

Pico Island (Portugal)

No 1117 Rev

1. BASIC DATA

State Party: Portugal

Name of property: Landscape of the Pico Island Vineyard Culture

Location: Azores

Date received: 31 January 2002

Category of property:

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a *site*. In terms of Operational Guidelines paragraph 39, it is also a *cultural landscape*.

Brief description:

Pico is a volcanic island lying among the archipelago of the Azores, some 1500 km out into the Atlantic due west of Portugal. Surviving around its north and western edges is a remarkable pattern of spaced-out, long linear walls running inland from, and parallel to, the rocky shore. Their enclosed spaces contain thousands of small, contiguous, rectangular, stone-walled plots ('currais') constructed in a rectilinear pattern. Many hectares of these plots, especially around villages, are still cultivated for vines such as Criação Velha south of Madalena where perfectly preserved plots grow vines out of the basalt rock under a strict management regime designed to sustain both economic viability and authenticity.

2. THE PROPERTY

Description

The archipelago of the Azores is situated nearly halfway across the Atlantic, 1,500 km west of Portugal. Pico is the second largest (447 km²) of the nine islands. Pico Mountain (a stratovolcano) dominates the island. It reaches a height of 2,351 m above sea level, the highest point in the Azores and Portugal. Pico appears to have been uninhabited until its settlement by Portuguese from the mid 15th century onwards.

The nominated area of 987 ha comprises two thin coastal strips approximately 50 metres deep on the north-west and north of the island. It is surrounded by a buffer zone of 1924 ha, very narrow in places (*see below*), stretching to the south and south east of the nominated sites and providing a buffer between the nominated coastal sites and the interior of the island.

The nominated site is the best remaining areas of a once much more widespread practice which encircled the island of growing vines in small soilless stonewalled fields on flat land along the coast unsuitable for arable cultivation.

Part of the site is an actively-farmed viticulture area immediately south of the island's main town, Madalena; to the north the area was formerly used for growing vines and

figs but has since been largely abandoned and is now extensively covered by vegetation, mainly clumps of heather as much as several metres high.

Within the nominated Criação Velha area, traditional wine-growing continues, producing a sweet, much-prized and once-widely exported desert wine called 'Verdelho'.

The nominated site consists of:

- Network of small walled fields
- Field shelters
- Rock tracks along shore and between the fields
- Small ports & functional buildings
- Tidal wells
- Houses, manor houses & churches

Network of small walled fields The most dramatic part of this nomination is the intense network of small dry fields that intensively cover the strip of flat land along the coast. Constructed from irregular weather-worn black basalt stones, gathered on site, these tiny fields covered rocky land of no use for arable cultivation.

The fields stretch in a largely geometrical network all over the nominated site. They were constructed to shelter vines from sea breezes with walls around two metres high. Most of the small fields are almost square. Groups of fields have two types of patterns. In the first, six small fields form a group with one main entrance; in the second and more common arrangement two parallel groups of fields 'inter-lock' with narrow gaps at the ends of cross walls to allow access along the strip. The continuous parallel walls are usually perpendicular to the sea but occasionally are diagonal to take advantage of higher solar exposure or wind protection.

No plans exist of the walled structures in the nominated areas, though such plans are currently being created by air-photographic plotting. It is claimed that if all the walls were joined in one continuous line, it would pass around the Equator twice.

In general the fields were used for growing vines. Traditionally and still, cultivation and cropping is entirely by hand. Vehicles are restricted to the main tracks between the fields. No wheeled vehicles or mechanical devices are used or allowed within the small fields.

None of the enclosures contain soil. Crops were grown by inserting roots into cracks in the rock. The purpose of the little walled plots was to protect the crops, as is still the case today with the vines in the Criação Velha area, from Atlantic winds and salt spray; and for the walls to provide support for the vines themselves. Their tendrils and, later, fruit, are draped over the walls to keep them off the ground.

In the northern part of the nominated site, fig trees are grown around the fields to provide extra shelter to the vines, to compensate for the higher wind exposure. An example is Cabeco Debaixo da Rocha between Cais do Mourato and Formosinha.

Here too some of the fields are circular rather than square or rectilinear, such as in Lajido de Sant Luzia.

