

WORLD HERITAGE NOMINATION - IUCN SUMMARY

554bis: RESERVA DEL VIZCAINO (MEXICO)

Summary prepared by WCMC/IUCN (January 1993) based on the original nomination submitted by the Government of Mexico. This original and all documents presented in support of this nomination will be available for consultation at the meetings of the Bureau and the Committee.

1. LOCATION

Located in the central part of the peninsula of Lower or Baja California between the Gulf of California and the Pacific Ocean. The nomination comprises three distinct areas: Laguna Ojo de Liebre; Laguna San Ignacio and Sierra de San Francisco. Total area 554,898ha.

2. JURIDICAL DATA

The presidential decree of 1971 established a marine refuge zone for whales in Laguna Ojo de Liebre. In 1972, another decree established a series of reserves and migratory bird refuges around Laguna de San Ignacio and Ojo de Liebre. In 1979, another decree established a refuge zone for cetaceans in Laguna de San Ignacio. In 1988 El Vizcaino was declared a national biosphere reserve.

3. IDENTIFICATION

Sedimentary rock forms the landscape in the north-west and the central zone of plains and the desert, Desierto de Vizcaino, with intrusions of rhyolitic lavas, andesites and piroclasts. Important fossil beds are found between the eastern zone. The eastern topography is dominated by the main mountain chain of Baja California, with heights ranging from 1,300m to 1,996m. A series of shallow, sandy bays, inlets and saltwater lagoons is found in Laguna Ojo de Liebre and Laguna San Ignacio. The majority of soils are calcareous regosols derived from volcanic material. The hydrology is typically dendritic with intermittent rivers and streams.

Climate is dry with less than 100 mm of rainfall per year. Temperatures reach 40-45°C in summer.

The vegetation is representative of arid or hyperarid environments, a biogeographic subdivision of the Sonora desert vegetation community. There are ten plant communities. Mangrove is typical of the lagoons, and dune communities, bushes and halophytic vegetation surround them.

In the coastal zone are found approximately 20 threatened animal species, including four species of marine turtle. The bay is frequented by grey whale which breeds in Laguna Ojo de Liebre and San Ignacio. The notable birds endemic to the peninsula include peninsular yellowthroat and black-fronted hummingbird. The lagoons are important as a refuge for wintering wildfowl: 10% of the wildfowl wintering on the west coast of Mexico winter in the reserve. This includes 71,220 brent geese, 63% of Mexico's winter population.

The area has been occupied for many centuries. There are a number of prehistoric sites of importance on the peninsula, as well as petroglyphs, wall paintings and ancient ruined structures, together with evidence of the early colonization period from Europe.

4. STATE OF PRESERVATION/CONSERVATION

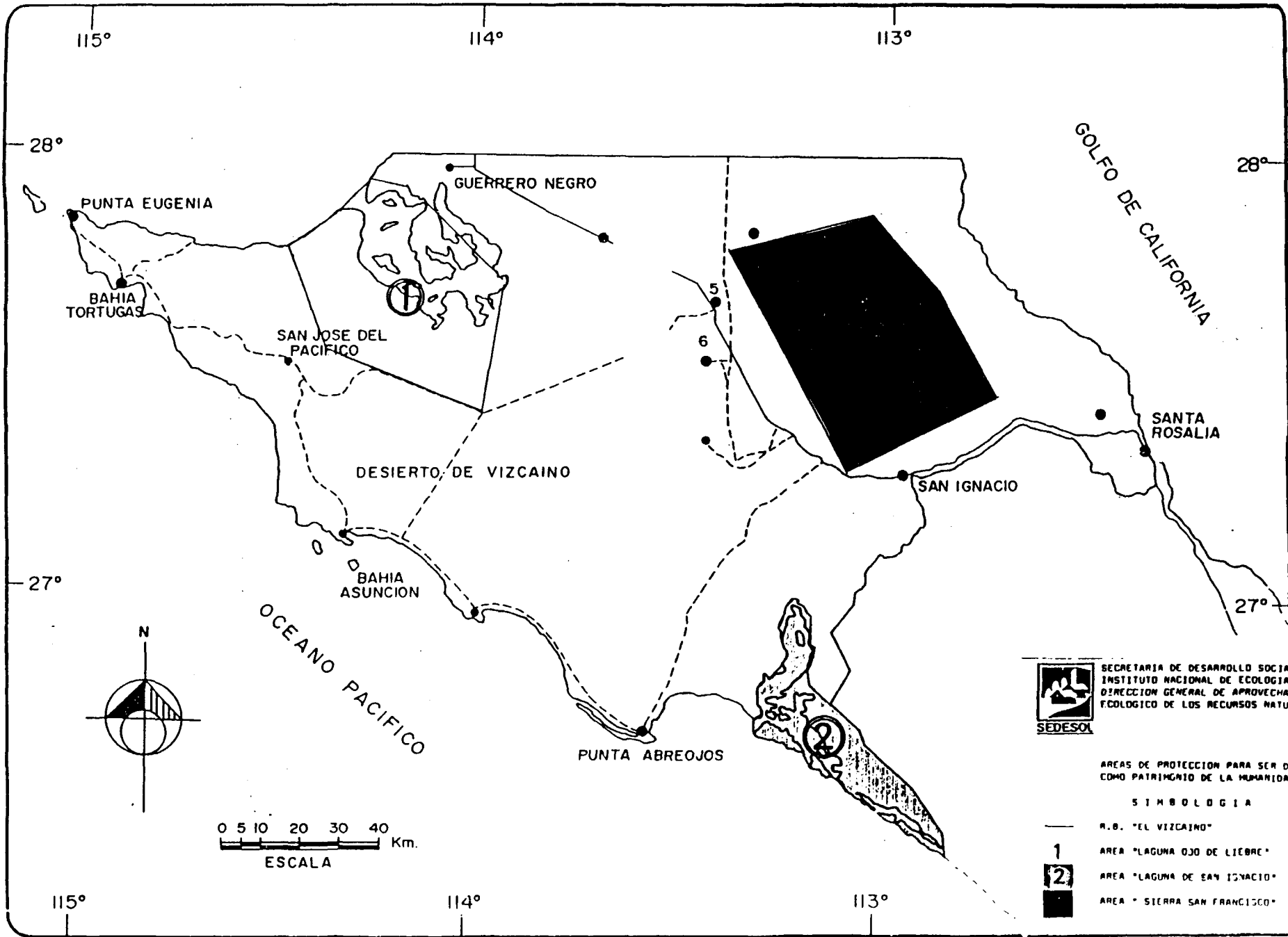
Tourism, which was formerly a threat to grey whales, is now more closely regulated. A management plan has been drawn up by the Centre for Biological Research in Baja California.

5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST

Reserva del Vizcaino, as presented by the Government of Mexico, provides the following justification for designation as a World Heritage property:

Natural property

- (ii) **It is an outstanding example representing significant ongoing biological evolution.** The reserve contains ecosystems of exceptional value. It also contains important fossil deposits.
- (iii) **It contains unique and superlative natural features of exceptional beauty.** The area preserves unique landscapes between the Gulf of California and the Pacific Ocean. Sierra de San Francisco contains the greatest concentration of Precolombian rock paintings in Baja California: they are unique because of their remarkable quality, their dimensions, the variety and originality of the representations of humans and animals, their color and their excellent state of preservation.
- (iv) **It contains the most important and significant habitats where threatened species of plants and animals still survive.** El Vizcaino protects a large number and variety of animal and plant species of which a considerable number are endemic and threatened. The coastal lagoons of Ojo de Liebre and San Ignacio are an exceptional reproduction and wintering site for grey whales as well as other mammals like harbor seal, California sea-lion, northern elephant-seal and blue whale (E). The site also protects four species of endangered marine turtle.



115°

114°

113°

28°

28°

27°

27°

PUNTA EUGENIA

GUERRERO NEGRO

BAHIA TORTUGAS

SAN JOSE DEL PACIFICO

DESIERTO DE VIZCAINO

BAHIA ASUNCION

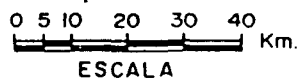
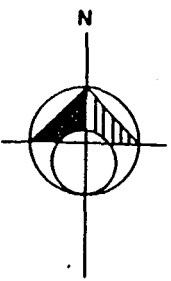
OCEANO PACIFICO

PUNTA ABREOJOS

SAN IGNACIO

SANTA ROSALIA

GOLFO DE CALIFORNIA



SECRETARIA DE DESARROLLO SOCIAL
 INSTITUTO NACIONAL DE ECOLOGIA
 DIRECCION GENERAL DE APROVECHAMIENTO
 ECOLOGICO DE LOS RECURSOS NATURALES

AREAS DE PROTECCION PARA SER DECLARADAS
 COMO PATRIMONIO DE LA HUMANIDAD

SIMBOLOGIA

- R.B. "EL VIZCAINO"
- 1 AREA "LAGUNA OJO DE LIEBRE"
- 2 AREA "LAGUNA DE SAN IGNACIO"
- 3 AREA "SIERRA SAN FRANCISCO"

115°

114°

113°

WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

554BIS: RESERVA DEL VIZCAINO (MEXICO)

1. DOCUMENTATION

- i) IUCN/WCMC Data Sheet (17 references)
- ii) Additional Literature Consulted: IUCN, 1988, Dolphins, Porpoises and Whales. Conservation Action Plan.
- iii) Consultations: 4 external reviewers, officials of Exportadora de Sal (ES), Centro de Investigaciones Biologicas (CIB), and Secretaria de Desarrollo Urbano y Ecologia (SEDUE).
- iv) Field Visit: April, 1990. J. Thorsell, Mario Ramos.

2. COMPARISON WITH OTHER AREAS

Other important protected areas in the Sonoran Desert Biogeographical Province are all in the USA and include the National Monuments at Death Valley (840,000 ha), Joshua Tree (226,000 ha) and Organ Pipe Cactus (133,000 ha). 640 km to the north of the area is a small natural park which protects an important Baja flora (Valle de los Cirios). None of the above areas, however, have the marine and coastal aspect which support the avifauna and whales seasonally found in Vizcaino.

