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Item 7 of the Provisional Agenda: State of conservation of properties inscribed on
the World Heritage List and/or on the List of World Heritage in Danger.

Point 7 de l'Ordre du jour provisoire: Etat de conservation de biens inscrits sur la
Liste du patrimoine mondial et/ou sur la Liste du patrimoine mondial en péril

MISSION REPORT / RAPPORT DE MISSION

Maya Site of Copán (Honduras) (C 129)
Site Maya de Copán (Honduras) (C 129)

21 – 26 November 2011

This mission report should be read in conjunction with Document:
Ce rapport de mission doit être lu conjointement avec le document suivant:

WHC-12/36.COM/7B

**REPORT ON THE
JOINT UNESCO - WHC / ICOMOS
REACTIVE MONITORING MISSION**

TO THE

MAYA SITE OF COPAN (HONDURAS) (C 129)

21 - 26 NOVEMBER 2011



United Nations
Educational, Scientific and
Cultural Organization



World Heritage Convention



ICOMOS

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EXECUTIVE SUMMARY AND LIST OF RECOMMENDATIONS

Discovered in 1570 by Diego García de Palacio, the ruins of Copán, one of the most important sites of the Mayan civilization, were not excavated until the 19th century. The ruined citadel and imposing public squares reveal the three main stages of development before the city was abandoned in the early 10th century. The site was inscribed on the World Heritage List in 1980, during the 4th session of the World Heritage Committee (WHC).

At its 35th session (UNESCO, 2011), the World Heritage Committee “accepts the State Party's invitation for a joint World Heritage Centre/ICOMOS reactive monitoring mission in 2011 to assess the state of conservation of the property and particularly to review all the information produced up to this date regarding the project of building an airfield at the Rio Amarillo site, including environmental impact assessments, and the existence or not of a heritage impact assessment, in order to assess the state of conservation and provide the analysis for consideration and review by the World Heritage Committee” (WHC 35 COM7B.126).

The visit to the archaeological site of Copan and the detailed study of the available documentation showed that much work is being done at the property in terms of conservation, investigation and presentation. The collaboration of the Honduran Institute of Anthropology and History (IHAH) with the local *Asociación Copán*, the inclusion of foreign investigators within the research agenda, as well as the capacity to secure funds for research, conservation and presentation can be highlighted as parts of an adequate management system. Nevertheless, the site has been on the agenda of the Committee's discussions for its state of conservation for several years. Some of the points under discussion are directly connected to a lack of systematic and documented monitoring. While there are separate projects that generate monitoring data, this data is not centrally collected to form the basis of management decisions. The State Party is currently updating the Management Plan and integrating a Public Use and Risk Management Plan. This should be used as an opportunity to formalize the documentation of monitoring and management practices. It is strongly suggested to make as much use as possible of local resources and experience during the formulation of the management tools.

During the reactive monitoring mission, the State Party made it evident that resolving the question concerning the construction of an aerodrome in Rio Amarillo was a priority. The project aims to develop tourism at the World Heritage site of Copan and in the region. The two points under discussion here are the direct impact of the construction and the indirect impact of tourism development on the World Heritage site. Whereas the projected construction site is 17km from the World Heritage property and no direct impact on its Outstanding Universal Value is to be expected, the wider cultural and natural setting of the

inscribed site - from which it draws some of its significance and which is protected by national law (see Appendix VI) - will be affected.

The State Party has produced a series of environmental impact assessments and planning documents (ASP Consultores 2005, 2006, TYPASA 2005) and conducted archaeological surveys at Rio Amarillo (Cruz Castillo 2003, IHAH 2004) that have responded to most of the concerns expressed in the Committee recommendations (see below), which focused on an assessment of the impacts of its construction and operation. No specific heritage impact assessment has been produced.

Should the State Party decide to proceed with the construction of an aerodrome, the construction needs to be as limited as possible and comply with recommendations for mitigating actions mentioned in this document and in the environmental and heritage impact assessment studies.

Nonetheless, while tourism development is legitimate and can be useful to potentially generate funds for the site and income for the local population, it is important to define clear limits for this development. These limits have to be enforced within the framework of a coherent territorial planning and management strategy. The management tools, in particular the Public Use Plan, which are being developed for Copan, therefore, should have a clearly regional vision. While the Maya Site of Copan is the main attraction for tourism in the area, it is the cultural and natural integrity of the region that sustains the heritage values and will make tourists want to stay beyond the visit to the World Heritage site.

In order to increase the capacity of the State Party to investigate, protect, conserve and present its cultural heritage, the final general recommendation of this mission is to strengthen the on-site capacity building at Copan and aim for the development of a national university degree programme in archaeology.

The following are the specific recommendations of the mission:

Public Use and Risk Management Plans

- Finalize the updating of the existing management plan, taking into account an analysis of existing management practices;
- Finalize the Public Use and Risk Management Plans, taking into account previous experiences, and including them in the updated Management Plan;
- Coordinate the Public Use Plan with local and regional territorial planning instruments;
- In the Management Plan, define the different zones of the site and supply information regarding management and regulatory measures for the buffer zone;
- Define the carrying capacity of the archaeological site of Copan and its buffer zone;
- Limit the number of visitors per day to a sustainable amount;
- Develop a regional perspective in the Management Plan to include other sites of the area (for example Rio Amarillo), and link this plan to local development tools;
- Document and analyse management practices at the site in order to share knowledge and experiences with interested parties in a participatory way. Of special significance are the general management structures, stakeholder participation, education and dissemination, investigation, conservation as well as monitoring, and the joint approach to nature and culture.

Infrastructure development

- Follow-up the recommendations of the First Report of the Santander Programme (see Annex VIII) concerning the air quality and the termite threat in the storage areas of the Centre for Archaeological Research (CRIA).

Site delimitation and cartography

- Comply with WHC Decision 35 COM 8B.59 concerning the elaboration of maps with the exact property and buffer zone delimitations and regulatory measures, and submit them to the World Heritage Centre and the Advisory Bodies for consideration and review, within the framework of the Retrospective Inventory process for the Latin America and the Caribbean region;
- Collaborate closely with the local government in order to secure the site against development pressures by enforcing defined regulatory and protection measures, particularly plans for tourism development and infrastructure and major public works.

Land tenure

- Clarify the legal status and property ownership situation of all the areas managed by the State by November 2012;
- Acquire the areas of the proposed buffer zone that are still in private ownership;
- Monitor and map all changes in land-use and any type of new construction in the surroundings of the World Heritage site to ensure protection of cultural assets;
- Integrate the monitoring results in decision-making processes and enforce regulatory and protective measures.

Hieroglyphic Stairway

- Document and publish the results of the conservation experiment with the scale model of the protective shelter;
- Prior to making a final decision, review the possible impact of the "sail" fixtures on the pre-Hispanic building, especially in case of strong winds;
- Submit the final proposal for the protective shelter, with a detailed analysis of all options and precise technical specifications, for review to the World Heritage Centre and the Advisory Bodies, prior to its construction.

Sculptures

- Clearly formulate criteria for the decision making process for the potential transfer of sculptures from the site to the museum;
- Document the selection process for the roofing materials and construction for sculptures that will remain *in situ*.

Tunnels

- Develop an action plan for the conservation and maintenance of the tunnels that should include, but not be limited to, the following basic issues:
 - Complete the water proofing and stabilization works;
 - Install a formal and permanent monitoring system in the tunnels that includes at least the measuring of the stability of the tunnels, quantity of water filtrations, air quality, the state of conservation of the facades and biological growth on the tunnel walls. This monitoring system should provide the basis for decision making regarding conservation and maintenance actions;
 - Equip tunnels with a ventilation system to improve air circulation, as has been identified in studies undertaken;

- Install LED illumination with movement sensors to reduce the time of illumination in the tunnels;
- Substitute all damaged windows in the tunnels;
- Develop carrying capacity studies for visitation to the tunnels, particularly as mural paintings are unique and fragile.

Floodwalls at *Las Sepulturas*

- Permanently monitor and record the water level of the river and changes to the river bed;
- Identify areas not adequately protected as yet and finalize the construction of the new floodwalls.

Highway CA-11

- Analyze the traffic density, vibrations and noise levels of Highway CA-11;
- Investigate the viability of moving the main traffic away from the World Heritage property.

Aerodrome at Rio Amarillo - Impact on the World Heritage site of Copan

The indirect impact of the aerodrome at Rio Amarillo on the World Heritage site of Copán can only be controlled if the following recommendations already mentioned in Chapter 3.1.1 are respected:

- Define the carrying capacity of the archaeological site of Copan;
- Limit the number of visitors per day in accordance with the results from the carrying capacity studies;
- Finalize the Public Use Plan and coordinate the document with local and regional territorial planning instruments.

Aerodrome at Rio Amarillo - Environmental and heritage impact at Rio Amarillo

Whereas the projected construction site is 17km from the World Heritage property, and no direct impact to its Outstanding Universal Value is to be expected, the wider cultural and natural setting of the inscribed site - from which it draws some of its significance and which is protected by national law (see Appendix VI) - will be affected.

Should the State Party decide to proceed with the construction of an aerodrome, the construction needs to be as limited as possible and comply fully with recommendations for mitigating actions mentioned in this document and in the environmental impact assessment studies.

The following specific recommendations made here elaborate on those made in the environmental impact assessment (ASP Consultores 2005:335-336):

First stage - 6 months prior to construction:

1. Survey, and if necessary excavate the deposits of raw-materials used for construction of the sites.
2. Construct a collection centre for archaeological materials.
3. Preventively excavate the site ARA-Rio Blanco-01 if protection cannot be guaranteed.
4. Clean and stabilize Complex "C" of Piedras Negras.
5. Conduct an intensive surface survey of the entire area of the projected aerodrome, following the same methodology developed for ARA I and II.

6. Delimit a protection area for the site of Piedras Negras, and define an exclusion zone for construction machinery near Complex “C”.

Second stage - during construction:

7. Regulate to prevent looting;
8. Conduct a cultural education campaign on heritage for construction workers and the local population;
9. Supervise all construction activities at the site through a qualified IHAH team.

Third stage - operation:

10. Include the Rio Amarillo area (archaeological site and aerodrome) in all instruments of territorial planning and define cartographically the stated area;
11. Monitor the impact of aircraft vibrations at the sites of Rio Amarillo and Piedras Negras;
12. Develop a regional Public Use Plan to include Rio Amarillo and Copan.

Management of archaeological heritage at Rio Amarillo (La Castellona)

- Update the existing Management Plan and define the role of all stakeholders;
- Integrate the management considerations for Rio Amarillo in all local and regional planning tools;
- Secure funding for the conservation and operation of the site and its Visitor Centre.

General recommendation

- Develop a clear capacity building strategy for conservation, management and archaeological investigation, and strengthen the on-site capacity building in Copan.
- In the medium or long term, aim for the development of a national university degree programme in archaeology;
- Conduct a comprehensive heritage impact assessment of the area being considered for the construction of the airfield.

1. BACKGROUND TO THE MISSION

1.1. Justification of Joint UNESCO - ICOMOS Mission to the Maya Site of Copán, Honduras

At its 35th session (UNESCO, 2011), the World Heritage Committee “accepts the State Party's invitation for a joint World Heritage Centre/ICOMOS reactive monitoring mission in 2011 to assess the state of conservation of the property, and particularly review all new information produced up to this date regarding the project of building an airfield at the Rio Amarillo site, including environmental impact assessments and a heritage impact assessment (if any), in order to update the analysis for consideration and review by the World Heritage Committee” (WHC 35 COM7B.126).

The terms of reference of the mission are included in **Annex I** of this document. **Annex II** includes the programme of the mission and **Annex III** gives information about the members of the mission.

1.2. Previous missions

As requested by the Honduran authorities, in February 2003, a joint UNESCO – ICOMOS

mission was undertaken in order to study the impact of an airstrip close to the archaeological site of Copan (La Estanzuela). Connected to this issue was the evaluation of the potential sites for the construction of an airport in the vicinity of the World Heritage site.

In December 2004, another mission was carried out by the World Heritage Centre to visit the site defined by the Honduran Government for the construction of a new aerodrome at Rio Amarillo and to assess the sites investigated as part of the preliminary infrastructure works.

After the December 2004 mission, an ICOMOS reactive monitoring mission took place in March 2005, in order to assess the impact of the possible construction of an airport at Rio Amarillo.

1.3. Examination of the State of Conservation by the World Heritage Committee

The state of conservation of the Maya Site of Copan was discussed during the following Committee sessions:

| Year | Session | Main Issues |
|------|---------|--|
| 2011 | 35 COM | <ol style="list-style-type: none"> 1) State Party (SP) urged to submit an official management plan, including provisions for public use and risk management; 2) SP urged to develop and implement a comprehensive conservation programme for the tunnels and to establish conservation guidelines for interventions at the property; 3) Concern expressed by the WHC that the site of Rio Amarillo is being considered for the construction of the airfield, in spite of previous World Heritage Committee Decisions; 4) SP requested to submit related technical information for the new protective shelter for the hieroglyphic stairway and for the conservation laboratory for sculptures; 5) SP urged to officially submit information on regulatory measures, land tenure, related cartography for the protection and management of the property and the buffer zone. |
| 2009 | 33 COM | <ol style="list-style-type: none"> 1) SP invited to submit further details on the implementation of the management plan and conservation interventions at the property; 2) SP urged to officially submit the limits of the World Heritage property and its potential buffer zone; 3) SP requested to inform the World Heritage Centre and the Advisory Bodies of the definitive decision on the location for the construction of the airport and related tourism management issues. |
| 2008 | 32 COM | <ol style="list-style-type: none"> 1) SP invited to submit detailed information on the definitive location and plans for construction and operations, accompanied by the official Environmental Impact Assessment and archaeological / cultural impact study from the National Institute of Anthropology and History (IHAH); 2) SP encouraged to finalise the management plan; 3) SP invited to submit the management plan for the Rio Amarillo |

| Year | Session | Main Issues |
|------|---------|---|
| | | site to the World Heritage Centre and the Advisory Bodies to examine its potential articulation with the Copan management plan. |
| 2006 | 30 COM | <ol style="list-style-type: none"> 1) WHC urged SP not to proceed with the construction of the planned airport at Rio Amarillo Valley; 2) SP requested to submit to the World Heritage Centre the terms of reference for conducting a Public Use Study for the management of the future Rio Amarillo Archaeological Park to complement the already existent management plan; 3) SP requested to continue monitoring the state of conservation of the Copan Hieroglyphic Stairway, based on the programme developed by the Getty Conservation Institute. |
| 2005 | 29 COM | <ol style="list-style-type: none"> 1) WHC takes note of the decision of the SP to cease operations at the airstrip of La Estanzuela and to create a reserved air space over the Archaeological Park of Copan; 2) SP encouraged to reconsider the plans for the Rio Amarillo airport facility construction in view of the archaeological importance of the Copan Valley, with a view to its possible consideration as an extension to the current World Heritage property, and to consider relocation of this airport to La Entrada (70 km away from the property); 3) SP requested to conduct, in case the State Party decides to build the airport facility in Rio Amarillo, an environmental impact study examining the impact on the archaeological remains, and elaborate a comprehensive Public Use Plan for the World Heritage property to mitigate any negative effects that could occur at the World Heritage property of Copan as a result of the foreseen tourist development. |
| 2004 | 28 COM | 1) WHC expressed its regrets that the State Party did not provide the requested report on the state of conservation of the property with particular reference to its decision concerning the development of a commercial airport to operate at the archaeological site of Copán. |
| 2003 | 27 COM | 1) SP invited to discard plans for the extension of the airstrip at Copán Ruins and to follow the recommendations made by the mission. |
| 1998 | 22 COM | 1) Hurricane Mitch. |
| 1997 | 21 BUR | 1) The World Heritage Bureau commended the Government of Honduras on the decision to implement a two-year monitoring and research programme with the aim to preserve the Hieroglyphic Stairway at its original location. |
| 1993 | 17 COM | <ol style="list-style-type: none"> 1) WHC noted that special attention should be paid to the conservation of stone and stuccos; 2) WHC noted that the original sculptures will be placed in a site museum and the replicas on the original sites; 3) WHC recommended the redefinition of the boundaries of the "Copan Archaeological Park" and to prepare an extension of the site; 4) SP requested to updated the management plan for the site. |

For the complete decisions of the World Heritage Committee on the State of Conservation of the Maya Site of Copan (Honduras), see **Annex IV**.

