VI. Appendices

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Aerial view of the site. © J. Paul Getty Trust. Photo: Irene Sen

Structure 10. © J. Paul Getty Trust. Photo: Evin Erder

Appendix 1
Summary of field campaigns

General view of Structure 4. © J. Paul Getty Trust. Photo: Richard Ross

Side view of Structure 9. © J. Paul Getty Trust. Photo: Evin Erder

PHASE	OBJECTIVES	WORK COMPLETED	CONDITIONS THAT INFLUENCED THE IMPLEMENTATION OF THE PLANNING PROCESS
January 1999: Preparation of the project	• Review methodology for planning process and terminology. • Elaborate strategies for the successful development of planning process. • Define approach considering the «training component».	• Reference documents for the first campaign: process flow chart, terminology to be discussed and profiles for planning team members. • Overall work plan. • Strategies for the implementation of the planning process. • Base material for the condition assessment.	
March 1999: First campaign	• Integrate the planning team. • Introduce and reconcile the planning methodology. • Revise and evaluate the existing documentation.	• Management planning process: methodology presentation, differences between value-driven process and prior initiatives at Joya, terminology discussions. • Integration of planning team based on available expertise and definition of responsibilities. • Evaluation of existing documentation: what existed, what needed to be updated and what needed to be produced for the planning process. Identification of gaps in knowledge that needed further documentation. • Definition of study and documentation tasks: specific objectives for each area, tasks to carry out and final product expected. • Establishment of working groups and collaboration mechanisms among them. • Determination of means to process and systematize information.	• Need for further documentation: although an important body of information already existed, there were large gaps especially in graphic documentation. The state of conservation descriptions were too generalized and not site specific. • Proposed projects for the site, which would have a strong impact if undertaken before the plan was finalized, needed to be evaluated, e.g. new site museum and new visitor trails. • Participants in El Salvador had a certain reluctance to begin another process because the prior experience did not yield satisfactory results. Difficulty in evaluating if the value-driven philosophy for management planning was clearly recognized; reluctance in accepting that heritage conservation rests not only on institutions and that participation of other organizations is an alternative.
June 1999: Second campaign	• Review management planning process with the team. • Review documentation: verify progress, difficulties encountered and the quality of information obtained. • Finalize the definition of the site. • Initiate analysis of natural and human context.	• Planning process review: guided discussion using questions such as What does it mean to you to manage Joya de Cerén? Where does the responsibility lie? Who uses and implements the plan? How do you integrate other interest groups' visions and perspectives? Results promoted further understanding of a participatory, value-driven approach. • Documentation review: limited progress between campaigns. • Study and documentation tasks: compilation based on missing elements, smaller working units were organized and precise needs identified.	• Situation at Concultura and related pressures derived from new museum, change of directors, etc., led to setting new milestones in work plan. • Limited progress in documentation phase due to lack of time, insufficient personnel, information that did not exist or could not be obtained, lack of equipment, logistics and transportation to site. • Stronger internal mechanisms and inter-institutional links were needed to finalize documentation. • Planning team members required basic conservation notions to facilitate further development of tasks. • Stakeholders meetings were not feasible because of the need for further documentation and acceptance of the participatory approach by entities involved.

August 1999: Boulder, Colorado	• Collect data on site and discuss site interpretation.	• Review of documentation derived from archaeological field campaigns to evaluate the excavation process at the site and for comparative analysis of conservation conditions at the time of excavation.	
September - October 1999: Third campaign	• Present the results of the documentation review in Boulder, Colorado. • Review progress on the documentation phase and identify the problems and tasks still pending. • Prepare the synthesis of documentation; provide an outline of the required contents. • Review the site's definition, the initial elements for assessing significance as well as the state of conservation. • Review the emergency plan for the site. • Discuss the stakeholders meeting.	• Documentation work: identification of gaps in information required for finalizing the documentation phase; the GCI would provide additional expertise for graphic documentation. • Emergency plan: definition of actions at the site; discussion of maintenance actions, interventions and need for systematic documentation. • Definition of monitoring mechanisms for actions implemented at the site. • Discussion, evaluation and correlation of diverse projects that existed within Concultura and other institutions that have an impact on the site. • Coordination with agency in charge of the Development Plan for the San Andrés Valley (OPES); review of projects to be undertaken by Tourism Agency (Corsatur) within the context of the Mundo Maya project. • Planning process: Discussions on the participatory nature of the process (stakeholders' roles and responsibilities, value assessment), concept of vision and future for the site.	• Limited comprehension of the correlation between documentation (written and graphic), analysis and response that required stronger emphasis on the diverse interdependencies. There was still a feeling of acting without a long-term vision. The need to synthesize the information was fostered through brainstorming sessions. • Documentation needed to be completed, organized and synthesized for the assessment phase to conclude with the stakeholders meeting. • Working mechanisms had to be adjusted to foster more participation and derive specific responsibilities for the team members. • Working in smaller groups was recommended to advance in the implementation of the process according to specific areas of expertise.
November 1999	• Document excavated areas. • Finalize needed sections, plans of pits and the site.	• Topographic survey of the excavated areas by staff from the Getty Conservation Institute.	

March - April 2000: Fourth campaign	• Finalize the synthesis of conditions at the site and its context. • Evaluation of the documentation phase and results. • Establishment of the bases to discuss the future vision for the site. • Preparation of stakeholders meeting. • Experts meeting for the analysis of causes and effects of deterioration.	• Documentation: synthesis and correlation of different documents. • Management planning: process review to verify understanding. • Initial definition of the vision for the site based on preliminary significance assessment. Negative scenarios were discussed, i.e. how conditions could be significantly different if the management plan was not finalized and built with the consensus of different stakeholders. • Analysis of all projects that were either proposed for or currently being carried out at Joya de Cerén and its surroundings: impact on the site and usefulness within the context of the plan, importance of inter-institutional collaboration. • Preliminary evaluation of the interventions, taking into account the «criteria» behind the application, the supposed usefulness in the conservation of the building materials and the impact they produce on the values ascribed. Important for recognizing the need to regulate and, if needed, stop specific interventions at the site. • Stakeholders meeting preparation: revision of the objectives of the meeting, as well as the definition of the expectations and results from it. • Experts meeting: decay mechanisms and specific material analysis, monitoring and sampling plan.	• Progress in finalizing documentation was hindered because most team members were involved in other areas, limiting the time allotted to work on Joya's management plan. Commitment to the process and the project was limited. • There was more appropriation and acceptance of planning process; conclusions were reached on the correlation of issues, impacts on values, understanding of integrated vision, how working on an emergency basis affects heritage management and conservation, etc. • Stronger recognition of importance of collaboration, but still conflict between the selling of a product and joint development of the plan. Nonetheless, participatory value-driven process was embraced both at the management and technical level. Clear translation into practice was expected during the stakeholders meetings. • The integration of additional expertise provided by the GCI throughout the conservation experts meeting had implications for the way the condition assessment was carried out and the need for further analysis.
June 2000	• None specifically, an unplanned session.	• Discussion of the stakeholders meeting: identification of structure and contents for the meeting, participants list.	
August - September 2000: Fifth campaign	• Management planning process – continuation of the methodological application. • Stakeholders meetings: preparation and processing of resulting information.	• Documentation synthesis finalized. • Stakeholders meeting: definition of working groups, establishment of guidelines for the facilitation of discussions. • Evaluation of meeting results, guidelines for integrating outcome into the produced documentation. • Task assignment: documentation review based on the results from the meeting (value assessments, conservation policies, etc.). • Definition and establishment of collaboration mechanisms with other entities. • Review of the vision for the site. • Establishment of initial parameters for the development of specific projects for the site.	

