

# MAN AND LANDSCAPE



LA MARGINEDA BRIDGE

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IN A COUNTRY LIKE ANDORRA, PRESERVATION OF THE  
NATURAL HERITAGE IS ESSENTIAL. THE STABILITY OF THE  
LANDSCAPE, THEN, MUST BE UNDERSTOOD AS A "PRODUCT"  
WHICH CAN BENEFIT THE WHOLE OF ANDORRAN SOCIETY.

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**A**ndorra's natural environment is typical of the southern slopes of the Pyrenees. The topography is the result of glacial action during the last ice-age and of subsequent erosion by water. This has resulted in valleys packed tightly between high peaks ranging from 800 metres, the lowest, to 2949 metres, the highest. Most of the country is therefore made up of steeply sloping ground and consequently varies widely in exposure, temperature and rainfall. This wide range of conditions has a decisive influence on the distribution of vegetation. Thus the undeveloped land in

the valleys corresponds to fields of corn and cultivated land, since this is the flattest and most fertile land there is. Lining the rivers and streams in the depths of the valleys we also find typical riverside vegetation with damp-loving trees such as willows and poplars.

On the lower slopes exposed to the sun we find formations that are typical of Mediterranean mountainous land, such as groves of holm-oak with box, the box-forests, and both dry and humid oak-groves. Years ago, these sunny areas were farmed in terraces, but because of the difficulty of working the

land they were gradually abandoned and have now been taken over by box and holm-oak.

As we climb, the Scotch pine begins to appear as the dominant species, occupying a large part of this belt (1200-1650 m). The Scotch pine is found in both sunny and shaded areas, and the undergrowth varies according to exposure. Thus mossy woods of Scotch pine occupy the areas with less sun, while the undergrowth in the areas more exposed to the sun is made up largely of juniper trees.

Above the Scotch pine woods are sub-





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alpine woods of black pine and fir. The black pine is a species adapted to the more rigorous conditions of climate and terrain. It can therefore be said to occupy those areas that are least favourable in every sense. Over the 1700 metre mark and in shady spots we find forests of fir, which are not very common in our country, unlike other parts of the Pyrenees. One also tends to come across mixed woods of fir and black pine, since there are very few pure woodland masses in Andorra. Nevertheless, there are some magnificent forests of fir, like the one at the Coll d'Ordino.

In the unwooded regions above 1650 metres, there is scrubland with rhododendrons in the shaded areas, while the sunlit areas are taken up by laburnum and jupiter trees. Many of these areas were occupied by woodland which was cleared for grazing and later abandoned. In time, a few black pines appeared amongst the rhododendrons and the original woodland returned.

Above this vegetation are the alpine meadows, which make up the great natural pastures of the Andorran highland. In contrast with the many erosive processes, the natural pastures fulfill the

function of halting or reducing erosion. Thus the loss of plant cover could set off erosive action in all its intensity.

When we reach the peaks it is the bare rock that dominates the landscape, but, although a large number of plant species live on the rock face and in cracks, the vegetation is made up primarily of rock-plants.

This overall view of the main elements making up the landscape of Andorra can not be dissociated from the human factor, since although the country's economy today is not tied to agricultural production, until a few years ago this





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was the only source of income. It is important to realise that the natural surroundings (meadows, farmland, woodland, pastures, rivers, etc.) have been undergoing modification by man for years. There has been direct modification of species, as in the case of crops, and indirect modifications as a result of the varying pressure on grazing land, changing the type of vegetation, as for example in clearing woodland to make way for grazing land, removing part of the organic matter produced, as in the exploitation of forestland, the use of grassland for cattle or simply the use of

firewood, or else through the addition of organic matter to the soil in the form of manure from the animals grazing there.

All these anthropic activities have always taken place in total harmony with the environment and have never involved a sharp or irreversible break. Only in the last few years, when man's capacity for modifying the environment has increased extraordinarily, has the age-old balance between man and his surroundings been broken.

In a country like Andorra, where tourism has to be the cornerstone of the eco-

nomy, preservation of the natural heritage is essential. The stability of the landscape, then, must be understood as a "product" which can benefit the whole of Andorran society.

The direct dependence which years ago existed between man and the environment must be seen today as an element of stability to be maintained with the "tools" our predecessors used so wisely (grazing, use of forestland, of firewood), and not as activities producing material goods that can never be competitive (meat, milk, wood, firewood), but as producers of stability in the landscape. ■