The reticulated land arrangement of the coastal plain does not appear to exist on the uplands. Instead, in a totally pastoral landscape, large irregular fields are enclosed by stone walls or land.

Only a proportion of the nominated area contains currais in a good state of repair. Almost all the remainder of the nominated area and the buffer zone is designated as 'currais to recover' as the basic fabric still exists under the invasive vegetation that has replaced the vines. A tiny percentage of the buffer zone has no remains of currais.

Field Shelters

Punctuating the field patterns are small stone shelters with mono-pitch tile roofs. They were used to shelter viticulturalists and their tools. There are dozens of such shelters all over the nominated site usually associated with a water-tank.

Rock tracks along shore and between the fields

Immediately below the farmed zone, but still within the core areas, is a strip of lava coastline, roughly 50-100 m deep and too exposed to wind and salt spray to be used for crops of any kind. Along it ran a track, occasionally made-up but otherwise on the bare rock where, in places, the wheels of ox-carts loaded with produce ground out permanent ruts. The track was joined by other tracks running down through the vineyards at right angles to it. The whole network was connected with storage sheds and small ports along the rocky shore.

Cellars, distilleries and warehouse

Small groups of cellars (or wine stores) are located in the settlements and near to cultivated land. These small one-storey or sometimes two-storey buildings, built of dry random, black, basalt stones, with shallow clay tile roofs, were inhabited seasonally during the grape harvest, with the upper storey being used as accommodation. Some settlements have as many as thirty cellars.

Warehouses are larger storage buildings, similarly constructed. The nominated site contains over thirty warehouses.

Distilleries were often associated with tidal wells and water tanks and contained large barrel vats for initial storage of the fruit.

Small ports and 'ancoradouros' or harbours

These allowed access for people along the coast when sea travel was easier than land travel and also the transport of wine barrels.

Lajido village, near Santa Luzia, is one of the larger of such ports, inhabited and now very much officially conserved. Its installations in place include a small quay, a ramp for sea-access, church, warehouses, tide well, and a manor house with redundant wine-press and cellar available to the public as an *in situ* museum.

Tidal wells

Due to shortage of surface water, wells were dug through the rock to pick up underground water-courses. Either rectangular or square, their deep shafts are lined with random stone. Around 20 still survive in the nominated area providing often brackish water for household use.

Houses, manor houses & churches

In the northern part of the site there are several nucleated settlements with a strong urban character such as Cachorro de Santa Luzia. Here are the houses of the viticulturalists together with many cellars and warehouses. In the west there are fewer small towns and more scattered cellars.

Altogether there are 15 small towns, 8 in the nominated area and 7 in buffer zone.

A few 'manor' houses of ca 1800 were the summer homes and estate centres of the major landlords who lived in neighbouring Faial Island and spent the summer in Pico.. In general the local vernacular architecture is most immediately characterised by brilliant white exteriors and detailing. A distinctive architectural character lies in rarer, black-walled buildings, notably in Lajido.

Churches are characterised by dressed stone quoins and door surrounds and with the rubble stone of the walls plastered over and painted with bright white limewash. – forming a striking contrast with the black dressed detailing.

In many of the settlements there has been erosion of local character through the use of imported materials

History

The documentary history of Pico and its winegrowing has been well-researched but the fields themselves have hardly been studied, certainly not archaeologically and structurally. It is difficult at this stage to correlate the two types of evidence.

Documentary references to wine-growing in the second half of the 15th century have understandably encouraged a local belief that the system of land enclosure as we see it now is of that date. It may well be that the nominated areas, especially the Criação Velha area, embrace an area of early viticulture and might even include fragments of early enclosure; but there is no proof of the original date of construction of the system of land allotment now existing on the ground. It clearly is not, in any case, of one period, since its structure shows phases and changes which suggest development over time.

In very broad terms, after initial clearance around the first, widely-spaced settlements, clusters of stone-walled fields probably developed as land was cleared in the 16th-17th centuries. The main axial arrangements may well have been laid out in the 18th century when a small number of land-lords, symbolised by the manor houses, owned much of the land. While small plots would always have been necessary for practical reasons, much of their present extensive rectilinear pattern could well be of the 19th century when, instead of large estates, social and agricultural change encouraged the growth of a mosaic of land holdings cultivated by numerous 'small farmers'.

