
Stone Spheres of the Diquís (Costa Rica) No 1453

Official name as proposed by the State Party

Precolumbian chiefdom settlements with stone spheres of the Diquís

Location

Districts of Palmar and Sierpe
Puntarenas Province, Osa County
Costa Rica

Brief description

This serial nomination combines four archaeological sites (Finca 6, Batambal, El Silencio and Grijalba-2) located in the Diquís Delta in southern Costa Rica. They represent four different settlement sites of chiefdom societies in the Precolumbian period (500-1500 CE) and contain artificial mounds, paved areas, burial sites and, most significantly, a collection of distinctive stone spheres. These stone spheres are rare in their perfection of large-sized (up to 2.57m diameter) spherical structures but are also distinct for their number and location in their original placements within residential areas.

Category of property

In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of 4 *sites*.

1 Basic data

Included in the Tentative List

26 September 2012

International Assistance from the World Heritage Fund for preparing the Nomination

None

Date received by the World Heritage Centre

1 February 2013

Background

This is a new nomination.

Consultations

ICOMOS has consulted its International Scientific Committee on Archaeological Heritage Management and several independent experts.

Technical Evaluation Mission

An ICOMOS technical evaluation mission visited the property from 15 to 21 September 2013.

Additional information requested and received from the State Party

ICOMOS sent letters to the State Party on 24 September, 21 November and 12 December 2013 requesting additional information with regard to specific aspects. The first two letters focused on specifications regarding the contribution of each component to the Outstanding Universal Value, the justification for criterion (i), the extent of flooding at the Finca 6 site, the anticipated finalization of the management plan, development projects and property ownership as well as the selection criteria for the four component sites among all chiefdom settlement sites with stone spheres in the Diquís Delta. The State Party provided additional information in response to all the questions raised in the letters of 24 September and 21 November on 28 October 2013 and 30 November 2013. The information provided is included under the relevant sections below.

The third letter sent on 12 December 2013 requested additional information on other stone sphere sites, which had not been selected, the schedule of Heritage Impact Assessments for two development projects, the latest draft management plan, the possibility to revise some of the planned visitor structures on the Finca 6 site as well as to revise the buffer zones at three serial components. The State Party sought clarification concerning the request to reconsider visitor facilities at the Finca 6 site by letter of 28 January 2014 in response to which ICOMOS provided further specification concerning its request on 14 February 2014. The State Party replied with additional information on 28 February 2014, which responded to all questions raised. The information provided is included under the relevant sections below.

Date of ICOMOS approval of this report

6 March 2014

2 The property

Description

The four archaeological sites of Finca 6, Batambal, El Silencio and Grijalba-2 together form a property area of close to 25 hectares and are surrounded by four separate buffer zones amounting to almost 142 hectares. The sites are located in the Diquís Delta in southern Costa Rica and represent Precolumbian chiefdom settlements with architectural works such as cobble-walled earthen mounds, pavements and open plazas. The sites share in common the fact that they each contain at least one stone sphere, perfectly spherical structures between 0.7m and 2.57m in diameter. The four sites shall be described separately below:

Finca 6 site

Finca 6 designates a property component of 10 hectares surrounded by banana plantations in an alluvial plain close to a river creek subject to tidal action. Due to the high level of sedimentation at this site, the archaeological structures are covered by up to 1.5m of deposit materials. The site

contains four main archaeological sectors. Sector one corresponds to a plaza with two alignments of stone spheres which are located in their original position and oriented along an east-west axis. The first alignment consists of three spheres over a distance of 77m, the second of two spheres within 11m of each other. The spheres are all between 1.7m and 1.9m in diameter.

Sector two contains two artificial mounds with diameters of 20m and 30m which retain well-preserved walls. Both mounds include trapezoidal ramps oriented towards opposite directions. One of the ramps is decorated with two 1.1m granodiorite stone spheres to both sides. Sector three, also known as Punto 5, corresponds to a looted burial ground, which retains a large collection of ceramic materials. Sector four contains an artificial mound with cobblestone walls and cover. On top of the mound, stone pillars are set as markers and inside excavations revealed childrens graves with a few modest offerings. Carbon-dating of materials at the site suggests its occupation between 750 and 1450 CE.

Batambal Site

Batambal Site covers only 1 hectare near a settlement at the foothills of the Coastal Cordillera and borders a school, pastures and a power plant of the Diquís Hydroelectric Project. Its elevated position provides good views over the Diquís Delta, the Pacific Ocean and surrounding mountain landscape. The site features elevations with boulders, in some cases paved, and different types of archaeological material including a large number of axes and ceramics. The site also contains a set of four stone spheres with diameters between 0.7m and 0.95m. Two of these are split in half.

Two rectangular structures were excavated on site, which are bounded by lines of overlapping boulders. Nearby, yet another structure, a sculpture of 0.5m in size and a 0.75m sandstone monolith of a feline form were discovered. C₁₄ dating investigations conducted revealed a likely occupation of this site between 660-780 and 1320 (+30) CE.

El Silencio Site

El Silencio site covers 6 hectares in a teak and gmelina tree plantation extending over the alluvial terrace of the Térraba River. It contains the area's largest recorded stone sphere, 2.57m in diameter and weighing about 24 tons. The site also contains finds of what is believed to be tools for the production of the Diquís stone spheres. Radiocarbon dating of this site suggests that it was used between 550 and 650 as well as around 1450 (+30) CE.

Grijalba-2 Site

Grijalba-2 site covers an area of 8 hectares and is surrounded by small farms with crops as well as small forests on the upper terrace of the Balsar River. The site comprises several mounds, pavements built with boulders, and a single stone sphere of 1.20m diameter which is partially buried. Several mound structures, which

have outer diameters between 12m and 20m and heights between 0.25m and 1.50m, were excavated. The site further contains ceramic and lithic debris as well as several traces of walls up to 1m in height. No carbon-dating has yet been undertaken at this site.

