## ANDORRA: A SMALL COUNTRY IN THE PYRENEES



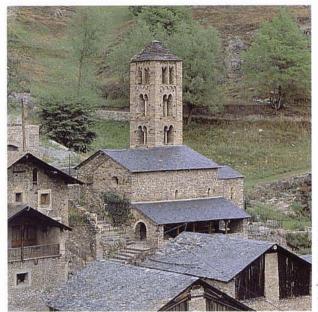
THE LANDSCAPE OF ANDORRA HAS A MARKED PHYSICAL COMPONENT AND THE COUNTRY'S VALUABLE NATURAL HERITAGE IS ONE OF ITS PRINCIPAL ATTRACTIONS. THE BIOPHYSICAL CONTEXT IS ALPINE, WITH THE RELIEF AND VEGETATION TYPICAL OF MOUNTAIN REGIONS.



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ndorra is one of the so-called small European countries. It nestles in the eastern end of the Pyrenees, north of Catalonia. It occupies a surface area of approximately 468 square kilometres, distributed amongst seven parishes (Canillo, Encamp, Ordino, La Massana, Andorra la Vella, Sant Julià and Escaldes-Engordany), and has a population of over 51,600 inhabitants, with a population density of 111 inhabitants per square kilometre, one of the highest in the Pyrenees.

The territory of Andorra is mountainous and is broken up by a network of narrow valleys and peaks of considerable height. The average height is around 2,000 metres, with peaks of over 2,850 metres, especially along the line of peaks forming the border (Pic de Font Blanca, 2,903 m.; Pic de la Serreta, 2,913 m.; Pic d'Envalira, 2,822 m.; Pic de la Portelleta, 2,905 m.; Torre dels Soldats, 2,761 m.). The lowest point corresponds to the valley of the Valira on the southern

border with Catalonia, at 835 metres. Geographically, Andorra is arranged around the two principal valleys, which gather the waters of the Valira d'Orient and the Valira del Nord. These two rivers merge at the town of Les Escaldes to form the Gran Valira. Because of this southern-orientated river system, the Principality's most fluid communications have traditionally been with Catalonia. Contact with France has always been more complicated as a result of the northern border terrain, until the road link via the Envalira mountain pass was opened in 1933, at a height of 2,408 metres.

The landscape of Andorra has a marked physical component and the country's valuable natural heritage is one of its principal attractions. The biophysical context is Alpine, and the relief and vegetation, the most outstanding defining elements, are typical of mountainous regions of intermediate latitudes. The most characteristic features of the Andorran landscape are the glacial structures, especially above the 1,900-

2,000 metre mark. The relief at these levels is formed by sharp crests that occasionally alternate with extensive plateaus lying at over 2,500 metres, as on the southern limits of the Principality (Calm de Claror-Calm Ramonet). The tortuous valleys with their steep slopes are generally narrow, except for those that carried large frozen masses and that have a U-shaped cross-section (Incles, Madriu, Arinsal, Valira). Of these, the most interesting is the Valira d'Orient, which at the level of Engolasters must have carried a mass of ice about 450 metres thick. The heads of the valleys form splendid cirques that are dotted with countless lakes (Tristaina, Pessons, Forcat-L'illa, Montmalús, Juclar, amongst others).

The relief is broken up by a dense network of steep mountain streams, the great mountain masses and the high land, giving Andorra a mountain climate typical of intermediate latitudes with a certain Mediterranean touch. The annual temperature tends to vary accord-



VALLEY OF INCLES

ing to the height, with the 6.7 °C of Les Escaldes, at 1,140 metres (18.5 °C for the warmest month, July, and 1.5 °C for the coldest, January), compared with the 5.3 °C of Ransol, at 1,640 metres (14.5 °C for the warmest month, July, and -2 °C for the coldest, January). Annual precipitation, much of which falls as snow, is distributed more erratically as a result of local orientation and relief. Les Escaldes receives 879 mm (29.7 days of snow and 91.4 of rain), while Ransol receives 616 mm (64.0 days of snow and 62.1 of rain).

The vegetation of the Principality is made up of a rich mosaic of species, distributed mainly according to height. The highest mountain slopes are predominantly grassland and conifers –meadows of festuca and forests of Pinus mugo, Pinus sylvestris and Abies albawhich between them account for more than 70% of the territory. The deciduous woodland (Quercus pubescens and Quercus petraea) covers the mountain sides, alternating with patches of

birch and ash (Betula pendula and Fraxinus excelsior) in damp spots. Only the sunniest, warmest spots, such as the valley of the Gran Valira, are colonized by Mediterranean species, which make up 3.25 % of the total and are represented by the holm-oak and the kermes oak. Traditionally, the natural environment has conditioned the way of life and the economy of the Andorrans, sustained by stock-farming, agriculture and the exploitation of woodland. However, since the sixties, this influence has decreased progressively. Today, agricultural land accounts for only 4% of the total surface area and is mainly devoted to the cultivation of tobacco and forage. The primary sector is now unquestionably vestigial, since it has suffered a rapid decline since the middle of the century, having been replaced by a flourishing tourist activity, with a decisive influence on trade and the catering industry. The best illustration of this change is reflected in the occupations of salaried workers. Figures for 1990 indicate that only 1.2 % are engaged in the primary sector, while 74.5 % correspond to the service sector, of which 24.02 % correspond to the catering industry.

The socio-economic changes that have taken place over the last decades have brought about considerable transformations in the landscape, particularly in the valleys, the traditional location for agricultural activity. At present, these enclaves of flat land (the basins of Andorra la Vella-Escaldes, Encamp, La Massana) are the sites of the main population centres and most of the commercial activity. Be that as it may, however, the level of development and of transformation is very unequal in the different parishes of Andorra. The most striking case is that of the concentration to be found at the mid-point of the Valira, where the Valira Nord joins the Valira d'Orient. This is the Andorra la Vella-Les Escaldes connurbation, which accounts for more than 61 % of the population of the Principality (486 inhabitants per square kilometre).