reader is thoroughly convinced, by the wealth of behavioural and ecological information provided, that the wolf is by no means the wicked animal that our folklore implies and is well worthy of our study and our protection.

An extensive bibliography and comprehensive index complete this fascinating work.

The Wolf: The Ecology and Behavior of an Endangered Species
by L. DAVID MECH
The Natural History Press, New York

A GUIDE TO WATER

Although aimed at the French market this substantial volume has a significant amount of information useful to other European administrators concerned with water resources.

The 32 main water treatment processes are described with diagrams and there is a table of 150 principle pollutants with their effects, acceptable limits in outflows and the appropriate treatment of effluents. The glossary in French German and English contains over 4000 technical terms.

Guide de l'eau 1971/72
Pierre Johanet, Paris



ZUSAMMENFASSUNGEN

GRENZÜBERSCHREITENDE NATURPARKE — S 2

Dr. Hertha Firnberg
Ministerin für Wissenschaft und Forschung,
Österreich

Der erste grenzüberschreitende Naturpark in Europa war der durch Staatsvertrag zwischen Rheinland-Pfalz und Luxemburg im Jahre 1965 geschaffene deutsch-luxemburgische Naturpark. Verschiedene Parks sind an Grenzen gelegen, und einige von ihnen, wie der italienische Gran Paradiso und der französische La Vanoise Naturpark, stoßen aneinander. Das gibt die Möglichkeit zur Schaffung grenzüberschreitender Parks, die den Menschen zweier oder mehrerer Länder Naturschutzgebiete zugänglich machen und damit zur europäischen Einigung beitragen. Allein die Verwaltungsarbeit zur Einrichtung und Führung solcher gemeinsamer Gebiete trägt schon zur angestrebten europäischen Zusammenarbeit bei. Im Februar 1971 wurde der zweite europäische Naturpark, das Nordelfel — Hohes Venn — Schutzgebiet zwischen der Bundesrepublik und Belgien eingerichtet. Eine Reihe von weiteren bilateralen Parks in Westeuropa sind geplant. Der zukünftige französische Nordvogesen-Park könnte mit dem schon bestehenden deutschen Pfälzerwald-Naturpark verbunden werden. Darüber hinaus besteht ein deutsch-niederländisches Projekt für ein gemeinsames Maas-Schwalm-Netze-Schutzgebiet, und der geplante Naturpark zwischen Berchtesgaden und dem Königssee könnte bis nach Österreich hin ausgedehnt werden.

Der schweizerische Nationalpark grenzt an Italien, ebenso wie der geplante französische Mercantour-Nationalpark in den Seealpen, während der neue französische Ostpyrenäen-Nationalpark sich an Jagdschutzgebiete auf spanischer Seite anschließt. Portugals erster Nationalpark von Peneda Gerês bildet in seinem nördlichen Teil die Grenze mit Spanien.

Der Nordische Rat hat über grenzüberschreitende Naturparks beraten; es gibt verschiedene Möglichkeiten zu ihrer Verwirklichung, besonders in Lappland innerhalb des nördlichen Polarkreises zwischen Finnland und Norwegen, Norwegen und Schweden, und selbst zwischen allen drei Staaten. In Osteuropa bestehen bereits drei durchgehende Naturparks an der tschechisch-polnischen Grenze. Das Kremenece Reservat erstreckt sich über polnische, tschechische und sowjetische Grenzgebiete. Zwischen Jugoslawien und Rumänien wurde ein gemeinsames Projekt für die Djerdap-Donau-Schlucht ausgearbeitet.

Grenzüberschreitende Naturparks zwischen west- und osteuropäischen Ländern sind durchaus möglich, vor allem, da die osteuropäischen Länder sich besonders für den Naturschutz einsetzen. Die Planung solcher grenzüberschreitender Naturparks könnte eine entscheidende Rolle für die Entspannung in Europa spielen.

NATUR UND GESCHICHTE — EIN GEMEINSAMES ERBE ERHALTEN

S 5

Bernard Champigneulle, Vize-Präsident,
«Ligue Urbaine et Rurale», Paris

Ebenso wie die Naturforscher des 19. Jahrhunderts den größten Teil ihrer Zeit damit verbrachten, Tier- und Pflanzengattungen zu erfassen und zu beschreiben, ohne sich um ihre Erhaltung zu sorgen, so haben Archäologen ebenfalls untersucht, beschrieben und Daten erfasst, ohne sich darum zu kümmern, dass ihr kulturelles Erbe zerfällt. Beide Gruppen arbeiteten völlig getrennt voneinander.