Other parts of the world contain protected areas with a combination of hot desert and coastal features. These include Paracas (Peru), Namib (Namibia), Asir (Saudi Arabia), Shark Bay (Australia) and Banc d'Arguin (Mauritania). Such areas are all important for birds and marine life. There are also other coastal areas where whale species are protected (e.g. Maui (USA), Golfo San José (Argentina), the Silverbank Sanctuary (Dominican Republic) and in the Seychelles).

The entire 1,300 km peninsula of Baja California is important as a wintering site for grey whales and birds and is a significant nesting area for four of the world's seven species of marine turtles. The principal areas are the two linked lagoons, Ojo de Liebre (Scammon's) and Laguna Guerrero Negro, which produce half of the world's gray whale calves born every year. The lagoons in Vizcaino thus contain the main areas for propagation of this species in the world. The lagoons in the reserve are also principal centers of dispersion for ospreys in Baja California with 223 resident breeding pairs.

The third unit in the revised nomination is the inland site of Sierra de San Francisco. This is a separate cultural site not linked to the two lagoons and is being separately evaluated by ICOMOS.

3. INTEGRITY

Although Vizcaino was declared a national biosphere reserve in 1988, protection of the two marine refuges for whales within the reserve were made in various decrees between 1971 and 1980. Before that time there were a number of unfortunate incidences involving collisions with and disturbances by freighters from the salt works in Guerrero Negro. The setting of nets by fishermen at the entrance of the lagoons was also a problem prior to 1985. Both these issues have now been

resolved in collaboration with the State Secretariat for the Navy, the Fisheries Department and the private salt company.

Tourism in the two lagoons has also become a management issue in recent years. The number of whale-watchers has increased from 1,000 in 1980 to 30,000 today. With up to 800 whales in Scammon's lagoon in one day there are obviously potentials for impact from uncontrolled use. One field warden is available for supervision but no visitor facilities are provided. Other impacts from tourists at rock art sites have been experienced but the National Institute for Anthropology and History have taken measures to limit these.

The major current constraint on the integrity of the reserve is lack of on-site management. There are only three staff (including one field assistant) and a minimal operational budget. There are no education facilities, entrance signs or patrols. The proposed management program outlines a series of activities but the financial resources to implement these are not assured.

Other concerns with integrity are:

- land ownership. 43% of the land and water in the total nominated area is under private or communal ownership (e.g. "ejidos"). This means that management is dependent on voluntary compliance;
- the townsite of Guerrero Negro and the salt works are located on the margins of the site. Though both the local people and the industry are supportive of conservation of the lagoons, close liaison and monitoring by the reserve management will be required.

4. ADDITIONAL COMMENTS

This revised nomination has taken the concerns of the previous IUCN evaluation in 1990 into consideration and focussed on the 3 main features within a 2.5 million ha biosphere reserve. Two of these features are the natural sites of the coast while the third is the cultural site 120 km inland from the coast. There are no functional linkages between the lagoons and the rock art sites and no universally significant natural values at the inland site. The Bureau may wish to consider them as two separate nominations.

5. EVALUATION

Within the total area of the Vizcaino Biosphere Reserve, World Heritage values are primarily concentrated in the two nominated coastal lagoons where the whale breeding and parturition concentrations occur. Along with the birdlife on the shorelines and enclosed islands, the lagoons are two areas of international importance that satisfy natural criterion (iv).

In terms of integrity, management actions need to be taken on the following aspects if natural values are to be maintained:

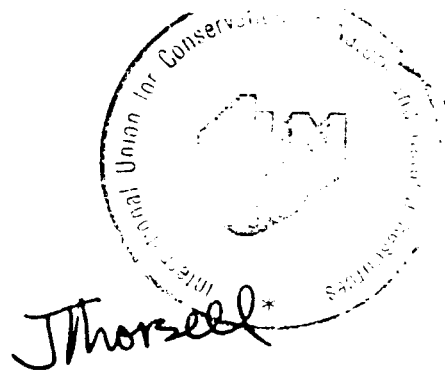
- infrastructure within the core areas of the reserve need to be improved to better support management activities (research, patrols);
- agencies responsible for management need to be provided with basic equipment (vehicles, communications, offices) and trained staff;
- education and extension services for both visitors and local residents are needed to better promote the features of the area and the need for their protection; and

- the various procedures for integrated administration of the area as outlined in the proposed management program need to commence.

Finally, it should be noted in relation to the condition of integrity relating to migratory species, that the gray whales which spend 3 months of the year in Vizcaino migrate 8,000 km to the Arctic feeding grounds every summer. Aboriginal populations in Siberia, Alaska and Canada still take a limited harvest. Vulnerability of the whales in other portions of their range is addressed by multilateral agreements such as those of the International Whaling Commission.

6. RECOMMENDATIONS

Two of the three separate units of the nomination meet natural criterion (iv) and thus merit inscription. The third unit is a cultural site being evaluated by ICOMOS. If the natural site is to be listed separately a new more descriptive name for the property (Baja California Whale Lagoons (??)) should be requested from the authorities from Mexico. No response from Mexico on the Bureau requests has been received as of the date of submission of this evaluation (15 October).



MEXICO

NAME Reserva de la Biosfera "El Vizcaino"

IUCN MANAGEMENT CATEGORY V (Protected Landscape)

BIOGEOGRAPHICAL PROVINCE 1.08.07 (Sonoran)

GEOGRAPHICAL LOCATION Located in the central part of the peninsula of Baja California in the physiographic region of Sebastian Vizcaino, between the Gulf of California and the Pacific Ocean. The area comprises the Desierto de Vizcaino, the Bahia Sebastian Vizcaino southwards to the Laguna San Ignacio. The numerous coastal lakes of Manuela, Guerrero Negro, San Ignacio and the ensemble of Ojo de Liebre are included in the total surface area of the reserve. Isla de Cedros is not included in the reserve. Municipality of Mulege, Baja California Sur State. 25°22'-28°00'N, 112°14'W-115°16'W. World Heritage Nomination: Laguna Ojo de Liebre 27°23'-27°59'N, 114°01'-114°55'W; Laguna San Ignacio 25°26'-27°13'N, 112°48'-113°18'W; Sierra de San Francisco 27°18'-27°48'N, 112°45'-113°22'W.

DATE AND HISTORY OF ESTABLISHMENT On 30 November 1988 the federal government declared El Vizcaino a national biosphere reserve under legal text. Under the 1932 convention between Mexico and the USA for the protection of migratory birds and game animals, the area benefitted from some protection. Since 1949 Mexico has adhered to the decrees of the International Commission for the Surveillance and Rational Protection of Cetaceans in relationship to this area. The presidential decree of 6 December 1971 established a marine refuge zone for whales in Laguna Ojo de Liebre. The text was modified in 1980 to include the lagoons of Manuela and Guerrero Negro. In 1972 another decree established a series of reserves and migratory bird refuges around Laguna de San Ignacio and Ojo de Liebre. In 1979 a new decree established a refuge zone for cetaceans in Laguna de San Ignacio (Prez-Gil, 1988). General legislation includes the Federal laws of Agrarian Reform concerning land ownership and land use, and the Forestry Law of 1960 concerning use of woodland and woodland products. The federal Hunting Law regulations took effect in 1988. Federal legislation also exists for the protection of the historic and archaeological monuments. Inscribed on the World Heritage List in 1993.

AREA 2,546,790ha. The core area totals 363,438ha. The coastal lagoons occupy 539,736ha and the terrestrial sector 1,483,684ha. The three areas proposed for inclusion in the World Heritage List are Laguna Ojo de Liebre (227,995ha), Laguna San Ignacio (142,957ha) and Sierra de San Francisco (183,947ha); together

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WCMC/UNESCO Draft World Heritage Database, March 1994

they comprise 554,898ha (Comisión Nacional de los Estados Unidos Mexicanos para la UNESCO, 1992).

LAND TENURE Land ownership include 'new centres of communal population' (75.9%), communal ownership (6.6%), small private owners (1.9%), national owned land (0.01%), cooperative fish production societies (0.05%), provincial government (0.02%) and land in process of regularisation (15.4%) (SEDUE, 1989). Of the area proposed as a World Heritage Site, 57% is under national, 33% under communal and 10% under private ownership (Comisión Nacional de los Estados Unidos Mexicanos para la UNESCO, 1992).

ALTITUDE 0-1,996m

PHYSICAL FEATURES The reserve is situated in the geological sub-provinces of Sebastian Vizcaino and the Sierra de la Giganta. Sedimentary rock forms a landscape in the north-west and central zone of plains and the desert, Desierto de Vizcaino, with intrusions of riolithic lavas, andesites and piroclasts. Important fossil beds are found in two zones; between the bay of Asuncion and San Roque; and an abundance of marine fossils between the eastern zone of Laguna Ojo de Liebre and San Ignacio. The reserve also has important resources of high-grade magnesite, chromium, lime, diamond, gold, asbestos, gas and oil. The eastern topography is dominated by the main mountain chain of Baja California, with heights ranging from 1,300m to 1,996m at Mount Las Tres Virgenes. Three isolated ranges, the Sierra Vizcaino, extend along the Pacific coast, with altitudes ranging from 920m to 1,840m. Isla Cedros rises 1,204m directly out of the sea. A series of shallow, sandy bays, inlets and saltwater lagoons is found in the extreme north-west and the south of the reserve, ranging from Laguna Ojo de Liebre to the west of El Arco, to the series of inlets and islands around Laguna San Ignacio. The majority of soils are calcareous regosols derived from volcanic material. Yermasols are characteristic of the arid zones and are very poor in organic material. The soil type Solonchak is frequently found in the region, most notably around salt exploitation areas. The western region is dominated by fluvisols, lithosols and xerosols. The hydrology is typically dendritic with intermittent rivers and streams. The recharge aquifers are very poorly charged and consequently the geohydrologic formations are considered fragile. Lack of freshwater has necessitated the use of desalination plants operated by the state government and the construction of the Vizcaino-North Pacific aqueduct (SEDUE, 1989; Castellanos Vera and Salgado, in press).

CLIMATE Dry with intermittent rainfall of less than 100mm per year. There tends to be 98% evaporation, the western coast being the driest with an average water deficit of 700mm-1200mm. Temperatures reach 40-45°C in summer.