November 2000: Sixth campaign	• Management planning process – continuation of the methodological application. • Integration of management plan documents and selection of graphic documentation. • Development of specific projects according to programs. • Strengthening of collaboration and coordination with involved entities.	• Review of results and conclusions from the stakeholders meeting. • Integration of documents for the management plan, particularly in regard to the cultural significance assessment and its correlation to the defined policies and articulation to the proposed strategies. • Strengthening of collaboration mechanisms established as a result of the stakeholders meetings by carrying out joint working sessions to define projects and their contents. • Integration of the landscape project financed by the Inter-American Development Bank into the management planning process. • Support for the design of the archaeological research program and integration of the conservation analysis.	• Work was undertaken with smaller groups according to areas of expertise. Tasks to be carried out between campaigns were assigned accordingly. • Collaboration mechanisms with other agencies were defined and cooperation with communities and municipalities was attained through proposals for immediate improvements and additional tourism routes. However because of the lack of continuity between campaigns, the attained levels of participation and the credibility of the process were compromised. • Presentation of conservation research results fostered a clearer understanding of the correlation between systematic studies and surveys for the design and comprehensive response of the conservation action plan. • Landscape project needs to be integrated into the management plan so as to obtain the best results and be a feasible project that is not detrimental to the site. The pressure for implementing outside projects can compromise the development of the plan.
March 2001: Seventh campaign	• Management planning process – continuation of the methodological application. • Review of developed projects. • Review of management plan sections. • Condition assessment meeting.	• Verification of information collected during the assessment phase, the stakeholders meeting and corroboration with documents produced to date for the plan, including the significance assessment and the response. • Review of the vision for the site, established policies and means of implementation. • Review of defined programs and subprograms: verify the response to issues identified during the assessment phase. • Review of the landscape project financed by the Inter-American Development Bank and its relationship with the vision, policies and action plan for the site. • Definition of condition assessment.	• Work continued in small groups according to areas of expertise so as to reach a consensus on contents and formats for the projects. Tasks were also assigned to primary personnel from Concultura, thus reducing the workload on other team members. • Continued emphasis on the need to establish relationships and collaboration with other entities, so that stakeholders feel clearly represented in the management plan. Lack of continuity in participation hinders the credibility of the management approach. • Landscape project presented various problems that could prove detrimental to the long-term vision and objectives of managing and conserving the archaeological site. Reviews and evaluations were made of the existing proposal and sent to the project's consultant. Lack of critical analysis does not allow for leverage when pressured by external entities with strong financial support.

August 2001: Eighth campaign	• Management planning process – continuation of the methodological application. • Review of developed projects. • Review of management plan sections.	• Review of sections of the plan developed to that point: description, condition assessment, and significance assessment. • Review and editing of vision for the site, policies and general strategies for implementation. • Preparation of the administrative section, time schedules and financial requirements. • Illustration of the management plan. • Evaluation of the landscape project financed by the Inter-American Development Bank and integration into the management plan. • Follow up on the collaboration activities related to projects proposed by the Mundo Maya Organization in El Salvador. • Outline of the conditions and recommendations	• Little progress made by Salvadorian counterparts in terms of final reviews meant that the plan could not be finalized as planned for presentation in early 2002. A precise definition of activities, deadlines and responsibilities was assigned to both Concultura and the GCI so that the final version of the plan could be produced by November 2001. • Landscape project continued to be a problem in spite of comments sent and review. Tourism entity (Corsatur) was informed of the problems so that project would not be considered as finalized and implemented. • Community and municipal relationships and collaboration continued to be strengthened through participation in workshops and working group definitions/meetings
October 2001	• Review proposed projects for the site.	• Revised projects in all four programs: research, conservation, landscape and human development.	
November 2001	• Review final draft of the management plan.	• Revised background information, condition and context assessment and administration.	
February 2002	• Finalize management plan	• Final editing and illustration of the plan.	
June 2002	• Produce Management Plan CD and brochure.	• Management plan in digital format for broad distribution and posting on the Internet.	
July 2002: Ninth campaign	• Presentation of management plan. • Foster collaboration for implementation of the plan with key stakeholders. • Begin Executive Summary discussion. • Systematize information.	• Prior to the campaign, a working meeting was held in late June 2002 to finalize documents, including the brochure for the plan and diplomas for the participants, and to transfer the final versions of the prepared plan onto CD. • Meeting with the Mayor of San Juan Opico. • Meeting with Corsatur and Mundo Maya representatives. • Presentation of the plan.	• Mayor of San Juan Opico was optimistic about future collaboration and suggested several means of coordination, including existing ones, such as the committees for the San Andrés Territorial Development Plan or creating technical working groups to monitor implementation of the plan. • Meeting with El Salvador's main agency for tourism, and representatives of the Mundo Maya Organization to discuss contents of the plan and to identify projects that could be carried out within Mundo Maya activities. Discussion of the presented proposal for landscape and presentation, which did not contribute significantly to the management plan and could not be correlated to the long-term vision and objectives for the site. It was agreed that both entities would revise the plan's contents and further communication would ensue between interested parties before submitting the proposals to the IADB related to Joya de Cerén.

Appendix 2
Planning team

Implementing a planning process in Joya de Cerén required the participation and collaboration of professionals in different fields. The planning team needed to be flexible enough to adapt to the diverse requirements at each phase. However, the planning process was only the first step because it was foreseen that a large part of the involved professionals would continue working in the implementation of the plan.

In the case of Joya de Cerén, the following areas of expertise were deemed important to integrate the team that would develop the management plan:

- Archaeology
- Conservation
- Architecture
- Anthropology
- Biology / ecology
- Economy
- Education and dissemination
- Tourism and promotion
- Institutional and legal frameworks

Based on the preliminary listing of professionals that had been involved in prior planning efforts at the site, mainly for the development of the 1997 Seminar, a proposal was sent to Concultura. This in turn was revised to include the 17 individuals that were considered to best fit the suggested profiles.