Wine making was introduced by the Portuguese, probably in the 15th century. During the 16th century the Franciscan and Carmelite orders introduced improvements. The production reached its climax in the 19th century when wine production was so extensive that significant quantities were exported.

Most of the formerly-cultivated area of stone-walled plots has been progressively abandoned since the phylloxera disease in the mid-late 19th century and during rural desertification throughout the 20th century.

Management regime

Legal provision:

Nearly all decisions affecting the area, including the discharge of international obligations, are the responsibility of the Autonomous Regional Government of the Azores. Government revival of the wine industry started in 1980 with the creation of the Vinicultural Region of the *Verdelho* of Pico (Regional Decree 25/80/A). Subsequent laws to protect the standards of wine production were passed in 1988 and 1994.

In 1986, the area was classified by Decree as a Protected Landscape, banning mechanical farming within the *lajido* zones, and protecting the traditional architecture of the area. This Decree was amended in 2003 to allow for grants for improvement. In 1994, the Regional Directorate for the Environment established directing and consultative committees for the Protected Landscape of Regional Interest of the Viniculture of the Island of Pico. In the Regional Act of Law 10 of 2002, four levels of protection were set out for these areas, including two zones of reticulated vineyards or currais – the small *lajidos* of Criação Velha and Santa Luzia – which were to be strictly protected for high quality wine production. The buffer zones are covered by other protective policies within the Protected Landscape, though the Protected Landscape also includes some other areas which are outside the buffer zone altogether.

Several plans apply to the area of the Protected Landscape. For example, a detailed four volume ‘Safeguarding Plan’ for the Protected Landscape was prepared in 1993 as a basis for the 1994 legislation. More recently, an action plan (‘Dynamizing Plan’) was adopted by the Regional Secretariat. This is a programme to be undertaken over the period 2001-2006 so as to co-ordinate the activities of vine growers and agencies responsible for environment, roads, ports, water and public lands, waste disposal, buildings, culture, tourism, licensing and funding.

The whole area of core and buffer zones falls within a Category V Protected Area, carefully zoned in a hierarchy of planning control. At one extreme, there is a complete ban on any new building and the use of mechanical equipment in the Criação Velha nominated area; at the other, although there are planning constraints on buildings, normal village life is lived in Lajido.

A management plan for the proposed World Heritage site has recently been prepared and approved (see below). (

Management structure:

Management is at the regional, island, municipality and protected landscape levels. A Management Committee, appointed by the Regional Secretary (Minister) for the Environment, is responsible for the Protected Landscape, which includes the nominated area. An executive Technical Department for the Protected Landscape area (and so for the nominated site), based in Madalena, receives support e.g. in a public awareness campaign, from other regional services. The Pico Island Department of the Environment provides in particular scientific expertise. The municipalities of La Madelena (Criação Velha) and San Roque (Santa Luzia) exercise planning control.

Regarding local management responsibilities:

- The vineyard plots and private buildings are the responsibility of the many private owners, though their actions and methods are tightly constrained by tradition, law and regulation (see above);
- The local roads are the responsibility of the Regional and local authorities;
- Small ports are administered by the Regional Secretary for Agriculture and Fishery;
- Other Public Property is the responsibility of the Regional Directorate for Territory Ordinance and Hydraulic Resources.

Resources:

Many officials and others are involved with the nominated area, but it has no specifically dedicated staff (though a fixed-term team is very successfully promoting Criação Velha as a potential World Heritage site with school children and local communities). The newly prepared Management Plan does not give any indication of future resource needs or how these are to be met.

The Technical Department is currently preparing a detailed data-base for the Protected Landscape, including a Sites and Monuments Record. Large-scale prints of recent vertical air photography are being digitised and detailed archaeological mapping of the reticulation is already demonstrating some interesting morphological and chronological points.

An active programme seeks to reinforce the economic base of the *lajido* landscape by promoting the sales of Verdelho wine.