1.4. International Assistance

The State Party submitted ten successful International Assistance requests and received a total amount of 170,900 USD from the World Heritage Fund (see **Annex V** for details).

2. THE PROPERTY IN ITS LEGAL AND INSTITUTIONAL FRAMEWORK

2.1. Description of the site

Copán with its temples, plazas and terraces, comprises a type of architectural complex among the most characteristic of the Mayan civilization. The lengthy inscription on the Hieroglyphic Stairway Plaza is of considerable historical significance.

There is evidence that Copán was inhabited during the American Formative period (2000 BC-AD 300), although few remains exist today which attest to this occupation. The great period of Copán, paralleling that of other major Mayan cities, occurred during the Classical period, AD 300-900. Major cultural developments took place with significant achievements in mathematics, astronomy and hieroglyphic writing.

Architectural activity, as well, made strides during this period. The site of Copán went through three principal stages of development during which evolved the temples, plazas, altar complexes and ball courts that can be seen today. Shortly after 900 AD, the site was abandoned. Although Copán was discovered in 1570 by Diego Garcia de Palacio, its existence did not receive worldwide attention until the work of John Lloyd Stephens from 1839 to 1841. Since then, numerous archaeological expeditions have explored and excavated various parts of the site.

The Mayan city of Copán as it exists today is composed of a main complex of ruins with several secondary complexes encircling it. The main complex consists of the Acropolis and important plazas. Among the five plazas are the Ceremonial Plaza, with an impressive stadium opening onto a mound with numerous richly sculptured monoliths and altars; the Hieroglyphic Stairway Plaza, with a monumental stairway at its eastern end that is one of the outstanding structures of Mayan culture. On the risers of this 100 m wide stairway are more than 1,800 individual glyphs which constitute the longest known Mayan inscription. The Eastern Plaza rises a considerable height above the valley floor. On its western side is a stairway sculptured with figures of jaguars originally inlaid with black obsidian.

From what is known today, the sculpture of Copán appears to have attained a high degree of perfection. The Acropolis, a magnificent architectural complex, appears today as a large mass of rubble which came about through successive additions of pyramids, terraces and temples. The world's largest archaeological cut runs through the Acropolis. In the walls of the cut, it is possible to distinguish floor levels of previous plazas and covered water outlets.

During the period when Mayan civilization spread across Central America, Copán was the largest and most influential city in the south-eastern sector.

Copán's remains are endangered by continued erosion by the river, micro flora; and the outlying complexes, by continued agricultural practices. The site is a seismic zone and had suffered damage from at least two earthquakes. Further, the natural surroundings of the area are being threatened by the infringement of the neighbouring town of Copán Ruins (description taken from <http://whc.unesco.org/en/list/129>).

2.2. Inscription History and Criteria for Inscription

In 1979, the Government of Honduras submitted the nomination of the "Maya Site of Copan" for inscription on the World Heritage List. As a justification for the inscription, the State Party mentioned the high quality of the sculpture – and particularly the Hieroglyphic Stairway – as well as the influence the site exerted on the south-eastern region of the frontier of the Maya area.

Furthermore, the ICOMOS evaluation gives some indications of the elements that give the site its Outstanding Universal Value and define the inscription criteria:

The inclusion of Copan on the World Heritage List is justified on the basis that the site corresponds to criterion 4 in that its temples, plazas, terraces, etc. comprise a type of architectural complex among the most characteristic for the Maya civilization.

Moreover, the lengthy hieroglyphic inscription of the Hieroglyphic Stairway Plaza is of considerable historic significance thus corresponding to criterion 6.

The site was inscribed in 1980 during the 4th session of the World Heritage Committee without any further discussion.

2.3. Institutional and legal framework

The *Instituto Hondureño de Antropología e Historia* (IAHA) was created in 1952 (Acuerdo No. 245, 22 July 1952) as a government institution with autonomous administration. Its mission is to protect, investigate, conserve, and promote the cultural heritage of Honduras. The activities of the IAHA are backed by the Cultural Heritage Protection Law (*Ley de Protección del Patrimonio Cultural*) that was approved in its most recent version in 1997. The General Law of Environment (1993) includes cultural resources as part of the protection of the environment. The Law of Municipalities (1990) also considers the protection of cultural resources.

An important piece of legislation in the context of the present mission is the Presidential Decree No. 185-82 (1982, see **Annex VI**) that created the National Monument of Copan, delimiting and defining the zones of the archaeological area of the Copan Valley.

The State Party noted in its state of conservation report (IAHA 2011:6) that while the "legislation for protection of cultural heritage is adequate, its application is not always satisfactory and that there is a need for specific regulations to coordinate the application of the legislation. This deficiency should be corrected in the next two years, with funds from the Spanish Agency for International Cooperation and Development (AECID), providing a

coherent tool to preserve the significance of all cultural heritage of the nation and especially the significance of the site of Copan and its cultural landscape.”

The IHAH is responsible for the administration of the archaeological site. It collaborates closely with the Ministry of Tourism, and with the *Asociación Copán*, a non-profit organization which coordinates and executes a large part of the exploration and conservation of Copan since 1990.

2.4. Management arrangements

The site as inscribed on the World Heritage List is property of the state and all decisions concerning the property are taken by IHAH. In this arrangement, the *Asociación Copán*, mentioned above, is executing some of these decisions and assisting in the operation of the site. The Ministry of Tourism does not take any technical decisions concerning heritage matters, but in many cases – especially concerning questions of infrastructure at heritage sites – supplies the funding. The communities have direct influence on regional planning through the Regional Development Councils (*Consejos Regionales de Desarrollo*), created on 2 February 2010 through Article 25 of the Law of the Plan of the Nation (*Ley del Plan de Nación*). The Councils are composed of various representatives of the regional governments, institutions and members of the community. At Copan the community was included in the discussion of decisions concerning the construction of the aerodrome at Rio Amarillo before the creation of the Councils (see below).

The *Asociación Copán*, which is involved in the site-operation and the coordination of the investigation, depends mainly on funding from national and international sources (e.g. research institutions or universities). While this policy has allowed improving the infrastructure for investigation at the site to an impressive degree (especially research and storage facilities, see below) the financing of human resources to run the activities at the site adequately and continue investigation is not secure. Although the property generates substantial income through entrance fees, only a minor percentage is reinvested in the site while the rest of the revenue finances other operations of IHAH. Furthermore, the site was affected by the economic and political crisis the country has suffered. From 2006 to 2010 the number of visitors decreased almost 40 %. This dramatic decline in visitor numbers resulted in a considerable loss of income for the site (IHAH 2011:15).

The first management plan for the site was formulated in 1982. The updated document of 2001 was published in 2005 but was never officially approved. In its January 2011 state of conservation report, the State Party highlighted the shortcomings of the plan: “[I]t does not propose a precise conservation policy, does not include disaster preparedness, is short on visitor management and ignores the local community. It has been used therefore more as a guideline than a formal plan” (IHAH 2011:1).

More recently a comprehensive Public Use Plan was commissioned to investigators from the *Instituto del Patrimonio Cultural de España* (IPCE). It will integrate a revised version of the Interpretation Plan produced by Heritage Design in 2001. The funding by the Inter-American Development Bank (IDB) was approved in December 2010 and the Terms of Reference are being set up (IHAH 2011:1). The completion of the plan was foreseen for September 2011, but, according to the State Party, will be delayed until about April 2012.

3. IDENTIFICATION OF ISSUES AND ASSESSMENT OF THE STATE OF CONSERVATION OF THE SITE

3.1. Management issues

The State Party recognizes a delay in the resolution of some of the pending management issues. However, the political and financial crisis of the country and the region has not permitted faster advances, as the State Party indicated in its last report (IHAH 2011).

3.1.1. Public use and risk management plan

As mentioned above, a comprehensive Public Use Plan was commissioned to investigators from the *Instituto del Patrimonio Cultural de España* (IPCE). No clear indications were given how the Public Use Plan and the Risk Management Plan will be integrated into the general Management Plan and how this latter plan will be updated. No mention of the Terms of Reference of this Public Use Plan was made to the Mission.

However, during the site visit, it could be observed that many of the site operations, as well as the investigation and the conservation are directly managed by members of the IHAH and the *Asociación Copán*. The *Asociación* has more than 20 years of experience at the site and - in contrast to many government institutions - has not suffered a lot of personnel changes. This wealth of experience is expressed in the daily management of the site and could be recollected in a document. This document could be the basis of a Management Plan, including the Public Use Plan, elaborated either by members of the *Asociación Copán*, IHAH or external consultants. Commissioning the entire plan to external consultants without making full use of local knowledge and experience would imply the risk of generating a document that is less useful and more expensive. In general terms it can be noted that the collaboration between a local association, the national Institute for Anthropology and History, and foreign institutions and investigators is working very successfully. This balance between continuity beyond periods of political administration and constant renewal through the input from specialists of different origins could be developed into a model of interest for other sites in the region.

Recommendations:

- Finalize the updating of the existing management plan taking into account the analysis of existing management practices and identify the best implementation system for national and local stakeholders.
- Finalize the Public Use Plan and the Risk Management Plan, taking into account previous experiences, and include them in the updated Management Plan.
- Coordinate the Public Use Plan with local and regional territorial planning instruments.
- In the Management Plan, define the different zones of the site and supply information regarding management and regulatory measures for the buffer zone.
- Define the carrying capacity of the archaeological site of Copan.
- Limit the number of visitors per day to a sustainable amount.
- Develop a regional perspective in the Management Plan including other sites of the area (for example Rio Amarillo), and link the plan to local development tools.
- Document and analyse the management practices at the site in order to share the knowledge and the experience with interested parties. Of special significance are the general management structures, stakeholder participation, education and dissemination, investigation, conservation as well as monitoring, and the joint approach to nature and culture.

3.1.2. Infrastructure development

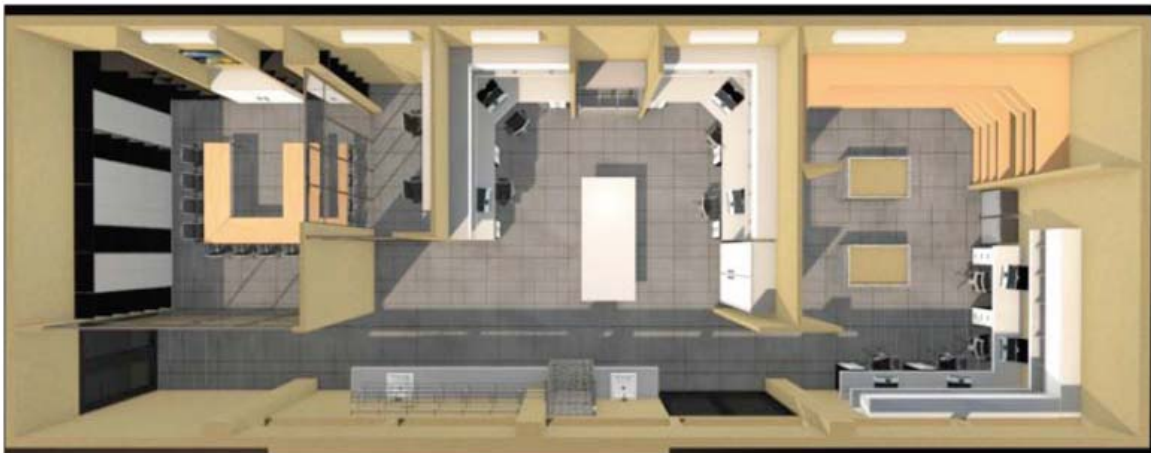
Over the past years several infrastructure projects were undertaken at the site, principally in order to improve investigation and storage facilities. During the mission, the installations were visited together with personnel of IHAH and members of the *Asociación Copán*.

The Sculpture Conservation Laboratory: The laboratory will be used for the treatment of sculptures found at the site. It will be set up in the Sculpture Museum located at the site, where a storage room was liberated for that purpose (**Image 1**). No new construction had to be built (**Annex VII**).



Image 1. Storage room liberated for the Sculpture Conservation Laboratory (N.Schulze)

The laboratory (**Plan 1**) is financed by the Santander Bank. The Santander Fund will maintain the laboratory for five years during which at least three technicians will be trained (IHAH 2011:1-2).



Plan 1. Sculpture Laboratory (from report contained in **Annex VII**)



Image 2. The renovated CRIA

The Regional Centre for Archaeological Research (CRIA, by its Spanish acronym) was reopened in March 2008. The building has been totally renovated (**Image 2**) and is now suitable for the treatment and storage of archaeological material. The sculptures are ranged on shelves in a warehouse (**Image 3**), which facilitates documentation and investigation. However, the analysis of the air quality and microbiotic activity by Dr. Nieves Valentín Rodrigo of the *Instituto del Patrimonio Cultural de España* (see **Annex VIII**), indicate that termite infestation and bad air quality in the storage room areas are potential risks to the collection. According to the investigator, these risks can be limited by reducing the amount of wood in the storeroom, using the termite hormone inhibitor hexaflumuron and by improving air circulation.



