path towards him. The situation was becoming embarrassing when the rhinoceros ran on to the culvert which immediately collapsed in a shower of earth, dust and dried sticks. Somewhat shaken the rhinoceros ambled off into the grass again to the profound relief of the game ranger.

Giraffe.—An albino giraffe, which appeared to be a full grown specimen apparently almost pure white in colour, was seen from the air on the north bank of the Victoria Nile, some 25 miles east of the Murchison Falls in August ; it was observed by both the provincial commissioner, Northern Province, and Captain Cartwright, the pilot of the aircraft, who circled to make sure of a good view. It was apparently in company with a more normal, but also light coloured specimen. It has not been heard of again, but it is hoped that it will be located when the new Murchison Falls National Park becomes more extensively patrolled.

## NATURE PROTECTION AND TOURISM

WITH PARTICULAR REFERENCE TO AUSTRIA

## A summary of a paper prepared for the Salzburg conference of the International Union for the Protection of Nature.

## By LOTHAR MACHURA, President, The Austrian Institute for the Protection of Nature

Man is dependent on his natural environment, and not all the modern developments of science can alter this fact. This, the ecology of mankind, may be considered in three ways: the economic, which is the use of the soil and mineral wealth; habitation, which is living space; and recreation. Modern man, during a short time each year travels and becomes a nomad as his ancestors were. Sometimes he wishes to be at one with nature, to visit mountains, valleys or the sea shore, and this is the only aspect of his travels with which " nature protection and tourism " is concerned. To what extent then can nature protection co-operate with tourism and, where they seem incompatible, how can their difficulties be resolved ?

Nature protection depends upon the knowledge and love of nature in contemporary mankind and finding this rather meagre, acknowledges in tourism a means of arousing it. In the schools of Austria, hiking and touring trips are organized several times a year. Thus children from cities see flowers and animals in the forests and mountains where they live, things which they have previously known only in books or museums. The same applies to the grown man. Only by allowing him to experience nature can we get his support for its protection. As a tourist man gets nearer to nature and begins to understand it. He enjoys himself in this environment and realizes its needs. Nature protection must support the idea of tourism.

In Austria the tourist industry holds a place in the economy of the country only less important that that of wood and iron. Here, as in U.S.A. and Japan, the popularity of beauty spots has helped in the fight to protect them. An example has been the public support given in the fight for the preservation of the Krimml waterfall.

From all this it may seem surprising that close and complete co-operation between nature protection and tourism has not always been effected. Nature lovers are sometimes to blame in attaching undue importance to small unpleasant incidents, while ignoring the great advantages which tourism can bring. A greater mistake is made by tourism when it regards nature solely as a source of profit.

As yet the majority of tourists, owing in my opinion to their lack of education in natural science, have neither the knowledge nor the sensibility to realize the destruction wrought by their behaviour. They are not truly aware of the loveliness of a flower, the grandeur of an old tree or the beauty of a bird's song. Thus they trample down and uproot the flowers, cut their initials in trees and, by their noise, scare away the birds. Often they kill harmless snakes and other creatures. Then there is litter. Paper of all sizes and colours, tins, bones, pieces of glass and pottery spoil alpine meadows, rivers and beaches. Worst of all are the forest and grass fires caused by cigarettes and neglected camp fires.

Let us consider for example Mount Rax within reach of Vienna. Two square kilometres of this mountain are visited by six hundred thousand people every year. If, for many years, a well organized control service had not prevented it, this mountain would by now have been stripped of its alpine flowers. In spite of this control many scarce flowers such as edelweiss, *Leontopodium alpinum*, French cowslip, *Primula auricula*, and Kohlröschen, *Nigritella nigra* and *N. rubra* are rooted up every year. Mount Rax is losing its flowers, which are so often praised by tourists, through lack of discipline among the tourists themselves. Frequently also tourists simply will not understand that in consideration for the forests and their wild life, it is essential to prohibit access to some areas and roads. When tourists take no heed of this prohibition, irreplaceable damage may be done.

It is quite clear that protective measures must be taken wherever nature is threatened either by people in the mass or by the misbehaviour of individual tourists. The necessary regulations may be posted at suitable spots in protected areas and made known through the press and broadcasting. At one Austrian resort every tourist receives a letter of welcome signed by the mayor, in which he is invited to enjoy the beauty of the surrounding country, but he is also asked to assist in protecting it. One of the nature protection offices in Lower Austria has tried a new method : boards for erection in the open have been painted with animal themes, making a pleasing appeal to intelligent people.

