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**WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION**  
**THE MADRIU-PERAFITA-CLAROR VALLEY (ANDORRA) ID Nº 1160**

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The Madriu-Perafita-Claror Valley has been nominated as a "Cultural Landscape".

**1. DOCUMENTATION**

- i) **Additional literature consulted:** Comu d'Escaldes-Engordany, 2002, **Diagnostic: propostes d'Accio per fer d'Escaldes Engordany una parroquia sostenible**, internal report, 252 p.; Associacio per a la Defensa de la Natura, 2002, **Atles dels ocells nidificants d'Andorra**, A.D.N, 355 p.; Jordi Palau Puigvert i Josep Argelich Baro, 1996, **Natura i Ecoturisme a Andorra : una opcio de futur**, project Horitzo, 308 p.; Government of Andorra, 2000, **La Vall del Madriu: un patrimoni per a tots**, Banc internacional d'Andorra, 79 p.; Associacio per a la Defensa de la Natura, 1994, **IBA action report 1994 for Andorra**, A.D.N., 16 p.; Coordinadora "Si al Madriu", 1995, **L'acces rodat a Ramio: les raons de la coordinadora**, internal report, 13 p.; Butlleti Oficial del Principat d'Andorra, 2000, **Llei d'Agricultura i Ramaderia**, Principat d'Andorra, 7 p.; IUCN, 1997, **Pyrénées – Mont Perdu: IUCN technical evaluation**, unpublished, pp. 85-91.
- ii) **Consultations:** 2 external reviewers. The mission met: the Prime Minister and other Ministers, government officials, local representatives, as well as NGOs and other local interested parties.
- iii) **Field visit:** Mrs Susan Denyer (ICOMOS) and Dr Gerard Collin (IUCN), October 2003.

**2. SUMMARY OF NATURAL VALUES**

The nominated site, the Madriu-Perafita-Claror Valley (MPCV), is located in the Pyrenees, in the South East part of the Principality of Andorra, which lies between France and Spain. It is made up of a core area of 4247 ha, surrounded by a buffer zone to the north and west of 4092 ha. The highest point is the Pic de la Portelleta (2905 m), the lowest is at the confluence of the Madriu and Valira Rivers at 1055 m; this altitudinal range of 1850 m occurs over a distance of only 10 km. The easternmost limit of the buffer zone forms the national border with France. On the southern side, the nominated site and parts of the buffer zone border with Spain. The rest of the buffer zone borders with others parts of Andorra.

The nominated area fits precisely within the basin of the Madriu River, giving it a natural coherence. This river starts its course at high level in an area of plateaus, glacial lakes and rocky glaciers, and then flows west through a large glacial valley. A secondary valley, the Perafita-Claror, enters the Madriu Valley from the south-east at Entremesaigues.

The MPCV is situated in the axial zone of the Pyrenean range. The main geological structure is grano-diorite (dating back 300-350 millions years). The Claror area is dominated by schists.

The geomorphology of the whole area is characterised by a typical range of glacial phenomena (cirque, moraines, glacier lakes, rocky glaciers etc.). The plateau of Calm de Claror is an unusual example of a surface impacted by pre-glacial erosion: the landscape is similar to those of sub-polar and tundra regions. The glacial cirque of Estanyons (in the south-east of the Madriu Valley) provides evidence of the short ice age that occurred in five periods

between the 14<sup>th</sup> and 19<sup>th</sup> centuries: this is the only surviving proof of its occurrence in the Pyrenees.

Three main bio-climatic regimes are found in the area: mountain formation (1000 – 1700 m), sub-alpine formation (1500 – 2400 m), and alpine formation (2300 – 2900 m). However, because of the main valley's east-west orientation, the contrasts between shaded side (ubac) and the sunny slopes (adret) generate a mosaic of landscapes which obscure these bio-climatic regimes.

The geographical situation of Andorra makes the place an area of interest for migratory birds crossing the Pyrenees (20 % of the birds listed in the Birds Atlas of Andorra are passage migrants).