The first session of the campaign was devoted to the presentations of planning team members who had been selected to attend the meetings. They briefly introduced themselves and described their professional activities and association with Joya de Cerén. The short introduction allowed for a clearer understanding of their particular areas of expertise and responsibilities within Concultura, the general characterization of strengths and weaknesses for the development of the plan and the identification of key participants for the undertaking of subsequent activities.

The functions and responsibilities of the professionals in each specific area are listed below. These were defined according to the potential needs of each planning phase.

Functions and responsibilities

Archaeology

- Collaborate on the documentation of the archaeological site and its context, particularly in regard to the physical and historical evolution of the site, as well as prior archaeological research projects.
- Identify character-defining features from the archaeological perspective.
- Collaborate on the assessment of conditions that influence the conservation and management of the site.
- Analyze the state of archaeological research: progress, gaps, potential areas for research, etc.
- Propose archaeological research projects in the short, medium and long term, defining strategies, priorities, actions and requirements for its implementation.

Conservation

- Collaborate on the documentation of the archaeological site and its context, particularly in regard to the physical and historical evolution of the site, as well as the prior conservation interventions.
- Identify character-defining features from the conservation perspective.
- Collaborate on the condition assessment of the site.
- Collaborate on the analysis of results from prior conservation interventions.
- Collaborate on the definition of projects for conservation research, conservation interventions, maintenance and monitoring in the short, medium and long term, defining strategies, priorities, actions and requirements for their implementation.

Contemporary production of ceramic vessels that continue with traditional processes. © J. Paul Getty Trust. Photo: Richard Ross

Architecture

- Collaborate on the definition of the site and the documentation of its physical evolution.
- Identify character-defining features from the architectural perspective.
- Collaborate on the condition assessment of the site.
- Collaborate on the definition of projects for conservation and presentation.
- Propose research projects focused on earthen architecture construction and technology.

Anthropology

- Define and document the social and political context of the site.
- Identify character-defining features from the anthropological perspective.
- Evaluate the socioeconomic context and conditions that influence the conservation and management of the site.
- Propose projects and strategies for enhancing community participation in heritage endeavors.

Biology / ecology

- Define and document the natural environment of the site.
- Identify character-defining features from the ecological and natural perspective.
- Propose projects for the conservation and restoration of ecological conditions favorable for the conservation and protection of the site.
- Propose projects for the rehabilitation and restoration of the surrounding natural resources and for their sustainable management in the short, medium and long term.

Economy

- Define, document and evaluate socioeconomic conditions at the site, as well as the management and administrative conditions for its operation.
- Identify character-defining features from the financial perspective.
- Carry out a market study to propose strategies and actions for fundraising for site conservation.
- Propose projects for the administration of the site and for optimizing resources.

Education and dissemination

- Define and evaluate the state of education regarding the archaeological site, and heritage in general, on different levels.
- Identify character-defining features from the perspective of education.
- Propose projects for different audiences in the short, medium and long term to promote heritage education, awareness and outreach.

Tourism and promotion

- Define and analyze the existing and potential tourism activities.
- Identify character-defining features from the perspective of tourism.
- Evaluate conditions and elements that influence conservation, public use and visitor management at the archaeological site.
- Propose projects for sustainable tourism activities and for promotion of the site, in accordance with heritage conservation and presentation needs.
- Define criteria for the design of visitor routes, guidelines for visitor management and for service providers.

Actions for periodic maintenance. © J. Paul Getty Trust. Photo: Evin Erder

Institutional and legal frameworks

- Determine and evaluate institutional resources for the site.
- Analyze the legal framework for the conservation and management of the site.
- Develop projects and define strategies for the implementation of the management plan, in consideration of institutional frameworks, available resources and existing legal conditions.

Appendix 3

Values, cultural significance and vision

An important aspect of the planning process at Joya de Cerén was the use of a significance-driven methodology. The analysis phase had three components: cultural significance, condition and context. These served as the basis for the subsequent response phase, so it was essential that they be adequately developed. To structure the analysis component, it was important that information derived from study and documentation be systematized in graphic and descriptive ways to constitute a body of knowledge for appropriate evaluation. Interdisciplinary working groups were created to address different portions of the analysis and also to ensure broad participation.

For cultural significance, the assessment needed to be as objective as possible and based on the broad understanding of the history and evolution of the place as well as its contemporary context. Significance is a relative concept; it can only be interpreted in relation to a frame of reference. It reflects the political, cultural and economic considerations of each group and is determined in a specific space and time.

The issues raised and addressed during this portion of the analysis are examined below.

1. Preliminary considerations

The initial field campaigns provided a better understanding of the existing conditions for the undertaking of the planning process. It is worth mentioning that, in spite of several efforts undertaken at the site to develop a management plan, there was no perception of significance-oriented planning, in which values are the driving force in the decision-making process.

Similarly, it was considered that because prior initiatives had existed, there was sufficient information to begin the analysis phase and to undertake the significance assessment of the site. However, there were many tasks that still need to be carried out, not only to build upon the understanding of the site but also to conduct a successful participatory management planning process.

2. Working sessions with the core planning team

During the field campaigns, there were several working sessions with the core planning team that focused on revising the planning process and the significance and vision portions of it, since they were critical for decision-making regarding conservation and management of the site.

The first working session was focused on the definition of the site. Planning team members were asked to describe the site and its key features, so as to begin to glean the significance elements. Team members that had been working on condition recording participated in the meetings, which was essential to understanding the importance of recording and its link to significance assessment. For example, construction techniques and materials that had been analyzed by these members were evaluated to then produce a value statement.

With the active participation of these professionals an initial draft of site definition was produced. This was distributed among team members and was the basis for the working session in the field, during which significance was more thoroughly addressed.

During the field session emphasis was placed not on how the statements should be worded but rather on identifying key issues that constituted values. The basic role of the leading team members was to question all of these statements so as to foster a better understanding of what clearly represented a value and what did not. A strong emphasis was placed on the justification of value statements and the importance of their being represented by the documentation produced. It was also assessed how some of those values had been compromised by interventions or how they could potentially be lost if detrimental actions were implemented. These discussions allowed the planning team to reach their own conclusions on the need to regulate and, where needed, stop specific interventions at the site.

It was also important for the team to visit the surrounding areas on foot, because a lot of emphasis was being placed on individual structures, rather than seeing the site as a whole.

Work continued between campaigns to produce more documentation that could clearly substantiate the ascribed values. As these tasks progressed, there was a more thorough understanding of the significance-driven process and the way in which the response would be defined to conserve values.