Zugleich greift jedoch die industrielle Zivilisation das städtische und ländliche Gebiet an. Die Überschwemmungskatastrophe 1966 in Venedig hat beispielsweise das Interesse nicht nur auf die Gefahren für die Kunstschätze Venedigs gelenkt

sondern auch auf den Zustand des natürlichen Ungleichgewichts in den Lagunen hingewiesen. Bis vor kurzer Zeit wurde die Restaurierung historischer Bauwerke ohne Rücksicht auf ihre Umgebung vorgenommen. Die meisten dieser Bauwerke sind jedoch Teil des natürlichen Raumes, in dem sie entstanden sind und der mit ihnen erhalten werden muss. Die Wichtigkeit dieser Bedingung ist lange Zeit hindurch nur von wenigen erkannt worden. Der Baumeister von Versailles hatte, zum Beispiel, einen guten Landschaftsplan vorbereitet, bevor die eigentlichen Bauarbeiten begannen. Gegenwärtig wird das Bedürfnis zur Erhaltung der Natur immer ausgeprägter, und die Erhaltung der Umgebung bei der Restaurierung eines anerkannten Baudenkmals wird mehr und mehr üblich. In der Tat wird dies in den gesetzlichen Verordnungen einiger, doch nicht aller europäischer Staaten vorgesehen.

Aus diesem Grund wird eine gemeinsame Haltung aller Organisationen gefordert, die sich mit der Erhaltung der natürlichen Umgebung befassen. Im privaten Bereich bereitet «Europa Nostra» diese Bemühung vor; auf überstaatlicher Ebene hat der Europarat kürzlich ein Komitee von Fachleuten für Baudenkmäler und historische Stätten im Rahmen seiner «Direction de l'Environnement et des Pouvoirs Locaux» einberufen. (RB)

LENKUNG DES HANDELS MIT WILDEN TIEREN — S 7

Miss Moira AG Warland
Geschäftsführendes Kommissionsmitglied in der
IUCN — Abteilung zur Erhaltung des Lebens

Die steigende Nachfrage nach wilden Tieren für die medizinische Forschung, für Zoos, zur Abriechung als Haustiere, zur Verwertung ihrer Felle und für viele andere Zwecke birgt für zahlreiche Tierarten die unmittelbare Gefahr des Aussterbens. Bekannte Beispiele dafür sind der Orang-Utan, der Schimpanse, der Tiger, die Vikunja, verschiedene Krokodilarten, sowie Kakteen und Orchideen.

Zur Überwachung dieses Handels hat die IUCN einen Abkommensentwurf ausgearbeitet, der eine Liste derjenigen Arten enthält, die auf der ganzen Erde vom Aussterben bedroht sind und deren Handel streng geregelt werden muss, um ihr Überleben zu gewährleisten. In einer zweiten Liste sind die Arten aufgeführt, deren Handel zur Verhinderung von Missbrauch kontrolliert werden sollte.

Die in der Konvention vorgeschlagene Kontrolle wird dadurch ermöglicht, dass für jeden Fall eine Ausfuhrerlaubnis eingeholt werden muss; daneben können ausserdem Stichproben auf verschiedenen Stufen der Handelskette durchgeführt werden. Es wird hauptsächlich in europäischen Ländern, den USA und Japan Handel mit wilden Tieren und Pflanzen betrieben. Man hofft deshalb, dass diese Länder als erste das Abkommen unterzeichnen werden, für dessen Einhaltung ein von Vertretern der Unterzeichnerstaaten benannte Gutachter-Kommission, die mit Unterstützung des IUCN-Sekretariats arbeitet, zu sorgen hat.

Diese Konvention kann natürlich weder als Allheilmittel zur Lenkung des Handels mit wilden Tieren und aus deren Verarbeitung gewonnenen Produkten betrachtet, noch kann damit letztlich der Hauptfaktor für ihre Dezimierung beseitigt werden: die Zerstörung ihrer natürlichen Umwelt. Sie liefert jedoch ein Werkzeug zur Kontrolle und Verhinderung einer missbräuchlichen Ausbeutung bedrohter Arten, die schwerwiegendere Folgen haben kann als Veränderungen des Habitats.

Der bisher völlig unkontrolliert durchgeführte Handel mit wilden Tieren bringt den meisten Ländern nur geringen wirtschaftlichen Nutzen, wogegen sie aus einem durch offene und legitime Kanäle wirksam gelenkten Handel profitieren könnten.

