
Serra de Tramuntana (Spain) No 1371

Official name as proposed by the State Party

Cultural Landscape of the Serra de Tramuntana

Location

Self-Governing Region of the Balearic Islands, Island of Mallorca
Spain

Brief description

The cultural landscape of the Serra de Tramuntana exemplifies the Mediterranean mountainous agricultural landscape, which, after centuries-long transformations of the terrain morphology to exploit the scarce available resources and thanks to the specific orogenetic, climatic and vegetation conditions, has been made productive and well adapted to human settlement. The system of terraces, common to many Mediterranean landscapes is combined with an articulated network of devices for the management of water, revolving around farming units of feudal origins.

Category of property

In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a *site*.

In terms of the *Operational Guidelines for the Implementation of the World Heritage Convention* (January 2008), paragraph 47, this is also a *cultural landscape*.

1 Basic data

Included in the Tentative List

16 July 1996

International Assistance from the World Heritage Fund for preparing the Nomination

None

Date received by the World Heritage Centre

28 January 2010

Background

This is a new nomination.

Consultations

ICOMOS has consulted its International Scientific Committee on Cultural Landscapes and several independent experts.

Literature consulted (selection)

Grove, A.T., Rackam, O., *The Nature of Mediterranean Europe. An ecological history*, New Haven, London, 2001.

Luginbühl, Y., *On the Traces of the Mediterranean Landscapes*, Jena, Stuttgart, New York, 1995, p. 289-294.

Technical Evaluation Mission

An ICOMOS technical evaluation mission visited the property from 12 to 15 October 2010.

Additional information requested and received from the State Party

Additional information was requested from the State Party on 5 October 2010 regarding:

- Integration of the information provided in the cartography;
- The expansion and deepening of the comparative analysis;
- The legal framework at the basis of the Management Plan, its nature and functioning, the expected deadline for its approval and implementation;
- The expected deadline for the enforcement of the management body.

A response was received on 8 November 2010 and the information is included under the relevant sections below.

Date of ICOMOS approval of this report

10 March 2011

2 The property

Description

The Serra de Tramuntana is a sheer-sided mountain range running parallel to the north-western coast of Mallorca Island. Within the range, three different physiographic units may be distinguished: in the centre the highest peaks may be found, in the north the rugged relieves are interrupted by a sequence of short and narrow valleys, while the southern sector exhibits a less precipitous aspect and wider valleys.

The Tramuntana landscape is the result of a profound and continuous human action that has adapted the rugged topography to human life by the use of terracing to shore up land for agricultural purposes and the construction of a ramified network of structures to collect, distribute and store water, the scarcest and most important resource necessary to allow permanent settlement in the area.

The nominated property owes its actual aspect to natural and manmade features as well as intangible elements that, combined, are held to make up the character of the nominated property.

These have been examined separately in the nomination dossier.

Natural features

The most relevant factors in the shaping of the cultural landscape of Tramuntana are: the geomorphology, the climate, the vegetation and ecosystems.

- Geomorphology of the Tramuntana area

The mountain range is constituted of sedimentary rocks, mainly limestone, with a modest amount of clay and calcarenites. The carbonate lithotype has undergone a succession of modelling processes that may be grouped according to four prevalent typologies – the torrential, the facial, the coastal and the karstic systems. Each of them is responsible for different physiographic features: the network of *torrents*, narrow valleys and small canyons (*estrets*), the succession of steep and short water streams cross-cutting the coastal strip of abrupt relieves or the widespread presence of accumulations of boulders and small coves with beaches covered in pebbles, brought there by seasonal water streams. However, the most interesting surface features are those related to the karstic nature of the area. These may be divided into exokarstic forms (sink holes, karren fields, canyons) or endokarstic elements, mainly chasms or *avencs*, that is vertical cavities or interconnected caves.

- Climate

The Tramuntana Mountains are characterised by a marked mountainous climate, with a high level of atmospheric humidity, high rainfall, and winter snow, which ensure a rich amount of underground water. Winter rainfalls often occur in the form of downpours. Temperatures in the Tramuntana area are lower than in the extant part of the island, because of the altitude, the mountainous character and the solar incidence.

- Vegetation

Climatic, orographic and geological factors make the Tramuntana Mountains a genetic reservoir. In the mountain range four plant communities have been identified: Balearic holm-oak woods, which would be the prevalent group in the absence of human intervention; wild olive scrubland, typical of warm regions, may be found in the lowest areas of the Tramuntana region; calcicole shrubland (rosemary and Mediterranean heather), less diffuse than the olive scrubland, may be found on the coastal as well as the mountainous areas, jointly with other species that vary according to exposure, soil and altitude; the fourth group is found close to mountainous peaks, and consists of compact bushes of thorny plants, with discontinuous and limited cover.

- Ecosystems

The ecosystems and habitats of Tramuntana have resulted from the impact of human occupation on the previously undisturbed evolution of the area. Five different ecosystems have been identified: marine coastal ecosystem, mainly represented by *Posidonia* sea-grass meadows but enriched by submarine cave biocenosis; coastal land ecosystem, mainly with rocky substrata and associated endemic communities; macchia and garrigues ecosystem, including wild-olive macchia, non-dunal savine and Juniper bushes, euphorbia and low garrigue scrubs;

forest ecosystem, comprising holm-oak woods, riverine forest, transitional pine groves and tamarind woods in proximity to torrents and gullies; and special ecosystem, represented by caves, freshwater wetlands, rupicolous areas, elevated areas.

Manmade components

The long human occupation has left several traces in the area, some are now almost reduced to archaeological remains but many continue to be used and play an active role in the socio-economic life of the nominated property. The description provided in the nomination dossier has identified the following components: the hydrological 'landscape', the dry-stone structures, the rural estates, the towns and villages, the religious centres and the maritime defensive system. However, the agricultural landscape with its structure, pattern of use and mosaic of cultivated crops has not been examined in detail, but only indirectly with reference to the history and development of the area.

- The hydrological landscape

To overcome the scarcity of water, which is a common problem across the Mediterranean region, a complex system of territorial arrangements, drainage and service structures has been created in the area to collect, harvest, transport, distribute and store water. The tangible components of this manmade hydrological system include:

- devices and structures to collect surface or underground water, i.e. springs, sources, dams, reservoirs, underground channels or *qanats*, wells, noria-type waterwheels;
- elements for the distribution of water, i.e. irrigation channels and other types of conduit – worthy of mention is the *Canaleta de Massanella* which stands out for its length (6750m) – and the engineering components required for its construction;
- soil-erosion control systems, i.e. the terraces, the walls crossing the channels of the terraced system, the artificial network of conduits intercepting surface waters, the boundary walls between properties;
- storage structures, i.e. natural or artificial tanks, open air cisterns, ponds, troughs;
- structures driven by water power, i.e. water mills, some of them protected as Items of cultural interest (BIC);
- structures to store snow and make ice.

- The dry-stone structures

The most common structures in the nominated property that make use of this building technique are the walls supporting the hillside terraces created to obtain cultivable fields. However, many other elements of the rural landscape of the nominated property have been built by means of this technique, namely most of the waterworks mentioned in the section above, the boundary walls of land properties, the network of pathways, the olive grove and the farm shelters, the charcoal ovens and charcoal makers' huts, the lime kilns as well as other structures

typical to the Tramuntana area, e.g. piles of stones scattered across the landscape, or structures used by hunters. The dry stone walls supporting the terraces may have differences in complexity, according to the size of the terrace, the type of crop and the steepness of the terrain. Other, more recent, dry-stone elements are the platforms built at viewing points, or *miradores*.