In subsequent field campaigns, and based on the preliminary significance assessment that had been carried out by the planning team, initial discussions were begun on what was wanted for the site over the next fifteen years and how to integrate that vision with other stakeholders' visions for the site. It was emphasized that these visions of the future needed to be clear in order to define the programs

and projects for the site, and to have the possibility of making them a reality. It was mentioned how important it was to integrate not only the vision from the planning team and Concultura but also the ones derived from the stakeholders meeting. This would lead to a larger commitment and clarity of the roles each interest group played, defining the phases, goals and progress that could be made through collaboration.

These discussions allowed for the team to begin seeing how some values would be impacted, so that those values could be initially prioritized for conservation and promoted through the development of different programs and projects. What was interesting in the discussions too were how «negative» scenarios were discussed, such as how future conditions at the site could be significantly different if the management plan was not finalized and built with the consensus of different stakeholders. Thus, the importance of the stakeholders meeting and subsequent collaboration with different interest groups was clearly recognized, as well as the sense of appropriation of the need for and usefulness of the management plan.

The results of the working sessions with the core planning team members provided the basis for discussion during the stakeholders meeting. As a result, values defined by the planning team were tested and additional ones were ascribed based on input from other interest groups. The vision was also further elaborated with the results from the participatory discussions.

The following section illustrates how some of these value statements progressed through time, and the initial vision defined by the planning team members.

Children's drawings produced during the survey for the state of education. © J. Paul Getty Trust. Drawings collected by Emilio Cabrera

School children visiting the site. © J. Paul Getty Trust. Photo: Richard Ross

Results from the first working session to discuss the values of Joya de Cerén	Value statements produced for the stakeholders meeting
HISTORIC VALUES • Fact of the discovery. • Testimony of a catastrophe. • Evidence of a culture in a specific time. Shows the daily life of people in the past. • Culture in a specific geographic area: the Zapotitan Valley. • Evidence of the development of the southern periphery of Mesoamerica. • Ceramic inventory is relevant for the chronological definition of the region. • Cosmovision as a concept in the history and development of social groups. • Intelligent use of resources in prehispanic times. • Adaptation to the landscape that is evidenced in the different architectural responses. • Volcanic events as markers for human settlements. • Biodiversity. The basin of the Rio Sucio has continuity and a link between the past and the present. • The Caldera volcano is important environmentally because it has a subtropical / wet tropical forest.	**HISTORIC VALUES** • The accidental discovery of Joya de Cerén illuminates the relationship between current societies and the past, through historical fact. • Joya de Cerén evidences the effects of catastrophic volcanic activity, an intrinsic part of the history of El Salvador. • The existence of Laguna Caldera allows for associating and elucidating the volcanic activity that resulted in the burial of Joya. • It is a habitation area that evidences cultural development during the prehispanic Classic Period. • It is exceptionally important for the information that it provides regarding social organization, production activities and the ways of life of the cultural groups that inhabited the southern periphery of Mesoamerica. • The sudden abandonment of the site and the unique conditions that allowed for its preservation allow for the reconstruction of the daily lives of its inhabitants, with evidence of the cookware and utensils, tools and techniques used. • Material remains reflect the social organization of the cultural groups of the site. Their interpretation allows for the understanding of the sociopolitical processes and cultural development of the Zapotitan Valley. • The site evidences the intelligent use of natural resources in prehispanic times. The adaptation and integration of the landscape is evidenced in the architectural responses, such as construction techniques, use of local materials and orientation of structures.

SOCIAL VALUES • Continuity in ways of life. Spatial system that includes building, planning areas, production and consumption areas. • Continuity in the use of resources. • Continuity in construction materials and techniques. • Continuity in types and systems of agriculture. • Continuity in the production and use of ceramics. • Belonging. • Sense of admiration. • Sense of pride. • Sense of identity. • Sense of appropriation. • Value in the identification of daily lives. • Relationship with the community and country. • Primary sources for knowledge. • Primary sources for didactic processes about the ways of life of a prehispanic community. • Area for recreation.	**SOCIAL VALUES** • Constitutes an identity symbol for the locality, the region and the nation as well as an interest area on the international level. • Symbolizes for current society a continuity and link between the past and present, surviving in aspects related to the architecture and subsistence activities. • In the Zapotitan Valley there are a several archaeological sites and natural areas that are related geographically, historically, culturally and environmentally. The closeness of all these sites allow for an interesting interpretation of the natural and cultural history of the region. • The spatial distribution of the site allows for comparison between the ways of life of the inhabitants of Joya de Cerén and the agricultural settlements of today in regard to private spaces and public and open areas. • Construction systems used in Joya de Cerén are still used today, which illustrates cultural continuity through time. • Ceramics and textile artifacts found at Joya de Cerén also show continuity in ways of life because similar items are still being used today to process food. • Archaeological evidence shows continuity in the use of resources, like the exploitation of certain tree species for construction. • The types and systems of agriculture recorded archaeologically have some similar counterparts today, like the physical distribution of fields. • Joya de Cerén promotes the identification of society with a common past, strengthening the sense of identity, pride and national belonging. • It is an important didactic medium for directly providing information about life in a prehispanic community during the Classic Period in El Salvador. • It is an attractive area to visit because of its unique conditions and other recreational opportunities nearby.
ECONOMIC VALUES • Source of income for the country. • Generates formal and informal jobs at the local level. • Can be a model of exploitation of the land as a sustainable alternative. • The image of Joya generates the promotion of projects and places. • Generates programs for educational development. • Value of the land.	**ECONOMIC VALUES** • Represents tourist potential and economic sources for socioeconomic development on the regional and national level, being an important element for tourism. • Represents a source of income for the country basically through tourism revenues. • Generates formal and informal jobs at the local level. • The model for land use can be an alternative, promoting sustainable management and use of resources. • The image of Joya promotes development, educational and recreation projects at the site and adjacent communities. • Land has an economic value for its sustainable exploitation and controlled development.

Vision

Based on documentation produced during the study and documentation phase, working sessions were held to discuss the different perspectives on the ideal conditions for the future of the site. The main results are presented below.

- Clear dissemination of knowledge about and importance of the cultural heritage of El Salvador.
- Critical studies that strengthen national identity and promote a sense of belonging.
- Respect for and interest in history and cultural and natural heritage.
- Strengthening and conservation of features and characteristics that reflect the identity of the Salvadorian society.
- Strengthening of institutional work.
- Integration of different levels of government: municipal, regional and national.
- Regulation of informal commercial activities at the site.
- Valorization of the benefits of heritage conservation.
- Protection of the archaeological site, including its potential extension, and its surroundings.