Justification by the State Party (summary)

- This landscape is based on a balance and partnership between Man and Nature since the first settlers up to the present.
- People have turned unproductive stone into their sustenance by planting vines in it, protecting the plants from strong winds and salty breezes by building a huge and structured mesh of walls. This reticulation forms a unique ambience impressive through its perfection and grandiosity.
- With it has developed a diverse heritage of manor houses, wine-cellars, warehouses, tide wells, ports and ramps, conventual houses, churches and other structures.
- Wines of exceptional quality produced locally from the verdelho grape have been widely exported, play an important part in the Pico economy, and still involve a people proud of their past, maintaining traditional rituals and practices and protecting their architectural heritage.
- The nomination is of the most representative and the best preserved area within the viticultural zone of the island, keeping alive the striking characteristics of this landscape.

3. ICOMOS EVALUATION

Actions by ICOMOS

A joint mission with IUCN was carried out in July, 2002.

The nomination as a mixed site was considered by the World Heritage Committee in 2003. As the two nominated areas were seen as insufficient to represent the particular landscape traditions of Pico, assuming that in time the remainder of the vineyard landscape atrophies, the nomination was deferred for possible resubmission by the State Party on cultural criteria alone, covering a more extensive area, and as a cultural landscape.

It was further recommended that any new nomination should await the outcome of the ICOMOS thematic vineyard survey.

The thematic vineyard study became available at the end of May 2004.

Conservation

Conservation history:

There is no conservation history in the conventional sense. One of the two areas has been farmed apparently continuously for perhaps four-five hundred years during which its walls have doubtless been modified and rebuilt many times; but it exists in good condition. The other area of stone-walled plots was progressively abandoned during the later 19th-20th centuries and is now almost entirely derelict but largely undisturbed.

State of conservation:

Similar stone-walled systems of land allotment formerly existed around much of the island but have either been destroyed or fallen out of use. Even around the Criação Velha nominated area, markedly on the outskirts of Madalena, former extents of stone-walled plots are being fragmented or destroyed in housing and other development.

In some parts of the nominated area, the walls of the reticulation are in excellent condition, with almost literally hardly a stone out of place particularly around Criação Velha. The plots are fully in use, carefully maintained and as carefully safeguarded. The windmill, the most prominent of vertical features overlooking them, is being restored as a visitor centre and lookout point. In the north the system of walls is largely overgrown but generally walls survive in undisturbed if derelict condition beneath the vegetation.

In the settlements a small proportion of the buildings are in ruins and there are an equal number of discordant structures. Since 1998 efforts have been made to 'recuperate' some of the ruins.

Risk Analysis:

Decline in Traditional vinicultural:

Perhaps the most dangerous threat is the least physical. The authenticity of the Criação Velha nominated area depends not only on the maintenance of the current walled landscape but on its continued working by traditional, non-mechanical methods. Those responsible are well aware of the challenge but, given what is happening economically elsewhere in agriculturally marginal, rural areas of the

world, for this highly specialised landscape to continue in good heart as a working landscape and not just as a museum landscape, it will have to go against the trend. Elsewhere the abandoned walls will need to be brought back into some sort of use if there are to remain largely intact and justify maintenance. Recently a financial aid system has been introduced to support the re-planting of vineyards in currais amounting to around 3,500 euros per hectare per year.

A lack of labour for traditional vinicultural activities is also of concern. As is the high average age of viniculturalists.

Development pressures:

- *Airport development:* Pico airport, just to the west of the Santa Luzia area, is soon to undergo expansion to take direct flights from Lisbon. The Protected Landscape team has secured modifications to the design to their satisfaction, so that it has no direct physical impact on the core area (though there is an intermittent aural impact).

Pico is currently protected environmentally by its relatively cumbersome access (air to, then half-hour ferry journey from, the neighbouring island of Faial). Direct flights are bound to stimulate tourism, and it is crucially important for the well-being of the prospective World Heritage site that it is appropriately safeguarded from outside and within.

- *Expansion of housing:* There is clearly a danger that, despite planning controls, a growth of Madalena could easily lead – from a World Heritage point of view – to undesirable development within existing 'reticulation' on the town's margins and in particular around the edges of the Criação Velha. The presence of new housing south of Madalena and west of Criação Velha is already potentially serious. It requires effective controls to ensure that the setting of the site, and in particular the views from it towards the summit of Pico, are not degraded.