- The rural estates or *possessions*

The *posseïció* consists of a rural property formed by agricultural land and a group of buildings that is the productive unit of the farm. The estates date back to the land subdivision carried out after the feudal system was introduced in the island. These farms were varied in size and could employ from ten to almost one hundred workers. Until the 1950s, the entire island of Mallorca was structured and subdivided into *possessions*. This organisation of the territory partially still co-exists with the administrative structure of municipalities. Some of the largest *possessions* are still production centres. In contrast to valley estates, mountain *possessions* contained large tracts of woodland and smaller tracts of farmland. The estates located between Valldemossa and Deià were among the most important farm units and many of them (Son Ferrandell, Son Galceran, S'Estaca, Font Figuera, Can Costa, Son Moragues, Casa de Miramar, Sa Torre de Can Costa, Sa Pedrissa, Son Morroig, Son Gallard) were bought by Archduke Ludwig Salvator of Austria during his visits to Mallorca, throughout the second half of the 19th century, and brought back to production. Today many of them have been transformed into hotels.

In the farm complexes the most important buildings were the *casa dels senyors* and the *casa dels amos* (the landowners' and farm managers' houses respectively). The residential and service buildings of the farms were organised around a courtyard (*clastrà*) that was used both for work and distribution. The farms were also production units, therefore oil presses, flour mills, and cellars were also included in the complexes. The oil mills are the most important elements of the farms: they included the *graners*, where olives were stored before being pressed, the *trull*, for the first pressing; a *fornal* (fire) with a *caldera* (boiler) providing the warm water necessary for the second pressing and the decanting process. Mills could contain from two to four presses or *bigues* and were generally powered by water, but there are examples of mills driven by animal power. The structures were completed by the *sala de piques i safareig*, where oil was stored.

The largest farms might have chapels, defensive structures and, above all, gardens featuring water jets, ponds, fountains, cascades. The most interesting examples of gardens are found at Raixa, Alfabia (Bunyola), Massanella (Mancor), Galatzò (Calvià), Canet and Sa Granja (Esporles), and Torre del Moro - Miramar.

- The towns and the villages

The occupation pattern comprises a variety of settlements from small towns to villages and hamlets. Their street patterns follow the orography, resulting in winding, narrow

streets. The average height of the buildings is three storeys and, in contrast to the other parts of the island, the houses exhibit narrow fronts. Sóller and Bunyola stand out from the other villages as they contain a variety of architectural styles, from gothic and Renaissance to modernist examples, attesting to the richer and more educated society that lived and shaped these centres.

- The religious centres

The religious heritage in the Tramuntana area relates almost exclusively to Christianity, from the 13th century onward, as no traces of religious structures from the palaeo-Christian, the Byzantine or the Islamic periods remain.

The physical relics of religious activities in the Tramuntana area consist of parish and rural churches, monasteries and convents – often enriched by valuable furnishings and works of art – oratories, shrines and chapels, which punctuate the built landscape. Some of these buildings possess historical and artistic significance in their own right, i.e. the Oratory of El Calvari in Pollença or the church of Sant Pere in Escorca. Other religious relics on a smaller scale are the boundary crosses and the 'Via Crucis'. Among the religious built heritage two complexes stand out for their associative and historical values: the Lluc shrine and the Miramar ensemble.

- The maritime heritage

The northern coast of Mallorca exhibits several structures for the defence of the coastline: watchtowers, lighthouses, seashore dry docks and places associated with smuggling. The network of watchtowers dates back to the 16th century, a period particularly insecure for navigation, due to the widespread presence of pirates in the Mediterranean. Lighthouses were built mainly in the mid 19th century on the basis of the provisions of the General Plan for maritime lighting developed in 1847 for the Spanish coasts. The plan also foresaw technological advancements in lighting both in terms of better use of fuel and the amount of light provided.

The intangible heritage

Intangible cultural expressions and traditions are still alive in the Tramuntana area, bearing witness to its multilayered past. Traditional lifestyles, technical knowledge, religious ideas and beliefs, customs and traditions, toponyms and legends: all contribute to the understanding of this region. The popularity of this region among artists and writers has added another layer of meaning associated with artistic expression to the nominated property.

History and development

The first documented traces of human occupation in the Tramuntana area date back to 2500 BCE (ceramics and traces of use of metals, agricultural activity), although it is believed that human settlers arrived in the Balearic Islands around 5000 BCE.

The late Bronze Age (1300-900 BCE) witnessed the appearance of the Talayotic civilisation on the island, a

megalithic culture, who also occupied other Mediterranean islands and whose probable provenance is the eastern Mediterranean. The Greeks and Phoenicians traded with these islands but did not settle there. The Romans occupied the island from the 2nd century BCE, but Talayotic culture survived, hybridised with Roman customs. Of these periods, only a few isolated traces remain. After the end of the Roman domination, marked by the Vandals' sacking of the island in 454 AD, the Tramuntana area was sporadically settled until 903 when the Balearic Islands came under Muslim domination, which lasted until the feudal Christian conquest of 1229.

During the period of Islamic the territorial organisation of the island was based on two types of farm, the *al-Garya* and the *rahal*, the first larger and more complex, the latter much smaller. The State Party reports that there are no systematic records of irrigated crops during the Islamic epoch, although documentation attests to the existence of mills and artificially watered fields for the cultivation of irrigated crops (fruits, vegetables, cotton, linen, vines, rice in the wetlands). The Islamic period was in any case one of expansion for agricultural activity, during which time the terraced layout was imposed on the landscape, water resources were exploited and the cultivation of olive trees developed. The use of the same springs and terrains was shared by various groups and agreements were set up to ensure an acceptable management of the water resources. Written sources also document livestock farming in the area during the Muslim presence.

The Christian conquest introduced the feudal system into the island and brought to an end the system of small farm holdings, which was substituted by the concentration of control of the land in the hands of large estates: the *possessions*. The new rulers promoted the colonisation of the island by issuing regulations that ensured sufficient cultivable and grazing land for new settlers to make a living. The farm holders subdivided their properties into smaller farming units and let them *in usufruct* to estate managers. On this basis, the Tramuntana area witnessed an increase in population in the 14th century. Watchtowers and castles were built and fortified to protect the island, which was isolated and not far from territories under Muslim rule. The change in the territorial control and in the economic base, from small farming units, with the same tribal origins, revolving around an irrigation network and common resources, to a feudal system, based on extensive, non irrigated crops, primarily wheat, olives and vines, modified the aspect of the landscape. Olive cultivation spread throughout the Tramuntana area and had its boom in the 16th century, when oil production became the primary source of wealth for the estate owners of the area. Extensive livestock farming decreased to the advantage of olive cultivation which reached higher altitudes. From the 17th to the 19th century, oil production played a key role in the economy of the island. Grain and olives were joined by vines, first to produce raisins under Muslim rule and then for wine making. Further products included oranges and lemons.

The second half of the 19th century brought to an end the isolation of the island and partly that of the Tramuntana area after its inclusion into Spanish trade networks. The technical advancement which followed triggered the economic growth of the island and expanded its base from agriculture, which further increased and developed in scope to include manufacturing.