### **3. HUMAN – NATURE INTERACTION**

The MPCV has been used by people for centuries, and the evidence of interaction with nature continues to this day. For example, glacial activity left lakes in the valley floors; when these filled up, ideal conditions were created for growing crops of cereal and hay. The high mountain meadows, grazed by local and transhumant sheep, are an adaptation of the natural grasslands that arise from the geological and climatic conditions.

Forests also bear the imprint of human activities. Wooded areas have long been used for firewood as well as for furniture, tools and construction. Substantial areas have been affected by charcoal production, which supported iron manufacture in the Catalan Forges, produced in combination with iron ore from the Claror slopes and water power from the Madriu River.

Water resources have also been harnessed for centuries as drinking water, for irrigation and as energy for forges. More recently the area has become the major water supplier to the city of Escaldes. The electricity producer is currently obliged under contract to ensure that at least 10% of the original water flow in the Madriu river at Ramio is maintained.

The lie of the land favours east-west passage through the mountains from and to the main Valley of Andorra (Valira). Several mountain passes also provide access to the high altitude pastures of Catalunya. Shepherds, charcoal burners, miners, blacksmiths, farmers and even smugglers have used these footpaths over the centuries. Their present day counterparts are hikers.

### **4. COMPARISON WITH OTHER AREAS**

The MPCV is the only surviving unspoilt landscape within Andorra. Much of the rest of the principality has been affected by large-scale and unregulated development since 1960. 70 % of all species of birds in Andorra are found here, in only 10 % of the total surface area of the country.

At the regional level of the Pyrenees as a whole, the nomination dossier includes a comparison with the World Heritage site of Mt Perdu, France/Spain. This is also a pastoral landscape reflecting an agricultural way of life that was once widespread in the upland regions of Europe, but now survives only in this part of the Pyrenees. It provides exceptional insights into past European society through its landscape of villages, farms, fields, upland pastures and mountain roads. However, the landscape of the MPCV, with its underlying granites and schists, contrasts with that in many other parts of the Pyrenees (including the Mt. Perdu), where the rocks are mainly sedimentary. Another unusual feature of the nominated area is the evidence of the recent short ice age, which is at the present time demonstrated only in the Madriu Valley.

The nomination also includes a brief comparison with four other valleys in the Pyrenees (three in Spain, one in France). It considers that none of these includes such a rich heritage of natural or cultural features, arguing that the distinctive history of Andorra helps to account for

the claimed unique qualities of the MPCV. It is appreciated that a comparative analysis of this kind is hard to carry out and that there is probably insufficient information to make a definitive comparison. On the other hand, a wider comparison with other upland valleys – such as those in the Alps or further afield - is necessary to demonstrate that the MPCV is of outstanding universal value.

At the broader international level, the Pyrenees is a lesser mountain range than other mountain ranges formed around the same time, such as the Caucasus and the Alps. However, as a possible cultural landscape, the question is whether the MPCV demonstrates a relationship between humanity and nature that is of outstanding universal value rather than a comparison of mountain systems as would be the case with a nomination for a natural site.

## **5. INTEGRITY**

### **5.1. Legal Status and Ownership**

At present no special protection is given to the area but the authorities of Andorra confirm that under the Andorran law on cultural heritage of 12 June 2003, the area will normally be declared a cultural landscape by June 2004. This would provide the necessary level of protection for the site. It is also expected that a national law on natural heritage and nature protection will be adopted in 2004. Though both developments are in the right direction, it is of concern that neither of the required measures for the protection of the area is yet in place at present, and that there is a risk that the necessary action may not have been taken by June 2004 at which time the World Heritage Committee will examine the nomination.