As for the vision for the archaeological site, the following was highlighted:

- Conservation of the features and characteristics that give meaning and value to Joya de Cerén.
- Balance between presentation, conservation and interpretation.
- Adequate control of decay mechanisms.
- Minimal intervention on the prehispanic materials of the site.
- Appreciation of the architectural groups and their context from different perspectives.
- Adequate interpretation of the site and its history to facilitate the understanding of the prehispanic settlement.
- Adequate interpretative relationship between the museum and the archaeological site.
- Adequate presentation of the site, with signs and interpretative materials.

Scenario

Along with the definition of the vision and ideal conditions for the future of the site, scenarios of conditions that could result if the plan was not finalized and implemented were examined. The following were underscored:

- Implemented actions are not part of a precise program or course of action.
- Projects continue to respond to emergencies and not to identify conditions and priorities.
- Interventions on different levels are not integrated or planned.
- Actions are not holistic or articulated in a general scheme that promotes the long term conservation of the site.
- Economic resources are not invested in priority actions or according to a precise action plan.
- Visitors do not valorize or understand the site because of deficient presentation and inadequate interpretation and dissemination.
- There are no relationships or collaboration on the political or social level for the conservation and management of the site.
- Cultural significance and values are constantly compromised by inadequate actions.

Appendix 4

Landscape project

The development of proposals for the landscape and infrastructure at Joya de Cerén were the responsibility of Darko Pandakovic, an Italian architect under contract by the Inter-American Development Bank (IDB) within the framework of the Mundo Maya Project. These resources were managed by Corsatur, El Salvador's national agency for tourism with Concultura, as the national counterpart to provide guidelines and parameters for the project and supervise the continuity of its development.

A significant part of the campaigns was spent working directly with this consultant, so that the landscape project would be designed according to the goals and policies of the management plan. During the November 2000 campaign, progress was made in that most of the proposals in the plan were discussed with him, and he was included in working sessions with the municipality and community representatives in regard to proposals for tourism routes and infrastructure at places surrounding the site. Likewise, it was agreed with the planning team that he would develop a precise proposal for architectural infrastructure, descriptions and proposals for spatial organization and technical specifications for the area involved. The outline for this proposal was provided by Concultura based on the needs assessment carried out within the framework of the planning process.

After this first session, the IDB consultant presented a preliminary evaluation of the potential driving themes for the presentation of the site and an initial proposal for visitation routes between Joya de Cerén, San Andrés and Laguna Caldera, two sites important for the interpretation of the Joya site. Some of the issues highlighted in this report include:

- International tourism centers in Guatemala and Mexico: For El Salvador to be competitive, Joya de Cerén should be linked to other sites of cultural and natural value.

- Four main interpretative themes were identified: natural events, i.e. the catastrophe (moment of the volcanic event and recognition of processes), life in agricultural communities (crops, relationship with the river), domestic life (use of space) and domestic architecture (construction systems and technology).

- Based on these themes, routes should be designed to understand the archaeological physical remains, but also be linked to areas where certain aspects of prehispanic life would be recreated.

- Infrastructure would be designed to minimize impact on the site and be harmonious with the surroundings.

- The connection routes between Joya de Cerén, San Andrés and Laguna Caldera are important for promoting the understanding of how these places are related. They also provide a different perspective to visitors than simply arriving by car.

- Routes would also highlight aspects of continuity by using existing elements in the surroundings, such as agricultural fields and contemporary earthen constructions. Other important elements include the natural resources in the area, such as river vegetation and the remains of primary forests.

- These routes would also contribute to promoting community development by assigning areas to provide certain services, ranging from guides to food and drinks.

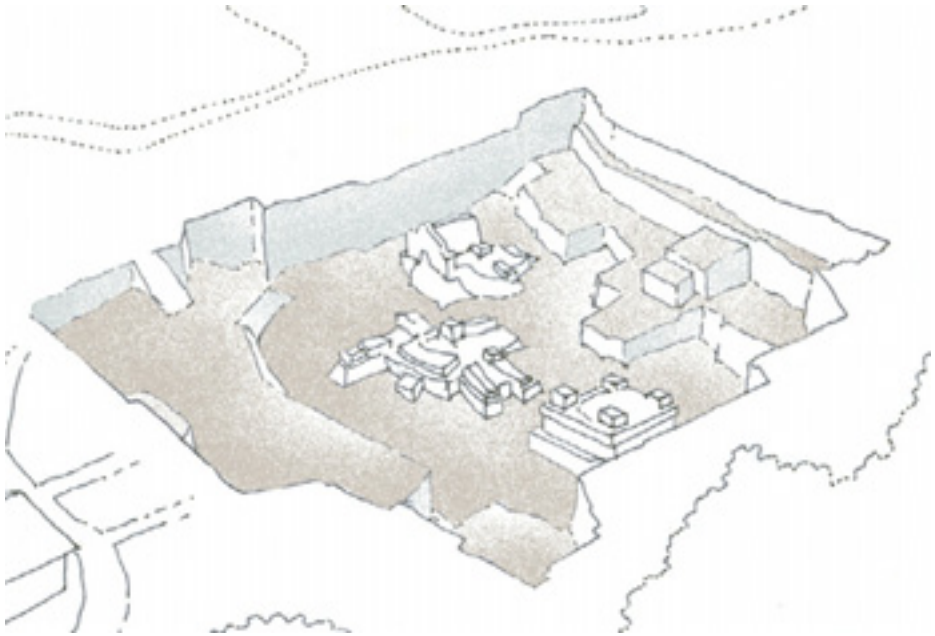
Additional information was given so that the consultant would have all the necessary elements for the development of specific proposals.

In February 2001, the projects for the landscape and infrastructure at Joya de Cerén were presented to Concultura. In spite of the significant amount of time invested in working with this consultant, the landscape project presented various problems. First, the architectural plans provided no technical specifications or description of materials and technology to be used for the construction of new infrastructure. Problems were also identified in the areas proposed for infrastructure because they either impacted subsurface deposits, future archaeological excavations or the conservation of existing structures. It was clear during the revision that no considerations had been placed on preserving either the building materials (e.g. no considerations were made for adequate sheltering systems), the values of the place, as several character defining features would be affected by the proposed plans (such as the bulldozer cut, the tephra banks, etc.), or integration with the surrounding landscape (the project was limited to the existing park and restricted area, without considering the areas soon to be transferred to Concultura). Because of the importance of this project and the potential impact it could have on the site, if implemented without clearly being correlated to the management plan and the conservation objectives, several sessions were carried out with Concultura and GCI personnel to identify the problems and gaps in information that needed to be requested from the consultant before his final presentation. These are presented in Table 1.