During the 19th century, the fame of the beauty of Mallorca's landscape spread among European aristocracy and intelligentsia and attracted distinguished visitors who often resided for long periods on the island and in Tramuntana especially. One of the most famous personages who greatly appreciated the region was Archduke Ludwig Salvator of Austria, who acquired some 16 large farm estates, restoring them to production and for the enjoyment of the landscape. The second half of the 19th century also saw the first significant changes in the Tramuntana region, due to the opening of roads and the adaptation of ports as a consequence of the end of the isolation of the island.

The first quarter of the 20th century saw the second modernisation of the area: electricity supplies and telephone lines began to be introduced in the island and in the more reachable areas of Tramuntana, where a textile industry flourished (Sóller and Esporles). This was also the period in which tourism began in the mountainous region and the first network of paths and belvederes was created.

Mass tourism commenced in the 1960s and caused an accelerated abandonment of agricultural activities and of the rural areas in general, and substantial building development in urban areas. Despite these changes, a great part of Tramuntana has conserved its traditional character and, in recent decades, awareness of the importance of environmental values has grown along with the effort to preserve this landscape, as attested by the numerous provisions issued for the protection of the area.

3 Outstanding Universal Value, integrity and authenticity

Comparative analysis

The State Party has carried out the comparative analysis on the grounds of the two main features that characterise the nominated property: the artificial water supply and irrigation network and the dry-stone terrace system.

The State Party has selected properties inscribed or not on the World Heritage List considered relevant with reference to the aforementioned benchmarks identified as useful for comparison.

Among the properties already inscribed on the World Heritage List, the State Party has chosen the following: Bam and its Cultural Landscape, Iran (2004, (ii), (iii), (iv), (v)), Costiera Amalfitana, Italy (1997, (ii), (iv), (v)), Portovenere, Cinque Terre and the Islands, Italy (1997,

(ii), (iv), (v)), Alto Douro Wine Region, Portugal (2001, (iii), (iv), (v)), Lavaux, Vineyard Terraces, Switzerland (2007, (iii), (iv), (v)), whilst two properties have been examined among those included in the Tentative List of the State Parties: the Western Sand Sea (Algeria) and the rural settlement of Fikardou (Cyprus). As a first consideration, the State Party underlines that the nominated property is the largest in size among those already inscribed on the World Heritage List. Secondly, the State Party, having identified a further eight relevant qualities of the nominated property – namely the engineering waterworks for the ingenious exploitation of water resources, the dry-stone building technique, the agricultural hillside terraced system, the variety of dry-stone structures erected for different purposes, the urban heritage, the old tradition of olive-grove cultivation, the material traces of the different layers of history, the early recognition of the values of the region – has developed its comparison by building eight matrices with specific indicators for each quality considered. The assessment has been made by considering the relevance of each indicator/value for each property.

The additional information received by ICOMOS on 8 November 2010 contained an expanded comparative analysis that includes the World Heritage Sites of Wachau, Austria (2000, (ii), (iv)) and Stari Grad Plain, Croatia (2008, (ii), (iii), (v)), and the following sites selected among those on the Tentative Lists of the States Parties: the dry-stone construction of Higerela, north of Castellón Alto Maestrazgo and, in general, the Valencia region (Spain), the vineyards of Primošten and Korčula (Croatia), and Jabal Bura (Yemen). Further properties considered in the comparative analysis are the rural architecture of Conca de Barberà, the dry-stone shelters of Mont-roig del Camp and Subirats, Pedra Tosca dry-stone agricultural park at Olot and the shelters and huts of Somontano, all in Spain.

According to the State Party, the Serra de Tramuntana stands out in respect to the examples selected for comparison for its larger size, the longer time span of its development and the larger variety of dry-stone structures and the hydraulic network.

The State Party underlines the fact that the nominated property has been exposed to several cultural influences and shaped by the interchanges among subsequent civilisations, whilst in comparison, other properties, e.g. Cinque Terre-Portovenere or the Amalfi Coast were exposed to the influences of a more limited number of cultural groups.

Additionally, in the nominated property over 5,000ha of land are still cultivated, with several high quality products (oil, oranges, wine), and is therefore only surpassed by Alto Douro.

Finally, according to the State Party, the nominated property not only comprises a highly developed dry-stone terrace system with related rural constructions and productive units, which may be common also to other

areas, but also a wide variety of architectural features and technical structures for water management purposes.

ICOMOS firstly observes that the State Party, although having expanded its comparison, has limited its analysis to a small number of relevant properties already inscribed on the World Heritage List or on the Tentative Lists of the States Parties. Within the same geo-cultural region, consideration should have been given to the World Heritage sites of Palmeral of Elche, Spain (2000, (ii), (v)), Pyrénées - Mont Perdu, Spain/France (1997, (iii), (iv), (v), (vii), (viii)), Landscape of the Pico Island Vineyard Culture, Portugal (2004, (iii), (v)), Madriu-Perafita-Claror Valley (Andorra, 2004, (v)). As well, it would have been useful to also compare the peculiarities of the nominated property against Plasencia - Monfragüe - Trujillo: Paysage méditerranéen, added to the Tentative List of Spain in 2009, or to the Wine Grape landscapes of Langhe, Roero, Monferrato on the Tentative List of Italy.

ICOMOS further considers that the management of water and the hillside terraces are artificial expedients that have been used globally to make mountainous areas productive and liveable and can be seen in several regions well beyond the Mediterranean. Therefore, ICOMOS observes that properties from other geo-cultural regions, inscribed or not on the World Heritage List, should have been included in the comparison, e.g. Viñales Valley, Cuba (1999, (iv)), Rice Terraces of the Philippine Cordilleras, Philippines (1995, (iii), (iv), (v)), Sukur Cultural Landscape, Nigeria (1999, (iii), (v), (vi)), *Aflaj* Irrigation System of Oman, Oman (2006, (v)), or properties on the Tentative List of the States Parties, e.g. Hani Terraces (China), the Cape Winelands Cultural Landscape (South Africa), the Qanats of Gonabad (Iran), the Paysage culturel rizicole et hydraulique de Betafo (Madagascar). Additionally, the comparison should have included properties nominated on the World Heritage List and not inscribed by the Committee, such as the Wine Village Terraces, Cyprus (nominated in 2004), or the Rivage méditerranéen des Pyrénées (France/Spain), nominated in 2007 and then withdrawn by the States Parties.

ICOMOS also observes that the expanded comparative analysis elaborated by the State Party and received by ICOMOS on 8 November 2010 does not develop adequately the comparison with the selected examples, of which a short synthesis of their values is provided but have not been directly compared with the nominated property (except for Cinque Terre and the Amalfi Coast), as required by ICOMOS, nor has the State Party applied the matrices that have been used for the first examples to the additional selected cases.

In this regard, ICOMOS further considers that the systematic type of analysis elaborated by the State Party should have better and more precisely explained how the indicators proposed in the matrices have been used - it is not possible to understand how a particular grading

(low, medium or high) has been assigned to the qualities of the other properties used for comparison - and also what were the reference data to establish the grading. The matrices would have benefited from an explanation of the indicators selected for each quality, i.e. by identifying the cultures that have contributed to shape the relevant selected examples, describing the types of terraces encountered, enumerating the crops cultivated there and the related traditional products (especially the famous ones), providing quantitative data on the percentage of surviving terraces and waterworks within the properties and the percentage of land still cultivated with traditional crops, giving explicit account of the length and continuity of the occupation of each selected example.