Most of the nominated area is owned by the municipalities: 99 % of the core area and 99.5 % of the buffer zone. The municipalities tend to manage the territory through mutual agreements. This is also foreseen for the protected cultural landscape (a charter of the MPCV was signed in 2003 by the four municipalities and the Ministries of Culture and of Agriculture and Environment). The remaining territory is divided between 32 private landowners and this requires careful collaborative management to ensure the conservation of the site.

### **5.2. Boundaries**

In general, the boundary of the core area is satisfactory as the limits correspond to the watershed basin of the Madriu River, which can be considered as an ecological unit. However, there seems to be some doubt as to whether the interesting plateau within the core area of the Claror zone, west of Pic Negre, is adequately protected by its buffer zone. This is an area to which all-purpose vehicles have access, an activity that should be controlled (see section 5.4). It is notable that there is no buffer zone on the Spanish side of the border, but since this southern boundary coincides with a mountain ridge, the need for a buffer zone is less pressing. The area to the north, lying entirely within Andorra, is in the buffer zone.

### **5.3. Management**

The State Party has prepared a Management Plan for the nominated site but it is not yet being implemented; this is awaiting declaration of the site as a cultural landscape according to Andorran laws. The proposed management structure will include the four communities affected and the Ministries of Culture and of Agriculture and Environment. Since the municipalities own 99 % of the land, their participation is essential. The organisation will be made up of three components: a consultative council, an administrative council and a board of assessors.

This structure seems rather complex and would see merit in creating a single decision-making body with executive functions. This would need to consult with a range of interests, as represented in the proposed consultative council. At the same time an independent scientific council should be set up with advisory functions, drawing on expertise in fields relevant to the cultural landscape, (this would be in place of the proposed board of assessors).

The zoning proposed in the Management Plan is based on four types of zone: moderate use zone, restrictive use zone, ecological reserve and special use zone. In general, this makes good sense, though there is reason for some concern over the rules for the ecological reserve. The proposal is for strict preservation of ecosystems with a consequential prohibition on all traditional activities. Because of the characteristics of the nominated site, it would be preferable to moderate that regulation. The conservation or the balanced evolution of some ecosystems would be impossible without the controlled maintenance provided by certain traditional activities, such as grazing. This applies to parts of the proposed ecological reserve. Therefore, that zone should be subdivided into two categories: one where traditional activities are maintained and one where any human activity is prohibited.

A great deal of scientific research needs to be carried out in many fields in order to strengthen the knowledge base for the management of the area. Some research is proposed in the Management Plan but a gap is the need to compile an inventory of invertebrates.

The Management Plan correctly encourages the revival of agriculture and livestock breeding, since this is the main tool for managing the MPCV cultural landscape. The law on agriculture and breeding, the subsidies proposed by the Ministry of Agriculture and the aims of national agricultural policy are wholly supportive of activities that respect the qualities of the environment. This is welcomed as are proposals for keeping the forest free from commercial exploitation.

It is reasonable to permit the continuation of hunting of game, providing a hunting plan is developed and implemented in accordance with the results of scientific research. Similarly, there is no reason to prohibit fishing but the management of fish stocks should be based on scientific assessments and linked to monitoring programmes.

Proposals in the plan for accessibility are very restrictive, which is consistent with the aim of conservation of the cultural landscape. A former proposal to build a road in the valley was rejected in face of public opposition. This is welcome but regulations may still be needed to control vehicular access along the rough track in the valley, for example by excluding certain kinds of vehicle, identifying groups entitled to use them and defining the times when access is allowed. Such questions will be of particular relevance to owners of private properties in the valley, who still use their farms as secondary residences.

In conclusion, with some small amendments, the Management Plan, when implemented, will help guarantee successful conservation of the MPCV cultural landscape.

#### **5.4 Threats**

Overall, threats to the natural resources of this area seem to be few and could be easily resolved within the national laws and the Management Plan.

Currently, hunting regulations permit the killing of one chamois for each group of four hunters during one single week of hunting in the MPCV. This seems to be based on the precautionary principle rather than scientific foundations. The policy in the Management Plan to permit continued hunting should be followed, subject to a separate management regime. Drawing this up will require scientific studies and monitoring. There is an urgent need to collect the base line data so that the new regime can come into operation when the cultural landscape is established.