VEGETATION The vegetation is representative of arid or hyperarid

environments, a biogeographic subdivision of the Sonora desert vegetation community (Shreve and Wiggins, 1964; SPP, 1980; Anon, 1990). The main plant communities include: Sarcocaul (Mattoral sarcocaul) shrubland, characterised by trees and shrubs of large trunk dimensions, represented by such typical species as Bursera hindsiana, B. microphylla, Cercidium microphyllum, Cyrtocarpa edulis and Fouquieria diguetii; Crasicaul (Mattoral crasicaul) shrubland characterised by the presence of succulent species, with a predominance of cacti of which the most characteristic species is Pachycereus pringueli; Sarcocrasicaul (Mattoral sarco-crasicaul) shrublands characterised by mixed communities of the above with a predominance of candelabra forms, with such species as Idria columnaris, Tatropa cinerea, Lophocereus schotli and Mytillo cactus cochal. Other vegetation types include microphyllous (Mattoral desertico microfilo) shrublands which are dominated by non-spiny, deciduous leaved plants which only occasionally have persistent leaves, such as various Acacia spp., Cercidium spp., Condalia globosa, Encelia farinosa and Larrea tridentata; Halophytic (halofila) vegetation with a climax community of salt tolerant species such as Atamisquea emarginata, Allenrolfea occidentalis, Atriplex barclayana, Frankenia palmeri and Limonium californicum; Sandbank vegetation poor in species number, consisting of perennial herbs and scattered annuals (common species include Arbronia maritima, Ambrosia dunosa, Atriplex spp., Chaenactis lacera and Atamisquea emarginata). Mesquite shrubland is a typical vegetation community of the region as represented by Prosopis palmeri. Most species are woody and leguminous such as Adella virgata, Acacia farnesiana, Baccaris sarathroides and Cercidium peninsulare.

Communities of yucca Yucca glorieux are found some 100-250m inland from the sea, whilst mangrove is limited to the Pacific coast and along river estuaries and is represented by Avicennia germinans, Rhizophora mangle, Laqucunaria racemosa and Spartina poliosa. Conifer forest is localised to 600m in altitude on Isla de Cedros off the Punta Eugenia. It is the only gymnosperm community in the reserve and consists of Pinus muricata, Pinus remorata, Cupressus guadalupensis and several species of oak including Quercus cedrosensis. Many plant endemics are found in this small community including Ferocactus chrysacanthus (E)(Flores and Gerez, 1988; SEDUE, 1989).

FAUNA There are 299 recorded species of terrestrial vertebrates, including four species of amphibian, 43 of reptiles, 182 birds (84 resident and 37 migratory) and 61 mammals, 26 of which are marine (Hali, 1981; Stebbins, 1985; SEDUE, 1989). The peninsula and islands of the reserve include a great number of endemics and a number of subspecies, most notably amphibians, reptiles and mammals (Orr, 1960; Hall, 1981). In the coastal zone are found approximately 20 species which are threatened with extinction, including four species of marine turtle, namely leatherback Dermodochelys coriacea (E), green turtle Chelonia mydas (E),

hawksbill Eretmochelys imbricata (E) and olive ridley Lepidochelys olivacea (E). The bay is frequented by grey whales Eschrichtius robustus which breeds in Laguna Guerrero Negro, Ojo de Liebre and San Ignacio (Swartz, 1987). There are also colonies of harbour seal Phoca vitulina, California sea lion Zalophus californianus and Northern elephant-seal Mirounga angustirostris. Lower California pronghorn antelope Antilocapra americana penninsularis (E) and A. americana sonoriensis (E) are found in Baja California, representing relict populations with some of their last refuges in the plains of Vizcaino (Halffter, 1981; Flores and Gerez, 1988). Mule deer Odocoileus hemionus and desert bighorn Ovis canadensis mexicana are also found in the area along with kit fox Vulpes macrotis devia. Bat Myotis vivesi, Baja California rock squirrel Spermophilus atricapillus and agile kangaroo rat Dipodomys agilis (penninsularis) are endemics restricted to Baja California Sur (Flores and Gerez, 1988; SEDUE, 1989). Deer mouse ranges from Labrador to South Mexico, the subspecies P. maniculatus dorsalis being found only on Isla de la Natividad (Flores and Gerez, 1988).

The notable birds endemic to the peninsula include peninsular yellowthroat Hylocharis xantusii and black-fronted hummingbird Geothlypis beldingi (Flores and Gerez, 1988). Species regarded as threatened within the country, and reportedly occurring within the reserve, include American white pelican Pelicanus erythrorhynchus, sandhill crane Grus canadensis, bald eagle Haliaeetus leucocephalus and golden eagle Aquila chrysaetus, osprey Pandion haliaetus, peregrine Falco peregrinus, common caracara Polyborus plancus and burrowing owl Speotyto cunicularia (Flores and Gerez, 1988; SEDUE, 1989). The lagoons are important as a refuge for wintering wildfowl: 10% of the wildfowl wintering on the west coast of Mexico winter in the reserve. This includes 71,220 brent geese Branta bernicla nigricans or 63% of Mexico's winter population (Comision de los Estados Unidos Mexicanos para la Unesco, 1992).

CULTURAL HERITAGE The area has been occupied for many centuries. There are a number of prehistoric sites of importance on the peninsula, as well as petroglyphs, wall paintings and ancient ruins, together with evidence of the early colonisation period from Europe. Prehistoric paintings were noted for the first time by the Jesuit Francisco Javier Clavijero. Currently, there are estimated to be more than 400 identified sites, the greatest concentrations being in the mountains of San Borja, San Juan and especially in the Sierra de San Francisco. Most of these are excellently preserved owing to difficult access (Comision de los Estados Unidos Mexicanos para la Unesco, 1992). The colony of Puerto de Santa Cruz (now La Paz), which was established in 1533 at the extreme south of the peninsula, is one of the earliest examples of the European colonisation period. From 1539-1540 three boats commanded by Francisco de Ulloa explored the two coasts of the peninsula, and in 1542 the expedition of Juan

Rodriguez journeyed up the Pacific coast to the north of San Diego (SEDUE, 1989). In 1602 an expedition commanded by Sebastian Vizcaino arrived along the Pacific coast and surveyed up to the 43rd parallel, the principal bay being named after him. A series of six expeditions between 1615 and 1683 resulted in precise mapping of the coastline. This was followed in 1683-1685 by the first expedition to gather information on the interior of the peninsula and on the occurrence of whales. From 1697 to 1767, the Jesuits succeeded in evangelising and colonising the territory. In this period, they established 23 missions before being expelled by the Spanish and replaced by the Franciscans who continued the work of establishing missions (SEDUE, 1989).

LOCAL HUMAN POPULATION The region of the desert of Vizcaino is one of the most isolated zones in Baja California, although most of the land in the reserve is under some form of human use. However, 38,000 people live in the reserve, of which 52% are in rural communities (including seasonal fishing camps). The remainder is split between two urban centres, Santa Rosalia and Guerrero Negro (SEDUE, 1989; Castellanos Vera and Salgado, in press). Principal economic activities include intensive agriculture, fishing, extensive livestock grazing, mining and tourism. The reserve possesses what are reputed to be some of the largest man-made saltpans in the world in the neighbourhood of Guerrero Negro (Anon, 1990). Until colonisation, the indigenous people of the region were the Pericus, Guayacuras and Cochimies. The Guacinis were found from San Javier and La Purisima to the south of the reserve up to the extreme north of the peninsula. Their origin is not known precisely but one can only conjecture their origin as being "north" as reflected in their name "men of the north". The epidemics of 1744 and 1748 resulted in the deaths of more than 85% of the population. The current population of the entire peninsula and in the numerous municipalities is the lowest in the country, with less than three inhabitants per sq.km (SEDUE, 1989).

VISITORS AND VISITOR FACILITIES Visitors can reach the area by air from Tijuana or La Paz, then by road along the main north-south highway. Facilities are available in the main towns of Guerrero Negro and Santa Rosalia. Whale-watching in Laguna Ojo de Liebre is a very popular activity during the migratory period. Approximately 53,000 tourists visited the area in 1985 (SEDUE, 1989). 1,000 tourists visited Laguna San Ignacio in 1980 to view grey whale, rising to 30,000 in 1989 (Anon, 1979; Swartz, 1981; SEDUE, 1989). The observation of grey whales by tourists is now limited to Laguna San Ignacio and regulated in order to protect the species: 3000 tourists are registered for 1990 and 1493 for 1991. Small, communally-owned boats are used to transport tourists.

SCIENTIFIC RESEARCH AND FACILITIES The Centre of Biological Research of Baja California Sur was the first to commence studies

on the terrestrial, marine and island fauna and flora which led to the proposal and establishment of the reserve (Anon, 1990). A joint USA/Mexican scientific team (US National Marine Fisheries Service Marine Mammal Division and the Direccion General del Instituto Nacional de Pesca), supported by the IUCN/WWF, has undertaken whale censuses and tagging over five years in Laguna de Ojo de Liebre and Laguna San Ignacio (Swartz, 1981; Swartz, 1987). An inventory and atlas of archaeological and historic sites have been compiled by the National Institute of Anthropology and History (INAH), the Inventory of the Historic Monuments being published in 1986.

CONSERVATION VALUE Vizcaino includes a great abundance and variety of species of wild fauna and flora, including numerous endemics to the Mesoamerican region and species which are in danger of extinction elsewhere. Protection of the site is justified by the exceptional value of the desert, mountain and coastal/marine ecosystems which link the Pacific Ocean to the Gulf of California. Parts of the reserve, including Sebastian de Vizcaino and the Isla de Cedros (adjacent to the reserve), are regarded as important centres of plant biodiversity (IUCN, 1987; Flores and Gerez, 1988).

The outstanding natural value of Vizcaino are concentrated in the two major coastal lagoons and their associated islands and shorelines and the site meets criteria (ii), (iii) and (iv) of the World Heritage Convention, based on: Ojo de Liebre and Guerrero Negro lagoons, where half of the world's grey whale calves are born every year, thus representing the main areas for propagation of this species in the world. The coastline is a significant nesting area for four of the world's seven species of marine turtles. The reserve is also of importance for its fossil beds and numerous marine birds, including some under threat of extinction. The lagoons are the principal centre of dispersion for osprey in Baja California. The desert climate is unique, representing the last refuge for an endangered sub-species of pronghorn antelope.