ICOMOS considers that some of the properties selected for comparison exhibit a remarkable antiquity and continuity of occupation in comparison with the nominated property, supported by specific material evidence, i.e. Stari Grad Plain, as well as the Costiera Amalfitana or the Cinque Terre. The analysis carried out by the State Party has not compared explicitly the periods of occupation in the nominated property against those selected for the analysis. The only examples for which this comparison has been explicitly made are Cinque Terre, Portovenere and the Islands and the Amalfi Coast which, however, bear witness to a remarkable continuity of occupation and exposure to influences of subsequent civilisations.

Additionally, the various periods of occupation in Tramuntana have not been systematically associated with specific tangible evidences. This is particularly true for the Islamic period, for which its association with the hydraulic system is described in general terms, more associated with the know-how than to specific items, and to the intangible dimensions such as words and toponyms.

ICOMOS observes that *“The comparative analysis shall explain the importance of the nominated property in its national and international context”* (Operational Guidelines Para. 132.3).

ICOMOS considers that the comparative analysis has not been carried out with a sufficient level of detail to demonstrate how and to what extent the specific values and related attributes of the nominated property enrich the spectrum of agricultural landscapes already inscribed on the World Heritage List or that may be nominated in the future.

Finally ICOMOS considers that the comparative analysis was only incompletely elaborated at the regional level and was not truly international, as this case would have required.

ICOMOS does not consider that the comparative analysis justifies consideration of this property for the World Heritage List at this stage.

Justification of Outstanding Universal Value

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- In the Cultural Landscape of Tramuntana the traditional network for water supply and irrigation of Islamic origin combines with the terrace system and the cultivation of olive groves to create an exceptional example of a Mediterranean agricultural landscape, profoundly shaped by human activity.
- The intense and continuous human activity has modelled the environment by making use almost exclusively of dry-stone building techniques to construct the water supply and irrigation systems and the hillside terraces to obtain cultivable plots in an area characterised by steep slopes, scarcity of water and isolation.
- The nominated property reflects, in its tangible cultural legacies, the isolation of the region and, at the same time, its being at the border of two different worlds, subject to invasion from both north and south, and therefore exposed to major cultural interchanges, testified to by the diverse material evidences that survive within its boundaries.
- The environmental and orographic conditions, combined with continuous human intervention down the centuries, have left a profound imprint on the area, in which the physical aspect is intertwined with the intangible dimension represented by toponyms, traditional knowledge and skills, religious practices and legends. The visual singularity of the nominated property has attracted artists, travellers, writers and philosophers who have added a layer of significance through their artistic work.

ICOMOS considers that the combination of the waterworks network for the rational exploitation of surface and underground water resources with the dry stone terrace system may be found also in other areas, both arid or semi-arid and humid, but may still be considered a peculiar feature of the Serra de Tramuntana Cultural Landscape.

However, ICOMOS observes that the cultural interchange is not a specific trait of the nominated property, in that almost all Mediterranean cultural landscapes have been exposed to the influence of different cultures, and certainly of Islamic civilisation, e.g. on the coasts of Spain, of southern Italy, and Turkey.

ICOMOS further considers that the management of a steep and rugged territory through terracing to allow cultivation is widely used in the Mediterranean basin and also in other regions of the world, i.e. Africa, Asia, and Arab countries. Also, the dry-stone building technique is widespread in all stony and arid or semi-arid climates and has given rise to some exceptional results, as partly reflected by the comparative analysis.

With regard to the intangible heritage associated with the nominated property, ICOMOS observes that most

landscapes that have been inhabited and domesticated for an extended and continuous span of time are covered with multiple layers of meanings, legends, stories, and intertwined with traditions, social and religious rites, orally transmitted forms of knowledge, etc., and those documented for the Tramuntana area do not appear to stand out in respect to those associated with other properties inscribed or not on the World Heritage List. Similarly, the popularity acquired by the nominated property among aristocrats, artists and intellectuals since the early 19th century enriches the multifaceted significance of Tramuntana but does not represent an exceptional factor in its own right, since many other traditional rural areas have also witnessed a similar phenomenon.

Therefore, ICOMOS considers that the arguments put forward by the State Party to sustain the proposed Outstanding Universal Value are only partly appropriate.

Integrity and authenticity

Integrity

The State Party holds that the nominated property is characterised by a high level of uniformity, in which the defining elements are the terraced land arrangements, the olive groves, the spatial organisation in rural estates and the water supply network. The nominated property is exemplary of the historical processes that have taken place in the Tramuntana area and have shaped its actual aspect. The nominated property has received formal protection since 1973 as a “picturesque landscape of the Island of Mallorca” and this has contributed to preserve its values and physical features. The legal and planning instruments in place recognise the value of the cultural landscape of Serra de Tramuntana and contribute to its preservation, despite the pressures on the surrounding areas.

ICOMOS observes that the key elements that characterise the nominated property – the terraces, the hydraulic systems, the religious structures, the rural estates, the defence system and the belvederes, the trails and the roads – appear to retain their integrity to a considerable extent. The size of the nominated property is considerable, however, it seems that areas containing attributes that would contribute to convey the significance of the place, in particular related to the hydrological heritage, have not been included within the boundaries of the nominated property.

It should be further noted that oil and wine production no longer represent the most important factors in the economy of the area and the major part of the rural estates today are used as second houses. The relationship between the terraced agricultural plots and the economy of the villages and towns is no longer the same: in most cases, agriculture has been replaced by tourism-related activities, although some oil and wine producers strive to continue their activities, which need subsidies to be kept alive.

ICOMOS also notes that the property has suffered in the recent past from development pressures but this has left its signs in well defined areas, close to the major centres, that have been excluded from the nominated property. Today, it does not seem to suffer from immediate development pressure, although the highly populated buffer zone may pose threats to the nominated property and these should be carefully monitored over time. On the other hand, the mountainous environment requires continual maintenance.

The visual integrity of the nominated property seems to have been largely maintained.

Authenticity

The State Party holds that the nominated property is the authentic product of the continuous human action that different cultures have imprinted on the natural environment, gradually shaping the landscape by erecting the dry-stone walls, clearing the plots of stones, creating the water supply network and thus transforming it into a productive area. The physical aspect of the nominated property bears witness to a socio-economic process that has survived until the present day. Additionally, a wealth of scientific research and publications support the material evidence.

The tangible dimension is enriched by intangible expressions that sustain and enrich the significance of the nominated property: technical skills are still alive and contribute to maintaining the main features of this manmade landscape, many festivals and local traditions survive, as well as the rich toponymy. The presence and work of artists and writers amplify the evocative and associative value of the nominated property.

ICOMOS considers that the nominated property bears credible witness to the ingenious combination of an articulated water management system with the terrace arrangements in a steep area, although the dynamic processes that have shaped the face of the Tramuntana area are declining and others are taking over, e.g. nature and cultural tourism-related activities. Therefore, the use and original function of many structures and of the territory at large have only been partly retained.

ICOMOS also observes that further investigation, with specific regard to land uses in different historical periods, in order to understand the modifications of the agrarian landscape in terms of the grain and structure of its mosaic, land uses, quality and architecture of cultivation plots (e.g. density and structure of olive groves), would contribute to better articulate the conditions of authenticity for the nominated property.