In August 2001, the final proposals were presented to Concultura and Corsatur. Yet again, despite the significant amount of time invested in working with this consultant, the landscape project still presented various problems that had not been addressed, even though recommendations had been made. In fact, the presentation had only minimal revisions from what had been shown months earlier. The architectural plans still provided no technical specifications or description of materials and technology to be used for the construction of new infrastructure and had no consideration of problems related to the context of the site (such as the lack of water infrastructure, security situations, etc.). Prior to the presentation, the planning team worked on the specific issues that were of concern, but there was no willingness on the part of the consultant to revise the proposals. During the presentation it was noted how little the project had been developed from the initial proposal and that it was still not at a level that could be implemented, in spite of the significant amount of documentation provided to the consultant. Likewise, the proposed tourism routes did not consider the sustainability of the investment at the site and its surroundings, or the need not only to improve the presentation of the site but also the living conditions of the communities. In summary, the presented proposal for the landscape and presentation of the site did not contribute significantly to the management plan and could not be correlated to the long-term vision and objectives for the site. In the end, the discussion was unrewarding because of the lack of professionalism displayed by the IDB consultant who simply refused to reconcile the architectural project, which clearly compromised the future of the place, with the management plan. Given the situation, additional meetings with Corsatur´s president and other national authorities were carried out to discuss these concerns. Further communications were made in September to ensure that ultimately the best results, in terms of the long-term conservation of Joya de Cerén, would come from the significant investment made by the Inter-American Development Bank.

It was assumed that based on the evaluation and recommendations made in August 2001 there would be follow-up and revisions made to the project. However, in July 2002, during a meeting with the president of Corsatur and representatives for the Mundo Maya Organization, the same proposal, with minimal revisions, was presented again. However, in preparation for the meeting, a document (Table 2) stating the problems with the proposal had been formulated and was distributed during the meeting. Given the situation, the meeting focused on the discussion of these concerns, which were particularly important since a significant investment was being proposed to the Inter-American Development Bank. Considering that the management plan had been finalized, it was explained to the consulting firm how projects at the site were structured for the long term, particularly in regard to future archaeological research and conservation needs, and how the landscape project fitted into this. Several specific projects were discussed inasmuch as they related to the needs and interests of tourism development. It was suggested how these proposals could be included for consideration by the IDB, specifically along the lines of human development and tourism routes. It was highlighted how a project of immediate improvements could be undertaken without impacting the site and that would foster a better presentation of the site in terms of its use and interpretation.

As a result, it was agreed that both Corsatur and Mundo Maya would revise the project, and further communication would ensue between interested parties before submitting proposals related to Joya de Cerén to the IDB. To date, the landscape project has not been revised.



Architectural interpretation of the structures in the excavated area. © J. Paul Getty Trust. Drawing: Elvia Arango

Table 1. Requirements for the landscape project. March 2001

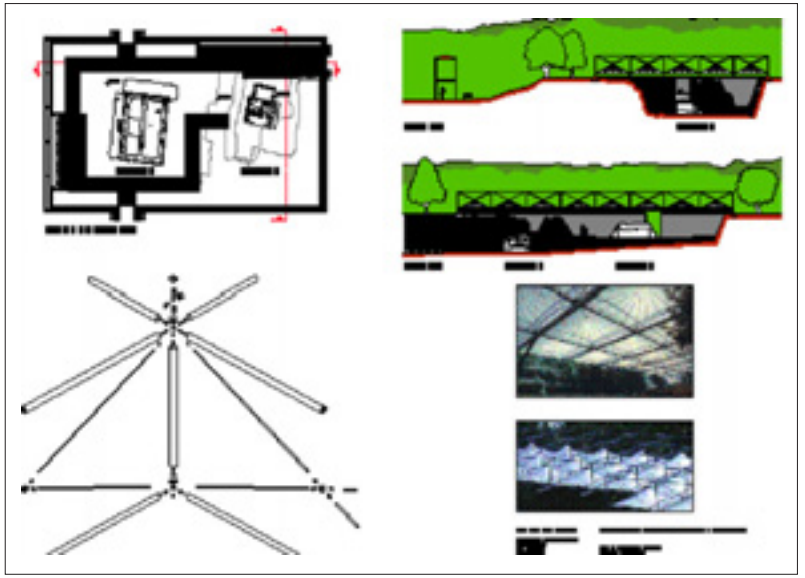
No.	Plan	Scale	Content
Content for the site			
1	General plan of the site (site and surroundings)	1:500	On the plan of the site and adjacent lots, the following need to be included: proposed location for the Research Center, Sr. Quintanilla's home, archaeological replicas and potential structures already located in the southern and western portions of the site.
1.A	General plan of the site	1:200	Consider aforementioned guides with relation to the general site plan.
2	Site sections	1:200	There are section plans for tours of the site, but more cross section plans are needed to explain the project: one that illustrates the proposal for the walkway (indicating materials and dimensions) and one on the site level that indicates how the archaeological pits would look.
3	General plan of the site		A general plan that indicates the projected water and electricity installations and how they will connect to existing infrastructure.
3	Welcome and administration area	1:100	An architectural plan is needed to depict the locations of offices, the presentation room, ticket sales, and audiovisual room. Utilities should be included to visually explain how they will function.
4	Welcome and administration area	1:100	Elevations of the tour facades are needed, as well as two sections to explain construction materials and architectural finishes.
5	Welcome and administration area	1:100	Structural floor plan is needed.
6	Welcome and administration area	1:100	Structural plan for projection of water and electricity installations.
7	Research center	1:100	Architectural floor plan with furniture, indicating floor levels.
8	Research center	1:100	Two elevations of facades are missing as well as sections.
9	Research center	1:100	Floor plan of architectural finishes is needed.
10	Research center	1:100	Structural floor plan.
11	Research center	1:100	Structural plan for projection of water and electricity installations.
12	External didactic areas	1:100	Architectural floor plan.
13	External didactic areas	1:100	One elevation of facade and section.
14	Pits and protective shelters	1:50	Two sections are needed, one longitudinal and one transversal for each pit. Plans are required to depict internal circulation at the pits, ventilation, natural lighting, consolidation of tephra slopes, potential areas that would need to be cleared, the relationship between the proposed tunnel and pits, the position of structures to support the proposed shelter, additional entrances for personnel at the site, etc.

13	Perspectives: walkway, introductory area, general floor plan of the site, partial view of one of the pits.	No scale	Formal presentations to promote its financing.
Content for the surrounding areas			
1	Perspective and general views: Joya-Canton Joya-San Andrés	Graphic	Details of the connection route that evidences agricultural practices and potential areas where visitors would stop.
2	Perspective: Joya-Laguna Caldera-Lomas de Santiago	Graphic	Details of the connection route that evidences forests and cultivation areas. General views of the agricultural landscape.
3	Perspective or views: Joya-San Juan Opico	Graphic	Illustrate existing communication roads and strategic views of the landscape.