Die Konvention kann als erster Schritt zu einer Lenkung des Handels mit gefährdeten Tier- und Pflanzenarten betrachtet werden.

DIE ENTWICKLUNG DER BERGLANDSCHAFTEN — S 11

Professor V. Giacomini
Botanisches Institut, Universität Rom.

Berge sind traditionsgemäss die Erholungsbereiche der Stadtmenschen, wenn sie den Lasten und Zwängen des städtischen Lebens entfliehen wollen. Aber auch die Berglandschaften verändern sich jetzt unter dem Einfluss des Fortschritts. Es besteht ein Widerspruch zwischen dem Leben jener Menschen, die hier in der Bergwelt wohnen und dem der Menschen aus der Ebene, die nur zeitweilig hierher kommen, ständig neue Annehmlichkeiten fordern und die Jahrhunderte alten gewachsenen Lebensformen nicht hinnehmen. Dieser Konflikt wird die gesamte Zukunft der Berglandschaften beeinflussen. Diese Landschaften sind das Ergebnis eines ständigen Ringens zwischen physikalischen Kräften, biologischen Gesetzmässigkeiten und den menschlichen Lebensformen der Bergwelt mit den Gewalten, denen diese hier ausgesetzt waren. Nur nach interdisziplinären Untersuchungen unter Berücksichtigung der ökologischen Fragen können die gegenwärtigen, sich widersprechenden Anforderungen miteinander in Vereinbarung gebracht werden.

Ursprüngliche Unterschiede zwischen Berglandschaften sind durch die verschiedenen Höhenlagen bedingt. So gibt es unterschiedliche Formen im Mittelmeerraum, in den Alpen, in Zentraleuropa und in Skandinavien. Das nacheiszeitliche Ökosystem der Wälder, welches die europäischen Berge bedeckte, umgab sowohl den altsteinzeitlichen Menschen als auch andere «Konsumenten». Erst in der Bronzezeit begann der Mensch den Wald zu roden. Im Norden waren die sich daraus ergebenden Veränderungen relativ unbedeutend, aber im Süden waren sie drastisch.

Von der Höhenlage der verschiedenen Landschaften sind die wechselnden Vegetationsschichten abhängig. Die Transmission zwischen den Schichten ist besonders empfindlich. Wo die obere Waldgrenze durch Baumefällen gesenkt worden ist, ist der Schaden irreparabel. In skandinavischen Bergregionen fehlt die in den Alpen weitverbreitete Wiesenschicht völlig. In den Bergregionen des Mittelmeerraumes gibt es nur wenige und trockene Wiesen. Wälder gibt es nur in den unteren Bereichen. Abweiden und Abholzung waren völlig zerstörend für jene Gebiete (z. B. Griechenland, Italien und Spanien) gewesen. Im Mittelmeerbecken hat Raubbau Jahrtausende hindurch Heide-, Moor- und Buschlandschaften auf den felsigen Hängen verursacht. In Zentraleuropa war das Abweiden weniger verheerend und hat parkähnliche Wälder geschaffen.

Feuer ist die andere Ursache für Landschaften mit Heidekraut und in vielen südlichen und atlantischen Bergen für die Ausbreitung des Farnkrauts *Pteridium aquilinum*.

Die Landwirtschaft hat oft die Böden erschöpft, die dann der Erosion preisgegeben wurden. Schluchten bilden sich und eine Mondlandschaft wie in Sizilien und Kalabrien ist die Folge. Ein ähnlicher Prozess läuft in den feuchten Bergen des Jura und der Alpen ab, wo Gerölllandschaften wohlbekannt sind.

In mergeligen Gebieten hat die Vegetation bessere Bedingungen für erneutes Wachstum und Erholung. Auf der andern Seite wurden neue Landschaften durch Anlage von Terrassen gegen Erosionsschäden geschaffen.

Neue Veränderungen ergeben sich durch die Bevölkerung und durch die gegenläufige Entwicklung des Tourismus. Auf der einen Seite werden ganze Landstriche verlassen, auf der anderen Seite drängen Strassenbauer und Entwicklungsplaner in sie ein. Hinzu kommt, dass mehr und mehr Talsperren und Staudämme den Wasserhaushalt verändern und Naturschönheiten vernichten.

All diese Versuche, die natürlichen Reichtümer der Berge zu nutzen, müssen den Gesetzen der Natur Rechnung tragen. Wenn die Produktivität aufrecht erhalten werden soll, muss dem Naturschutz Priorität eingeräumt werden. (LH)

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