CONSERVATION MANAGEMENT Management objectives are primarily for conservation of wildlife and its habitats, together with an integrated policy of protection of the landscape and preservation of ancient or historic monuments. The reserve administration is the responsibility of eight main bodies: the Secretariat of State for Social Development (SEDESOL) through the National Ecology Institute and the General Directorate for Ecological Utilization of Natural Resources, the National Institute for Anthropology and History (INAH) of the Secretariat of State for Public Education (SEP), the Secretariat of State for the Sea, Secretariat of State for Agriculture and Water Resources; Secretariat of State for Fisheries, the government of Baja California Sur, the municipality of Mulege and the Division of the El Vizcaino reserve. Day-to-day management is the responsibility of the

reserve authorities. The management programme is in the process of being implemented (SEDUE, 1989) and details immediate, middle and long-term requirements, research needs, resource availability and long-term monitoring programmes. For management purposes the reserve has been divided into eight zones, ranging from two core areas (on the islands and mainland), through moderate land use and coastal marine use zones to areas of intensive use and peripheral zones (zona nucleo, zona nucleo insular, zona de amortiguamiento de uso moderado, zona de amortiguamiento de uso restringido, zona de amortiguamiento de uso restringido marino, zona de amortiguamiento de uso intensivo, zona de influencia and a zona de influencia marina)(SEDUE, 1989; Anon 1990). Approximately 30% of the total reserve, primarily the low lying central lands, lies in the peripheral zone (zona de influencia). In the offshore areas of Ojo de Liebre regulations restrict motorised boat traffic during the period 1 December to 1 April.

The National Institute of Anthropology and History (INAH), dependent upon the National Council of Culture and Arts, undertakes management and conservation of the prehistoric monuments and historic sites. Management is undertaken primarily in the Zone of Historic Monuments of Santa Rosalia.

MANAGEMENT CONSTRAINTS The main management constraints have been identified in detail (SEDUE, 1989) and include lack of site management which is affecting the integrity of the reserve. Habitat destruction and hunting are chiefly responsible for the very low numbers of larger mammals and other main vertebrates. This is particularly serious in the case of pronghorn antelope. Marine turtles have been heavily exploited in the past when they were taken in the summer months, using nets set in lagoons and estuaries along the coast, and sent to a turtle cannery in Bahia de Asuncion south of Laguna Ojo de Liebre (Groombridge and Luxmoore, 1989). The land adjacent to Laguna Ojo de Liebre has long been under threat from development, and oil drilling poses a serious potential problem in the region. Fishing occurs within the reserve as does salt extraction and large scale mining (Swartz, 1981; Swartz, 1987; SEDUE, 1989).

STAFF Reserve director and 2 wardens

BUDGET Minimal operational budget.

LOCAL ADDRESSES No information

REFERENCES

Anon. (1979). Grey Whale sanctuary, Guerrero Negro, Mexico, WWF project 1405. Proceedings: Workshop on Cetacean Sanctuaries: Tijuana and Guerrero Negro, B.C., Mexico. IUCN/UNEP.

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WCMC/UNESCO Draft World Heritage Database, March 1994

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DATE 1990, revised January 1993

Identification

<u>Nomination</u>	The El Vizcaino Reserve (Ojo de Liebre and San Ignacio Lakes and Sierra de San Francisco)
<u>Location</u>	State of Baja California Sur, Municipality of Mulege
<u>State Party</u>	Mexico
<u>Date</u>	31 January 1989

Justification by State Party

The Sierra de San Francisco region contains the most important concentration of prehispanic rock art in the Baja California peninsula. It is of exceptional quality at both the national and the international scale, for its high quality, its extent, the variety and originality of human and animal representations, its remarkable colours, and its excellent state of preservation (criteria i and iii).

[**Note** This property is the subject of a mixed nomination; this evaluation is concerned solely with the cultural elements.]

History and DescriptionHistory

The prehistoric rock art of the Sierra de San Francisco region was first reported by the Jesuit Francisco Javier Clavijero in a publication in Rome in 1789. Further studies were carried out by the Dutch scholar ten Kate in 1874 and the French scholar Diguët (1889-1905). In the present century investigations have been carried out by Georges Enguerrand, Barbro Dahlgren, Stanley Gardner, Harry Crosby, and Javier Romero. Some 400 sites have so far been registered by the Instituto Nacional de Antropología e Historia (INAH), the most important of them within the Reserve, near San Francisco and Mulege, over 250 in all.

The most highly developed prehispanic group in the region was that of the Guachimis, whose territory extended from San Javier and La Purísima in the south of the Reserve to the extreme northern end of the Baja California peninsula. Little is known about this group, apart from the fact that they came from further north.

Description

The paintings are found on both the walls and roofs of rock shelters in the sides of ravines that are difficult of access. Those in the San Francisco area are divided into four main groups - Guadalupe, Santa Teresa, San Gregorio, and Cerritos. The most important sites are Cueva del Batequí, Cueva de la Natividad, Cerro de Santa Marta, Cueva de la Soledad, Cueva de las Flechas, and Grutas del Brinco.

The motifs are very varied, and include human beings (men, women, and children) and many animal species, including rabbit, puma, lynx, deer, wild goat/sheep, whale, turtle, tuna, sardine, octopus, eagle, and pelican; there are also abstract elements of various forms. The frequent depiction of weapons, in association with both human and animal figures, testifies to hunting and warfare. The range of colours covers the entire spectrum, as do the representational techniques used (flat colour, silhouette, shading, etc). This rock art has been the subject of detailed analysis in recent years, resulting in important insights being gained into the social and religious organization of the prehistoric peoples of the area as well as their dietary habits. Obsidian dating of associated objects from excavated deposits shows them to vary in age from 1100 BC to AD 1300, and close analogies have been observed between this corpus of rock art and that from the south-west of the modern United States of America.

Management and Protection

Legal status

In 1988 the Federal Government of Mexico declared El Vizcaino, in the central section of the long Baja California peninsula, to be a Biosphere Reserve and thus protected by Federal law. The Sierra de San Francisco area, covering 183,956 ha, lies within this Reserve and the individual registered rock-art sites are further protected by the Federal Law on Artistic, Historical, and Archaeological Monuments and Areas 1972. Within this area 60% of the land is State-owned, 20% belongs to the commune, and the remainder is in private ownership.

Management

Overall management of the Reserve is the responsibility of its Administration, which comes under the Ministry of Social Development (SEDESOL). Conservation of the rock-art sites is assured by INAH through its Regional Centre for Baja California, in collaboration with the Central Directorates for Archaeology, Restoration, and Prehispanic and Historic Monuments.

Conservation and Authenticity

Conservation history

The rock art of the Sierra de San Francisco is remarkably well preserved; this is due largely to the very dry climate of

the region and the sheltered locations of the paintings, which means that they have not been subjected to erosion from wind or rain. Their inaccessibility has ensured that they have not been at risk from vandalism.

As part of the Vizcaino Reserve, the Sierra de San Francisco region will benefit from the protection programme for the whole area being prepared with the help of World Bank funding.

Authenticity

The rock art of the Sierra de San Francisco is entirely authentic.

Evaluation

Qualities and comparative analysis

In evaluating this nomination ICOMOS sought the advice of its International Committee on Rock Art. On behalf of the Committee the Chairman reported as follows:

The Sierra de San Francisco group numbers most of the rock art known in Baja California, and the best... It is indeed of "outstanding universal significance". Besides, it is mostly well preserved owing to its isolation, and very varied, with huge animal and human figures beautifully painted... It is certainly of the quality of such ensembles as Kakadu and Tassili n'Ajjer on the List.

Additional comments

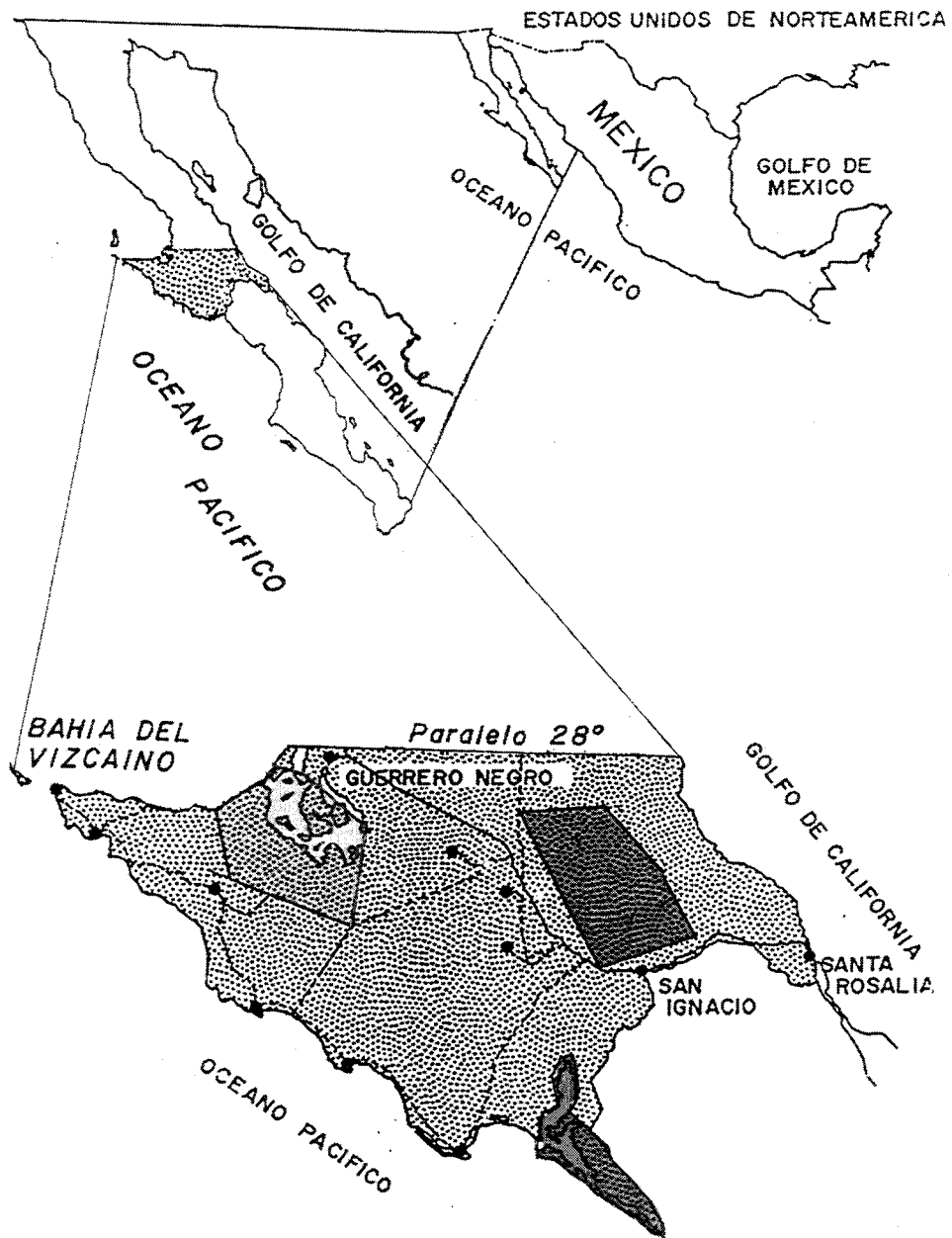
The nomination dossier does not provide any indication of a buffer zone as such. However, since the designated area of the Sierra de San Francisco lies well within the protected Biosphere Reserve, this may be deemed to constitute a buffer zone.