Image 3. The sculpture warehouse at the CRIA

The most valuable artefacts are kept in a vault (**Image 4**) with temperature and humidity controls (IHAH 2011:3), that according to Dr. Valentin, has acceptable microclimatic conditions.



Image 4. The vault at the CRIA (N. Schulze)

The State Party informed the Committee in its 2011 report (IHAH 2011:7), that two sheds that had been built next to the core site in the 1980s were dismantled in 2009 and 2010.

Recommendations:

- Follow-up the recommendations of the First Report of the Santander Programme (see Annex VIII) concerning the air quality and the termite threat in the storage areas of the CRIA.

3.1.3. Site delimitation and cartography

The nomination document states that the exact location of the site is Long. 89° 10' W; Lat. 14° 50' N (UTM 2 69 400 E, 16 41 580 N)¹. In the latest report (IHAH 2011), the State Party explained that at the time of inscription in 1980, the World Heritage property was defined to coincide with the Copan Archaeological Park (aprox. 60 ha), which encloses the following area:

- Zone 1: The core site with the Great Plaza, Acropolis, and the Cementerio residential area;
- Zone 2: El Bosque residential area;
- Zone 3: An adaptation area that is used for tourist facilities (visitor centre, museum, parking, cafeteria and souvenir shop).

The totality of this area with the key monuments is property of the State. However, the Copan Archaeological Park has been expanded by an additional 25ha – without altering the boundaries of the World Heritage site – to now include:

- (1) Two minor extensions on the eastern side of the park,
- (2) The “Sepulturas” residential area,
- (3) The Regional Centre of Archaeological Research (CRIA).

Document WHC-11/35 COM-INF8B1-Add (UNESCO, 2011) states that a proper map of the inscribed property has been lacking since the time of its inscription. Also the precise delineation and area of the buffer zone was pending since the time of the inscription.

¹ The nomination file gives a different reference: Long. 89° 10' W; Lat. 10° 50' N.

In Decision WHC-33 COM 7B.137 (Sevilla, 2009), the World Heritage Committee had already urged the State Party, among other issues, to: “officially submit the limits of the World Heritage property and its potential buffer zone, in light of the requirements of the retrospective inventory”.

The maps submitted by the State Party to define the buffer zone in 2011 were referred back to the State Party in order to allow them to (WHC-35 COM 8B.59):

- “a) Re-submit map No. 1 showing the nominated property and its immediate surroundings. This map should be either topographic or cadastral, presented at a scale which is appropriate to the size in hectares of the property, include title and legend in English and bear a labelled coordinate grid;
- b) Re-submit map No. 3 showing the proposed buffer zone and the nominated area with the same standards as the ones required for map No. 1;
- c) Provide justification for the extent of the buffer zone, its delineation and its exact area;
- d) Provide information on regulatory measures for the protection and management of the property and its buffer zone”.

At the time of the visit, the mission members were not presented with new or additional cartographic material.

Recommendations:

- Comply with WHC Decision 35 COM 8B.59 concerning the elaboration of maps with the exact property and buffer zone delimitations and regulatory measures, and submit them to the World Heritage Centre and the Advisory Bodies for consideration and review, within the framework of the ongoing Retrospective Inventory of the Latin America and the Caribbean region;
- Collaborate closely with the local government in order to secure the site against development pressures.

3.1.4. Land tenure

Although the core area of the World Heritage site is property of the State Party, areas included in the proposed buffer zone and areas added to the Copan Archaeological Park are not yet officially state property. For example, the Sepulturas residential zone is managed by the State, but still in private hands. The area was exchanged for agricultural land south of the core zone in 1984; however the exchange was never formalized. Other areas are monitored by the State but used for agricultural purposes. Until recently, the use was mainly for pasture, but over the last two years some areas have been changed to agricultural uses.

The State Party defined as priorities for the next three years, to “legalize the status of the private land under the custody of the State (Sepulturas)”, and to “buy the land between the core site and Sepulturas” (IHAH 2011:4). The negotiations for the acquisition of further areas to be included in the buffer zone will probably take longer.

The clarification of the property rights of the land in the Archaeological Park and the (future) buffer zone is very urgent, considering that the development pressure in the area, according to personnel of the *Asociación Copán*, is on the rise. Close collaboration with the local governments is necessary in order to strengthen the protection of the site in local planning tools.

Recommendations:

- Clarify the legal status and the property ownership situation of all the areas managed by the State by November 2012.
- Acquire the areas of the proposed buffer zone that are still in private hands.
- Monitor and map all changes in land-use and any type of new construction in the surroundings of the World Heritage site to ensure protection of cultural assets.
- Integrate the monitoring results in decision-making processes and enforce regulatory and protective measures.

3.2. State of conservation

The general state of conservation of the property as presented to the public is good. More specific conservation challenges will be addressed below.

3.2.1. Hieroglyphic Stairway

The Hieroglyphic Stairway is one of the attributes that sustain the Outstanding Universal Value of the archaeological site of Copan. For that reason its conservation is of utmost importance. Since its rediscovery in 1885, the stairway has suffered deterioration due to climatic, biotic and anthropogenic factors. To reduce these impacts, the stairway was covered in 1985 with a tarpaulin that initially was conceived as temporary protection during the rainy season, but became permanent. Furthermore, visitor access to the stairway was restricted over the years and is now absolutely prohibited. The State Party reports (IHAH 2011:2) that the steps are constantly monitored by trained staff and Harvard University has been 3D scanning the whole stairway over the last three years in order to keep record of its state of conservation.

In order to avoid further deterioration, in 1999 the Getty Conservation Institute started an investigation project that lasted until 2006 and concluded in a report that gives recommendations on how to further improve the conservation efforts. One of the main points in that report concerned the tarpaulin cover. In order to improve ventilation and visibility of the stairway from below, the State Party decided to exchange the tarpaulin for a new form of cover. The Santander Programme for the Conservation and Investigation of Maya Sculpture (*Programa Santander para la Conservación e Investigación de la Escultura Maya*) was established in 2010 in the David Rockefeller Centre for Latin American Studies (DRCLAS) of Harvard University, financed by a five year donation from Santander Bank and the Botín Foundation (see **Annex IX**). In the framework of this programme and in collaboration with IHAH and the Rizzi Architecture Studio, the “Velas” (*Sails*) model was selected from the GCI proposals (GCI and IHAH 2006) and a 1:5 model prototype installed (February 2011) on a building of the Sepulturas residential area (Structure 9N-83) with similar characteristics and orientation to the Hieroglyphic Stairway (**Image 5**).

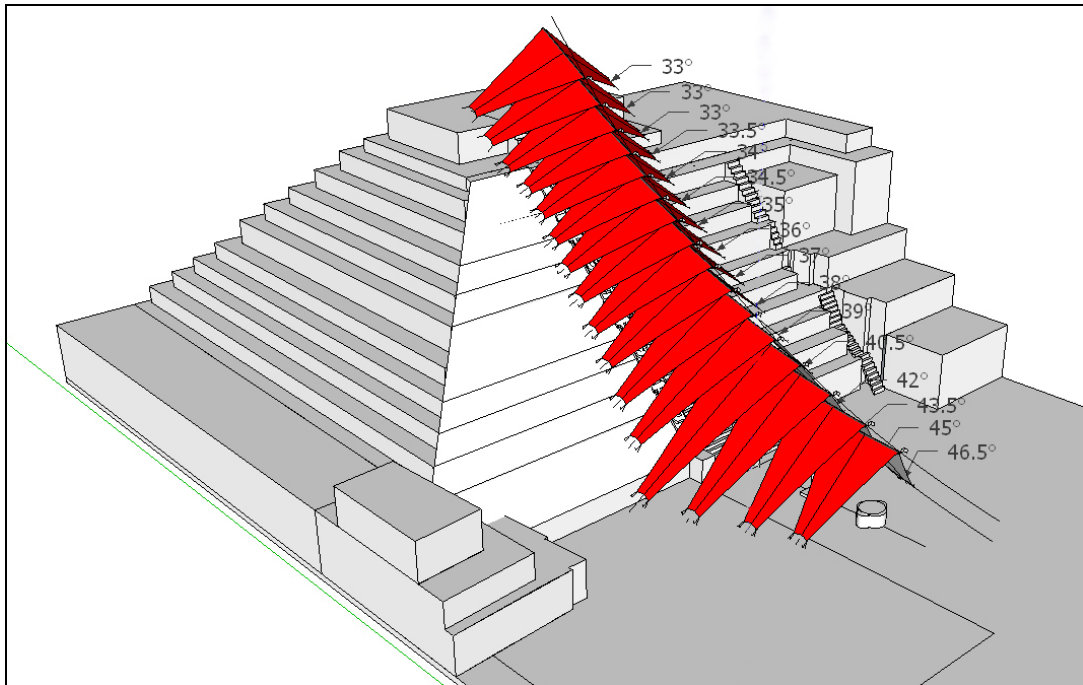


Image 5. The design of the experimental cover (Fash and Fash 2011).

The experimental shelter uses four different materials for a one year period, during which environmental monitoring (temperature and humidity) is conducted. After the study period the Programme will evaluate the results with IHAH in order to determine if a 1:1 scale version can replace the tarp now covering the Hieroglyphic Stairway in the Archaeological Park's Principal Group of ruins. At the end of the test period a decision concerning the material (Canvas, PVC, ATEX or Acrylic are being tested) and colour (tan, white, cream, light grey and red are being tested) of the tarpaulin will have to be made. The shelter and bases at Structure 9N-83 of the Sepulturas residential area will be de-installed at the end of the study period. All modifications are reversible (Fash and Fash 2011:5).

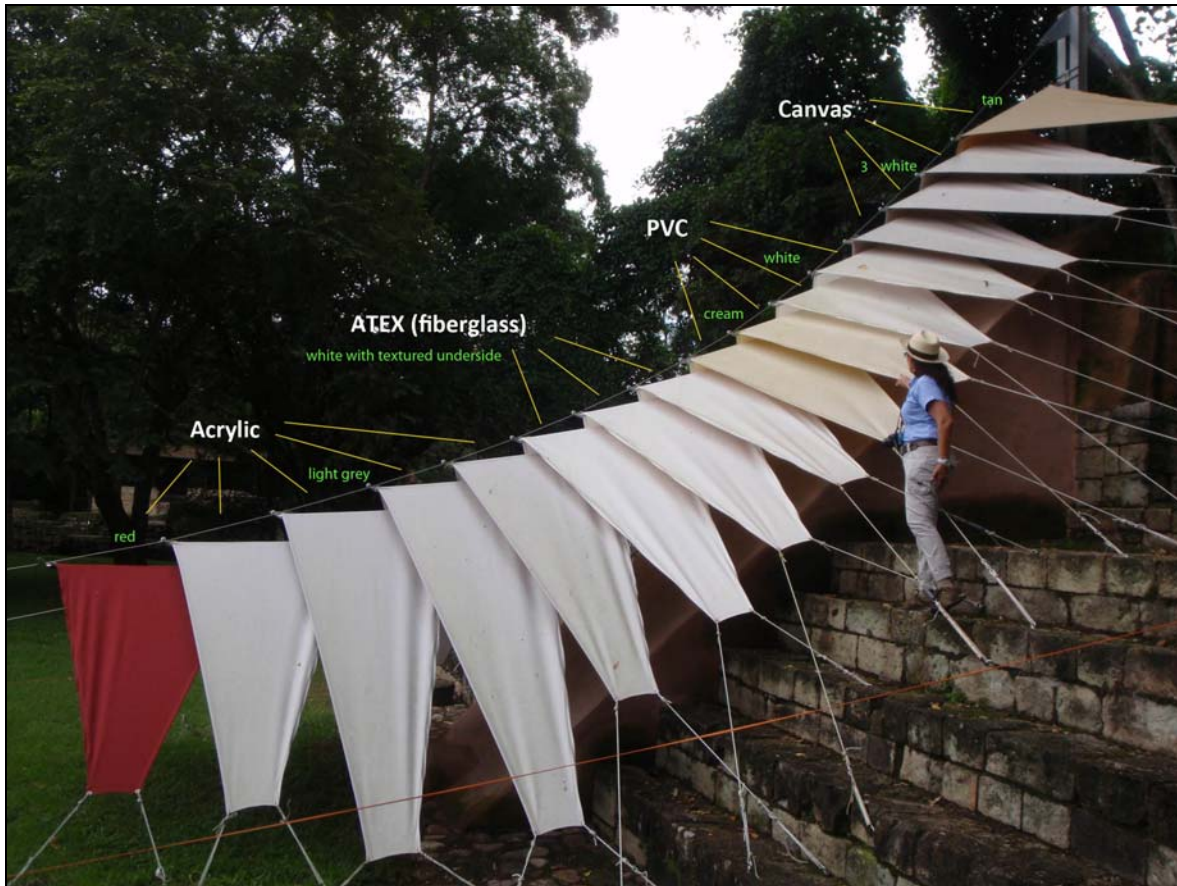


Image 6. The experimental scale model of the cover of the Hieroglyphic Stairway (Fash and Fash 2011).

In general terms it can be said that a preliminary revision of the situation at the experimental cover by Dr. Valentín in April 2011 indicated that a “notable decrease in the environmental contamination could be observed” (Valentin 2011:10, included in Fash and Fash 2011).

While the results of the analysis of the experimental scale model (**Image 6**) will give important information on the effectiveness of the design, it seems necessary to discuss the way the “sails” are fixed to the prehispanic building: (a) the amount of perforations necessary and (b) the potential for severe damage to the original building in case of strong winds.

Recommendations:

- Document and publish the results of the conservation experiment with the scale model of the protective shelter.
- Before making a final decision, review the possible impact of the “sail” fixtures on the prehispanic building, especially in case of strong winds.
- Submit for review to the World Heritage Centre and the Advisory Bodies, the final proposal for the protective shelter, with a detailed analysis of all options and precise technical specifications prior to fabrication or installation.

3.2.2. Sculptures

The investigation of sculptures and their conservation is one of the main focuses of the work at Copan. The reassembly facilities for monumental sculpture at the CRIA and a 3D scanning project for sculptural elements are expressions of these efforts. In the 1993 Decision (17 COM X-SOC), the Committee stated that the “original sculptures will be placed in a site museum and the replicas on the original sites”. However, not all sculptures have been moved to the museum. According to site personnel, no clearly stated criteria exists for deciding which sculptures will be moved and which will be left in their original position. Those left on-site are being protected by roofs from direct sunlight and rain. Extensive experimentation over the years with the roof constructions have led to the use of metal roofs. Together with the University of Harvard, the search for new designs is being continued.