The materials and techniques used to repair and restore the traditional structures are the same as in the past, and this ensures the retention of traditional skills. These have been consciously maintained through the establishment of a school for dry-stone wallers, to counter the problems brought by social and economic change.

ICOMOS considers that the setting exhibits a strong continuity with past layouts and the aesthetic qualities of this landscape have been appreciated by well-known artists and intellectuals, who have resided in the area and, through their work, have contributed to the understanding of this region.

ICOMOS considers that the conditions of integrity may be considered met if all relevant hydrological features are to be included within the boundaries of the nominated property, whilst the conditions of authenticity are only partly met, in particular when considering the nominated property as the reflection of the adaptation of the soil and its geomorphology through terracing and the creation of structures for hydraulic management.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (ii), (iv), (v) and (vi).

Criterion (ii): exhibit an important interchange of human values over a span of time or within a cultural area of the world on developments in architecture or technology, monumental arts, town-planning or landscape design;

This criterion is justified by the State Party on the grounds that the nominated property bears witness in its physical organisation and features to the interchange that occurred when the Muslim settlers arrived, who introduced in the region their system for water supply and irrigation which, combined with the creation of hillside terraces, allowed the Arab settlers to generate wealth from a harsh environment. Subsequently, after the Christian conquest of Spain and the island, the feudal system was brought into the area and the territorial organisation was changed with the establishment of large rural estates, the expansion of the terraced system to the upper parts of the hillsides, the introduction of olive cultivation and the adaptation to the new conditions of the Arab water systems.

ICOMOS considers that the combination of the network of structures to collect, supply and distribute surface and underground water with the dry-stone terrace system and the territorial organisation of *possessions* reflect a more complex and less direct cultural interchange between the legacy of the Islamic civilisation and the feudal system of Christian origin. In particular, ICOMOS notes that the "History and Development" section of the nomination dossier does not provide specific references to the evidence of the influence of the Islamic culture, even in relation to the hydraulic system. On the contrary, explicit mention is made of the role played by livestock farming in the economy of the area during the Muslim period. The nomination dossier admits that no direct or written testimonies bear witness to the widespread use of irrigated crops during the period of Muslim occupation.

ICOMOS therefore considers that the existence of the water management network in the area cannot be directly associated to the period of the Islamic conquest since the nomination dossier does not mention material

evidence from that period nor documentary or written sources that can provide specific reference to support that claim.

ICOMOS considers that this criterion has not been demonstrated.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

This criterion is justified by the State Party on the grounds that the nominated property tangibly illustrates the ingenious combination of a building technique based on the use of dry-stone walls and of traditional knowledge in the field of hydraulic engineering. The methods used to collect and distribute underground water are completed by a careful drainage system for surface water that was channelled to prevent erosion and replenish underground aquifers. Together with the existing hydrological, geological and orographic conditions, these structures have contributed to create a highly artificial landscape in which the structures for water supply, drainage, storage and distribution are interconnected with the terraced system.

ICOMOS considers that the interconnected system of waterworks and dry-stone terraces constitutes a peculiar feature of the nominated property.

However, ICOMOS observes that hillside terraces always require a functioning drainage system and this is usually integrated into the terraced structures.

As for the hydraulic engineering network of Islamic origins, outstanding examples of waterworks and hydraulic technologies exist throughout the world, in particular in the geo-cultural regions characterised by arid climates and an Islamic presence.

ICOMOS considers that only an expanded and deepened comparative analysis, which examines the Serra de Tramuntana and other relevant properties with specific and explicit reference to the numerosness, complexity and state of conservation of the material outcomes deriving from the integration of water management system and land-use arrangements at the national, regional and global level, may demonstrate whether the nominated property has the potential to justify this criterion.

ICOMOS considers that this criterion has not been justified at this stage.

Criterion (v): be an outstanding example of traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

This criterion is justified by the State Party on the grounds that the settlement pattern in the nominated property illustrates different stages of human occupation of the area and the evolutionary processes that have accompanied the subsequent civilisations that settled in the nominated property. A featured component of the spatial organisation of the area is the rural estate or *possessió* that dates back to the Christian conquest and is a structure linked to the feudal system. The *possession* comprised plots of land dedicated to different crops and with differing morphologies and levels of productivity: rocky outcrops at the top of the hills, woodland areas, terraced hillsides with olive trees and intensively-grown crops, areas of extensive grazing and fields on more level land. The centres of these productive units were the farmhouses or *cases de possessió* which were organised around a courtyard or *clastra* and included residential and service buildings.

The villages and towns still reflect their medieval origins in the irregular urban fabric. They are also marked by the presence of structures related to the management of water such as ditches, watermills, public wash places, irrigation networks for the orchards and water tanks. Religious and defensive structures dotting the landscape further illustrate its pattern of evolution.

ICOMOS considers that the settlement pattern and the related spatial and economic organisation of many cultural landscapes are based on productive agricultural units, therefore their presence cannot be claimed as a component specific to this property, although the complexity of several farming units is remarkable if examined in relation to the extreme orographic conditions of the area.

ICOMOS observes that the nominated property is a good example of human adaptation to difficult environmental conditions and of traditional knowledge developed to carry out farming with limited resources, both in terms of land and water. But ICOMOS nevertheless notes that in the nomination dossier there is much detailed information on some of the material elements of this agrarian cultural landscape, but reduced attention has been paid to the features of the agrarian landscape in terms of the grain and the structure of the landscape mosaic, land uses, and the quality and architecture of agrarian cultivations (e.g. density and structure of olive groves). This would require a deepening of the investigation, with specific regard to land uses in different historical periods, which may shed light on the pattern of evolution of the area.

ICOMOS further considers that the existence of structures and arrangements related to the intelligent exploitation of water in shaping this landscape better justifies criterion (iv) than this criterion.

ICOMOS finally considers that the nomination dossier has not clarified the role played by the villages, the religious and defensive heritage in the development of the nominated property, and the historical, economical

and social reasons that have brought about their existence appear rather disconnected from those supporting the formation of the agricultural and territorial structure of the Tramuntana area.

ICOMOS finally observes that many of the claims that would support the demonstration of this criterion have also been used to support criteria (ii) and (iv).

ICOMOS considers that this criterion has not been demonstrated at this stage.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas or with beliefs, with artistic and literary works of outstanding universal significance;

This criterion is justified by the State Party on the grounds that several illustrious visitors have appreciated the aesthetic values of the Serra de Tramuntana and have spent part of their lives in the area, enhancing and promoting its scenic values, such as Archduke Ludwig Salvator of Austria, or conceiving some of their works while sojourning in the nominated property. Even today several prominent intellectuals and artists have elected as their second home the Serra de Tramuntana.

Other intangible elements bearing witness to the long and complex history of the region are the toponyms, many of which relate to water, whilst others recall the Islamic presence in the island, the religious and traditional festivities, dances, or pilgrimages to the Lluç Shrine.

ICOMOS considers that the intangible components exhibited by the nominated property are common to several other cultural landscapes within the same geo-cultural region, although they certainly contribute to enrich the significance of the nominated property.

In respect to the association with works of art, although several artists have spent part of their lives in the area only a few have conceived their artistic works whilst there, and none of these works is closely intertwined with or widely recognised as directly associated with the nominated property. Additionally, none of the described traditions appear to have indelibly marked the local communities, nor have any of these intangible expressions been the core element of the social identity of the inhabitants of the nominated property.