Recommendation

That the Sierra de San Francisco component of this property be inscribed on the World Heritage List on the basis of cultural criteria i and iii:

- Criterion i The rock art of the Sierra de San Francisco region of Baja California is one of the most outstanding concentrations of prehistoric art in the world and a dramatic example of the highest manifestations of this human cultural expression.
- Criterion iii The Sierra de San Francisco complex is illustrative of a strong human cultural group that existed in the harsh climatic region of the Baja California peninsula, but which disappeared rapidly after contact with European settlers for a variety of causes.

ICOMOS, October 1993



LOCALISATION



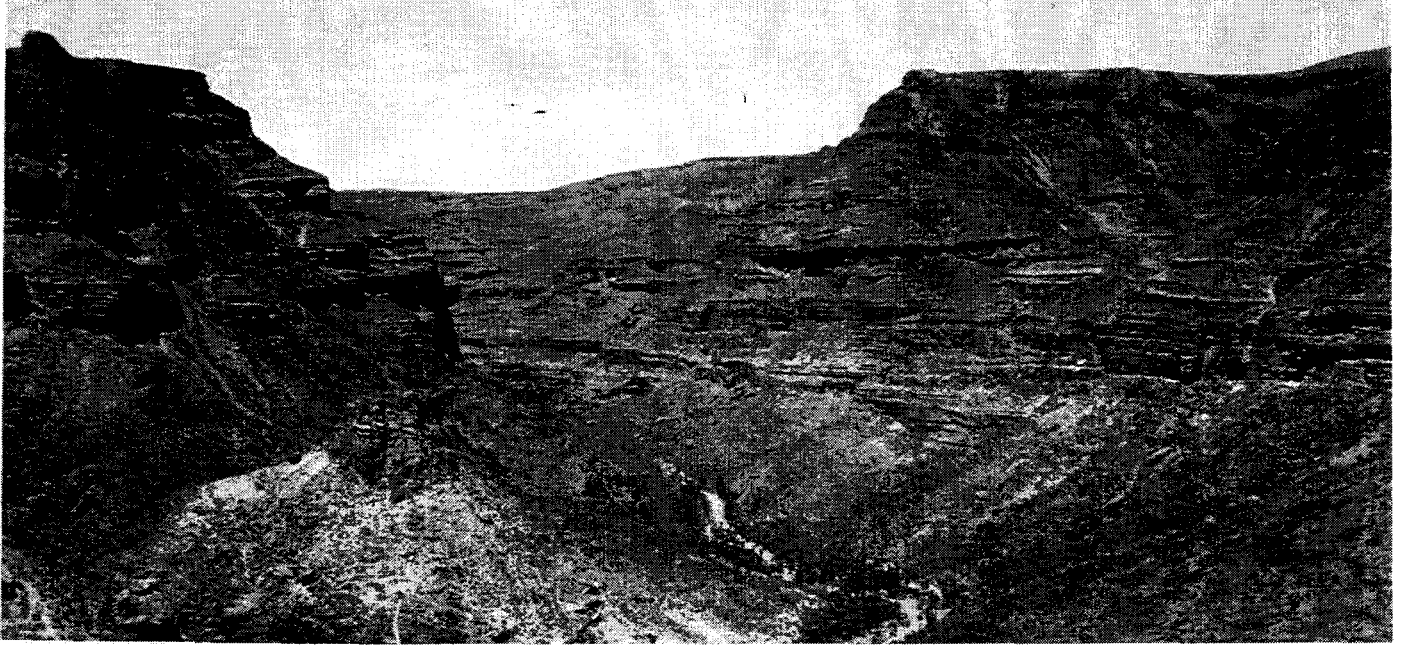
SECRETARIA DE DESARROLLO SOCIAL
 INSTITUTO NACIONAL DE ECOLOGIA
 DIRECCION GENERAL DE APROVECHAMIENTO
 ECOLOGICO DE LOS RECURSOS NATURALES

LOCALIZACION DE LA R.B. "EL VIZCAINO",
 ASI COMO LAS AREAS PROPUESTAS PARA SER
 DECLARADAS COMO PATRIMONIO DE LA
 HUMANIDAD

SIMBOLOGIA

- R.B. " EL VIZCAINO"
- AREA "LAGUNA OJO DE LIEBRE"
- AREA "LAGUNA DE SAN IGNACIO"
- AREA " SIERRA DE SAN FRANCISCO"

Réserve de El Vizcaino : plan de localisation des zones
 proposées pour inscription /
 El Vizcaino Reserve : location map of the nominated
 areas



Réserve de El Vizcaino / : Sierra de San Francisco
El Vizcaino Reserve



Réserve de El Vizcaino : Sierra de San Francisco, peinture
préhispanique /
The El Vizcaino Reserve : Sierra de San Francisco, pre-hispan.
painting

DESIGNATION POUR LA LISTE DU PATRIMOINE MONDIAL - RESUME UICN

554bis: RESERVA DEL VIZCAINO (MEXIQUE)

Résumé préparé par le CMSC/UICN (janvier 1993) d'après la désignation d'origine soumise par le gouvernement du Mexique. L'original et tous les documents présentés à l'appui de cette désignation seront disponibles pour consultation aux réunions du Bureau et du Comité.

1. SITUATION

Dans la partie centrale de la péninsule de Baja California (Basse-Californie), entre le golfe de Californie et l'océan Pacifique. Le site désigné comprend trois régions distinctes: Laguna Ojo de Liebre; Laguna San Ignacio et Sierra de San Francisco. Superficie totale: 554,898ha.

2. DONNEES JURIDIQUES

Par décret présidentiel de 1971, un refuge marin pour les Cétacés a été créé dans la Laguna Ojo de Liebre. En 1972, un autre décret a établi une série de réserves et de refuges pour les oiseaux migrateurs autour des lagunes de San Ignacio et Ojo de Liebre. En 1979, un troisième décret a établi un refuge pour les Cétacés, dans la Laguna de San Ignacio. Enfin, en 1988, a été créée la Réserve nationale de la biosphère d'El Vizcaino.

3. IDENTIFICATION

Le paysage du nord-ouest et de la zone centrale de plaines et de désert (Desierto de Vizcaino) est formé de roches sédimentaires avec intrusions de rhyolithes, d'andésites et de matériaux pyroclastiques. Entre cette région et l'est, on trouve d'importants lits de fossiles. La topographie de l'est est dominée par la principale chaîne montagneuse de Baja California (sommets variant de 1,300m à 1,996m). Dans la Laguna Ojo de Liebre et la Laguna San Ignacio, on trouve une série de baies sableuses, peu profondes, de criques et de lagunes salées. La majorité des sols sont des régosols calcaires dérivés de matières volcaniques. L'hydrologie est typiquement dendritique avec des cours d'eau intermittents.

Le climat est sec, avec moins de 100mm de pluies par an. Les températures atteignent 40 à 45° C en été.

La végétation est représentative de milieux arides ou hyperarides; c'est une subdivision biogéographique de la communauté végétale du désert de Sonora. Il y a dix communautés de plantes. La mangrove est typique des lagunes avec autour des communautés dunaires, des buissons et une végétation halophyte.

Dans la zone côtière, on trouve environ 20 espèces animales menacées, notamment quatre espèces de tortues marines. La baie est fréquentée par des baleines grises qui se reproduisent dans la Laguna Ojo de Liebre et dans la Laguna San Ignacio. Parmi les oiseaux remarquables, endémiques de la péninsule, se trouvent la paruline péninsulaire et le colibri à front noir. Les lagunes sont un important refuge pour les oiseaux d'eau hivernants: 10% des oiseaux d'eau qui hivernent sur la côte ouest du Mexique le font dans la réserve. Cela comprend 71,220 bernaches cravants, soit 63% de la population hivernant au Mexique.

La région a été occupée pendant plusieurs siècles. On y trouve des sites préhistoriques importants ainsi que des pétroglyphes, des peintures rupestres et des ruines et les traces de la première vague de colonisation européenne.