History and development

Based on archaeological finds, the Diquís Delta has been occupied by human habitation since at least 1500 BC but genetic and linguistic studies assume human presence much earlier. The earliest period with evidence of habitation, the Sinancrá Period (1500-300 BC), is likely not to have left traces on the four components sites but evidence of the following Aguas Buenas Period (300 BC to 800 CE) may be present. In this period stone cylinders and sculptures with anthropogenic features were produced. Some stone spheres are believed to have been crafted in this period but a lack of certainty in relation to the precise dating makes this assumption preliminary.

The chiefdom settlements fall in the Chiriqui Period (800-1500 CE) during which a hierarchical society developed in which principal chiefs would control large territories and other chiefs small subordinated chiefdoms. Sites of this period typically have housing and burial mounds of up to 30m in diameter. A system of communication and trade along the Térraba River and its tributaries allowed for the exchange of goods. The four nominated sites certainly fall into this period.

Sites with stone spheres illustrate the human development processes of hierarchical societies. Finca 6, where the access ramp to a habitation mound is decorated by stone spheres, is assumed to be a major, principal centre, while the other sites like Batambal, El Silencio and Grijalba-2 are centres of local chiefdoms. It was also during the Chiriqui Period that the production of stone spheres reached its peak and records testify to the earlier presence of over 100 stone spheres in the Diquís Delta, with clusters of up to 14 spheres at one site. Unfortunately, most of these have fallen victim to looting and only around 45 sites retain stone spheres in their original location.

After the sites had been abandoned following the Spanish Conquest in the 16th century, they remained unattended to and were covered over the centuries by tidal sediments and vegetation. This changed rapidly in the 1930s when banana plantations were introduced to the area and drainage channels built which made archaeological materials visible in the cross sections. Archaeological interest was aroused and a variety of surveys and excavations were undertaken, often in the context of new plantation or development projects, to document what would likely be lost. The large majority of archaeological sites documented over decades no longer exist as most of them have unfortunately become victim to archaeological looting.

3 Justification for inscription, integrity and authenticity

Comparative analysis

The comparative analysis is introduced with the words of four international archaeologists who investigated stone spheres in a larger Mesoamerican or global context and who all agree in highlighting that the stone spheres of the Diquís exceed all others in size, density and perfection. Following this, the comparative analysis is divided into a section comparing the chiefdom settlements with similar sites in Southern and Central America, with a special emphasis on the Olmec Culture in Mexico, then subsequently with stone sphere and chiefdom sites in a global context.

At the regional level, chiefdom sites with comparable features but which were not selected for this serial nomination are named as Guayabo and Las Mercedes in Costa Rica and El Caño in Panamá. However, they do not form isolated settlements of hierarchical significance but are part of much wider settlement patterns. Diquís sites are said to be largely distinguished from chiefdom settlements in Southern America by differing cultural traditions and their material evidence.

In the additional information on other Diquís stone sphere sites provided at the request of ICOMOS, the State Party indicated a further 43 locations in which stone spheres were found and which partly retained chiefdom settlement structures. The additional information also highlighted that either the degree of authenticity or the present state of knowledge with regard to archaeological research and studies undertaken did not allow the definition of any of these 43 other sites as of Outstanding Universal Value with regard to all the requirements established in the World Heritage context.

In the comparison with the Olmec Culture, it is highlighted that the Diquís Stone Spheres may have parallels to the colossal stone heads and stelae produced by the Olmec Culture, with both cultural contexts being based on chiefdom settlements and located in plains with frequent flood events. However, the artistic expression of perfectly rounded spheres differs considerably to monumental heads and should therefore be recognized independently.

In the global comparison other World Heritage Sites have been considered as perhaps the closest in features. The analysis considers the classic Mayan domestic village of the Joya de Cerén Archaeological Site, El Salvador (1993, (iii), (iv)), and the San Agustín Archaeological Park, Colombia (1995, (iii)), containing a group of megalithic sculptures in a spectacular landscape. ICOMOS considers that a comparison with the Cahokia Mounds State Historic Site, USA (1982, (iii), (iv)), recognized as the largest Precolumbian Settlement north of Mexico, could have been added.

ICOMOS considers that the uniqueness of the stone spheres of the Diquís has been demonstrated in an international comparison and that the comparative analysis justifies consideration of Diquís stone sphere sites to the World Heritage List. The additional information provided at the request of ICOMOS provides a justification for the selection of the four components as opposed to other stone sphere sites in the Diquís Delta.

ICOMOS considers that the comparative analysis justifies the selection of the four component sites among the chiefdom settlements with stone spheres of the Diquís.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Justification of Outstanding Universal Value

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

- The group of four sites with stone spheres expresses the complex social, economic and political systems of the Precolumbian period in a unique fashion, by combining two different periods of occupation.
- The stone spheres of the Diquís are outstanding based on their substantial number found in a small area, their variety of sizes and surface treatments, and their perfect roundness.
- The four selected sites are the best representations of the chiefdom traditions and together illustrate the evolution of organizational and cultural practices in the chiefdom settlements.
- The four sites in the Diquís Delta are rare examples of settlements preserved under thick layers of sediment, preventing them from being looted and making them exceptional because of the presence of stone spheres in their original locations.

ICOMOS considers that the stone spheres of the Diquís are exceptional testimonies of artistic production in the Precolumbian era and merit recognition of Outstanding Universal Value. The fact that their meaning and use remain largely unknown and likewise their production process, although partly understood, cannot be fully explained, contributes to their mystery. Moreover the spatial arrangements of several stone spheres, such as in Finca 6 or Batambal, remain unexplained.