In Austria and Germany the regulations have been best enforced through the Nature Guard, known in the Alps as the Mountain Guard (Bergwacht). This is an honorary organization, but in some places, for example the Tyrol, it is already supported by the nature protection laws. Since all the mountain guards have been members of some tourist organization, they are well acquainted with the ways and needs of tourists. They are an important means of educating tourists but are also empowered to enforce penalties and to confiscate flowers which have been gathered illicitly. These voluntary guards are the best possible substitute for professional nature service men, whose provision in sufficient numbers is economically impossible.

But there remains Development. For modern tourism, organized on a national economic basis, pure nature as a means of recreation is often not enough. Take the example of a waterfall situated in a secluded valley. At first the falls are hardly noticed by the native population; sometimes perhaps a huntsman or shepherd eyes them more anxiously than joyously. Then one day a tourist club builds a house and a road, and makes the valley accessible. The might and beauty of the falling waters soon becomes well known and the valley and its house are frequented more and more. Soon some of the tourists express a wish for a more comfortable road to the falls and a safe path along their entire length protected by a railing, also some resting places and platforms for views. Only then, they say, can the beauty of the falls be fully appreciated. The tourist club gives its permission to these improvements, largely because it hopes for an increasing flow of cash. The number of visitors increases. The house proves to be too small and is enlarged. The road, at

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first suitable only for pedestrians and pack-animals, is improved and finally a motor road is built with government support. Meanwhile the footpath along the falls has been widened and paved; from the former house, now grown into an hotel, a teleferic has been built. Shops have been erected and there are signposts and advertisements everywhere. The falls are frequented more than ever, but with their coloured electric illumination, and their frame of paved and smoothly masoned paths, they are changed from a natural beauty spot into an object of mass-tourism.

This is not a fictitious example. Similar things have happened in Austria, Sweden, Finland, France and elsewhere. We hear of the Yosemite National Park, U.S.A., that during the tourist season the valley becomes a big city, where "hotels, restaurants, immense camping grounds and the ever expanding paved parking places for the thousands of cars" impair more and more the natural scenery. When these things happen the recreational value of the natural landscape in the protected area is destroyed and the measures for access to nature, though well intended, become an absurdity.

Many other kinds of development occur, particularly, as regards Austria, in winter sport areas. It is essential that the conservation of nature should not be sacrificed to tourism. The beauty of nature is the invested capital of tourist economy. If it is expected to yield continuous interest it must not be impaired. This is true from the smallest nature resort to the whole country.

One of the advantages to humanity of recreation in natural surroundings is relief for the tired city dweller. Of what use is it if he finds the same noisy environment which he has left? It is wrong to make playgrounds for the people out of natural beauty spots. Everything in its place—playgrounds belong to cities.

This is the crux of the matter. As long as tourism in its use of natural regions subordinates itself to the measures necessary for their protection, a constructive partnership, advantageous to both nature protection and tourism, may be established. If, however, tourism regards nature only as a useful environment, and protection merely a nuisance which interferes with business, then tourism becomes a danger to nature and conflict is unavoidable. To prevent this conflict the following suggestions are put forward.

(1) All tourists should be encouraged by tourist organizations

to observe the laws for the protection of nature. The advice given to them should be based on recognition of the fact that the preservation of the recreational value of nature is an aim common to both tourism and nature protection. Both institutions serve human welfare.

- (2) Co-operation between tourist organizations and those concerned with nature protection should be effected by regular meetings between them. By common planning, restrictions in some areas and development in others can be agreed upon.
- (3) Complete prohibition of visitors will be necessary in some districts. Among these may be: relics of primeval forests in Europe, the habitats of especially rare insects and flowers, nesting places of sea birds.
- (4) Visits to national parks and other protected areas should be regulated so that the original idea of preservation does not suffer. The facilities which are provided for visitors, such as hotels and cable railways, should never become ends in themselves, but remain the means by which the visitor can see and appreciate the protected area.

Timely planning can fix the limit beyond which building and similar development must not go. Something of the kind has already been done in the Austrian alpine regions where it was decided that no more accommodation should be provided and that the means of access should not be increased. For particularly popular areas a professional, and possibly an honorary supervisory service should be instituted. Towards the cost of this tourism should of course contribute.

True tourism, thinking of the future, will recognize that nature protection helps to forward its purposes. Nature protection, for its part, must realize and appreciate the help which tourism can give in obtaining that public support which nature protection so needs throughout the world.