4. ETAT DE PRESERVATION/CONSERVATION

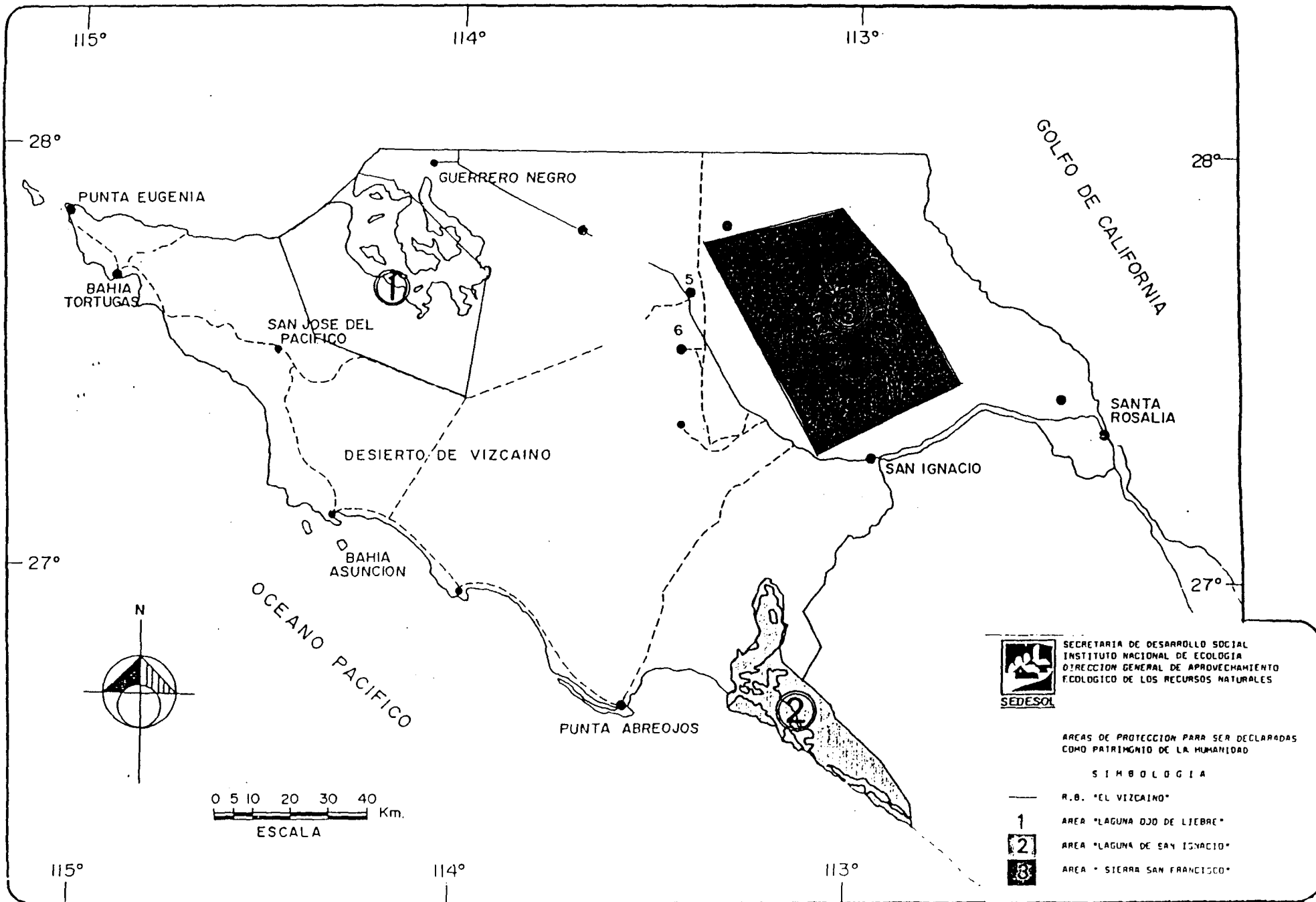
Le tourisme, qui fut une menace pour les baleines grises, est aujourd'hui mieux réglementé. Un plan d'aménagement a été rédigé par le Centre de recherche biologique en Basse-Californie.

5. RAISONS JUSTIFIANT L'INSCRIPTION A LA LISTE DU PATRIMOINE MONDIAL

Pour justifier la désignation de la Reserva del Vizcaino pour la Liste du patrimoine mondial, le gouvernement du Mexique donne les raisons suivantes:

Bien naturel:

- (ii) **Exemple éminemment représentatif d'une évolution biologique importante.** La réserve contient des écosystèmes de valeur exceptionnelle ainsi que d'importants dépôts de fossiles.
- (iii) **Contient des particularités naturelles uniques et éminemment remarquables, de beauté exceptionnelle.** La région possède des paysages uniques, entre le golfe de Californie et l'océan Pacifique. La Sierra de San Francisco possède la plus grande concentration de peintures rupestres précolombiennes en Basse-Californie: ces peintures sont uniques en raison de leur qualité remarquable, de leurs dimensions, de la diversité et de l'originalité des représentations d'hommes et d'animaux, de leur couleur et de leur excellent état.
- (iv) **Habitats naturels les plus importants et les plus représentatifs où survivent des espèces de plantes et d'animaux menacées.** El Vizcaino préserve des espèces de plantes et d'animaux nombreuses et diverses qui sont, pour beaucoup, endémiques et menacées. Les lagunes cotières de Ojo de Liebre et San Ignacio constituent d'excellents sites de reproduction et d'hivernage pour les baleines grises et d'autres mammifères tels que le phoque veau marin, le lion de mer de Californie, l'éléphant de mer du Nord et la baleine bleue (E). Le site protège, en outre, quatre espèces de tortues marines menacées d'extinction.



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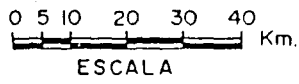
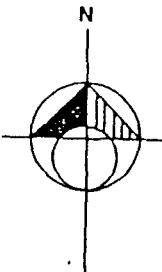
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SECRETARIA DE DESARROLLO SOCIAL
 INSTITUTO NACIONAL DE ECOLOGIA
 DIRECCION GENERAL DE APROVECHAMIENTO
 ECOLOGICO DE LOS RECURSOS NATURALES

AREAS DE PROTECCION PARA SER DECLARADAS
 COMO PATRIMONIO DE LA HUMANIDAD

SIMBOLOGIA

- R.B. "EL VIZCAINO"
- 1 AREA "LAGUNA DJO DE LIEBRE"
- 2 AREA "LAGUNA DE SAN IGNACIO"
- 3 AREA "SIERRA SAN FRANCISCO"

DESIGNATION POUR LE PATRIMOINE MONDIAL-EVALUATION TECHNIQUE UICN

554bis: RESERVA DEL VIZCAINO (MEXIQUE)

1. DOCUMENTATION

- i) Fiches de données UICN/CMSC (17 références)
- ii) Littérature consultée: UICN, 1988, Dolphins, Porpoises and Whales Conservation Action Plan.
- iii) Consultations: 4 examinateurs indépendants, cadres de Exportadora de Sal (ES), Centro de Investigaciones Biológicas (CIB) et Secretaría de Desarrollo Urbano y Ecología (SEDUE).
- iv) Visite du site: avril 1990. J. Thorsell et Mario Ramos.

2. COMPARAISON AVEC D'AUTRES AIRES

Les autres aires protégées importantes de la Province biogéographique du désert de Sonora se trouvent toutes aux Etats-Unis et comprennent les Monuments nationaux de Death Valley (840,000ha), Joshua Tree (226,000ha) et Organ Pipe Cactus (133,000ha). A 640km au nord de la réserve se trouve un petit parc naturel (Valle de los Cirios) qui préserve une flore importante de Baja California. Toutefois, aucune des aires susmentionnées ne possède les caractéristiques marines et côtières importantes pour l'avifaune et les Cétacés présents saisonnièrement à El Vizcaino.

Dans d'autres régions du monde on trouve des aires protégées qui associent désert chaud et caractéristiques côtières, par exemple Paracas (Pérou), Namib (Namibie), Asir (Arabie saoudite), Shark Bay (Australie) et Banc d'Arguin (Mauritanie). Toutes ces régions sont importantes pour les oiseaux et la vie marine. Il existe aussi d'autres aires protégées où des espèces de Cétacés sont protégées, par exemple: Maui (Etats-Unis), Golfo de San José (Argentine), Sanctuaire de Silverbank (République dominicaine) et aux Seychelles.

Les 1,300km de la péninsule de Baja California sont importants en tant que site d'hivernage des baleines grises et des oiseaux et lieux de ponte pour quatre des sept espèces de tortues marines. Les zones principales sont les deux lagunes communicantes, Ojo de Liebre et Laguna Guerro Negro où naissent chaque année la moitié des baleineaux de baleines grises du monde. Les lagunes d'El Vizcaino contiennent donc les principaux sites de reproduction mondiaux de cette espèce. Les lagunes de la réserve sont aussi les principaux centres de propagation des balbuzards pêcheurs en Basse-Californie, avec 223 couples reproducteurs résidents.

La troisième unité de la désignation révisée est le site intérieur de la Sierra de San Francisco. C'est un site culturel distinct n'ayant aucun lien avec les deux lagunes, qui est évalué séparément par ICOMOS.

3. INTEGRITE

Bien que El Vizcaino ait été déclaré Réserve nationale de la biosphère en 1988, la protection des deux refuges marins des baleines dans la réserve a fait l'objet de différents décrets entre 1971 et

1980. Avant cela, il y a eu plusieurs incidents malheureux: collisions et perturbations causées par les transporteurs des salines de Guerrero Negro. Avant 1985, les filets des pêcheurs placés à l'entrée des lagunes posaient un autre problème. Ces deux problèmes ont été résolus en collaboration avec le Secrétariat d'Etat à la Marine, le Département des pêches et la société privée d'exploitation du sel.

Depuis quelques années, le tourisme pose un problème de gestion dans les deux lagunes. Le nombre d'observateurs des baleines est passé de 1,000 en 1980 à 30,000 aujourd'hui. En un jour, dans la Laguna Ojo de Liebre, il peut y avoir jusqu'à 800 baleines: il est donc évident qu'un tourisme non réglementé pourrait avoir des impacts. Il y a un gardien mais pas de structures d'accueil des touristes. On a signalé d'autres impacts du tourisme dans les sites de peintures rupestres mais l'Institut national d'Anthropologie et d'Histoire a pris des mesures pour les limiter.

La principale contrainte actuelle sur l'intégrité de la réserve est l'absence de gestion. Il n'y a que trois employés (y compris un assistant de terrain) et un budget de fonctionnement minimal. Il n'y a ni équipement d'éducation, ni panneaux signalant l'entrée ni patrouilles. Le projet de programme de gestion prévoit des activités mais les ressources financières nécessaires à la mise en oeuvre ne sont pas garanties.