At the same time it would also be useful to review the selection criteria for roofing and the construction details (e.g. rain-water run-off) of buildings, for example at Las Sepulturas.

While at the site the mentioned selection criteria are probably clearly understood, the collection and publication of the experiences, for example in the framework of the Management Plan, can feed into an international discussion of these issues.

Recommendations:

- Clearly formulate criteria for the decision making process for the potential transfer of sculptures from the site to the museum.
- Document the selection process for the roofing materials and construction for sculptures that will remain *in situ*.

3.2.3. Tunnels

Archaeological excavations at Copan traversed the Acropolis with eight tunnels (four of them north-south and four east-west) with a total length of approximately six kilometres. The tunnels permitted the archaeological exploration of older building stages of the acropolis without having to demolish the latest stages. The tunnels make it possible, for example, to see the stuccoed polychrome facade of the *Rosalila* building (**Image 7**). Other buildings visible through the tunnels are *Oropéndola*, *Ani*, *Ante*, *Margarita*, *Papagayo* and *Chorcha*. Today, visitors are permitted access to two of the tunnels, but are separated by windows from the fragile facades (**Image 8**). Some of these windows have cracks and, according to members of the *Asociación Copán*, are about to be replaced.



Image 7. Rosalila facade



Image 8. Window in the tunnel

According to members of the *Asociación Copán*, the temperature and humidity in the tunnels is very stable, aiding the conservation of the stucco reliefs. Although some monitoring of temperature has been done, there is no formal or documented monitoring work being done. The treatment of the stucco mask at Rosalila with 70% ethanol has proven to be adequate for the protection of the surfaces. The fact that the stuccoed facades have not suffered any visible damage (cracks, missing parts etc.) seems to support these statements. However, the analyses of the air in the Rosalila tunnels (Valentín 2011:26-27, in Fash and Fash 2011) have indicated a very high microbial (e.g. *Aspergillus flavus* and *Aspergillus niger*) content that poses a serious threat for the conservation of the heritage elements in the tunnels, and a potential threat for the health of the persons entering the tunnels. Although it can be assumed that the presence of visitors in some of the tunnels complicates the situation even further, no difference between the tunnels open to visitors and those not included in the visitor circuit could be detected as yet, due to the very high presence of contaminants in both types of tunnels.

A further problem is filtration of rainwater and the formation of dripping leaks that increase the humidity in the tunnels, can physically damage the stucco surfaces, and in the worst case jeopardize the stability of the tunnels themselves. The heavy rains in 2010 made it very clear that the problem had to be faced in some way. In the latest report the State Party stated that “over the last three years, a programme of maintenance has been observed on a case-by-case basis and structural stabilizations have been carried out in some tunnels by the construction of masonry arches. Regular inspections (at least once a week) are performed to detect any collapse of material and repair the damage immediately” (IHAH 2011:3). During the site visit, the members of the mission were informed that more than 70% of the tunnels have already been consolidated.

A further problem detected in the tunnels is the growth of greenish mould on the surfaces near the light-bulbs (**Image 9**). A change to low wattage light bulbs has reduced the problem, but not eradicated it entirely. A preliminary recommendation is the use of LED lights and motion detectors to reduce the time of illumination (Valentín 2011:27, in Fash and Fash 2011).



Image 9. Greenish mould on the tunnel surface

The work in the tunnels is ongoing and complemented by the impermeabilisation of the floor and building surfaces of the acropolis (see **Annex X**). The *Asociación Copán* (2011) mentions advances in its report of the month of October on the *Project for the*

Consolidation and Impermeabilisation of the Vulnerable Areas of the Copan Acropolis (CIAVAC). The project forms part of the *National Programme for Sustainable Tourism (PNTS)* of the Honduran Institute for Tourism (IHT) and was financed with funds from the Inter-American Development Bank (IDB). The unconsolidated building surfaces are covered with a mortar “membrane” avoiding surface erosion and infiltration of rainwater. Building surfaces that were covered with stucco in pre-Hispanic times are also covered with a stucco “membrane” that is repeatedly polished. The total area to be covered is 3637.2 m².

Although the water proofing of the Acropolis is not as yet finalized, the tunnels at the *Rosalila* building have no more leaks. This was stated by park personnel and verified during the site visit.

Recommendations:

Develop an action plan for the conservation and maintenance of the tunnels that should include, but not be limited to, the following basic issues:

- Complete the water proofing and stabilization works.
- Install a formal and permanent monitoring system in the tunnels that includes at least the measuring of the stability of the tunnels, quantity of water filtrations, air quality, the state of conservation of the facades and biological growth on the tunnel walls. This monitoring system should provide the basis for decision making regarding conservation and maintenance actions.
- Equip the tunnels with a ventilation system to improve air circulation, as has been identified in studies undertaken.
- Install LED illumination with movement sensors to reduce the time of illumination in the tunnels.
- Substitute all damaged windows in the tunnels.
- The development of a carrying capacity study for visits to the interior of the tunnels.

3.2.4. Floodwalls at Las Sepulturas

At the Las Sepulturas residential area, inundations by the Copan River have caused destruction in the Archaeological Park in the past. An IDB financed project (IAHAH 2011:6) focused on the maintenance and reinforcement of the floodwalls at Las Sepulturas (**Image 10**). However, some areas along the river are considered to be still inadequately protected (**Image 11**).



Image 10. Floodwalls at Las Sepulturas



Image 11. Missing floodwalls along the river

Recommendations:

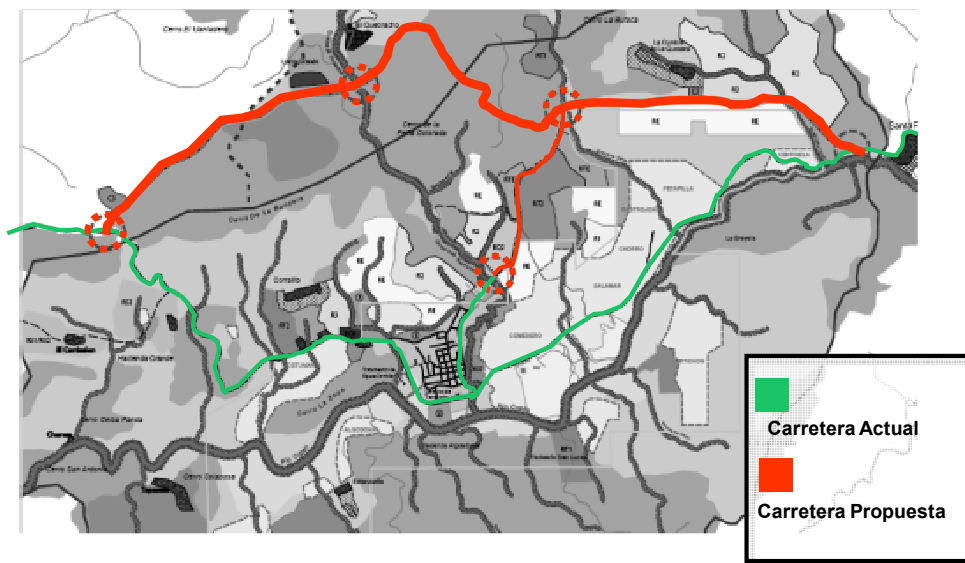
- Permanently monitor and record the water levels of the river and the shifts of the river bed.
- Identify areas not adequately protected and finalize the construction of the new floodwalls.

3.2.5. La Estanzuela and a “no-fly-zone” over Copan

According to personnel of the Archaeological Park the La Estanzuela airstrip is not used anymore and a no-fly-zone is already installed over Copan. During the mission, no airplanes were seen or heard in the region. Furthermore, a letter from the Department of Civil Aviation to the Honduran Institute of Tourism, dated 24 October 2005, states that the no-fly-zone was made effective on 29 September 2005 (**Annex XI**). This effectively cancelled flight operations at La Estanzuela. However, the exclusion of La Estanzuela from the administrative aviation register was still outstanding. During the mission no further information could be gathered on this issue.

3.2.6. Highway CA-11

The Highway CA -11 passes directly by the limits of the World Heritage site, through an area that is proposed to be included in the buffer zone. A recent improvement of the road that leads directly to the Guatemalan border has caused an increase of the traffic flow. Especially the motor breaks of heavy trucks can be heard throughout large parts of the valley. A project to remove the main traffic flow of the highway away from the site (Proyecto de Ampliación y Seguimiento al PDRVC 2007:9, see **Map 1**) has not reached implementation.



Map 1. Project for the relocation of highway CA-11
(PPT Proyecto de Ampliación y Seguimiento al PDRVC n.d.)

Recommendations:

- Analyze the traffic intensity, vibrations and noise levels of the Highway CA-11 and submit a report by November 2012, if possible, to the World Heritage Centre.

- Investigate the viability of moving the main traffic away from the World Heritage property.

3.2.7. The Site Museum

During the last reactive monitoring mission to Copán, issues were raised concerning damage to the roof structure of the Site Museum. The issues were addressed by the State Party and no damages were visible during the latest site visit.

3.3. Aerodrome at Rio Amarillo

The search for a construction site of an airport / aerodrome near the archaeological site of Copan was initiated in 2003, when the State Party invited the “joint UNESCO-ICOMOS Reactive Monitoring mission to examine the impact of proposed development of the airstrip at the archaeological property of Copán and possible alternatives” (WHC Decision 27COM 7B.93). The mission found that La Estanzuela “does not comply with ICAO standards and cannot operate commercial aircraft” (UNESCO-ICOMOS 2003:16). Concerning the proposed alternative site of Rio Amarillo, the mission expressed safety concerns, principally based on the topography of the site, and mentioned the presence of archaeological remains as an argument against the construction of the aerodrome. At the same time the mission members suggested that the site of La Entrada should not be excluded from the discussion exclusively, based on the distance from the World Heritage site (UNESCO-ICOMOS 2003). A further ICOMOS mission in 2005 ratified the findings of the first mission and recommended to reconsider the construction of an aerodrome at Rio Amarillo, to a large degree based on the archaeological potential of the site. The State Party respected the request by the World Heritage Committee “to conduct previously [to any construction] an environmental impact study examining the impact on the archaeological remains, as well as a comprehensive Public Use Plan for the World Heritage property to mitigate any negative effects that could occur at the World Heritage property of Copan as a result of the foreseen tourist development and to submit this Plan to the World Heritage Centre for consultation” (WHC Decision 29 COM 7B.90).

The ensuing discussion in Honduras focused principally on the feasibility of Rio Amarillo, La Entrada and Concepción. However, according to Honduran government officials the discussion had notes of regional competition that eclipsed other arguments. In order to refocus that discussion on technical issues, the State Party took the decision to build two aerodromes, one in Concepción and the other in Rio Amarillo. The argument against Concepción as airport for the archaeological site of Copan is the need to build a road that, due to the difficult topography, is estimated to have a cost that surpasses 20 million. USD (La Tribuna, 08/02/2011, see **Annex XII**).

Following these decisions, the State Party invited the present UNESCO-ICOMOS mission to evaluate the latest information on the Rio Amarillo site in order to reach a decision.

3.3.1. Socialization of the Rio Amarillo Aerodrome Project

During 2004 and 2005, the State Party conducted various activities in order to disseminate information on the Rio Amarillo Aerodrome Project among the local stakeholders, and to collect their input (see **Annex XIII**). While during some of these events doubts concerning the impartiality of government funded impact assessments was expressed, there seemed

to be general support for the project on the condition that technical recommendations by national or international experts are closely followed. Unanimous support for the project was also expressed during the meeting with local representatives (**Annex XIV**) organized in the framework of this mission. It was also important to see that the participants had a realistic appreciation of the possibilities and limitations of the project (e.g. small airplanes, relatively low flight frequency, limited operation routes, etc.).

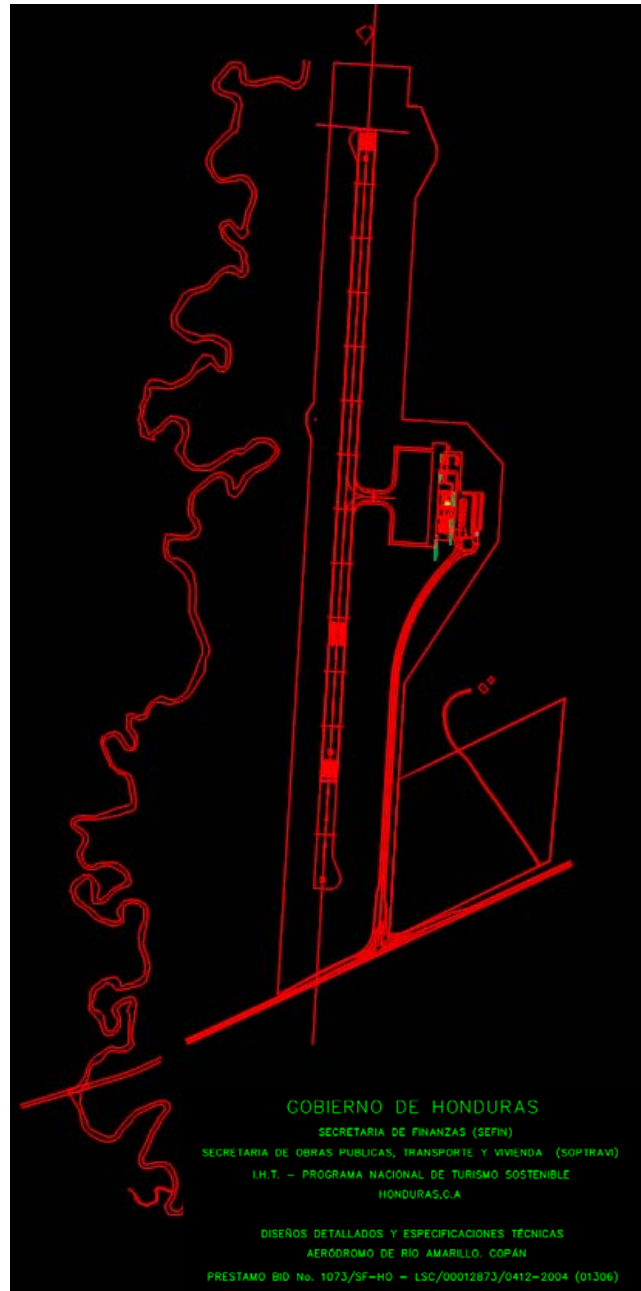
3.3.2. Technical assessment of the project's viability

The Rio Amarillo Valley is located in the Santa Rita municipality, nearly 17 km to the east of the archaeological zone of Copan. The valley is naturally irrigated and the low lying parts tend to get flooded during the rainy season. The valley is flat and has a slight inclination towards the north (Cruz 2003:1).