ICOMOS considers that this criterion has not been demonstrated.

ICOMOS does not consider that the criteria and Outstanding Universal Value have been justified at this stage.

4 Factors affecting the property

Development pressures

The State Party recognises that the nominated property is subject to global economic trends that see the primary sector largely declining to the advantage of the tertiary, which in the area is represented by the tourism industry. This causes urban and infrastructural pressures to satisfy the needs of mobility and accommodation of a larger number of visitors. Over the last 50 years, most of the coastal towns have expanded their built stock for tourism purposes. The active construction sector is also responsible for other activities detrimental to the environment and the landscape, i.e. the quarrying of stone to produce building material and the related transportation network.

Development pressures is still a threat to the nominated property, although appropriate legal and planning provisions have been established, due to the lack of economic prospects and the low income that characterises most of the Tramuntana area.

In other parts, the abandonment of agricultural activities has caused the accelerated deterioration of several rural structures no longer in use, and, above all, of the terraces and hydraulic systems. This, in turn, has increased the rate of soil erosion.

ICOMOS observes that some 8,000 people live in the nominated property, but the buffer zone is much more populous (128,000 inhabitants) compared to its size, which is less than two times the dimension of the nominated property, therefore it is likely that pressures on the latter may derive from activities carried out in the buffer zone.

Tourism pressures

The fame of Mallorca and of the Tramuntana area for its aesthetic value commenced in the early 19th century, after which it became a famous destination for intellectuals and artists. In the 20th century the island witnessed three major cycles of tourism development, the first of which, dating back to the 1960s, was accompanied also by considerable urban development. The tourism industry has spared Tramuntana since the late 1990s, when rural, nature and residential tourism spread in the area. The increased presence of visitors has caused congestion, disturbance of flora and fauna, dumping of rubbish, illegal fishing and hunting, which, however, should be considered minor compared to the problems of soil instability induced by the lack of maintenance of traditional agricultural infrastructures.

Environmental pressures

The major environmental pressures are related to the increased number of users in the tourism season and to poor waste-management. The karstic nature of the area and its orography make the aquifers particularly vulnerable to pollution and overexploitation. The retention

of the natural and manmade network of surface and underground waters is particularly important for the delicate environmental balance of the Tramuntana region and the survival of the animal and plant species living in restricted areas.

Fire, both accidental and intentional, threatens the vegetation cover of the nominated property.

Deforestation, coupled with the abandonment of agriculture on large areas of hill slopes, induces processes of accelerated soil erosion.

Natural disasters

The orographic, geomorphologic and climatic conditions make the Tramuntana area prone to landslides, rock falls, and torrential floods in steep areas, and inundations in flat land or valleys. The lack of maintenance of the terraces and of the drainage system, together with the misuse of the natural resources, exacerbates the consequences of the natural hazards. Repeated natural and man-made disasters have occurred in the region since the end of the 19th century, most especially over the last fifty years.

Impact of climate change

ICOMOS considers that the consequences of climate change in the region and, specifically in the nominated property, may result in an increase of unpredictable and extreme weather events, which alternate with periods of drought.

ICOMOS considers that the main threats to the property are the consequences of the lack of maintenance and abandonment of agricultural activities, e.g. soil instability, increase of landslides and torrential floods, tourism-related urban and infrastructure development as well as the increasing tourism pressure in the area.

5 Protection, conservation and management

Boundaries of the nominated property and buffer zone

The boundaries of the nominated property (30,745ha) have been determined on the basis of an accurate analysis of the distribution and density of landscape and heritage features. These have been identified and subsequently mapped through bibliographic survey as well as field work. The following resources have been considered relevant in the determination of the boundaries of the nominated property: hillside terraces, traditional water supply and soil-erosion preventive engineering systems, oil presses, ice-storage and salt structures, holm-oak woods, publicly owned estates, public footpaths or tracks, archaeological sites, historic defensive structures, historical gardens, rural buildings. The areas with the highest density of such resources have been the first ones deemed worthy to be included in the nominated property, the final delimitation of which has been defined

by also taking into account geographical features, administrative limits and legal designations for the protection of areas within.

The boundaries of the buffer zone (52,760ha terrestrial buffer zone and 25,857ha marine buffer zone) coincide with the physical delimitations of the Tramuntana district, which also correspond to protective designations. These include: Natural Areas of Special Interest (ANEI), Rural Areas of Scenic Interest (ARIP) and Settlement Areas in a Landscape of Interest (AAPI), designated on the basis of the Balearic Act governing Natural Spaces (*Lei Espaces Naturales* - LEN, 1991). The buffer zone is completed by a protected area covering a marine strip parallel to the coastal edge of the nominated property.

Not all the areas included in nationally designated areas have been included in the nominated property or in the buffer zone, due to their weaker integrity, as in the case of towns and larger villages. They remain, however, under the protection of Spanish and Balearic law but are not nominated for the World Heritage List nor as part of the buffer zone of the nominated property.

On the basis of the additional cartography provided by the State Party on 8 November 2010, ICOMOS observes that areas containing items of heritage value related to the proposed Outstanding Universal Value, i.e. structures related to the hydrological heritage, seem not to have been included within the boundaries of the nominated property.

ICOMOS observes that the boundaries of the nominated property could be reconsidered in the light of the additional information provided by the State Party, whilst its buffer zone is adequate.

Ownership

The major part of the land and estates included in the nominated property is privately owned; in fact only 21% of the property is publicly owned.

Protection

Legal Protection

The entire nominated property is included in the Picturesque Site that has been under formal legal protection via a decree since 1972 (Decree 984/1972). Following the approval of the Spanish Historic Heritage Act (1985) and of the Balearic Historic Heritage Act (1998), the Site has been declared an Item of Cultural Interest (BIC in the Spanish acronym) as an historic site.

Additional levels of protection are ensured by other legal tools on the basis of which several areas have been delimited and protected for their natural and cultural values. Two cultural routes are recognised by the European Route Network: the Dry Stone Route and the Artà- Lluç Route. Several sites, ensembles and individual properties have been declared Items of Cultural Interest (BIC) for their historical, archaeological, ethnological and

technological value, although some ensembles of particular relevance are not protected yet, e.g. the towns of Pollença and Sóller, or the settlements of Biniraix, Ullaró and Galilea in the vicinity of the Monastery of Valldermossa.

The Balearic Act (1991) governing natural spaces and urban planning regulations provides for the identification of areas to be protected for their ecological, geological and landscape values. The Act also foresees that planning regulations be established for areas protected under its provisions.

Other relevant legal instruments include several Acts concerning urban and spatial planning, the conservation of nature, flora and fauna, and the management of rural land and of the environment.

The pivotal instrument for spatial planning is the Mallorca Spatial Plan (2004). This plan provides for regulations concerning the human settlement, land-use on the basis of features, values and vocations of different areas, activities and protection of the environment. The Plan acknowledges the cultural and natural values of the Tramuntana Area and identifies seven areas with differing land-use regimes: Natural Areas with High Level of Protection (AANP) Natural Areas of Special Interest (ANEI), Rural Areas of Scenic Interest (ARIP), Rural Areas of Scenic Interest – Woodlands (ARIP-B), Areas of Agricultural Interest – Olive Groves, Settlement Areas in Landscape of Interest (AAPI) and Areas of urban or developable land. Almost 99% of the area of the nominated property is classified within the most protected categories (AANP, ANEI, ARIP, ARIP-B), in which new construction is almost completely prohibited. The last two categories allow new building activity but this is strictly controlled under protective regulations established for historic heritage.