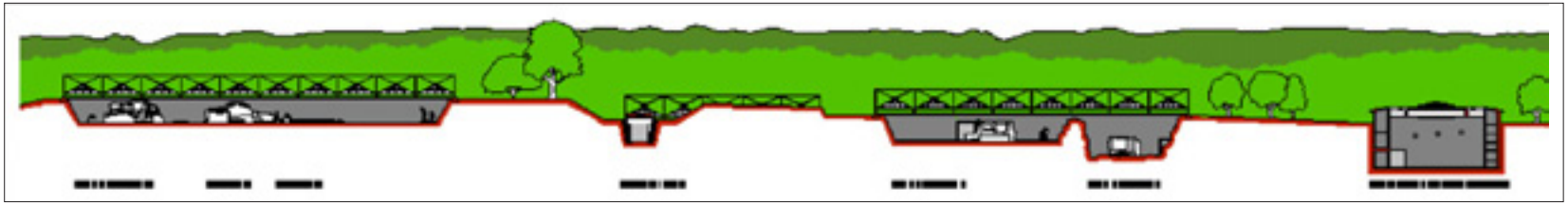
Notes:

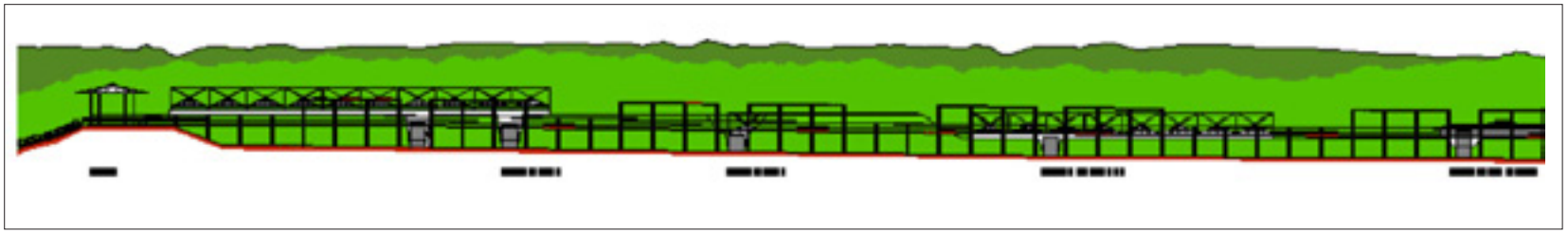
- All architectural floor plans must indicate: floor levels, boundary marks and, if appropriate, furniture and space distribution.
- All sections must consider the finished floor levels and the existing levels as well as boundary marks.
- Plans should be presented according to standards in El Salvador, that is, 0.90 x 1.70 meters.
- Consider additional information to explain how the existing topography will be managed by the project, considering terracing or leveling activities, as well as cuts through the tephra. The existing street levels need to be correlated with the proposed access route.
- Consider an additional access route to load and unload materials (construction or conservation).
- Consider how hydraulic connections will be made between the existing well to supply the site and the archaeological park.
- The irrigation system for the proposed areas of cultivation and didactic demonstrations needs to be defined.
- Plans should be drawn in AutoCAD for further manipulation by Salvadorians if needed.
- A descriptive memory should be developed for the project to explain how the proposals will function and to provide details for each of the areas.
- A proposal for land use, both in the immediate surroundings as well as in the areas for the proposed visitation routes, needs to be developed considering the conservation of the landscape. Existing documentation produced within the framework of the management plan is available to substantiate the proposal.
- A proposal with specific strategies for implementation of the project needs to be defined, making reference to different entities or groups involved in the area.

Table 2. Analysis of the landscape proposal for Joya de Cerén. July 2002.



Architectural drawings: Darko Pandakovic





Architectural drawings: Darko Pandakovic

Analyzed issues	Positive aspects	Negative aspects	Reference projects of the plan
1. General Project			
Conservation	• Zoning for the project. The location of new construction areas at the northern part of the bulldozer cut favors the integrity of the structures.	• Proposed visitation routes at the archaeological site, as well as the proposal for excavation of new areas, could lead to structural instability that would affect the conservation of excavated and unexcavated features. • Location of parking spaces in the area established for archaeological protection.	• Limits: geophysical survey. • Carrying capacity at the site and buffer zone. • Disaster mitigation and preparedness. • Maintenance of the site museum. • Maintenance activities at the archaeological park. • Immediate improvements for preservation, protection and presentation. • Presentation of the site.
Presentation	• Have an introductory zone prior to visiting the archaeological remains. • Have an interpretative zone for agricultural techniques and earthen architecture. • Maintaining structures in burial environment promotes the interpretation of the passage of time.	• Project drastically modifies the topography of the site, which interferes in a negative way with the appreciation and interpretation of the different tephra layers. • The great density of vegetation proposed could influence the perception of the site and misguide the interpretation of its values.	
Concept	•The project is described as flexible and adaptable to future needs in regard to archaeological research and conservation. •The design clearly identifies and evidences the different archaeological levels that exist, before and after the volcanic event.	• The project has been designed without taking into account proposals prescribed by the management plan. • There is no planning that reflects how the project can be adapted as needs arise at the site. • In general, the project is of low architectural interest, as it does not valorize the local construction techniques or available resources.	
Construction system		• There are no consistent calculations or construction proposals that would make feasible the implementation of the proposal.	

2. Interpretative zone			
Conservation		• Vibrations derived from the demolition of silo bases could be detrimental to archaeological structures.	• Architecture and landscape in the prehispanic era • Botany • Carrying capacity at the site and in the area of impact
Presentation	• A broad interpretative zone is considered to present agriculture and earthen architecture.	• The existing replicas of archaeological structures have not been considered.	
Concept		• Demolition of the silo bases, which are part of the history of the site: the description mentions that they will be preserved, however this is not represented in the presented plans. • A thorough study is needed on the species of vegetation being proposed.	
Construction system		• Difficulties in the demolition of the silo bases, built with reinforced concrete.	
3. Excavation Pits and Tephra Slopes			
Conservation		• The existing angles and perimeters of the tephra slopes are maintained, compromising the integrity of the structures and visitors in the case of a landslide. • The current situation, after an important seismic event in El Salvador, should have been taken into account in the proposal. • In some of the proposed areas for visitation, the walkways are too close to the archaeological structures, which would allow visitors to directly touch remains.	• Site concept: Civic-ceremonial complex • Site concept: Residential units • Site concept: Agricultural sectors • Soils, slopes and hydrology at the site • Carrying capacity at the site and in the area of impact • Vulcanology
Presentation	• Walkways would allow visitors a closer view of the structures to promote appreciation of their scale and details.	• Inner paths are rigid, there are limited intermediate areas where visitors could stop to observe, and paths may not even be able to manage great numbers of people at the same time.	• Interventions on structures • Maintenance activities • Protective shelters and water control systems • Disaster mitigation and preparedness
Construction system		• Water collection or drainage systems have not been addressed for the pits. • Prefabricated concrete slabs are proposed for the inner paths, which would be detrimental for the natural transpiration of the soils.	