Considering the orography and the available terrain with the existing obstacles (see **Image 12**), the design and construction of a medium size airport (**Plan 2**), is allowed, with strictly visual and day operations (VMC/VFR), for two engines turboprop airplanes, with a capacity of 30 to 50 passengers. Due to this consideration, the critical or design aircraft recommended for this airport is the regional aircraft ATR42—500, that offers a combination of high overall performance and comfort unmatched in its class, while keeping the competitive cost—efficiency, which are the brand image of ATR aircraft. This airplane has a good performance on demanding airfields with short and narrow runways, hot and high airports worldwide (see **Annex XV**).



Image 12. Area foreseen for the construction of the aerodrome at Rio Amarillo (N. Schulze).



Plan 2. Plan of the basic aerodrome installations

The basic technical specifications and characteristics for the Aerodrome, in the Airside or Movement Area, are: Runway orientation/designation: 18-36 (north-south magnetic) (180° — 360° magnetic) Runway length: 1,200m (see Annex XVI) Runway width: 30m (runway shoulders are not required). Recommended width of the safety strip: 75m on both sides from runway centreline [recommended by the Annex 14 (ICAO), for visual flight runway, for code number 3 or 4. In this case, because there is sufficient land on both sides, it is convenient or advisable to construct a runway strip of 150 m total width]. A very important issue is to consider the design and construction of the “runway end safety areas” (RESAs), recommended by the ICAO (Annex 14). These areas require 150 more meters, at every end, from runway threshold. [Minimum RESA of 90m x 60m, beyond the safety strip]. Pavement: flexible. Design aircraft: ATR42—500 (Seating capacity: 48 passengers).

Aerodrome Reference Code: 2C (Not Code 2B, as considered in the original project). Another recommendation is to construct two taxiways, connecting the commercial apron for 3 aircraft positions, and a ramp or apron for General Aviation (all the apron positions considered for own thrust departure). In the first stages of operation the need for aircraft refuelling at the airport is not considered. (No fuel charge at this airport). The airport elevation, considering the highest point of the proposed runway (north threshold—18 threshold), is 711 m (2,333 ft), above mean sea level. The available land for the airport project is noticeably plain. The minimum recommended airport total area is about 50 hectares (50 ha) [500,000 m²]. In relation with the Dimensions and Slopes of Obstacle Limitation Surfaces—Approach runways (Annex 14—Volume 1/ICAO), we can define, for Runway Classification/Non-instrument, Code number 2:

Approach surface:

- Length of inner edge 80 m
- Distance from threshold 60 m
- Divergence (each side) 10 %
- Length (first section only) 2500 m
- Slope 4% (1:25)

Transitional surface:

- Slope 20 % (1:5)

Inner Horizontal surface:

- Height 45 m
- Radius 2500 m

Conical surface:

- Slope 5% (1:20)
- Height 55 m (Total maximum height over runway elevation: 100 m)

Runways Meant for Take-off

Take-off Climb surface (Code number 2):

- Length of inner edge 80 m
- Distance from runway end 60 m
- Divergence (each side) 10%
- Final width 580 m
- Length 2500 m
- Slope 4% (1:25)

Note: The DGAC of Honduras must verify the problem of natural and artificial obstacles, with respect to these Obstacle Limitation Surfaces, considering approach and landing runway and take-off climb, and establish the appropriate restrictions. In the particular case of Río Amarillo, the observation of the predominant winds (from the north), determine that the preferential runway for landings and take-offs is going to be the 36 (north direction/magnetic course 360°). In the take—off operation from runway 36 (to north), after the initial climb, the take—off climb surface intended track must include a change of heading of 15° to the right, because of the hill almost in front of the climb path.

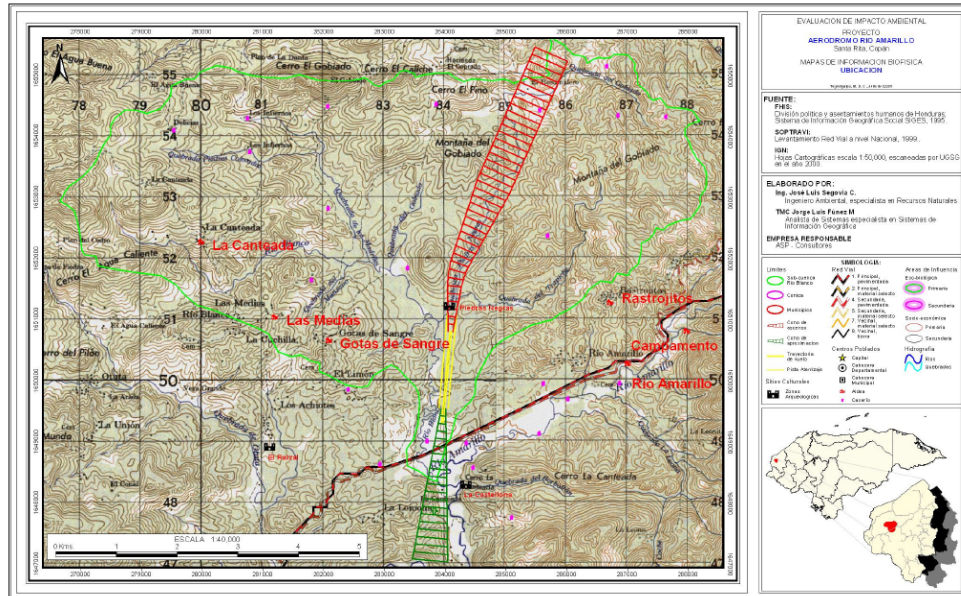
Considering that the Honduran authorities of the DGAC have many studies related to the Río Amarillo airport project, the recommendation is to revise all the documents, particularly the Environmental Impact Assessment Study, in order to update the information and take the appropriate measures to mitigate the impacts. Considering the complexity of the orography surrounding the Río Amarillo Valley, it is not possible to think to establish an instrument flight procedures for the airport (all the operation will be strictly visual—VMC/VFR—and only during daylight). So, in case of installation of a radio aid, would be exclusively to support location and descent to the airport, with a VOR (Very high frequency Omni directional radio Range) installed probably at the top of a near hill, outside the airport boundaries.

To conclude, from the technical point of view, the planning, design and construction of an airport of this scale (as submitted to the mission) and for the type of operations specified, is feasible at the Río Amarillo Site.

3.3.3. Impact on the World Heritage site of Copan

Given the distance to the archaeological World Heritage site of Copán and the future flight paths of the aircraft operating at Río Amarillo airport (in the south to north preferential path, see **Map 2**), there should not be any concerns related to noise, vibration or the improbable and unlikely event of an airplane accident, near to or over the valuable structures of the Copan Archaeological Park and its facilities, therefore the World Heritage property would be free of possible danger.

However, although no direct impact on the Outstanding Universal Value of the World Heritage site is to be expected, possible indirect effects have to be taken into account. Visitor numbers have been declining from 2006 to 2010 by 40 % (IHAH 2011:15), probably partially due to the political situation in the country (IHAH 2011:1). However, with the improvement of the national situation, it is to be expected that visitor numbers will rise again quickly, particularly if tourists have the possibility to fly directly to Copan. The Public Use Plan, in preparation at the moment, has to include clear information on the carrying capacity of the site, and the total number of visitors per day has to be limited in order not to endanger the site's value or diminish the quality of the visitor experience in the future.



Map 2. Location of the project (ASP Consultores 2006, Mapa V. 1, page 15).

Local development planning for areas near the site – for example along Highway CA -11 leading to the archaeological site of Copan and in the town of Copan Ruinas itself – has to foresee these possible developments, and rules and regulations have to be strictly applied. This can only be achieved in close cooperation with the local stakeholders and at all levels of government.

Recommendations:

The indirect impact of the aerodrome at Rio Amarillo on the World Heritage site of Copán can only be controlled if the following recommendations already mentioned in Chapter 3.1.1 are respected:

- Define the carrying capacity of the archaeological site of Copan.
- Limit the number of visitors per day in accordance to the results from the carrying capacity studies.
- Finalize the Public Use Plan and coordinate the document with local and regional territorial planning instruments.

3.3.4. Environmental and heritage impact at Rio Amarillo

Two important sites are located in the Rio Amarillo valley: Río Amarillo, also called La Castellona or La Canteada (category IV) in the southern part of the valley, and Piedras Negras (category III, also categorized as III-IV) in the northern section of the valley (Cruz 2003:1). Archaeological investigations in the area had started in the 1970's, but were normally limited to surface surveys (Freter 1988, Gonlin 1993, Fash 1983, Canuto 1996, Phal 1977). From 1994 to 1997 William Saturno from Harvard University excavated test pits and elaborated a topographic map of the Río Amarillo archaeological site (Saturno 1994).

In 2003 the archaeologist Oscar Neil Cruz conducted a survey in the area projected for the runway of the Aerodrome in the Río Amarillo valley (ARA Phase I), in order to verify if any archaeological remains would be affected by the construction (Cruz 2003). The

investigation focused on a strip 100m wide and 2000m long. More than 700 test pits (1.0m x 1.0m) were excavated at 20m intervals in five lines separated by 20m, reaching a maximum depth of 1.0m (Cruz 2003, IHAH 2004:8).

In the evaluation of the survey it was concluded that the archaeological site of Piedras Negras (category III-IV) was located in the survey zone, between 1650m and 1850m measured from the beginning of the surveyed area near the highway. The Complexes “B” and “A” – the latter the largest and most important of the site – are located at between 1750m and 1850m approximately, while Complex “C” is situated at around 1650m. The recommendation of the report is to shorten the runway to 1600m in order to protect the site for future investigation. The report furthermore suggests analyzing the possible impact of the vibrations from the take off and landing of planes and the aerodrome operations on the archaeological vestiges (Cruz 2003:16-17).



Image 13. Rio Amarillo / Rio Blanco. Approx. 960m from the highway, looking south (N. Schulze).

During the second phase of the archaeological project, follow-up was given to the finds of the first phase of the project: (a) the three structures RAS-S-24 (coordinates UTM N1648983, E283948, N1649017 E 283948), belonging to a single non-stratified occupation at the beginning of the investigated area, were excavated extensively; (b) a lithics workshop was identified, registered and salvaged (coordinates UTM N 1649932 E 284043); (c) the site ARA-Rio Blanco-01 was identified, registered, surveyed and its limits established. The site was found at the distance of 960m from the beginning of the survey area and 80m to the east of the projected runway (coordinates UTM N 1649928 E 283953). The finds indicate a settlement pattern focusing on low elevations. The lower lying areas of the valley are prone to inundation and no indication of settlement or agricultural uses were identified. In this context it was concluded by the investigating archaeologists that a runway of 1200m would be feasible (IHAH 2004:93-94).

The main site in the survey area, Piedras Negras, is not directly affected by the runway construction, if the latter is limited to the 1200m, as suggested in the report of the second phase of the archaeological survey. This suggests that the site would maintain its present scientific value – even in case of the construction of the aerodrome – and that it can be excavated at a later point. Currently there is a modern dwelling right beside the main platform of Complex “A” and a modern path cuts the western part of the site. (**Image 14**).



Image 14. Piedras Negras: view from main platform (N.Schulze)

The same sort of treatment as suggested for Piedras Negras – physical protection now for excavation at a later date – can be considered for the Rio Blanco site. If its protection during the construction phase cannot be guaranteed, an excavation before the start of the activities, as recommended in the ASP Environmental Impact Study (ASP Consultores 2005:335) should be considered.

However, the systematic survey described above only focuses on the area covered by the projected runway. The areas for future aerodrome infrastructure and the access-ways of the 50ha facilities have not received the same treatment yet.

In conclusion, of the two survey reports it can be said that they suggest that the construction of the aerodrome is possible if certain parameters are respected. The ASP Environmental Impact Study reaches the same conclusion and gives a number of recommendations that include activities before, during and after construction (ASP Consultores 2005:335-336). These recommendations are reproduced here with some changes.

Recommendations:

Whereas the projected construction site is 17km from the World Heritage property, and no direct impact on its Outstanding Universal Value is to be expected, the wider cultural and natural setting of the inscribed site - from which it draws some of its significance and which is protected by national law (see Appendix VI) - will be affected.

Should the State Party decide to proceed with the construction of an aerodrome, the construction should be as limited as possible and comply with recommendations for mitigating actions mentioned in this document and in the impact assessment studies.

The following specific recommendations made here elaborate on those made in the environmental impact assessment (ASP Consultores 2005:335-336):

First stage - 6 months before construction:

- Survey and, if necessary excavate, the deposits of raw-materials used for construction of the sites.
- Construct a collection centre for archaeological materials.

- Preventively excavate the site ARA-Rio Blanco-01 if protection cannot be guaranteed.
- Clean and stabilize Complex “C” of Piedras Negras.
- Conduct an intensive surface survey of the entire area of the projected aerodrome, following the same methodology developed for ARA I and II.
- Delimit a protection area for the site of Piedras Negras, and define an exclusion zone for construction machinery near Complex “C”.

Second stage - during construction:

- Regulate to prevent looting
- Conduct a cultural education campaign on heritage for the construction workers and local population.
- Supervise all construction activities at the site through a qualified IHAH team.

Third stage - operation:

- Include Rio Amarillo (archaeological site and aerodrome) in all instruments of territorial planning.
- Monitor the vibrations caused by the aircraft at the sites of Rio Amarillo and Piedras Negras.
- Develop a regional Public Use Plan to include Rio Amarillo and Copan.

3.3.5. Management of archaeological heritage at Rio Amarillo

The State Party noted in its State of Conservation Report of 2011 (IHAH 2011:6-7) that the Management Plan for Rio Amarillo was finalized in December 2005 and its recommendations for conservation are being implemented. The members of the mission could observe that the main structures of the site are restored and the river has been diverted and a retaining wall built to preserve the integrity of the site from the action of the Borbollon stream. The road that went straight through the archaeological site to La Castellona was relocated outside the site boundaries. A fence was erected around the archaeological park for its protection and a visitor centre was constructed at about 200 meters from the entrance to the site, on the road that leads from the Highway CA -11 to the site. The Centre was officially handed over to IHAH in November 2011, but no museum exhibitions had been installed and the site had not been opened to the public.

The existing management plan states clearly the basic management goals, some of which have already been reached. For that reason it would be useful to update the plan, taking into account the latest developments, and making the plan more operational. Local communities are mentioned as important stakeholders, but the existing management plan does not state clearly what type of involvement is foreseen. However, the public use section of the management plan is currently under review for amplification, particularly the interpretive programme, and for a proper articulation with the Public Use Plan of the Archaeological Park of Copan (IHAH 2011:7). This integration should be foreseen from the earliest stages of planning.