- *Stimulation of tourism:* Although tourism can bring positive benefits, without lack of controls it can also be highly damaging. It is not clear from the papers quite how tourism will be harnessed to advantage and the less attractive development pressures constrained.

Traditional building techniques:

In some of the settlements imported material are beginning to lead to an erosion of detail and authenticity. In particular stuck on stone is mentioned. Recently a support system has been introduced to enable the re-building of ruins and the elimination of dissonant architectural features.

The nomination includes a detailed analysis of threats and weaknesses but also considered opportunities and strengths. One of the opportunities is seen to be the possibility of World Heritage status which could act as a catalyst for sustainable regeneration of wine based rural development.

Management:

The whole area of core and buffer zones is apparently very well-managed.

A Management Plan has recently been prepared and was formally approved in October 2003 by the Regional and Local government. This has allowed the Regional government to adopt measures to correct 'dissonant' architectural features, reconstruct ruins, revitalise abandoned vineyards and to 'guarantee the revitalisation of

the landscape through the progressive increase of cultivated vines under traditional methods.'

The management plan sees the landscape as a living working landscape where the only chance of sustaining the complex field patterns and their associated structures and houses is to through trying to ensure that the distinctive wine-making traditions which created the landscape can be made relevant in the present time.

The Plan is an inspirational document aiming to 'start an active and integrated process of dynamic planning and management which allows the preservation of natural and cultural heritage as well as the self-sustainability of the site'.

It also includes strategies and a detailed costed action plan for the next five years. These include the setting up of a detailed database, the creation of an interpretation centre and research and training in the built vineyard heritage.

Authenticity and integrity

Authenticity is about as high as can be expected of a landscape that has developed over 500 years. To all intents and purposes, the field landscape is intact, extraordinarily well-preserved, and without the addition of irrelevant or untoward structures or other features. It remains unmodified and almost entirely fixed in time in the 19th century when the windmills were added as the last significant accretion. The main change since then has been field abandonment and vegetational recolonisation. The major exception is the airport near Santa Luzia; minor exceptions are changes in building techniques and the building of some jarring new buildings in the settlements. The intention is to maintain this authenticity. No mechanical methods of cultivation are allowed in core zones, and farming is by individual owner farmers. Not all the owners live in the immediate vicinity; some are residents of the neighbouring island of Faial (as has traditionally been the case). A realistic appreciation of economic possibilities, respecting the need to maintain authenticity in life-style as well as in the landscape physically, needs to be based on wine marketing, with appropriate ecotourism and craft promotion.

Comparative evaluation

Much of the cultural detail about this nominated site is particular to Pico, but it is in general not quite so unusual in several respects as a field system or as an agricultural landscape devoted above all to vine-growing and wine production.

The Pico field systems have much in common with examples on the Hawaiian archipelago, also volcanic (and homeland of the evocative lava names 'aa' and 'pahoehoe'). There, long, axial swathes of stone-walled fields apparently largely abandoned by ca 1870 have been archaeologically investigated. They too form part of a much-used landscape with its own range of lava-built structures. Unlike the Pico landscape of Portuguese colonists, however, the Hawaii systems were originally an indigenous creation, pre-dating European arrivals.

In Europe, the Pico reticulation is morphologically paralleled in the type of stone-walled field systems now familiar in – for example – prehistoric Britain, particularly

those around 1300 BC on the granite uplands of Bodmin Moor and Dartmoor in south-west England. These too have axial land arrangements subdivided into smaller units.

Close parallels exist in other respects at two recently inscribed World Heritage Sites, Cinque Terre, Italy, and Alto Douro, Portugal. Both are visually more striking than Pico in that the cultivation of their steep hillsides has created dramatic vertical effects, both cover larger areas, both concentrate on vine-cultivation through physical adaptation, and both are highly marginal areas by agricultural standards. As on Pico, rural depopulation has created areas of abandoned landscape at Cinque Terre, while at Alto Douro, as at Pico, vines grow on barren rock but, in contrast, the production of an internationally-favoured wine has brought prosperity to the landscape and its peoples.

There is also some similarity with the tiny enclosures for vines on the lava of Lanzarote, in the Canary Isles. On Faial, the Azores Island immediately west of Pico, blocks of landscape are also marked out in long, parallel hedges and fences. They may be fragments of earlier land-arrangement before the roughly rectangular fields of presently enclosed land, and they hint at an historic tendency in the Azores, not just on Pico, to divide land in long, parallel swathes. Around the slopes of Mount Etna in Sicily are also found tightly walled small fields – but with soil within.