ICOMOS considers the claim that settlement sites in the Diquís Delta are representative of chiefdom traditions and illustrate the evolution of organization in chiefdom settlements is justified. ICOMOS also considers that the sites cannot currently testify to the cultural practices of such hierarchical chiefdom societies, as too little is known about the meaning and function of much of their material evidence. ICOMOS consequently considers that the justification provided is appropriate in highlighting the exceptionality of the material testimony of the stone

spheres and settlement remains integrating these stone spheres, as unique representations of a Precolumbian hierarchical society.

Integrity and authenticity

Integrity

The four property components were selected from 45 settlement sites which retain stone spheres in situ. They contribute specific elements that allow for the understanding of the chiefdom settlement structures in which these spheres were integrated. Finca 6 is the only site retaining stone spheres in linear arrangements according to cardinal directions and is anticipated to provide opportunity for future research and, as a result, better understanding of the settlement arrangements. Batambal is presented as the only chiefdom settlement visible from a long distance which occupies an elevated strategic location. Defence aspects may have been relevant in its settlement layout. El Silencio contains the largest stone sphere ever found in the Diquís Delta, which remains in its original spot, as well as complex paved areas. Finally, Grijalba-2 site is unique for its use of limestone and its distinctive characteristics of a subordinated centre as opposed to the Finca 6 site, which was likely a principal centre.

The boundaries of the four component sites proposed comprise all architectural structures presently known at these sites. However the concentration of ceramics in areas designated as buffer zones can be rather high and it is possible that additional architectural structures may in the future be found in the buffer zones. Non-intrusive surveys may provide data which assists in deciding whether component boundaries may need to be increased in the future. All four sites show to differing degrees signs of the negative impact of past agricultural development and looting of archaeological sites. However, the material which remains preserved in situ is significant enough to express different aspects of Outstanding Universal Value. Since no single site preserves all the different characteristics of the chiefdom settlements, the serial approach selected for this nomination assists in providing a representation of greater completeness.

Three of the component sites are free of immediate risks caused by settlement expansions; only Batambal is located in close proximity to dwellings and potentially negatively impacted by future urban development. However, two large-scale development projects, the Diquís Hydroelectric Dam and the Southern International Airport, are currently being discussed. At the request of ICOMOS the State Party provided further information on these two developments. The Southern International Airport is intended to be constructed in the Diquís Delta and would be located at 3km distance to the site of Finca 6. It will consist of a runway, terminal building, platform and access road system and provide easier visitor access to the region. ICOMOS understands, based on the additional information provided, that the feasibility of

the proposed location is still under study and that therefore no maps of the exact location can be provided. ICOMOS notes that a large international airport may have considerable impact on a World Heritage property in its vicinity and may have the potential to affect its integrity.

The Diquís Hydroelectric Dam Project proposes the creation of a large scale water reservoir for power generation that will have a significant impact on the surroundings of all four serial components. Although the State Party in the additional information provided at the request of ICOMOS assures that none of the four sites will be directly affected, it needs to be noted that the power plant, camps and other facilities are planned to be located in an area near the Batambal site, which may cause significant negative impacts to this component. However, in the additional information provided at the request of ICOMOS, the State Party committed to undertaking Heritage Impact Assessments (HIA's) for both projects, as well as any other future projects which might be considered to have potential for negative impacts on the property. The State Party further committed, documented in letters by both presidential candidates standing for the presidential election on 6 April 2014, that the requirements of the property would be given full consideration and priority if either of the projects are to be implemented.

ICOMOS considers that the integrity of the whole series and its individual components has been justified.

Authenticity

The general state of authenticity seems satisfactory at all four components sites. Previous excavations were limited to test sections and most excavation pits have been reburied following the completion of archaeological research and documentation. Only three cases are documented which may refer to limits of authenticity or previous attempts to reinstate earlier conditions. In Finca 6, sphere 6 was discovered during installation of pipes and was removed to another location on site for the works to be completed. Following these, the sphere was placed back in its original location but at a lower ground level.

In Batambal structure 1 was reconstructed according to documentation of its best preserved sector to illustrate to visitors the layout and design of the structure. This structure is reconstructed without mortar using the historic technique and is seen as a pilot project for future reconstructions. Its condition will be observed throughout the forthcoming years. In Grijalba-2 a pavement section previously affected by looters has been restored. Stones were repositioned in an attempt to imitate the pavement patterns observed in other areas of the site.

One challenge in retaining authenticity of setting is the lack of knowledge on the extent of forest clearance in Precolumbian times which also increases difficulties in judging sight relations between different structures. Finca 6 site also contains a collection of stone spheres

confiscated following previous looting, which are awaiting a decision as to their future location and context. The original location of these spheres often remains unknown. Wherever these spheres will be placed, it would need to be indicated more clearly that the spheres are not presented in their original position.

ICOMOS considers that the authenticity of the whole series has been justified; and that the authenticity of the individual sites that comprise the series has, with minor exceptions, been satisfactorily demonstrated.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity of the whole series and its individual components are met.

Criteria under which inscription is proposed

The property is nominated on the basis of cultural criteria (i) and (iii).

Criterion (i): *represent a masterpiece of human creative genius;*

This criterion is justified by the State Party on the grounds that the Precolumbian chiefdom settlements produced stone spheres which remain singular because of their perfect spherical shape. These stone spheres were produced in different sizes up to 2.5m in diameter and some weigh over 20 tons. Positioned in open areas, probably plazas or public spaces, they must have been references to the artists' capability and precision, and count among the masterpieces of human creative genius at their time.