For natural resources specific regulations are in place, whilst at the urban level, apart from the Mallorca Spatial Plan, each municipality is covered by urban planning provisions.

Further plans related to specific areas are: the Plan for the Regulation of the Tramuntana Area's Natural Resources (2007) and the Special Plans for: the Protection of the Historic Site of Archduke Ludwig Salvator's Estate (2002), for the Dry-Stone Route (2008), for the Protection of Artà-Lluç Route (not approved yet), for the Historic Artistic Architectural, Ecological and Scenic Value of the Municipality of Deià, for the protection of the Village of Lluç, for the protection of the Village of Escorca and of the Historic Centre of Pollença.

Effectiveness of protection measures

The nominated property is covered by different protective layers that ensure the safeguarding of the historical, artistic and cultural heritage, the protection of the environment and the compliance with urban and spatial

planning regulations. These refer to different competent bodies and related control procedures.

Municipalities are responsible in matters essentially concerning compliance with urban planning regulations and issuing building permits.

The Consell de Mallorca is responsible for: safeguarding the historic heritage, controlling compliance with the spatial planning regulations. These tasks are pursued through the Mallorca Committee for Spatial and Urban Planning, the Directorate for Historic Heritage and the Directorate for Urban and Coastal Planning. Relevant activities imply: reporting on special protection plans, declaring properties Items of Cultural Interest, supervising projects in protected areas, issuing authorisation for archaeological excavations surveillance of protected cultural items, supervising urban plans and regulations, and relevant projects in sensitive areas.

Additional responsibilities concern the supply of emergency aid in case of fire (Mallorca Fire Service), and the protection of environmental features (Mallorca Ministry of Environment).

ICOMOS considers that the protective measures for the property are, overall, well-established but recommends that the steps undertaken to declare the ensembles of Biniaraix, Ullaró and Galilea as Items of Cultural Interest (BIC) be continued to make fully effective their protection under the legal framework in force.

ICOMOS further recommends that the spatial plans for the protection of places with cultural values that have been conceived but not yet enforced, be finalised, approved and implemented without delay.

ICOMOS finally recommends that specific plans for the protection and management of the water supply systems that have been formally protected as BIC be developed and enforced.

ICOMOS considers that the legal protection in place will be adequate when the steps undertaken to declare the ensembles of Biniaraix, Ullaró and Galilea as Items of Cultural Interest are finalised.

ICOMOS considers that the protective measures in place will be adequate when the spatial plans for the protection of places with cultural values under development are finalised and enforced. Additionally, ICOMOS recommends that specific plans for the protection and management of the protected water supply systems be developed and enforced.

Conservation

Inventories, recording, research

The nomination dossier mentions that the Consell de Mallorca has initiated an inventory of the structures that constitute the water management system.

ICOMOS recommends that this inventory be carried out on a systematic basis and completed as soon as possible. Additionally, ICOMOS recommends that the following resources be inventoried on the basis of previous research: the extension, organisation and sizes of currently cultivated plots and related crops, as well as of the past pattern of cultivation as attested to by historic maps, cadastral data and other records, the hydrological heritage, and the built heritage, especially the small rural structures scattered in the landscape.

Present state of conservation

Due to the abandonment of agricultural activities and the decline of the permanent population, the nominated property, especially in the most remote parts, has suffered from neglect and disrepair, that have affected the territorial system of hillside terraces and the hydraulic network. On the other hand, the isolation of Tramuntana has preserved it from the substantial transformations that have occurred in other areas of the island as a consequence of mass tourism.

The natural environment of the nominated property is in a relatively healthy condition, although some resources, such as underground water, require measures to prevent their endangerment.

The terraced landscape survives in good condition to an extent of almost 48%, while some 46% is in a poor state of conservation and 5% is in a ruinous state; however, ICOMOS considers that there is a trend in abandoning the agricultural activity that should be counteracted for the effective conservation of this manmade landscape. The structures and items related to the hydraulic heritage are generally in a deficient state: the norias are in a bad condition, whilst wells are in a good state and often still in use, and the underground galleries are in a variable state: those located in functioning areas are still used and maintained but the other ones are in disrepair and difficult to restore. The water tanks and pools are generally in a bad condition due to neglect. Small built features such as ice-stores, charcoal huts, limekilns etc. are generally in poor condition due to neglect and their fragility. Otherwise, those buildings that have undergone adaptation for residential purposes have been substantially altered.

Active Conservation measures

The Consell of Mallorca has undertaken special projects for the conservation of certain ethnological features, such as the mills and the water mills, the dry-stone routes, and the paths.

ICOMOS believes that systematic conservation measures could be realistically implemented only if these structures continue to be used. Therefore, it is unlikely that the built elements that have lost their original function and are out of use today will be systematically maintained.

Maintenance

At present, maintenance concerns are included in conservation measures.

Effectiveness of conservation measures

Apart from programmes for conservation of cultural resources, the Consell de Mallorca has studied the possibility of a tourist tax that is added to tourist-related activities, the revenue of which should be reverted to agricultural activity and help sustain the agricultural landscape.

ICOMOS observes that the effectiveness of conservation in the area can only be achieved through programmes that promote the agricultural activities in the area and sustain the permanent human, productive presence in the territory, and, subsequently, the continual use and maintenance of the most important components of this cultural landscape. However, the measures developed by the State Party to ensure the conservation of at least some categories of cultural items in the nominated property are effective, and those conceived to generate revenue from tourism, to be used to sustain agriculture, are going in the right direction.

ICOMOS considers that the present condition of the nominated property is, overall, acceptable, although threatened by abandonment of agriculture, and observes that, to ensure the retention in the long term of the complex system of features that make up the nominated property, active policies to sustain the agricultural activities and the continual use and maintenance of the territory should be undertaken.

Management

Management structures and processes, including traditional management processes

The existing administrative structures that are responsible for the implementation of protective and planning measures can be considered part of the management framework established for the nominated property.

However, the Consell de Mallorca had been working to establish an appropriate management body for the nominated property and an agreement was approved in 2009 to promote its creation.

The additional information received by ICOMOS on 8 November 2010 made clear that the constitution of the Consortium "Serra de Tramuntana Patrimoni Mundial" and the articles of association were approved by the relevant authorities in September 2010. Therefore, the Consortium is planned to be operational from 2011, after the period of public consultations and observations has been closed and final approval confirmed. At the moment, the Consortium is formed by the Consell Insular de Mallorca and by the Regional Government of the Balearic Islands, but, after its final approval, more local authorities will be invited to join the Consortium. Its structure includes a

chairman, a managing director, a governing board, a participatory committee and a Committee of Experts. The Consortium is headed by the Consell Insular de Mallorca and the chairman of the consortium will be the chairman of the Consell. The activities of the Consortium cover both the nominated property and the buffer zone and, within this area, the Consortium holds responsibilities and powers related to the approval and implementation of the Management Plan, through yearly and triennial plans, as well as other matters pertaining to the World Heritage declaration.