Outstanding universal value

General statement:

The Pico Island landscape reflects a unique response to viniculture on a small volcanic island and one that has been evolving since the arrival of the first settlers in the 15th century.

Evidence of this viniculture is manifest in the extraordinary assembly of small stone-walled fields, in houses and manor houses, in wine-cellars and in associated buildings such as churches and ports. The wines produced on the island are of high quality and have thus helped to extend the influence of this small island around the world.

Although many of the small fields have now been abandoned, the practice of winemaking, and the strong cultural traditions associated with it, is still flourishing on the island.

The extraordinarily beautiful man-made landscape of the island is testimony to generations of small-scale farmers who, in a hostile environment, created a sustainable living and much-prized wine. Their landscape reflects continuity in adversity. Overall it is an agricultural monument in stone, which incidentally has high aesthetic value.

Evaluation of criteria:

The Landscape of the Pico Island Vineyard Culture was nominated on the basis of four of the six cultural ***criteria i, iii, iv and v:***

Criterion i: Although not deliberately created as an aesthetic form, the intensively stone-walled landscape is now appreciated for its aesthetic value. Nevertheless this criterion is not normally applied to collective utilitarian creations now appreciated for their aesthetic beauty.

Criteria iii and v: Both these criteria are applicable for similar reasons. The landscape reflects a distinct, local and now traditional interaction with a hostile environment over several centuries, which produced a sustainable living and much prized wine. However, part of the relevant landscape is now abandoned and the traditional viticulture is but tenuously alive.

Criterion iv: The only way this criteria would be relevant was to cite the impact of colonists on a previously empty landscape. There are two problems with this. First, in the absence of dating criteria for the walls, it is difficult to ascribe many of them to the impact of colonists. Secondly it could be argued that colonists have had greater impact in terms of influencing world history in other parts of the world. On Pico the colonists had a significant impact through the introduction of wine making – but this was part of a broader development by the Portuguese of wineries across many of their earlier colonies. Pico is therefore only part of a bigger picture.

4. ICOMOS RECOMMENDATIONS

Recommendation for the future

The re-nominated site, particularly when its buffer zone is included, represents a significant proportion of the vineyard landscape, which in the 19th century encircled the island. Although only part of the site is still in viticultural production, the remainder of the stone walled enclosures, although abandoned, could be restored to use if the invasive undergrowth were removed. The Management Plan forms the basis of a plan of action to try and achieve this revitalisation.

Currently the nominated site is part living landscape and part fossil landscape. However the intention is not to manage the site in order to maintain these distinctions. The aim is to use World Heritage site inscription in order to show that cultural heritage can underpin sustainable development. On Pico the ‘product’ is a wine that was and still is highly valued. Thus the landscape has the potential to produce high value local produce and to provide income to encourage the persistence of the community and its strong local traditions.

The ICOMOS Thematic Vineyard Study has aimed to define the characteristic of vineyard cultural landscapes. These are landscapes that provide evidence of a distinctive, intensive and productive way of working land to produce valued wine. They are often reflection of a highly sophisticated interaction between people and their environment, which optimised the potential of land to produce good wine. These landscapes may be aesthetically pleasing but they were not created as artistic monuments: rather their value lies in the way they reflect how people have worked with the grain of the land to produce sustainable viticulture.

The Pico vineyard landscape encompasses this type of tradition and display all tangible components of viticultural activities. Moreover its winemaking traditions are still alive as are the associated cultural traditions of music and dance.

Recommendation with respect to inscription

That the property be inscribed on the World Heritage list as a *cultural landscape* on the basis of **criteria iii and v**:

Criteria iii and v: Both these criteria are applicable for similar reasons.

The Pico Island landscape reflects a unique response to viticulture on a small volcanic island and one that has been evolving since the arrival of the first settlers in the 15th century. The extraordinarily beautiful man-made landscape of small, stone walled fields is testimony to generations of small-scale farmers who, in a hostile environment, created a sustainable living and much-prized wine.

ICOMOS, June 2004