ICOMOS considers that the perfect spherical shape of the stone spheres in the Diquís Delta continues to leave researchers speculating about the method and tools of production and lead us to relate the product to artistic genius. While they might be considered masterpieces of artistic creation in this context, and likely had important symbolic meanings for the Precolumbian chiefdom societies, ICOMOS considers that this aspect of mastery does not equally apply to the remaining elements of the chiefdom settlements. Since the stone spheres constitute only one of several aspects in each component site, ICOMOS considers that criterion (i) does not apply to the nomination as a whole.

ICOMOS considers that this criterion has not been justified.

Criterion (iii): *bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;*

This criterion is justified by the State Party on the grounds that the four sites presented illustrate a physical testimony of the complex political, social and productive structures of the Precolumbian hierarchical societies. The chiefdoms which inhabited the Diquís Delta created hierarchical settlements expressing the division of different levels of power centres. The selected group of

sites represents a principle as well as three subordinated chiefdom centres and contains different elements characteristic for the chiefdom settlement structures.

ICOMOS considers that chiefdom settlements of the Diquís Delta represent an exceptional testimony to the Precolumbian hierarchical societies.

ICOMOS considers that this criterion has been justified.

ICOMOS considers that the serial approach is justified in principle and that the selection of sites has been justified.

In conclusion, ICOMOS considers that the conditions of integrity and authenticity have been met and that criterion (iii) has been justified.

4 Factors affecting the property

The key factor with potential to adversely affect the property in the future is development, in particular urban and infrastructure development. Urban development and settlement encroachments could affect the sites of Batambal and Grijalba-2, which either already adjoin settlements or contain settlement structures in their buffer zone. Two major development projects already discussed under the heading of Integrity, the Southern International Airport and the Diquís Hydroelectrical Dam project, in ICOMOS' view are also likely to adversely impact the property components. At the same time the argument presented by the State Party that the dam will reduce the risk of flooding at the Finca 6 site seems valid. However, the larger demographic and environmental impacts of these two projects will not remain without negative effects on the chiefdom settlement sites.

With the construction of the airport the currently moderate visitor pressures are likely to increase but it does not seem that the sites would easily be at risk of excessive visitation. The threat of looting which was significant in past decades seems contained for the four component sites and also vandalism is unlikely.

In relation to natural risk factors, the Finca 6 site is most threatened by the frequent floods in the Diquís Delta plains. In response to this obvious risk, the visitor centre on site was built on elevated pillars. In the additional information the State Party provided at the request of ICOMOS several measures including a hydrological research project with the Department of Engineering of the University of Costa Rica are predicted to define methodologies which may reduce the adverse impacts of floods on the site. The other three components which are located at higher elevations may suffer landslides following torrential rains but this would be considered unlikely, except for the site of Batambal where landslides occurred previously. The region is of moderate seismic activity.

ICOMOS considers that the main threats to the property are urban and infrastructure developments as well as flooding for the Finca 6 Site.

5 Protection, conservation and management

Boundaries of the nominated property and buffer zone

The boundaries of the four nominated sites delimit the area of archaeological finds made in previous investigations. They are clearly indicated in the cadastral plans and seem to encompass all relevant elements of the four component sites. The components vary in scale, with Finca 6 being the largest at close to 10 hectares followed by Grijalba-2 (8 ha), El Silencio (6 ha) and Batambal (close to 1 ha). The boundaries are partly indicated by fencing, such as in Batambal, or visible due to changes in plantation (at Finca 6) or steep drop offs towards the buffer zones.

The proposed buffer zones surround the property areas completely and, following the submission of revised buffer zones for the component sites Finca 6, Grijalba-2 and El Silencio at ICOMOS' request, provide adequate protection in all directions. The buffer zones include adjacent areas where archaeological remains, usually shards, have been found but do not include any architectural remains. At times the extension of such materials determines comparatively large sections of the buffer zones.

In conclusion, ICOMOS considers that the boundaries and the buffer zones of the four nominated property components are adequate.

Ownership

Two of the four component sites are State owned, Finca 6 and Batambal. The remaining two, Grijalba-2 and El Silencio, are in private ownership but in the process of being acquired by the State. For Grijalba-2 a budget has been allocated by the Ministry of Finance and its owner is willing to sell the 8 hectares property to the State. The process is expected to have been completed by the end of 2013. For the El Silencio site the situation is more complicated. The property owner is not willing to sell the property and an expropriation process is envisaged which however will be slower than a consensual acquisition. The estimated timeframe for this process is 1.5 years. ICOMOS considers that this situation is not fully in the spirit of community consent-based approaches to World Heritage proposals and encourages the State authorities to find a consensual agreement with the property owner. Expropriation should only be considered the last possible option if all other opportunities to consent have failed.

Protection

The four components are protected as archaeological heritage of public interest according to Law No 6703 on National Archaeological Heritage. This constitutes the highest possible protection for an archaeological site at

national level. In addition Presidential Decree 23387-C of 1994 declares Osa County, in which the sites are located, as a county of archaeological interest and Decree 34061-C of 2007 declares the Diquís Delta as a cultural landscape of public interest. These different decrees provide different layers of protection to the sites and also the surrounding landscape, which requires consideration of landscape and archaeological impacts for any proposed future development. Lastly the stone sphere settlements proposed in this nomination received legal protection in addition to the highest national level through Presidential Decree 36825-C which highlights their intended future status as World Heritage Sites.

The legislation attributes exclusive legal authority over the archaeological sites to the State, represented through the National Archaeological Commission and the National Museum. ICOMOS considers that the legal protection of the four component sites is exemplary and complete.