Access by motorbike to the valley should be prohibited, with some kind of barriers installed at the entrance. The same should be done for access to the top of Claror, where all-purpose vehicles have damaged the fragile sub-arctic vegetation.

The values of the cultural landscape could be threatened by both over-grazing and under-grazing. Too many animals can cause a loss of floristic interest and soil erosion; too few animals would mean that some vegetation increases at the expense of others. The density of grazing animals should be determined not only by economic considerations but also by ecological ones. A study on livestock breeding in the MPCV is already underway; its

completion should be a priority to help secure a sustainable balance between grazing and vegetation.

Helicopters flying over the valley cause serious noise nuisance, and may also affect some species and the successful introduction (or re-introduction) of others.

The current level of tourist visitation appears to be within the capacity of the valley. The nomination of the site as a national cultural landscape - and its possible status as a World Heritage site - could lead to a considerable increase in visitor numbers. As the Management Plan recognises, a tourist management plan is required, with associated policies for zoning, access and interpretation.

## **6. IUCN SUMMARY**

The MPCV can be considered as a “continuing organically evolved landscape” (Operational Guidelines, July 2002, 39, ii, b).

The length of the valley bears the imprint of human use over many centuries. Only a few small areas have not been used at some time, namely the rocky glaciers, cliffs and screes. The land uses that are associated with the cultural landscape have contributed, and still contribute, to the protection of biodiversity. For example, the grazing of the upper area has contributed to maintaining mat grasses and fescues.

Forests in the valley have not been subject to industrial scale exploitation and this has helped to protect the slopes from erosion or avalanches. Even though forest management has favoured some species over others, there are no plantations or introduced species. The result is a mixed forest of great beauty.

In terms of biodiversity, the area contains some vulnerable, rare or endangered species at the international, regional (Pyrenees) or national level. The mixed forests are classified under the European Union Habitat Directive as a priority habitat of community interest. Finally the MPCV is also part of an International Important Bird Area (IBA AD 001 Pirineo de Andorra) which holds significant populations of several species of European importance.

The site is an excellent example of humanized ecosystems, unique in Andorra, and interesting at the scale of the Pyrenees. These values should be preserved and interpreted for public benefit.

## **7. CONCLUSION**

The association of natural and cultural values makes the MPCV an area of exceptional interest. Moreover, the Andorran authorities and public seem committed to their protection, and indeed the enhancement, and if necessary restoration, of these values.

IUCN has advised ICOMOS that even if the natural qualities of the nominated site are not of outstanding universal value, the state of conservation of the MPCV's humanized ecosystems is extremely important.

IUCN, however, recommends that two key actions are necessary before the World Heritage Committee is asked to consider this nomination:

- the necessary legal protection and institutional arrangements should be put in place; and
- there is a need for a fuller comparative analysis that sets the nominated site alongside other high valley agricultural communities of this kind, so as to establish beyond doubt its claim to be of outstanding universal value.

IUCN would also suggest that the State Party be requested to:

- confirm that the limit of the buffer zone in the South West of the nominated site includes the area reaching as far as Camp Ramonet in order to protect the Claror Plateau , and that this will provide effective controls over off-road vehicles;
- develop a visitor management plan with associated policies for zoning, access and interpretation.
- modify the policies attached to the management zones so as to permit certain forms of traditional agricultural uses for ecological purposes;
- review the structure of the management body, and specifically to establish an advisory scientific council with human/social science experts as well as earth/life sciences experts;
- to consider how problems with helicopters over-flying the valley might be addressed;
- to review the regulations on access, taking into account that access is required by those who are involved in the management and conservation of the cultural landscape;
- initiate as soon as possible an inventory of invertebrates in the meadows and high altitude pastures (this study could be part of the research to be carried out by the Direction of Agriculture).