Autres problèmes relatifs à l'intégrité:

- le régime foncier. 43% des zones terrestres et aquatiques du site désigné sont propriété privée ou communale (par ex. "ejidos"). Cela signifie que l'application de mesures de gestion dépend du bon vouloir des propriétaires;
- la ville de Guerrero Negro et les salines se trouvent aux marges du site. Bien que la population locale et les exploitants soient favorables à la conservation des lagunes, la direction de la réserve devra instaurer une communication étroite et la surveillance continue.

4. COMMENTAIRES ADDITIONNELS

Cette désignation révisée a tenu compte des préoccupations mentionnées dans l'évaluation précédente (1990) de l'UICN et s'est attachée aux trois caractéristiques principales de la réserve de la biosphère couvrant 2.5 millions d'hectares. Deux de ces caractéristiques sont les sites naturels de la côte et la troisième est le site culturel, situé à 120km de la côte, vers l'intérieur. Il n'y a pas de lien fonctionnel entre les deux lagunes et les sites d'art rupestre et le site de l'intérieur n'a pas de valeur naturelle d'importance universelle. Le Bureau pourra souhaiter les considérer comme deux désignations distinctes.

5. EVALUATION

Dans l'ensemble de la Réserve de la biosphère d'El Vizcaino, les valeurs de patrimoine mondial sont principalement concentrées dans les deux lagunes côtières désignées où les baleines viennent s'accoupler et mettre bas. Avec les rivages et les îles intérieures qui accueillent l'avifaune, les lagunes sont deux sites d'importance internationale qui satisfont au critère (iv).

Du point de vue de l'intégrité, si l'on veut maintenir les valeurs naturelles, il faut prendre des mesures actives dans les domaines suivants:

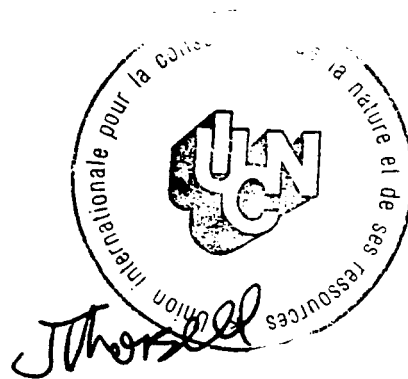
- dans les zones centrales de la réserve, l'infrastructure doit être améliorée pour mieux soutenir les activités de gestion (recherche, patrouilles);
- les organismes chargés de la gestion doivent être dotés d'un équipement de base (véhicules, communications, bureaux et personnel formé);

- des services d'éducation et de vulgarisation, pour les visiteurs et les résidents locaux, sont nécessaires pour mieux promouvoir l'intérêt du site et l'importance de le protéger;
- il importe d'entamer les diverses procédures d'administration intégrée du site décrites dans le projet de programme de gestion.

Enfin, il convient de noter, en ce qui concerne l'intégrité par rapport aux espèces migratrices, que les baleines grises qui passent trois mois de l'année à El Vizcaino parcourent 8,000km pour rejoindre chaque été leurs sites de nourrissage de l'Arctique. Les populations aborigènes de Sibérie, de l'Alaska et du Canada se livrent encore à une chasse limitée. La vulnérabilité des baleines dans d'autres régions de leur aire de répartition est traitée dans des accords multilatéraux tels que ceux de la Commission baleinière internationale.

6. RECOMMANDATIONS

Deux des trois unités séparées de la désignation satisfont au critère naturel (iv) et méritent donc d'être inscrites. La troisième unité est un site culturel évalué par ICOMOS. Si le site naturel était inscrit séparément, il faudrait demander aux autorités du Mexique de lui donner un autre nom, plus descriptif (Lagunes aux baleines de Baja California (?)). A la date de présentation de cette évaluation (15 octobre), le Mexique n'avait pas répondu aux demandes du Bureau.



Identification

<u>Bien proposé</u>	Réserve d'El Vizcaino (lacs Ojo de Liebre et San Ignacio, Sierra de San Francisco)
<u>Lieu</u>	Etat de Baja California Sur, Municipalité de Mulege
<u>Etat partie</u>	Mexique
<u>Date</u>	31 janvier 1989

Justification émanant de l'Etat partie

La Sierra de San Francisco possède la plus forte concentration d'oeuvres d'art rupestre préhispanique de la péninsule de Basse Californie. Elles sont de qualité exceptionnelle aussi bien au niveau national qu'international de par leur qualité, leur étendue, leur variété et leur originalité des représentations humaines et animales, leur remarquable coloris et leur état de conservation (critères i et iii).

(Remarque : Ce bien fait l'objet d'une proposition d'inscription mixte. Cette évaluation ne porte que sur les éléments culturels).

Histoire et descriptionHistoire

L'art rupestre préhistorique de la Sierra de San Francisco a été signalé la première fois par le jésuite Francisco Javier Clavijero dans une publication adressée à Rome en 1789. Des études plus approfondies ont été entreprises par l'érudit néerlandais Ten Kate en 1874 et par le français Diguët (1889-1905). Les recherches menées au cours de notre siècle sont l'oeuvre de Georges Enguerrand, Barbro Dahlgren, Stanley Gardner, Harry Crosby et Javier Romero. Quelques 400 sites ont été répertoriés par l'Institut National d'Anthropologie et d'Histoire (INAH). Le plus grand nombre d'entre eux (250) sont situés dans les limites de la réserve près de San Francisco et Mulege.

Les Guatchimis constituaient le groupe préhispanique le plus développé dans la région ; leur territoire s'étendait de San Javier et la Purisima au Sud de la réserve jusqu'à l'extrême nord de la péninsule de Basse Californie. Il existe peu d'informations sur ce groupe, si ce n'est qu'ils étaient venus du nord.

Description

Les peintures se trouvent à la fois sur les murs et sur le plafond des abris rocheux nichés dans les versants des ravins et sont de ce fait très difficiles d'accès. Celles de la Sierra de San Francisco peuvent être divisées en quatre groupes principaux : Guadalupe, Santa Teresa, San Gregorio, et Cerritos. Les sites les plus importants sont Cueva del Batequi, Cueva de la Natividad, Cerro de Santa Marta, Cueva de la Soledad, Cueva de la Flechas et Grutas del Brinco.

Les motifs sont très variés et représentent des êtres humains (hommes, femmes et enfants) et de nombreuses espèces animales (lapin, puma, lynx, cerf, chèvre et mouton sauvage, baleine, tortue, thon, sardine, pieuvre, aigle et pélican). Certains éléments abstraits de formes diverses sont également représentés. La représentation simultanée d'armes associées avec l'homme et l'animal met en évidence l'existence et de la chasse et de la guerre. La variété des couleurs couvre la totalité du spectre, de même que les techniques de représentation sont très nombreuses (coloris uniforme, silhouette, ombres ...). Ces dernières années, cet art rupestre a fait l'objet d'une analyse détaillée qui a permis de mieux cerner l'organisation sociale et religieuse des hommes préhistoriques de cette région et connaître leurs habitudes alimentaires. Une datation obsidienne des objets trouvés dans les dépôts mis à jour les situe entre 100 avant notre ère et 1300 après J. C.. De nettes ressemblances ont été observées entre ce corpus de roches et celui du sud-ouest des Etats-Unis d'Amérique actuels.

Gestion et protection

Statut juridique

En 1988, le gouvernement fédéral du Mexique a déclaré El Vizcaino, située dans la partie centrale de la péninsule de Basse Californie, réserve de la Biosphère et qu'à ce titre elle est protégée par la loi fédérale. La zone de la sierra de San Francisco, qui couvre 183.956 hectares, se trouve dans cette réserve et les différents sites répertoriés d'art rupestres sont protégés par la loi fédérale de 1972 sur les Monuments et Zones artistiques, historiques et archéologiques. Dans la zone concernée, 60% des terres appartiennent à l'état, 20% à la commune et 20% à des propriétaires privés.

Gestion

La gestion de la réserve revient à l'administration concernée, en l'occurrence, le Ministère du Développement Social (SEDESOL). La conservation des sites d'art rupestre est assurée par l'INAH par l'intermédiaire du centre régional de Basse Californie, en association avec les Directions centrales d'archéologie, de la restauration et des Monuments préhispaniques et historiques.

Conservation et authenticité

Historique de la conservation

L'art rupestre de la Sierra de San Francisco est remarquablement bien préservé, en raison principalement du climat sec dont bénéficie cette région et de la situation très difficilement accessible des peintures, ce qui explique qu'elles n'ont pas été soumises à l'érosion du vent et de la pluie, pas plus qu'elles n'ont été victimes d'actes de vandalisme.

Faisant partie de la réserve de Vizcaino, la Sierra de San Francisco profitera du programme de protection de l'ensemble de la région qui est en ce moment préparé avec le financement de la Banque mondiale.

Authenticité

Les peintures rupestres de la Sierra de San Francisco sont totalement authentiques.

Evaluation

Qualités et analyse comparative

L'évaluation faite par l'ICOMOS repose sur les conseils de son Comité International d'art rupestre. Au nom de ce Comité, le président déclare :

La Sierra de San Francisco regroupe la majorité des peintures rupestres et non les moindres... Elles ont une "exceptionnelle valeur universelle". En outre, elles sont particulièrement bien préservées en raison de leur isolement, très variées avec des animaux et des hommes énormes très joliment peints... Elles sont d'une qualité comparable à celle des Kakadu et Tassili N'Ajjer déjà inscrites sur la Liste du Patrimoine mondial.

Observations supplémentaires

Le dossier d'inscription ne donne aucune indication concernant la définition d'une zone tampon. Néanmoins, dans la mesure où la Sierra de San Francisco est située dans la Réserve de la Biosphère, elle-même très protégée, on peut considérer cette réserve comme une zone tampon.