Recommendations:

- Update the existing Management Plan and define the role of all stakeholders.
- Integrate the management considerations for Rio Amarillo in all local and regional planning tools.

- Secure funding for the conservation and operation of the site and its Visitor Centre.

3.4. Review whether the values on the basis of which the property was inscribed on the World Heritage List are being maintained

The outstanding universal values, for which the Maya site of Copan was inscribed on the World Heritage List, are centred on the historic value of the Hieroglyphic Stairway and the characteristic architecture of the site. They are being maintained through constant conservation and protection efforts. The investigation of the site and its architecture and sculpture, for example the elaboration of 3D scans of the steps of the Hieroglyphic Stairway, also contributes to the maintenance of these values.

3. Conclusions

The visit of the archaeological site of Copan and the detailed study of the available documentation showed that much work is being done at the property in terms of conservation, investigation and presentation. The collaboration of the Honduran Institute of Anthropology and History (IAHA) with the local *Asociación Copán*, the inclusion of foreign investigators in the research agenda, as well as the capacity to secure funds for research, conservation and presentation can be highlighted as parts of an adequate management system. Nevertheless, the site has been on the agenda of the Committee's discussions for its State of Conservation for several years. Some of the points under discussion are directly connected to a lack of systematic and documented monitoring. While there are separate projects that generate monitoring data, this data is not centrally collected to form the basis of management decisions. The State Party is currently updating the Management Plan and integrating a Public Use and Risk Management Plan. This should be used as an opportunity to formalize the documentation of monitoring and management practices. It is strongly suggested to make as much use as possible of local resources and experience during the formulation of the management tools.

During the reactive monitoring mission, the State Party made it very evident that resolving the question concerning the construction of an aerodrome in Rio Amarillo was a priority. The project aims to develop tourism at the World Heritage site of Copan and in the region. The two points under discussion here are the direct impact of the construction and the indirect impact of tourism development on the World Heritage site. Whereas the projected construction site is 17km from the World Heritage property and no direct impact on its Outstanding Universal Value is to be expected, the wider cultural and natural setting of the inscribed site - from which it draws some of its significance and which is protected by national law (see Appendix VI) - will be affected.

The State Party has produced a series of environmental impact assessments and planning documents (ASP Consultores 2005, 2006, TYPASA 2005) and conducted archaeological surveys at Rio Amarillo (Cruz Castillo 2003, IAHA 2004) that have responded to most of the concerns expressed in the Committee recommendations (see below), which focused on the lack of information concerning the state of planning of the aerodrome and the assessments of the impacts of its construction and operation. No specific Heritage Impact Assessment has been produced.

If the State Party decides to proceed with the construction of an aerodrome, the construction needs to be as limited as possible and comply with recommendations for mitigating actions mentioned in this document and in the impact assessment studies.

Nonetheless, while tourism development is legitimate and can be useful to potentially generate funds for the site and income for the local population, it is important to define clear limits for this development. These limits have to be enforced within the framework of a coherent territorial planning and management strategy. The management tools, in particular the Public Use Plan, which are being developed for Copan, therefore, should have a clearly regional vision. While the Maya Site of Copan is the main attraction for tourism in the area, it is the cultural and natural integrity of the region that sustains the heritage values and will make tourists want to stay beyond the visit to the World Heritage site.

In order to increase the capacity of the State Party to investigate, protect, conserve and present its cultural heritage, the final general recommendation of this mission is to strengthen the on-site capacity building in Copan and aim for the development of a national university degree programme in archaeology.

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WHC-35 COM 8B.59
WHC-11/35 COM-INF8B1-Adde
WHC-33 COM 7B.137
WHC-35 COM 7B.126
WHC-27 COM 7B.93
WHC-17 COM X
WHC-29 COM 7B.90
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6. ANNEXES

Annex I Terms of reference

1. Assess the current state of conservation of the World Heritage property, and any potential threats to its Outstanding Universal Value, integrity and authenticity. In particular, the assessments shall focus on:

- a. the state of conservation of the three zones of the property (Copan, El Bosque and Las Sepulturas), with a focus on the archaeological features as well as any other attributes that convey the Outstanding Universal Value of the property;
- b. the conservation interventions that have been implemented for the stabilization of the archaeological tunnels and the monitoring of the results, as well as the impact of the heavy rains in 2010 on the conservation of the tunnels;
- c. the evaluation of proposed conservation measures and detailed architectural proposals for a new protective shelter for the hieroglyphic stairway;
- d. the status of any development, construction, conservation or restoration project within the property and its buffer zone and its potential impact on the Outstanding Universal Value, authenticity and integrity of the property;
- e. the construction of a conservation laboratory for the sculptures, in particular with regard to its exact location, technical details of the construction, and any other relevant information; and
- f. the status of development and implementation of the management plan for the World Heritage property (including conservation guidelines and programmes, public use and risk management); and
- g. the progress made in the finalization of the cartography for the property and the definition of the buffer zone, including the proposed course of action for its formal establishment and the regulatory measures foreseen to ensure its protection and the control of development, and the formulation of recommendations for its adequate finalization within the framework of the retrospective inventory.

2. Evaluate the existing management system and decision-making mechanisms for the property, including legislative and regulatory frameworks, institutional arrangements, the involvement of the communities and existing planning and risk preparedness tools for the property; as well as the status of the planned development of a public use plan;

3. Evaluate existing resources for the sustained implementation of measures to ensure the adequate protection, conservation and management of the property;

4. Visit the site of Rio Amarillo, which is proposed for the development of an airstrip, including:

- a. Review the existing documentation for the proposed construction of an airstrip at the Rio Amarillo site, including environmental and heritage impact assessments; and
- b. Identify any potential impacts of the planned developments on the World Heritage property.

5. Hold meetings with the relevant National Authorities for the protection of natural and cultural heritage, territorial planning, tourism and civil aviation in Tegucigalpa, as well as relevant regional and local authorities; and encourage their participation in the site visits to be carried out during the mission;

6. Prepare a detailed joint report (UNESCO/ICOMOS), in English or French, for review by the World Heritage Committee at its 36th session (Saint Petersburg, 2012) with the final submission date by **30 December 2011**.

**Annex II Reactive Monitoring Mission to Maya Site of Copan (Honduras)
November 2011 - Mission Programme**

| | | |
|---------|----|--|
| 20 Nov. | | Arrival of mission in Tegucigalpa |
| 21 Nov. | AM | Briefing meeting with national level stakeholders: Representatives from the Ministries of Culture, Environment and Tourism, Instituto Hondureño de Antropología e Historia (IHAH) and the national authority responsible for Civil Aviation. Duration 2-3 hrs |
| | PM | Travel to Copan |
| 22 Nov. | AM | Visit of Maya Site of Copan World Heritage property |
| | PM | Meeting with staff of the Copan site to discuss: - planned and completed conservation interventions, in particular with reference to the hieroglyphic stairway, the archaeological tunnels, - the construction of a conservation laboratory for the sculptures, - the status of the management, public use and risk preparedness, - the progress made in the finalization of the cartography and the definition of the buffer zone and the proposed regulatory measures. |
| 23 Nov. | AM | Continued visit of the Copan site. |
| | PM | Meeting with representatives of the local communities, municipalities, CSOs, NGOs, etc |
| 24 Nov. | AM | Visit of Rio Amarillo, site proposed for the development of an airstrip Mission accompanied by representatives of Regional Government, Local Government, IHAH and other relevant authorities |
| | PM | <i>Additional time for the mission to continue with the completion of the requirements as specified in the ToRs.</i> |
| 25 Nov. | AM | Travel to Tegucigalpa |
| | PM | Debriefing with national level stakeholders: Representatives from the Ministries of Culture, Environment and Tourism, IHAH and the national authority responsible for Civil Aviation. |
| 26 Nov. | AM | <i>Additional time for the mission to continue with the completion of the requirements as specified in the ToRs.</i> |
| | PM | Departure |

Annex III Composition of mission team

Jorge Mandri y Bellot (WHC-UNESCO)
Niklas Schulze (ICOMOS)

Annex IV Decisions taken by the WHC on the State of Conservation of the site

2011 Decision – 35 COM 7B.126 - Maya Site of Copan (Honduras) (C 129)

The World Heritage Committee,

1. Having examined Document WHC-11/35.COM/7B,
2. Recalling Decision **33 COM 7B.137**, adopted at its 33rd session (Seville, 2009),
3. Acknowledges the information provided by the State Party regarding the measures implemented to address the recommendations made by the World Heritage Committee, and urges it to submit an official management plan, including provisions for public use and risk management and to secure the necessary resources to ensure its full implementation;
4. Also urges the State Party to develop and implement a comprehensive conservation programme for the tunnels and to establish conservation guidelines for interventions at the property;
5. Reiterates its concern that the site of Rio Amarillo is being considered for the construction of the airfield, in spite of previous World Heritage Committee decisions, yet acknowledges that additional information has been gathered and new studies have been produced after the 2005 reactive monitoring mission conducted by ICOMOS, which requires further analysis;
6. Accepts the State Party's invitation for a joint World Heritage Centre/ICOMOS reactive monitoring mission in 2011 to assess the state of conservation of the property and particularly review all the information produced up to this date regarding the project of building an airfield in the site of Rio Amarillo, including environmental impact assessments, and a heritage impact assessment, in order to update the analysis for consideration and review by the World Heritage Committee;
7. Requests the State Party to submit to the World Heritage Centre for review by the Advisory Bodies, in accordance with Paragraph 172 of the *Operational Guidelines*, the related technical information for the new protective shelter for the hieroglyphic stairway and for the conservation laboratory for sculptures, prior to approval and implementation;
8. Further urges the State Party to officially submit information on regulatory measures, land tenure, related cartography for the protection and management of the property and the buffer zone by **30 November 2011**;
9. Also requests the State Party to submit to the World Heritage Centre, by **1 February 2012**, a detailed report on the state of conservation of the property and on the progress made in the implementation of the above, for examination by the World Heritage Committee at its 36th session in 2012.

Decision – 35 COM 8B.59 - Cultural Properties - Examination of minor boundary modifications - Maya Site of Copan (Honduras)

The World Heritage Committee,

1. Having examined Documents WHC-11/35.COM/8B.Add and WHC-11/35.COM/INF.8B1.Add,
2. Refers the examination of the proposed buffer zone for the **Maya Site of Copan, Honduras**, back to the State Party in order to allow it to:
 - a) Re-submit map No. 1 showing the nominated property and its immediate surroundings. This map should be either topographic or cadastral, presented at a scale which is appropriate to the size in hectares of the property, include title and legend in English and bear a labelled coordinate grid,
 - b) Re-submit map No. 3 showing the proposed buffer zone and the nominated area with the same standards as the ones required for map No. 1,
 - c) Provide justification for the extent of the buffer zone, its delineation and its exact area,

d) Provide information on regulatory measures for the protection and management of the property and its buffer zone.

Decision - 33COM 7B.137 - Maya Site of Copan (Honduras) (C 129)

The World Heritage Committee,

1. Having examined Document WHC-09/33.COM/7B,
2. Recalling Decision **32 COM 7B.122**, adopted at its 32nd session (Quebec City, 2008),
3. Notes progress by the State Party in implementing the decisions of the World Heritage Committee and invites the State Party to submit further details on the implementation of the management plan and conservation interventions at the property;
4. Urges the State Party to officially submit the limits of the World Heritage property and its potential buffer zone, in light of the requirements of the retrospective inventory;
5. Requests the State Party to inform the World Heritage Centre and the Advisory Bodies on the definitive decision on the location for the construction of the airport and related tourism management issues;
6. Also requests the State Party to submit to the World Heritage Centre, by **1 February 2011**, a detailed report on the state of conservation of the property and on the progress made in the implementation of the above-mentioned recommendations, for examination by the World Heritage Committee at its 35th session in 2011.

Decision - 32COM 7B.122 - Maya Site of Copan (Honduras) (C 129)

The World Heritage Committee,

1. Having examined Document WHC-08/32.COM/7B.Add,
2. Recalling Decision **31 COM 7B.126**, adopted at its 31st session (Christchurch 2007),
3. Also recalling the recommendations of the previous monitoring missions of 1999, 2003 and 2005,
4. Notes the interest of the State Party in continuing to build an alternate airport to access the archaeological site and invites the State Party, in accordance with Paragraph 172 of the *Operational Guidelines* to submit detailed information on the definitive location and plans for construction and operations, accompanied by the official Environmental Impact Assessment and archaeological/cultural impact study from the National Institute of Anthropology and History (IHAH);
5. Encourages the State Party to finalise the management plan and to provide three printed and electronic copies of the resulting document for review by the World Heritage Centre and the Advisory Bodies, prior to its implementation;
6. Invites the State Party to also submit the management plan for the Rio Amarillo site to the World Heritage Centre and the Advisory Bodies to examine its potential articulation with the Copan management plan;
7. Requests the State Party to submit to the World Heritage Centre, by **1 February 2009**, a detailed report on the state of conservation of the property and on the progress made in the implementation of the above recommendations, for the examination by the World Heritage Committee at its 33rd session in 2009.

2006 Decision – 30 COM 7B.95 - State of Conservation (Maya Site of Copan)

The World Heritage Committee,

1. Having examined Document WHC-06/30.COM/7B,

2. Recalling Decision **29 COM 7B.90**, adopted at its 29th session (Durban, 2005),
3. Also recalling the recommendations of the previous monitoring missions of 1999, 2003 and 2005,
4. Urges the State Party not to proceed with the construction of the planned airport at Rio Amarillo Valley. The two ICOMOS missions of 2003 and 2005 based on visits to the sites and the environmental impact studies done by the Government of Honduras, as well as by independent organizations, have shown the negative impact that the construction of this airport will have on the cultural resources, the traditional social networks, the beliefs and values of the indigenous people, and the landscape. The State Party is encouraged to consult closely with the World Heritage Centre and the Advisory Bodies on the appropriate steps to be taken;
5. Requests the State Party to submit to the World Heritage Centre by **1 February 2007**, the terms of reference for conducting a Public Use Study for the management of the future Rio Amarillo Archaeological Park to complement the already existent management plan;
6. Further requests the State Party to continue monitoring the state of conservation of the Copan Hieroglyphic Stairway, based on the programme developed by the Getty Conservation Institute;
7. Requests moreover the State Party to submit to the World Heritage Centre, by **1 February 2007**, **a detailed report on the state of conservation of the property and on the progress made in the implementation of the above recommendations, for the examination by the Committee at its 31st session in 2007.**

2005 Decision - 29COM 7B.90 - Maya Site of Copan (Honduras)

The World Heritage Committee,

1. Having examined Document *WHC-05/29.COM/7B.Rev* and the *Draft Decision 29 COM 7B.90.Rev*, **29 COM 7B.90.Rev**,
2. Recalling its Decision **27 COM 7B.93**, adopted at its 27th Session (UNESCO, 2003),
3. Takes note of the decision of the State Party of Honduras to cease operations at the airstrip of La Estanzuela and to create a reserved air space over the archaeological Park of Copan;
4. Encourages the State Party to reconsider the plans for the Rio Amarillo airport facility construction in view of the archaeological importance of the Copan Valley, with a view to its possible consideration as an extension to the current World Heritage property, and to consider relocation of this airport to La Entrada (70 km away from the property);
5. Requests the State Party, in case it decides to build the airport facility in Rio Amarillo, to conduct previously an environmental impact study examining the impact on the archaeological remains, as well as a comprehensive Public Use Plan for the World Heritage property to mitigate any negative effects that could occur at the World Heritage property of Copan as a result of the foreseen tourist development and to submit this Plan to the World Heritage Centre for consultation;
6. Further requests the State Party to submit to the World Heritage Centre by **1 February 2006** a progress report, for examination by the Committee at its 30th session (Vilnius, 2006).