However, ICOMOS also notes that the legal protection of the buffer zones is not yet fully established. The State Party intends to define the buffer zone regulations as part of a new Regulatory Plan for Osa County, which is currently under preparation. Following the revision of the buffer zones at ICOMOS' request, the new buffer zone boundaries were presented to the Osa Municipality on 29 January 2014 and were published for public consultation on 24 February 2014. The formal adoption will follow the consultation process.

ICOMOS considers that the legal protection in place is exemplary and that the protective measures for the property are adequate. ICOMOS also considers that the protective measures established for the buffer zones will be adequate once they have been formally integrated in the Regulatory Plan for Osa County.

Conservation

Research and archaeological excavations of the chiefdom settlements including stone spheres of the Diquís have been frequent since the 1940s and have been undertaken by different teams of various nationalities. Most of the research in the early years can be classified as salvage archaeology and unfortunately documentation of the finds is not always as detailed as would be desired. While several of the archaeological finds in private plantations were registered on the national inventory, the idea of making these sites accessible is very recent and many seem to have been affected by looting or agricultural activities since their first documentation. In the process of preparing the nomination dossier, surveys undertaken registered a total of 101 settlement sites.

The state of conservation of the four sites is mainly good, especially because the large majority of the sites remain unexcavated. As part of an annual inspection plan the condition is regularly controlled and if necessary conservation measures can be initiated.

Active conservation measures were initiated at 11 chiefdom settlement sites including the four selected for this nomination following the documentation of their state of conservation during the survey. The active interventions include the partial removal of vegetation cover, further detailed conservation diagnostics, general maintenance works, consolidation measures, and, in selected cases, tests related to sensitive surface cleaning. A conservation plan which provides the theoretical framework for these works undertaken was provided by the State Party, but it tends to remain very general in several areas. A more specific report by the Department of Protection of Cultural Heritage describes the results of conservation diagnosis for eleven stone spheres in the component sites and proposes priority actions to be undertaken for their preservation. At present studies are being undertaken to identify the best-suited methodologies to be applied for conservation treatments. In addition medium and long-term experiments are being undertaken to understand the exact weathering conditions on site which will determine the choice of conservation methodologies. The State Party should be commended for showing great constraint in not initiating large-scale new excavations before the conservation necessities are addressed.

As discussed under the heading Authenticity, the Department for the Protection of Cultural Heritage undertook two pilot reconstruction attempts at the Batambal and Grijalba-2 sites. While the reconstructions may indeed assist the understanding of the place by visitors, it is important that reconstructions are clearly identified as such and used only in exceptional cases to protect the authenticity of the property.

ICOMOS considers that the state of conservation of the sites is in principle good and that conservation diagnosis and – if necessary – measures, are undertaken with the necessary scrutiny and care. ICOMOS considers that reconstructions of archaeological features should ideally remain the exception.

Management

Management structures and processes, including traditional management processes

The National Museum of Costa Rica is the key management authority for all four site components and coordinates all site management procedures and the preparation of the management plan. An Advisory Committee created by presidential decree advises and supports the National Museum in this process. At the request of ICOMOS the State Party submitted the latest version of the Management Plan, which provides further details on the management structures for each of the component sites.

Only the Finca 6 site is currently open to the public and provides adequate site interpretation services. Four permanent staff, including the site manager and educator and two technical staff, have been appointed at the site. It is envisaged that the other component sites will be

opened to the public in the future and staff structures are to be established accordingly. Basic interpretation shall be provided for the other three components sites by the end of 2014, but the management plan envisages the need to conduct necessary conservation activities before visiting of the sites is to be promoted.

The financial resources made available to the site during the past five years have steadily increased and the management plan projects the financial resources required for its implementation period of 6 years (2012-18), which is estimated at approximately 5 million USD. ICOMOS considers that this amount seems appropriate to implement the management activities envisaged at Finca 6 and should be secured until 2018. Additional resources, which will be necessary for the envisaged activities at the other three sites, are detailed in the latest update of the management plan.

ICOMOS considers it desirable to have a guardian or site manager for each of the properties to ensure their long-term protection and also assist visitors to the site. The Centre for Research and Conservation of Cultural Heritage has been entrusted with the monitoring of the proposed sites. In ICOMOS' view, it is essential to involve the locally-stationed teams in this process and provide training to facilitate monitoring and documentation tasks.

Despite periodic flooding at Finca 6 and moderate seismic activity in the county, risk preparedness does not seem to get adequate attention in the management plan. At the request of ICOMOS, the State Party highlighted the general disaster risk management mechanisms planned and outlined that a specific risk management plan for the Finca 6 site was under preparation. The summary of the plan provided in English shows that it contains initial studies to be undertaken including hydro-geological and drainage studies as well as surveys with ground penetrating radar. On the basis of these, drainage systems which would prevent silting and flooding of the site might be developed. The proposed document will also contain contingency and mitigation plans in the event that major floods occur.

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

A management plan is under preparation for the property and its latest update has been submitted with the additional information requested by ICOMOS. The plan is based on clear vision and mission statements as well as strategic objectives for its 6-year timeframe of implementation. On the basis of a summary of the exact physical features and research data at each site, the management plan highlights future activities necessary for the conservation of all components as well as the preparation of visitor interpretation and presentation facilities. The action plans provided contain clear schedules and responsibilities for the activities envisaged.

A key interest in the management plan is the improvement of the interpretation and presentation of the Finca 6 site to allow for better visitor services. As an initial step, a visitor centre was built outside the property boundaries of Finca 6 in early 2013. Finca 6 also has interpretative panels which allow visitors to gain background information on the architectural structures seen. The visitor concept developed and implemented under the guidance of the management plan foresees the provision of an introductory exhibition, visitor facilities in the visitor centre and a visitor pathway with different elements on site. ICOMOS understands from the additional information received at its request, that the previous plans for the introduction of reconstructed Diquis dwellings have been abandoned. ICOMOS welcomes this as it seemed that the reconstructed elements unnecessarily diverted attention away from the impressive archaeological resources. In ICOMOS's view the archaeological resources need to remain the key attractions of the site whilst other elements should merely facilitate visiting and learning as well as – where necessary – the protection of the historic structures.