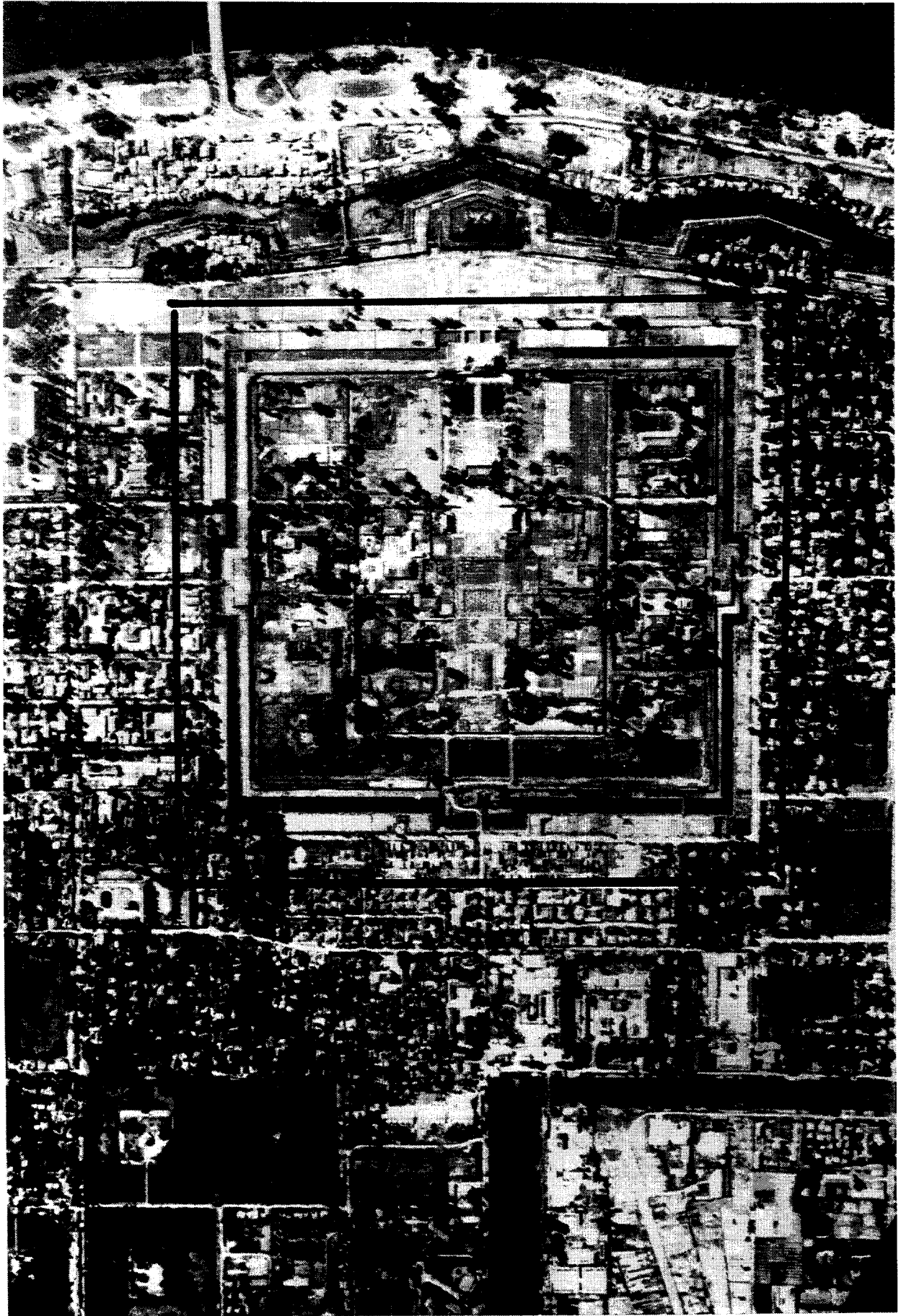
Recommandation

Que la Sierra de San Francisco soit inscrite sur la Liste du Patrimoine mondial sur la base des critères i et iii:

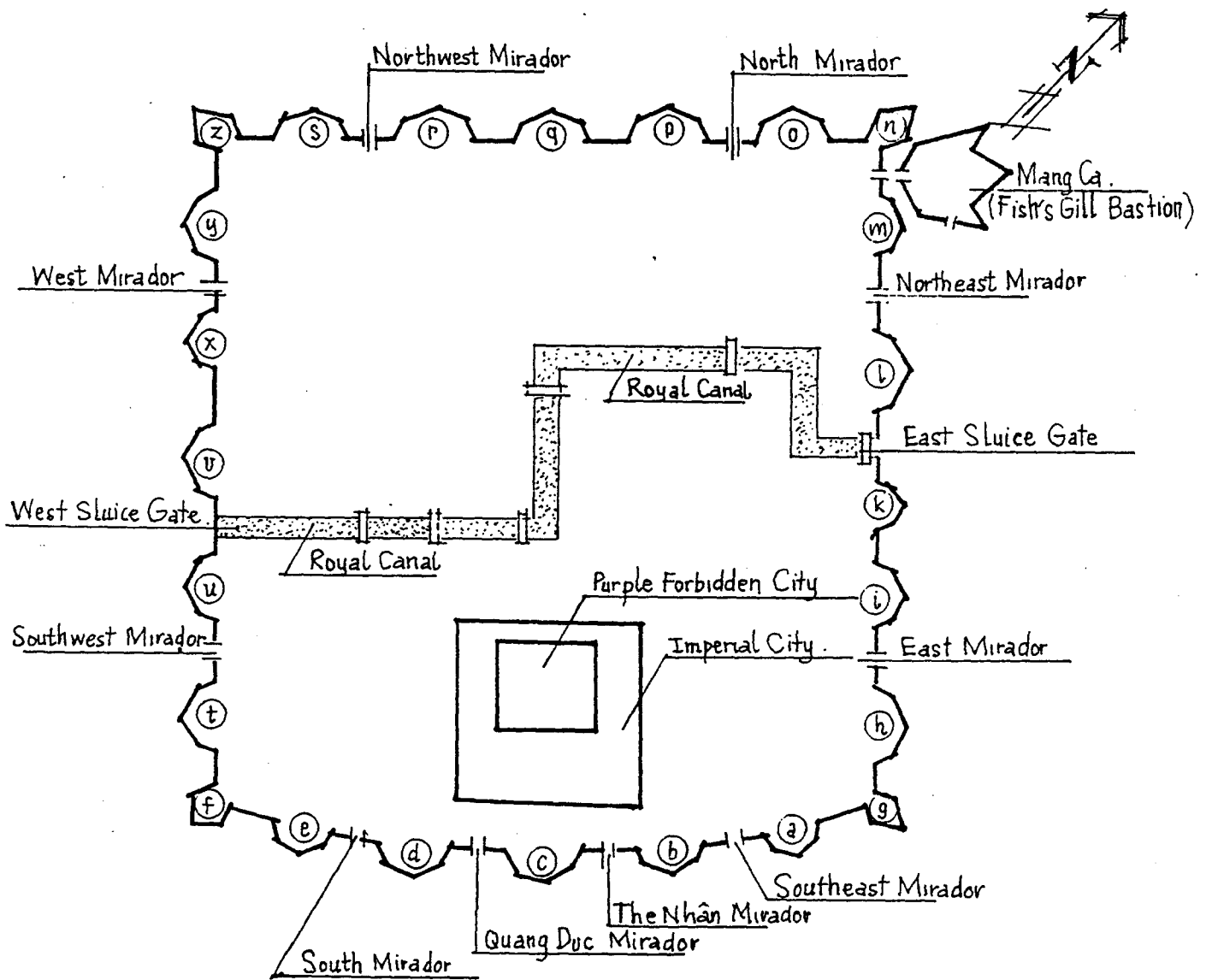
- Critère i Les peintures rupestres de la Sierra de San Francisco, région de Basse Californie sont parmi les plus remarquables concentrations d'art préhistorique du monde; elles sont aussi un étonnant exemple de très belles manifestations d'expression culturelle humaine.

- Critère iii L'ensemble de la Sierra de San Francisco est une illustration d'un groupe culturel qui a vécu dans les conditions climatiques rudes de la péninsule de Basse Californie puis qui a rapidement disparu après avoir été en contact avec les colons européens, et ce pour diverses raisons.

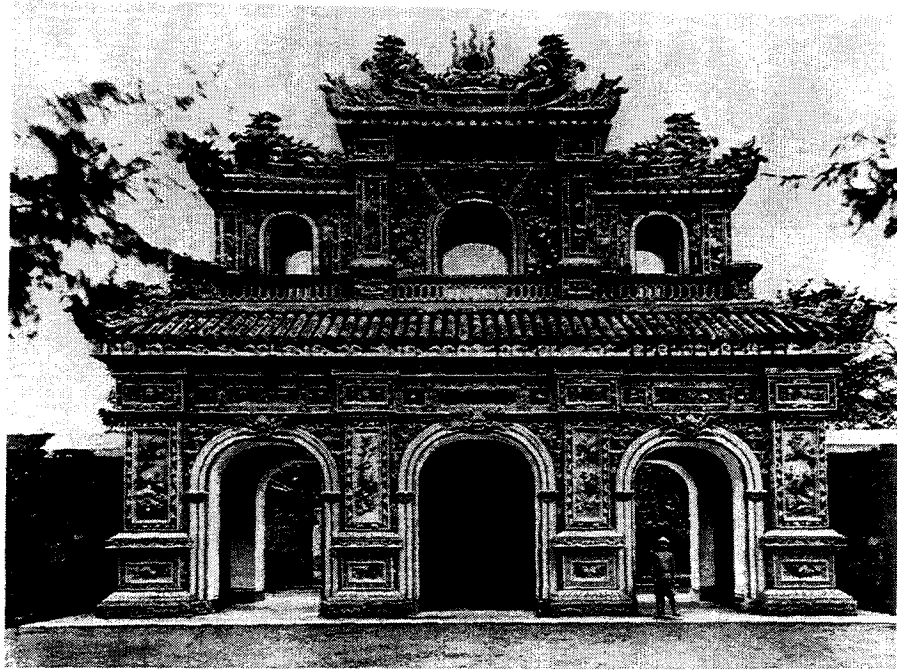
ICOMOS, octobre 1993



Hue : vue aérienne de la cité impériale /
aerial view of the Imperial City



Hue : plan de la citadelle / map of the citadel



Hue : porte de Hien Nhan (vers 1924) /
Hien Nhan Gate (c. 1924)