2004 Decision - 28COM 15B.115 - Maya Site of Copan (Honduras)

The World Heritage Committee, 1. Regrets that the State Party did not provide the requested report on the state of conservation of the property with particular reference to its decision concerning the development of a commercial airport to operate at the

archaeological site of Copán (Decision 27 COM 7B.93); 2. Reiterates its request to the State Party to provide the above-mentioned report by 1 February 2005 for consideration of the Committee at its 29th session in 2005.

2003 Decision - 27COM 7B.93 - Maya Site of Copan (Honduras)

The World Heritage Committee [56],

1. Takes note of the February 2003 joint UNESCO-ICOMOS reactive monitoring mission's findings and recommendations;
2. Expresses its appreciation to the State Party for inviting the joint UNESCO-ICOMOS Reactive Monitoring mission to examine the impact of proposed development of the airstrip at the archaeological property of Copán and possible alternatives;
3. Invites the State Party to discard plans for extension of the airstrip at Copán Ruins and follow the recommendations made by the mission;
4. Requests that the State Party submit to the World Heritage Centre by 1 February 2004 a detailed report on the state of conservation of the property with particular reference to its decision concerning the development of a commercial airport to operate at the archaeological property of Copán in order that the World Heritage Committee can examine the state of conservation of the property at its 28th session in 2004.

[56] Decision adopted without discussion.

1998 Decision - 22COM VII.42 - SOC: World Heritage Sites in Central America VII.42 World Heritage sites in Central America

The Secretariat reported that Hurricane Mitch swept over Central America during the final days of October 1998, causing heavy rains and storms and inundating important parts of Nicaragua, Honduras and El Salvador. The region has a number of World Heritage sites, including:

El Salvador: Joya de Ceren Archaeological Site

Guatemala: Tikal National Park

Antigua Guatemala

Archaeological Park and Ruins of Quirigua

Honduras: Maya site of Copan

Rio Plátano Biosphere Reserve (on the Danger List)

Nicaragua: The site of Leon Viejo, recognised by the Bureau as having World Heritage values, but not inscribed as yet.

The Secretariat informed of serious flooding in the excavated areas of the extremely fragile site of Joya de Ceren in El Salvador as well as damage to the roofs that protect the excavated structures. A request for emergency assistance for an amount of US\$ 35,000 was under consideration by the Chairperson. Serious damage was also reported to Leon Viejo in Nicaragua. During the session, the Observer of Guatemala informed that no major damage had occurred to the monuments of Tikal or Quirigua, but that flooding destroyed the infrastructure at Quirigua and had left behind a thick layer of mud in Quirigua and Antigua Guatemala. Some churches in Antigua Guatemala were also affected. No information had been obtained on the properties in Honduras.

The Committee expressed its sincere regrets and serious concern about the loss of life and destruction caused by Hurricane Mitch in the countries of Central America. It expressed its readiness to collaborate with the authorities in the States Parties concerned

in assessing damage that may have been caused to the World Heritage in the region and in taking remedial actions that may be necessary for their preservation or restoration.

The Committee requested the Secretariat to transmit the above to the States Parties concerned and to provide, jointly with the advisory bodies, a full report on the conditions of the World Heritage in the region to the twenty-third session of the Bureau.

During the examination of this matter, ICOMOS stressed the need to incorporate risk preparedness schemes in overall planning activities. It drew the attention of the Committee to the Manual for Risk Preparedness for Cultural Properties that it recently published in collaboration with ICCROM with funds provided from the World Heritage Fund.

1997 Decision - 21COM VII.C.55 - Reports on the state of conservation of cultural properties noted by the Committee VII.55

The Committee noted the decisions of the twenty-first extraordinary session of the Bureau on the following cultural properties as reflected in the report of the Bureau session, Working Documents WHC-97/CONF.208/4B Section III.C.c):

Joya de Ceren Archaeological Site (El Salvador)
Le Canal du Midi (France)
Mont-Saint-Michel and its Bay (France)
Ashanti Traditional Buildings (Ghana)
Maya Site of Copan (Honduras)
Agra Fort, Taj Mahal, Fatehpur Sikri (India)
Quseir Amra (Jordan)
Town of Luang Prabang (Lao People's Democratic Republic)
Pre-Hispanic City of Teotihuacan (Mexico)
Ilha de Mozambique (Mozambique)
Moenjodaro (Pakistan)
Baroque Churches of the Philippines (Philippines)
Old Town of Segovia and its Aqueduct (Spain)
Cultural World Heritage sites in Sri Lanka
Ancient City of Damascus (Syrian Arab Republic)
Historic Areas of Istanbul (Turkey)
Itchan Kala, Historic Centre of Bukhara (Uzbekistan)
Shibam and Zabid (Yemen).

**1993 Decision – 17 COM X - SOC: Maya Site of Copan (Honduras)
Maya Site of Copan (Honduras)**

Studies and works in Copan are generally conducted according to high scientific standards. Special attention should be paid to the conservation of stone and stuccos. The original sculptures will be placed in a site museum and the replicas on the original sites. It is recommended to redefine the boundaries of the "Copan Archaeological Park" and to prepare an extension of the site. Furthermore, the management plan for the site should be updated.

Annex V International Assistance

Number of requests Approved: 10

Total Amount Approved: 170,900 USD

| <u>ID</u> ↓ | <u>Approved Date</u> | <u>Title</u> | <u>Step</u> |
|-------------|----------------------|--|-------------|
| 1068 | February 5, 1999 | <p>Emergency measures for the protection and reconstruction of the Maya Site of Copan Decision: Approved Decision by: Chairperson Approved Amount: 43,975 USD Decision Date: Feb 5, 1999 Previous Id: 1999-045 Type: emergency Category: culture</p> | Terminated |
| 943 | March 3, 1998 | <p>Replacement of a protective canopy of the Hieroglyphic Stairway at the Maya site of Copan Decision: Approved Decision by: Chairperson Approved Amount: 5,000 USD Decision Date: Mar 3, 1998 Previous Id: 1998-083 Type: emergency Category: culture</p> | Terminated |
| 834 | January 1, 1997 | <p>C, Seminaire Copan Decision: Approved Decision by: Approved Amount: 8,800 USD Decision Date: Jan 1, 1997 Previous Id: 1997-021 Type: conservation Category: culture</p> | Terminated |
| 484 | January 1, 1990 | <p>Preservation of mural paintings recently discovered in Copan Decision: Approved Decision by: Chairperson Approved Amount: 7,000 USD Decision Date: Jan 1, 1990 Previous Id: 1990-033 Type: emergency Category: culture</p> | Terminated |
| 2101 | December 9, 1983 | <p>Equipment, consultant services and support to training activities for the conservation and development of the Maya Ruins of Copan Decision: Approved Decision by: Committee Approved Amount: 20,000 USD</p> | Terminated |

| <u>ID</u> ↓ | <u>Approved Date</u> | <u>Title</u> | <u>Step</u> |
|-------------|----------------------|--|-------------|
| | | Decision Date: Dec 9, 1983 Type: conservation Category: culture | |
| 97 | December 17, 1982 | Technical mission and equipment for Copan Ruins Decision: Approved Decision by: Committee Approved Amount: 24,050 USD Decision Date: Dec 17, 1982 Previous Id: 1982-020 Type: conservation Category: culture | Terminated |
| 100 | December 17, 1982 | Training activities foreseen in the management plan for Copan Decision: Approved Decision by: Committee Approved Amount: 28,950 USD Decision Date: Dec 17, 1982 Previous Id: 1982-023 Type: conservation Category: culture | Terminated |
| 101 | January 1, 1982 | Financial contribution to the preparation, publication and distribution of the management plan for Copan Historical Monument Decision: Approved Decision by: Chairperson Approved Amount: 3,125 USD Decision Date: Jan 1, 1982 Previous Id: 1982-024 Type: preparatory Category: culture | Terminated |
| 2092 | January 1, 1982 | 2 specialists and equipment for Copan Ruins Decision: Approved Decision by: Chairperson Approved Amount: 20,000 USD Decision Date: Jan 1, 1982 Type: conservation Category: culture | Terminated |
| 2055 | December 1, 1979 | Provision of one expert to prepare a technical co-operation request for Copan Decision: Approved Decision by: Chairperson Approved Amount: 10,000 USD Decision Date: Dec 1, 1979 Type: preparatory Category: culture | Terminated |



SECRETARIA DE ESTADO EN EL DESPACHO DE
CULTURA Y TURISMO
REPUBLICA DE HONDURAS, CENTRO AMERICA

ACUERDO No. 185

Tegucigalpa, D. C.,
24 de junio de 1982

SEÑOR MINISTRO :

Para su conocimiento y demás fines, me permito transcribir a usted, el ACUERDO No. 185, que literalmente dice:

"SECRETARIA DE ESTADO EN EL DESPACHO DE CULTURA Y TURISMO. TEGUCIGALPA, D.C., 24 de junio de 1982. ACUERDO No. 185. EL PRESIDENTE DE LA REPUBLICA,

CONSIDERANDO: Que la Constitución de la República y otras Leyes especiales establecen la obligación del estado hondureño, de velar por la defensa, conservación y preservación del Patrimonio Cultural e Histórico de la Nación.

CONSIDERANDO: Que es deber del Estado adontar las medidas legales tendientes a rescatar y conservar el Patrimonio Cultural de Honduras, así como otras medidas de emergencia orientadas a proteger las riquezas Antropológicas e Históricas para evitar su deterioro natural y la acción depredadora.

CONSIDERANDO: Que las investigaciones científicas, realizadas por el Instituto Hondureño de Antropología e Historia, han demostrado que los Yacimientos Arqueológicos diseminados en toda la zona conocida como Valle de Copán, son vastos y de interés científico.

CONSIDERANDO: Que la Ley Orgánica del Instituto Hondureño de Antropología e Historia prescribe que corresponde al Poder Ejecutivo declarar Monumento Nacional los muebles e inmuebles, cuya conservación y protección sean de interés nacional, por su valor histórico.

P O R T A N T O : A C U E R D A :

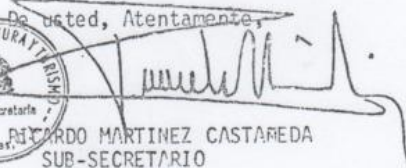
ARTICULO 1. Declarar Monumento Nacional todos los restos arqueológicos muebles e inmuebles del territorio que abarca la Zona Geográfica conocida como Valle del Río Copán y sus afluentes, desde el caserío de Los Ranchos, teniendo como punto de referencia las coordenadas 880520 de la hoja cartográfica No.2460 IV serie E752 "DULCE NOMBRE" de la Dirección General de Cartografía, hasta la Frontera con Guatemala, comprendiendo las bolsas de Río Amarillo El Jaral, Santa Rita y Copán. Se abarca de esta forma la ciudad prehispánica de Copán, con todos sus poblados tributarios, con los cuales formó una urbe socio-política.



SECRETARIA DE ESTADO EN EL DESPACHO DE
CULTURA Y TURISMO
REPUBLICA DE HONDURAS, CENTRO AMERICA

ACUERDO No. 185.

..2.,

De usted, Atentamente,

RICARDO MARTINEZ CASTAÑEDA
SUB-SECRETARIO

AL SEÑOR MINISTRO DE HACIENDA Y CREDITO PUBLICO
LICENCIADO ARTURO H. CORLETO
SU DESPACHO.

cc: Contraloría General de la República
Contaduría General de la República
Dirección General de Presupuesto
Tesorería General de la República
Administración Central
Auditoría Interna
Instituto Hondureño de Antropología e Historia
Instituto Hondureño de Turismo
Dirección General de Cultura
Diario Oficial LA GACETA
INTERESADOS
Archivo
madea.

Annex VII The Sculpture Conservation Laboratory Project (Fash and Fash 2011)

See annexed file

Annex VIII Analysis of CRIA air quality and microbiotic activity by Dr. Nieves Valentín Rodrigo (Fash and Fash 2011)

See annexed file

Annex IX Santander Programme for the Conservation and Investigation of Maya Sculpture (*Programa Santander para la Conservación e Investigación de la Escultura Maya*) (Fash and Fash 2011)

See annexed file

Annex X CIAVAC report October 2011

Proyecto de Consolidación e Impermeabilización de Áreas Vulnerables de la Acrópolis de Copán (CIAVAC)

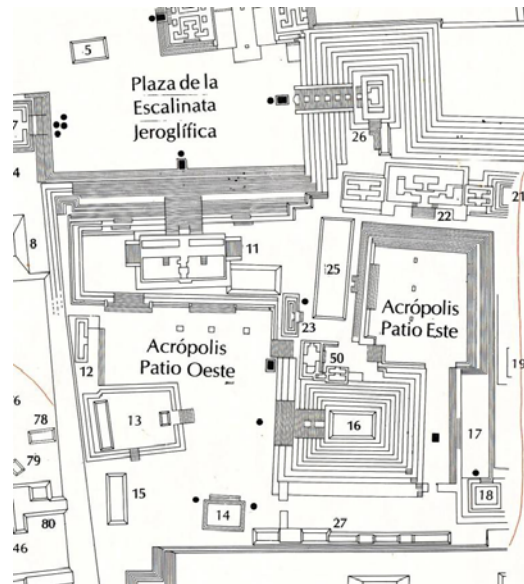
Informe de Octubre de 2011

Asociación Copán

Introducción

La Acrópolis del Grupo Principal de las Ruinas de Copán es el área de mayor visitación turística en el Parque Arqueológico de Copán e incluye los edificios más destacados de la arquitectura Maya del sitio. Estos han sido la razón principal para que el sitio fuera declarado Patrimonio Mundial de la Humanidad por la UNESCO en 1980.