At present none of the other sites is open to the public and only occasionally do well-informed visitors find their way. Batambal, El Silencio and Grijalba-2 do not have any visitor facilities or interpretation aides. Presentation and interpretation concepts still need to be developed for these three sites and a schedule as well as budgetary requirements for the preparation of these visitor interpretation and service structures has been provided.

Involvement of the local communities

While community participation was mentioned in the nomination dossier at a general level, no details were provided as to the methodology and partners of such involvement. At the request of ICOMOS the State Party provided additional material illustrating that Committee Consultations were conducted at the Finca 6 site in the context of drafting the management plan and consisted of consultation meetings with community leaders and public information events. ICOMOS considers that further public involvement in the drafting of management strategies for the other sites may have the potential to stimulate volunteer networks contributing to expanded security and visitor services.

ICOMOS considers that the management supervision of the National Museum of Costa Rica and the updated management plan provided outline the relevant elements for an adequate management system. To fully implement all activities envisaged in the management plan, the site management authority might need to be strengthened through the provision and guarantee of adequate financial and personnel resources.

6 Monitoring

The monitoring indicators provided in the nomination dossier address a number of important aspects to be monitored and can be divided into state of conservation

monitoring and quality assurance of management and conservation interventions. In both cases they do not provide references on how the results will be measured or how reference data will be established.

ICOMOS recommends that the monitoring tables provided be augmented to contain additional information on the method of data collection, the quantification of monitoring results as well as the generation of reference values for future monitoring exercises.

In conclusion, ICOMOS considers that the monitoring indicators should be augmented to provide more precise information on methods of data collection.

7 Conclusions

ICOMOS considers that the stone spheres of the Diquis are exceptional testimonies of artistic production in the Precolumbian era which demonstrate Outstanding Universal Value. The comparative analysis successfully demonstrated the global importance of stone sphere sites in the Diquis Delta and has justified the selection of the four components sites. ICOMOS considers that the chiefdom settlements of the Diquis Delta represent an exceptional testimony to the settlement structures of Precolumbian hierarchical societies and justify criterion (iii).

The authenticity of the nominated sites is high, in particular because of their limited previous excavation. However, integrity of the sites seems affected by potential threats arising from two large scale development projects, the Diquis Hydroelectric Dam and the Southern International Airport. ICOMOS considers that Heritage Impact Assessments (HIA's) in accordance with the ICOMOS Guidance on Heritage Impact Assessments for World Cultural Heritage properties need to be undertaken before any approval of these projects is given, and that the State Party's commitment to prioritize the property's needs if the projects are to be implemented is a reassuring sign that this risk has been understood and is being responded to. ICOMOS further recommends that all proposals for development projects should be submitted to the World Heritage Committee for examination, in accordance with paragraph 172 of the *Operational Guidelines for the Implementation of the World Heritage Convention*.

ICOMOS considers the boundaries of the site components and the buffer zones are adequate and that the revised buffer zones' integration into the new Regulatory Plan for Osa County needs to be finalized. Preventive and active conservation activities at the property are highly sophisticated and the State Party should be commended for showing great constraint in not initiating new excavations before the conservation necessities are addressed.

The National Museum of Costa Rica provides the overarching guidance to the management at the four serial sites and coordinates the preparation and implementation of the management plan. The visitor concept developed at Finca 6 site foresees the provision of an introductory exhibition, visitor facilities in the visitor centre and a visitor pathway with different elements on site. Visitor concepts on the other three sites are planned to be developed as part of the management plan and will provide for better accessibility of the sites following the implementation of necessary conservation treatments. The State Party is to be commended for its reluctant approaches to new excavations and visitor promotion as long as the required conservation works have not been fully undertaken.

8 Recommendations

Recommendations with respect to inscription

ICOMOS recommends that the Precolumbian chiefdom settlements with stone spheres of the Diquís, Costa Rica, be inscribed on the World Heritage List on the basis of **criterion (iii)**.

Recommended Statement of Outstanding Universal Value

Brief synthesis

The serial nomination of four archaeological sites (Finca 6, Batambal, El Silencio and Grijalba-2) located in the Diquís Delta in southern Costa Rica illustrates a collection of unique stone spheres located in chiefdom settlement structures of the Precolumbian period. The four sites represent different settlement structures of chiefdom societies (500-1500 CE) containing artificial mounds, paved areas and burial sites. Special objects of wonder and admiration are the distinctive Diquís stone spheres, which are rare in their perfection of large-sized (up to 2.57m diameter) spherical structures but are also distinct for their number and location in their original positions within residential areas.

Criterion (iii): The Precolumbian Chiefdom Settlements with Stone Spheres of the Diquís illustrate the physical evidence of the complex political, social and productive structures of the Precolumbian hierarchical societies. The chiefdoms which inhabited the Diquís Delta created hierarchical settlements expressing the division of different levels of power centres, presented by the different serial components. Likewise, the exceptional stone spheres, which continue to leave researchers speculating about the method and tools of their production, represent an exceptional testimony to the artistic traditions and craft capabilities of these Precolumbian societies.

Integrity

The four property components contribute specific elements which allow for the understanding of the chiefdom settlement structures. Finca 6 is the only site

retaining stone spheres in linear arrangements, Batambal is the only chiefdom settlement visible from a far distance, El Silencio contains the largest single stone sphere ever found, and Grijalba-2 site is unique for its use of limestone and its distinctive characteristics as a subordinate centre, as opposed to the Finca 6 site, which was likely a principal centre. All four sites show to differing degrees signs of the negative impact of past agricultural development and looting of archaeological sites. However, the material which remains preserved in situ is significant enough to express the different aspects of Outstanding Universal Value.