Policy framework: management plans and arrangements, including visitor management and presentation

The Management Plan for the nominated property has been developed as an alternative to other existing plans and programmes for the area. It has been conceived by the Spatial Planning Department of Mallorca and is thought to coordinate all initiatives in progress in the area in order to ensure that the values of the property are not adversely affected by any planned activity.

The Management plan intends to establish a framework for strategies, objectives and programmes in five main areas: Landscape and urban planning, Cultural heritage protection, Agriculture and rural development, Environment and biodiversity, and Commerce and Tourism.

A thorough description of the different sectors of the plan and related objectives is also provided. Where necessary, reference to European Union programmes and any legal and planning tools already in place is made.

The additional information received by ICOMOS on 8 November 2010 explained that the Management Plan for the nominated property has its legal foundations in the Mallorca Spatial Plan (2004). This plan grants a special regime to the nominated property which has been identified as a Spatial Reconversion Area and also provides for specific plans for the preservation of the heritage values of certain areas (see Protection Section).

The Management Plan is expected to be approved in the second quarter of 2011, by the Consortium "Serra de Tramuntana Patrimoni Mundial", which will be the body responsible for the approval and implementation of the Plan.

ICOMOS recommends that the Management Plan include strategies to sustain the surviving agricultural activities within the nominated property and its buffer zone and to control the impact that tourism-related activities may have on the values of the nominated properties.

Risk preparedness

A flood Risk Map has been developed within the Mallorca Special Plan and emergency plans are in place under the Civil Protection Authority. Remote sensing detection via satellite monitors, which registers the movement of rocks

to identify risky areas. Fire-prone areas have been identified on land plans. The Regional Environmental Agency ensures forest maintenance and cleaning.

Involvement of the local communities

The Management Plan contains a specific heading on this subject. The responsible authorities are aware of the importance of public participation and have set up a strategy for citizens' involvement in different phases, to achieve awareness among the local population and consensus on the management system among stakeholders and other bodies. Additionally, the creation of a Tramuntana Forum is envisioned as a permanent arena for discussion and awareness-raising among the population at large.

ICOMOS considers that involvement of local communities and the building of awareness and consensus among the local population on the nomination process is fundamental to ensure the effectiveness of the protection and management of the nominated property.

Resources, including staffing levels, expertise and training

The funds needed to implement the Management Plan and ensure effective protection and management derive from a variety of sources, namely the budgets of the authorities included in the management body, the European Development Programmes, a sponsorship plan to channel financial contributions from public institutions, private companies, organisations and banks, and the revenue from the sale of local products or services.

The authorities responsible for the protection of natural and cultural heritage and for spatial planning are all equipped with technical staff of adequate level.

Training programmes in a variety of occupations have been activated in the area and among them the most relevant are the *Escuela de Margers*, where the dry-stone building technique is taught, and the vocational training programmes in agricultural and related activities.

Effectiveness of current management

ICOMOS considers that the administrative structure in place in Mallorca and in the Tramuntana Area, the legal and planning protective framework, the envisioned management plan and the approval of the establishment of the management body should ensure that management will be effective.

ICOMOS considers that the management system for the property appears adequate. ICOMOS, however, recommends that the management body be established and the Management Plan approved and enforced according to the schedule envisioned by the State Party.

6 Monitoring

The monitoring strategy identifies indicators to be measured for each of the main thematic areas of the Management Plan. To ensure the implementation of the monitoring process, an agreement between the Consortium and the University of the Balearic Islands will be signed to establish a scientific advisory committee that will be charged with responsibilities concerning monitoring. The research, inventory and conservation activities carried out in past years may be considered as a solid foundation of baseline data for future monitoring.

ICOMOS considers that the monitoring system requires that a clear periodicity for the measurement of the selected indicators be established. In addition, it is necessary to identify the bodies that will carry out the monitoring at the operational level and where data will be stored.

ICOMOS considers that the monitoring process needs to be further developed to clarify the periodicity of indicator measurement and identify the operational bodies that will carry out the monitoring activity.

7 Conclusions

The Cultural Landscape of the Serra de Tramuntana exemplifies the Mediterranean mountainous agricultural landscape, which, after centuries-long transformations of the terrain morphology to exploit the scarce available resources, and thanks to the specific orogenetic, climatic and vegetation conditions, has been made productive and adapted to human settlement.

ICOMOS considers that the property is a good, although common-place, example of human adaptation to difficult environmental conditions, and of traditional knowledge developed to carry out farming with limited resources, both in terms of land and water. However, while a thorough description is provided of the hydraulic arrangements and other component structures, reduced attention has been paid to the features of the agrarian landscape in terms of the grain and pattern of the landscape mosaic, land uses, and the quality and architecture of agrarian cultivations. This would require a deepening of the investigation, with specific regard to land uses in different historical periods, which may shed light on the pattern of the evolution of the area. This would also help a better assessment of the nomination dossier since the notion of "cultural landscape" cannot be restricted to "sites", included in a landscape, but to the whole landscape in relation to its functioning.

Additionally, the demonstration of the cultural interchange between the Islamic and the Christian civilisations within the Serra de Tramuntana remains generic and has not been substantiated by specific material evidence and robust historical and scientific references.

Finally, ICOMOS considers that the nomination dossier has not clarified the role played by the villages and the religious and defensive heritage in the development of the nominated property. The historical, economical and social reasons that have brought about their existence appear rather disconnected from those supporting the formation of the agricultural and territorial structure of the Tramuntana area.

Therefore, in summary, ICOMOS considers that the nomination dossier does not provide an adequate description of a number of key aspects, and of their interrelation, of the nominated property to sustain the proposed Outstanding Universal Value.

Recommendations with respect to inscription

ICOMOS recommends that the examination of the nomination of the Cultural Landscape of the Serra de Tramuntana, Spain, to the World Heritage List be **deferred** in order to allow the State party to:

- Research and document the features of the agrarian landscape in terms of the grain and pattern of the landscape mosaic, land uses, and quality and architecture of agrarian cultivations over time to allow the assessment of the property and reinforce its justification as a cultural landscape;
- Deepen the comparative analysis to include agricultural terraced landscapes at Regional and International level with specific reference to the proposed values and the attributes supporting these values in order to justify the Outstanding Universal Value of the property;
- Clarify the role played by the villages and the religious and defensive heritage in the development of the nominated property, with particular reference to its proposed Outstanding Universal Value;
- Establish and enforce the "Consortium Serra de Tramuntana Patrimoni Mundial" as the management body of the nominated property;
- Finalise, approve and enforce the Management Plan for the nominated property;
- Continue and finalise the process to declare the ensembles of Biniraix, Ullaró and Galilea as Items of Cultural Interest (BIC) to make fully effective their protection under the legal framework in force;
- Finalise, approve and implement without delay the spatial plans for the protection of places with cultural values that have been conceived but not yet enforced;
- Develop and enforce specific plans for the protection and management of the water supply systems that have been formally protected as BIC.

ICOMOS considers that any revised nomination would need to be considered by an expert mission to the site.

ICOMOS further recommends that the State Party give consideration to the following:

- Develop a systematic inventory of the following: the current and past pattern of cultivations, the structures and arrangements for the management of surface and underground water, and the vernacular built heritage, in order to improve the level and quality of knowledge of this complex landscape and to make available baseline data for monitoring purposes.



Aerial view of the north coast of the Tramuntana area



The terraced landscape



Miramar, bridges and dry-stone walls



Rural estate in Deià