En base al diagnóstico hecho a finales del 2010 por los técnicos Fernando López y Rufino Membreño del Instituto Hondureño de Antropología e Historia (IHAH), las partes más vulnerables de la Acrópolis cubren un área aproximada de 3,637.2 m² en las Estructuras 10L-16 (Templo 16/Rosalila), 10L-17, 10L-22, 10L-22A (Popol Na), y 10L-26 (Templo de la Escalinata Jeroglífica). Estas estructuras cubren la mayor parte de la Acrópolis.



La Acrópolis del Grupo Principal de las Ruinas de Copán

Las fuertes lluvias del 2010 causaron problemas de filtración y colapso en algunos de los túneles que están debajo de estas estructuras. En estos se encuentran edificios más antiguos y de enorme importancia (incluyendo a Rosalila, Oropéndola, Ani, Ante, Margarita, Papagayo y Chorchá) los cuales se encuentran bajo amenaza debido a esta situación.

A través de la intervención de estas áreas vulnerables, el Proyecto de Consolidación e Impermeabilización de Áreas Vulnerables de la Acrópolis de Copán (CIAVAC) pretende evitar más daños a estos preciosos monumentos. El proyecto utiliza técnicas de consolidación e impermeabilización experimentadas en la Acrópolis desde hace tres décadas. Estas consisten principalmente en la consolidación de superficies con mortero y estuco para crear una membrana superficial más estable y menos permeable.

El objetivo principal del proyecto es la protección de una gran parte de los edificios de la Acrópolis de Copán y de los preciosos vestigios que están enterrados en ella.

El proyecto forma parte del Programa Nacional de Turismo Sostenible (PNTS) del Instituto Hondureño de Turismo (IHT) con fondos del Banco Interamericano de Desarrollo (BID). El beneficiario es el Instituto Hondureño de Antropología e Historia (IAH) quien administra el Parque Arqueológico de Copán.

Aspectos Técnicos y Resultados del Periodo

El Proyecto CIAVAC inició sus labores el 11 de Julio de 2011 y finaliza el 10 de Enero de 2012. El presente informe corresponde al cuarto mes de trabajo (3 al 30 de Octubre). En este plazo el equipo del Proyecto CIAVAC ha estado conformado por los siguientes: Ricardo Agurcia Fasquelle, Arqueólogo Director; Isuara Nereyda Alonso, Asistente de Arqueólogo; Ramón Guerra, Asistente de Restauración; 4 Albañiles de Restauración; y 22 Jornaleros. En este periodo la Antropóloga Lizzette Soto continuó trabajando en el proyecto como voluntaria.

En este mes se terminaron los trabajos en la Estructura 10L-17 e iniciaron los de la Estructura 10L-26.



Las Estructuras 10L-17 (izquierda) y 10L-26 (derecha) antes de su Intervención

Consolidación de Superficies:

La obra ha consistido en la creación de una membrana superficial hidráulica que sirva para aligerar la evacuación de aguas lluvias. Con esto se modera la erosión de la superficie y los importantes edificios que están en ella, a la vez que se controla la filtración de agua al núcleo de la masa arquitectónica de la Acrópolis y los túneles arqueológicos que aquí se encuentran, evitando así la saturación y el riesgo de colapsos en estos. El área a cubrirse con esta consolidación según los técnicos del IHAH es de 3,207.9 m².

La membrana consiste en un mortero de tierra, cal, arena, y una poca cantidad de cemento. La misma se aplica en una capa con un espesor promedio de 10 cm. Esta es cuchareada y pulida. De acuerdo con las normas de conservación, el trabajo es totalmente reversible y tiene una vida útil de aproximadamente 10 años. Tampoco es dañina para los árboles del entorno.

Durante este cuarto mes de trabajo se han logrado consolidar 1,060.25 metros cuadrados de superficie (33% de la obra total) en las siguientes áreas: Costado Norte de la Estructura 10L-16 (Sub-Operación 6), la Plataforma 10L-17, y la Estructura 10L-26.



La Estructura 10L-17 al Final de su Intervención



Consolidación de la Estr. 10L-26 en Proceso

Estucado de Superficies:

Esta parte de la obra consiste en la creación de una membrana de estuco muy parecida a la utilizada por los mayas en el Periodo Clásico la cual se aplica solo en los lugares adonde se tiene evidencia arqueológica de su uso.

Los materiales para esta membrana de estuco son cal madura (10 días), arena fina, y ceniza. La misma es alisada y pulida repetidamente. Como esta mezcla no utiliza cemento su fraguado es más lento y lleva por lo menos tres días de cuidado. Su endurecimiento final puede tardar más de un mes. Además de crear una membrana impermeable, el estucado ayuda a evitar la exfoliación de los miembros constructivos de las escalinatas y de las superficies de las terrazas. Esta mezcla también es reversible y en su función hidráulica es similar a la del mortero evitando la filtración de agua lluvia a la masa estructural de las Acrópolis, la saturación del núcleo y el colapso de los túneles.

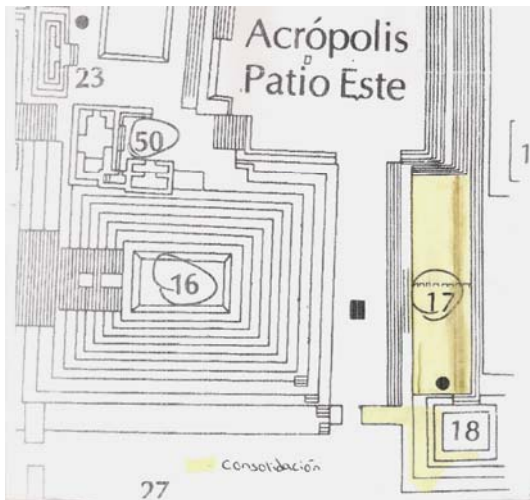
La vida útil del estuco depende del volumen de tránsito sobre ella y su mantenimiento en los años venideros. Hay ejemplos en la Estructura 10L-16 que ya llevan cinco años. El área a cubrirse es de 429.3 m².

Durante este tercer mes de trabajo se han logrado estucar 65.19 metros cuadrados de superficie (15% de la obra total) en la siguiente área: Costado Sur de la Estructura 10L-16 (Sub-Operación 8).

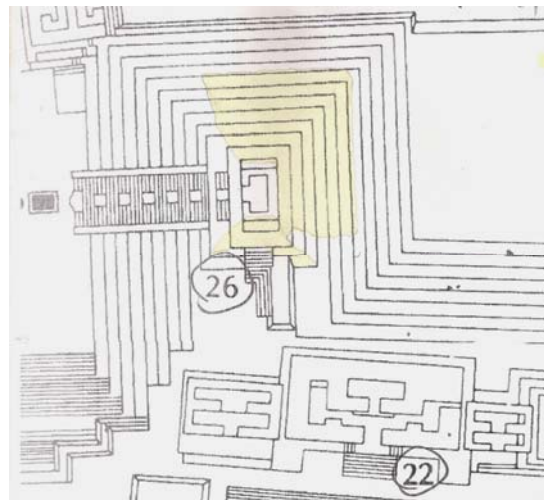


Estucado de las Terrazas Inferiores en el Lado Sur de la Estr. 10L-16

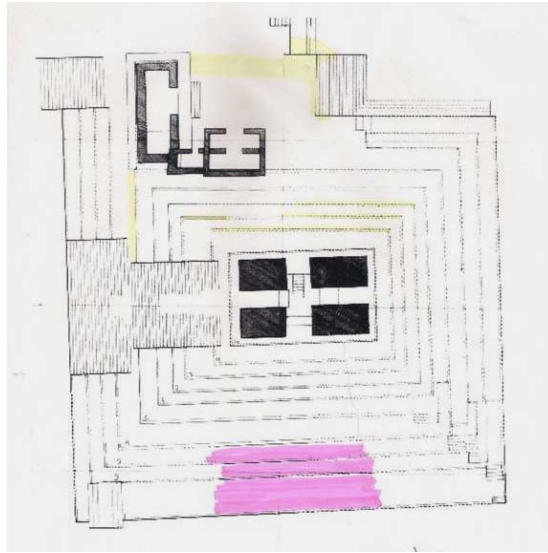
Tanto en el caso de las consolidaciones como en el de los estucados, se realiza una limpieza de las superficies para eliminar los restos deteriorados de intervenciones anteriores, residuos vegetales y otros micro-organismos, antes de aplicar la membrana impermeabilizadora.



Estr. 10L-17



Estr. 10L-26



Estr. 10L-16

Planos de las Áreas Intervenidas en el Mes de Octubre
(Consolidación en amarillo y Estucados en morado)

Registros Arqueológicos:

Durante el proceso de intervención se mantiene una supervisión arqueológica estricta. Se lleva un registro arqueológico completo que incluye fotografías digitales, dibujos, fichas y notas de campo. Todo vestigio expuesto o afectado por el proyecto, es registrado de esta forma.

En el transcurso del presente mes se han realizado las siguientes tareas arqueológicas:

1. Se continuó el registro fotográfico detallado de las fachadas de Rosalila que se han visto afectadas por las filtraciones de agua en los túneles.
2. A nivel general, se continuó con el registro de todos los rasgos arqueológicos intervenidos y la recolección de artefactos menores en superficie.

Observaciones

Entre el 12 y el 14 de Octubre, el Parque Arqueológico de Copán estuvo tomado en forma irregular y violenta por un grupo de ciudadanos. Estos exigían la atención del gobierno central para atender sus peticiones y utilizaban la toma del parque como un instrumento

de presión. Durante este periodo no se nos permitió el acceso a las áreas de trabajo de este proyecto.



Toma Ilegal del Parque Arqueológico

Por suerte el problema fue resuelto en un plazo relativamente corto. En vista de que en este mes se celebran tres feriados nacionales (3, 12 y 21 de Octubre), los trabajadores del proyecto aceptaron sustituir los días de la toma por estos. En esta forma el proyecto no sufrió demasiados atrasos en su avance y seguimos al día con el plan de trabajo.

Annex XI Flight Restrictions Copan

See annexed file

Annex XII La Tribuna article on the airport construction

En asamblea regional decidirán la construcción de aeropuerto en Copán

La Tribuna, Políticas 8 febrero, 2011

<http://www.latribuna.hn/2011/02/08/en-asamblea-regional-decidiran-la-construccion-de-aeropuerto-en-copan/> (consulted 20.11.2011)

TEGUCIGALPA.- Para evitar confrontación entre los pobladores de los municipios de Copán, Lempira, Intibucá y Ocotepeque, el gobierno se comprometió ayer a construir dos aeropuertos en la zona y no uno como se había proyectado en la administración de Ricardo Maduro Joest (2002-2006).



La designada y ministra de la Presidencia, María Antonieta Guillén de Bográn, indicó a los representantes de occidente que la orden del Presidente Porfirio Lobo Sosa es analizar la construcción de ambos aeropuertos.

Así lo informó ayer la designada y ministra de la Presidencia, María Antonieta Guillén de Bográn, quien refirió que para ponerle fin al divisionismo en la zona, el Presidente Porfirio Lobo Sosa ha determinado construir dos terminales aéreas, ya que un grupo puja por el de Río Amarillo y otro por el de Concepción.

La funcionaria anunció la construcción de los aeródromos luego de reunirse, en Casa de Gobierno, con pobladores de varios municipios de Copán, con quienes, dijo, se analizaron las iniciativas de Río Amarillo y de Concepción.

“En esto la orden que nos ha dado el Presidente, es no excluir una de la otra, sino que verlas en su justa dimensión y analizar, inclusive, que implica hacer una o hacer otra”, apuntó.

Así, añadió que si se decide por Río Amarillo habrá un gran auge para el turismo y mejores espacios en relación al patrimonio nacional que representa el parque arqueológico de Copán.

En tanto, hacerlo en Concepción implicaría la construcción de una carretera a un alto costo, ya que el valor supera los 400 millones de lempiras.

DIALOGO Y CONSENSO

“Entonces, la sabia decisión del Presidente ha sido no excluir una de la otra, sino considerar las dos posibilidades y analizar la conveniencia de construir ambos aeródromos”, indicó.

La funcionaria manifestó que la determinación de Lobo Sosa no será tomada a nivel del gobierno central, sino que a través del diálogo y el consenso con las comisiones regionales.

Ambas iniciativas serán analizadas en una asamblea de la región de occidente, a más tardar el 25 de marzo próximo.

Por su parte, el designado presidencial, Víctor Hugo Barnica, señaló que el proyecto para construir el aeropuerto en Río Amarillo, ya está desfasado y surgió en el 2005, durante el gobierno de Maduro Joest.

Barnica indicó que la duda e incertidumbre se han apoderado de los pobladores de occidente, ya que en los últimos meses la ministra de Turismo, Nelly Jerez, habló de construir la obra en Río Amarillo y que el de Concepción ya no se estaba tomando en consideración. Sin embargo, el designado apuntó que el aeropuerto en Concepción atraería el turismo de los países del área centroamericana, México y el nacional.

Pero debido a los beneficios que traerían los dos puntos, dijo que se está analizando construir ambos aeródromos.

DONAN TERRENO

El funcionario recordó que en el 2005, cuando se hizo el estudio, se calculó que el proyecto tendría un costo de alrededor de diez millones de dólares, cantidad que a su juicio, se ha incrementado en al menos un diez por ciento más.

Durante la reunión, el alcalde de Concepción, José Tulio Sánchez Márquez, oficializó la donación de 40 manzanas de terreno para la construcción de la pista en su término municipal.

Según los pobladores, “parece irrisorio”, que el gobierno compre por más de cinco millones de dólares a empresarios de la zona, en lugar de utilizar el terreno donado, pues en este sector ya se hicieron los estudios necesarios y “todo apunta a que es bueno y apto para que se construya”.

Se estima que el aeródromo tendrá una pista con una dimensión internacional, es decir un mínimo de 1,400 metros lineales, una carretera pavimentada de dos kilómetros de extensión lineal y obras de protección, entre otras. La construcción de la terminal aérea permitirá beneficiar a más de un millón de pobladores que habitan 57 municipios de los departamentos de Copán, Intibucá, Lempira y Ocotepeque.

Annex XIII Socialization of the Rio Amarillo Aerodrome Project 2004 – 2005

See annexed file

Annex XIV Participants list of the meeting with local representatives (Municipality of Copán Ruinas), 23 November 2011.

Map 1 Highway CA -11 relocation

Map 2 Location of the project (ASP Consultants 2006, Mapa V. 1, page 15).