Batambal site is located in close proximity to dwellings and might be negatively impacted by future urban development. In addition, two large development projects, the Diquís Hydroelectric Dam and the Southern International Airport, are currently being discussed. The State Party has committed to undertaking Heritage Impact Assessments (HIA's) for both projects and given assurances that it will give full consideration and priority to preventing impacts on the Outstanding Universal Value, if either of the projects are to be implemented.

Authenticity

Previous excavations were limited to test sections and most excavation pits have been reburied following the completion of archaeological recording. As a result, the authenticity of the property with regard to design, material, substance, location and workmanship is satisfactory. A challenge for retaining authenticity of setting is the lack of knowledge of the extent of forest clearance during Precolumbian times, which increases the difficulties in judging sight relations between different structures and landscape elements that contribute to the site's original setting.

Finca 6 site also contains a collection of stone spheres confiscated following previous looting, the original locations of which mostly remain unknown. To distinguish those stone spheres which are in their authentic locations from those which have been relocated, it would need to be indicated more clearly that these spheres are no longer presented in their original position.

Management and protection requirements

The four components are protected as archaeological sites of public interest according to Law No 6703 on National Archaeological Heritage. This constitutes the highest possible protection for an archaeological site at national level. In addition, the stone sphere settlements proposed in this nomination received legal protection in addition to the highest national level through Presidential Decree 36825-C, which highlights their intended future status as World Heritage Sites.

The legislation attributes exclusive legal authority over the archaeological sites to the State, represented by the National Archaeological Commission and the National Museum. The legal protection of the four component sites is exemplary and complete. To ensure equally high

legal protection of the buffer zones, their integration in the new Regulatory Plan for Osa County needs to be finalized.

The management of the four site components is overseen and coordinated by the National Museums of Costa Rica. This institution is supported by an Advisory Council for this specific task. The State Party submitted a Management Plan in February 2014, which outlines the vision and strategic objectives for site management for a period of up to 6 years. It is envisaged to complete necessary conservation activities at all four component sites and provide visitor interpretation and presentation as well as facilitate future accessibility to the three sites not yet open to the public, Batambal, Grijalba-2 and El Silencio.

It seems essential for the success of the management plan implementation that the financial and human resources required for the administration and management of all four site components will be available to the National Museums of Costa Rica, to allow for site managers and guardians to be present on site. For the future protection and conservation of the Precolumbian Chiefdom Settlements with Stone Spheres of the Diquís it also seems essential that Heritage Impact Assessments are undertaken for any proposed developments which might have the potential to negatively impact the property.

Additional recommendations

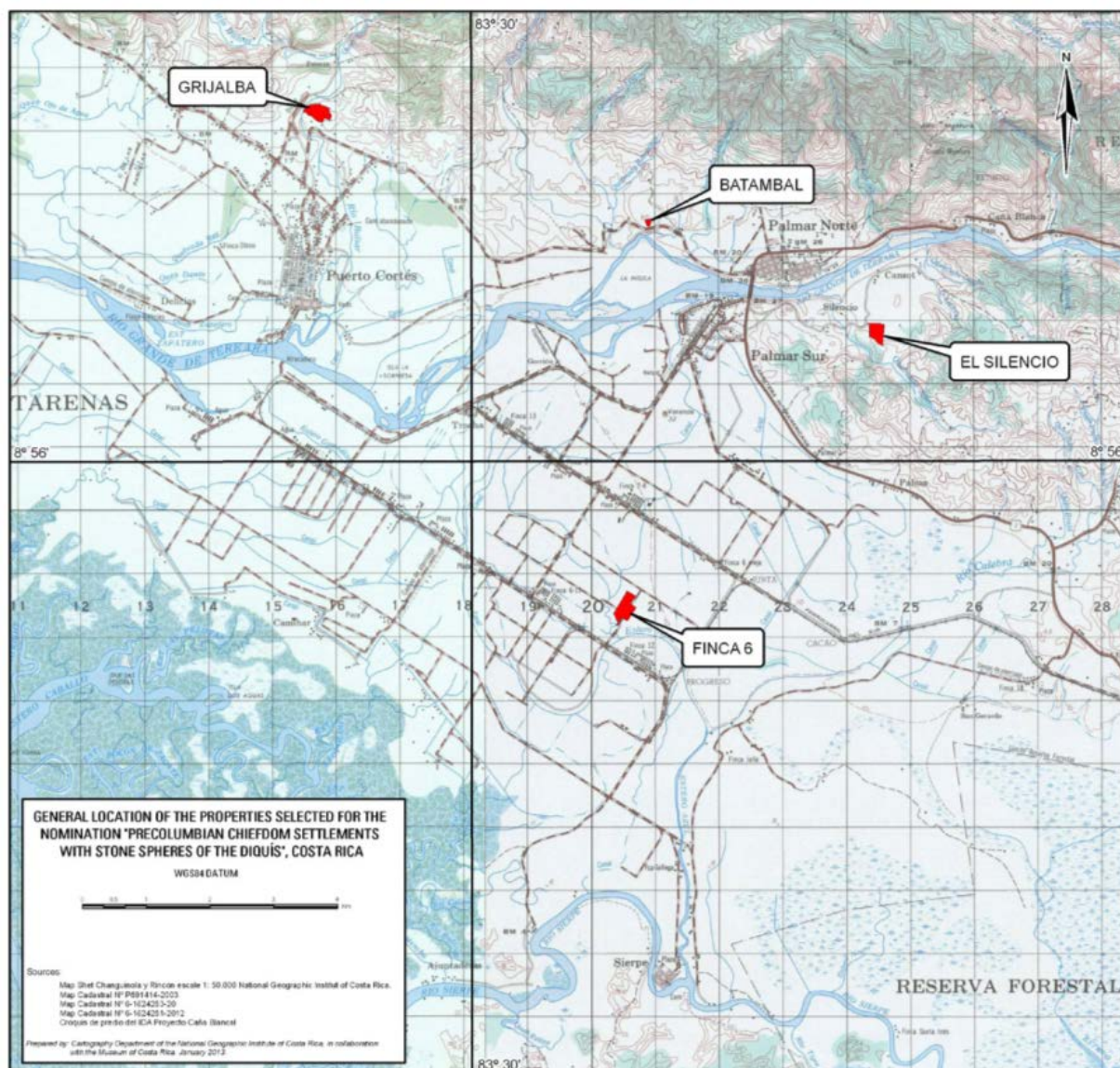
ICOMOS further recommends that the State Party give consideration to the following:

- Conducting detailed Heritage Impact Assessments (HIA's) in accordance with the ICOMOS Guidance on Heritage Impact Assessments for World Cultural Heritage for the Diquís Hydroelectric Dam and the Southern International Airport, to identify their potential negative impacts on the property; and submitting all proposals for development projects to the World Heritage Committee for examination, in accordance with paragraph 172 of the *Operational Guidelines for the Implementation of the World Heritage Convention*;
- Reaching a consensual agreement with the property owner of El Silencio to ensure the site's long-term protection;
- Completing the development of risk preparedness and disaster management plans including protective measures and emergency plans for Finca 6 during major flood events and completing the formal integration of the revised buffer zones in the Regulatory Plan for Osa County ;
- Ascertaining the required financial and personnel resources outlined in the management plan, including providing for a guardian or site manager for each of the properties to ensure their long-term protection and also assist visitors to the site; ICOMOS considers that

further public involvement may have the potential to attract volunteers who may contribute to expanded security and visitor services;

- Involving the local teams in the process of monitoring and provide training to facilitate both monitoring and documentation tasks;
- Augmenting the monitoring indicators to provide more precise information on methods of data collection.

ICOMOS commends the State Party for its preservation policy not to initiate new excavations or visitor promotion before the current conservation necessities are addressed and recommends to continue this exemplary approach in the future.



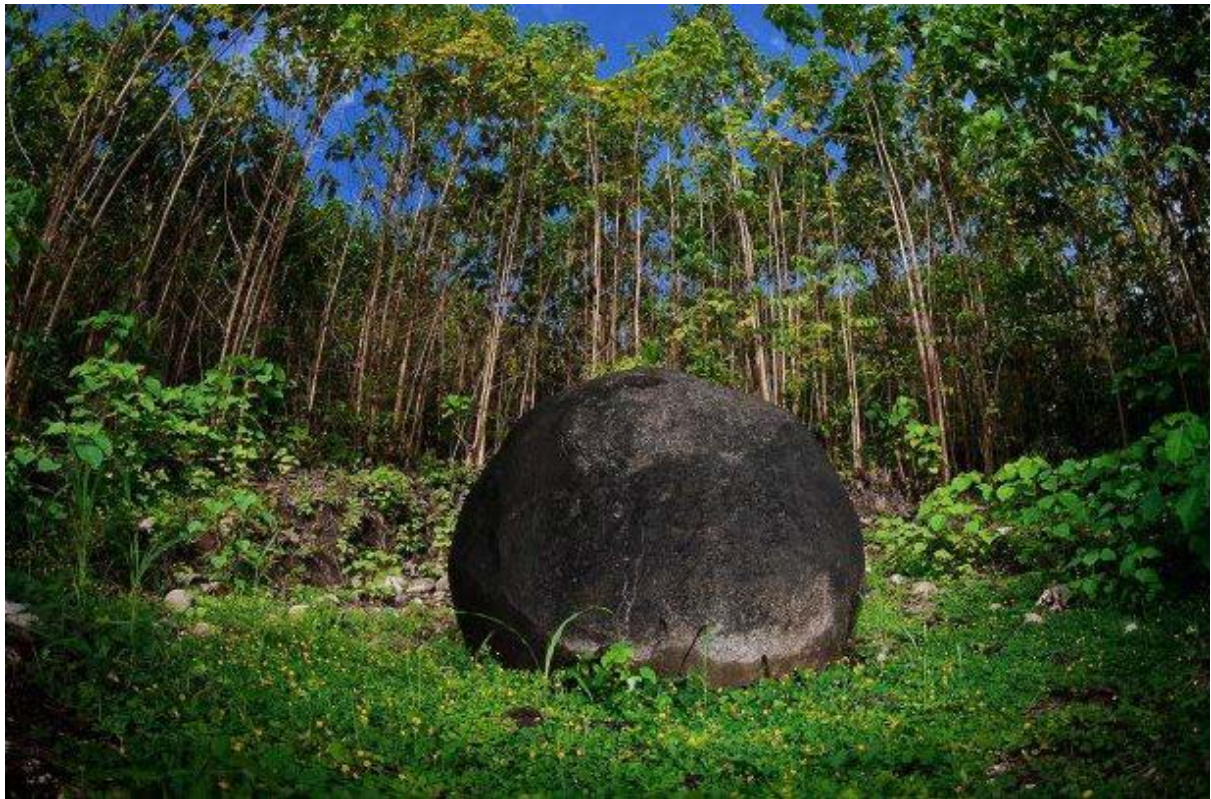
Map showing the location of the nominated properties



Stone spheres at Finca 6



Structures at Batambal



Stone sphere at El Silencio



Structure at Grijalba-2