4. Visitation Routes in Trenches			
Conservation		• The proposal does not consider data from geophysical surveys. Paths in proposed trenches have been designed in large part in direct contact with detected anomalies and, in one specific case, on top of one of them	• Limits: Archeological test pits • Soils, slopes and hydrology at the site • Carrying capacity at the site and in the area of impact • Vulcanology • Disaster mitigation and preparedness • Presentation of the site
Presentation		• Inner paths are too rigid and do not provide alternatives for the visitor. • The stratigraphy of the site cannot be appreciated upon descent or once in the trenches.	
Concept	• Descending through trenches raises visitor awareness about the magnitude of the volcanic event that covered the site and its significance.		
Maintenance		• Potential problems in the stability of trenches. In some cases they are 4.5 m deep, with walls that have excessive inclinations. These could be dangerous in seismic events and pose problems both for visitors and remains. • Negative behavior of wood structures in a wet and unventilated environment.	
Construction system		• Construction system is complicated, entails high costs, and does not incorporate local technologies or materials. • Mechanical resistance of soils and erosion problems have not been considered.	
5. Civic Group			
Conservation		• Vegetation growth on top of the greater part of the civic complex would be detrimental to the archaeological remains.	• Site concept: Civic-ceremonial complex • Limits: Archeological test pits • Protective shelters and water control systems • Disaster mitigation and preparedness
Concept		• Though the civic complex is recognized in the project's description, it is not mapped and a wooded area on top of its location is proposed. This is a key element for the understanding of the prehispanic settlement and should have been considered in the proposal. • Structure 13, not yet excavated, was also not considered.	

6. Protective Shelters			
Conservation	• The use of modules allows for the expansion of the system as new areas are excavated.	• Current proposal for shelters is limited to the edges of the pits so it does not guarantee prevention of rainwater infiltration, which would be problematic for the conservation of structures. • A 30% solar radiation rate could affect the environmental stability of the pits. • Materials and design for the shelter do not guarantee adequate climate conditions inside the pits.	
Presentation	• Large luminosity in the pits.		
Maintenance		• Having large concentrations of vegetation near the shelters would promote the accumulation of organic remains and would make maintenance difficult.	
Construction system		• How the shelters would behave in strong winds and rains, which are common in the area, or how they would respond to seismic activities has not been studied. • It is a complicated and high-cost construction system. • The limit of clear areas without supports is 25 m. When pits are widened, this will not suffice and additional supports will be needed. • Shelters are supported on the terrain through reinforced concrete at the limits of the pits, without considering potential landslides or future needs for expansion. This also has not been studied in relation to the mechanics of the existing soils.	
7. Walkway			
Presentation	• Precise delimitation between the archaeological remains and the new interpretive constructions.	• The stratigraphy of the cut cannot be appreciated and compromises its significance. • Excavation pits will not be appreciated because they will be covered.	
Concept		• Strong visual impact. • Element has no relationship with the local culture, either in materials or construction system.	
Maintenance		• Requires important investments for maintenance.	
Construction system		• Construction materials are foreign to local traditions.	

8. Vegetation			
Conservation		• Having great tracts of vegetation near the pits makes their ventilation difficult and raises the humidity levels. • Integrity of structures could be compromised by the roots, soil acidity, potential water retention, etc. Therefore a detailed study is needed so that the best vegetation species can be selected.	• Architecture and landscape in the prehispanic era • Botany • Conservation and restoration of the river gallery forest
Presentation		• The distribution and density of the existing vegetation at the site would be modified, changing the significance of the current ones. • No evidence is provided to demonstrate the educational or informative character of the proposals.	
Concept		• Lacks systematic research to substantiate the proposal.	
Maintenance	• Vegetation could potentially serve as a barrier in case of strong winds.	•Increase in organic remains.	

Laguna Caldera Volcano and the evidence of recovery of the area after the volcanic eruption into rich agricultural lands. © J. Paul Getty Trust. Photo: Richard Ross

9. New construction for the site			
Conservation	• Location of new constructions on the northern side of the bulldozer cut.		• Carrying capacity at the site and in the area of impact • Disaster mitigation and preparedness • Research center
Presentation	• Welcome area and museum prior to visiting the archaeological pits.		
Concept		• Project lacks correlation with the existing elements at the place. • Visual impact on the site in relation with the architecture at Joya, due to their volume and size. • The use and availability of local resources has not been considered. • Spaces for storage and additional uses are insufficient.	
Maintenance		• Need to control vegetation growth on the building's shelter, and consider problems derived from increased weight during the rainy season.	
Construction system		• "Green cover" entails an important increase in loads (further augmented during strong rains), which would probably lead to poor performance in an earthquake. Loads are not uniformly distributed. • Construction system of the buildings is based on column structures made of reinforced concrete, which is foreign to local construction typologies. • Exterior closures are compacted earth; the mixed system exhibits poor behavior in seismic events.	
10. Tourism Routes to San Andrés and Laguna Caldera			
Concept	• Integrate knowledge of the archaeological site with its natural environment and other nearby culturally significant sites.	• Proposed routes have not been correlated with the existing ones in the management plan so their level of analysis is poor. • Projects need to be correlated to studies that consider issues such as development, feasibility of implementation, maintenance, etc. They should also have the consensus of communities and property owners.	• Architecture and landscape in the prehispanic era • Botany • Anthropological study of the surrounding communities • Transformation of the landscape • Visitor route from Joya de Cerén to San Andrés • Visitor route from Joya de Cerén to Laguna Caldera • Training workshops on productive activities for communities • Cultural education for surrounding communities.
Maintenance		• The project proposal considers that there will be vandalism in the equipment and installations used for the routes. This reflects the poor social analysis and assessment of current conditions at the site and its surroundings made.	

Structure 1 at the time of discovery. Courtesy of Payson Sheets

Appendix 5
Territorial development plan

In 1999, the Salvadorian government under the authority of the Vice Ministerio de Vivienda y Desarrollo Urbano (Vice Ministry for Housing and Urban Development) initiated a pilot project for the management of the Zapotitan Valley. About 30 km from the capital of San Salvador, this area, located in the province of La Libertad, covers about 550 square km and includes four main municipalities, Ciudad Arce, Coatepeque, Quetzaltepeque, and San Juan Opico, where the archeological site of Joya de Cerén is located.

Farming communities have predominantly occupied the area because of the high fertility of the soils, derived from past volcanic activities. Today, because of its proximity to the capital, a zone franche has been established along the Pan-American Highway, where industrial activities are conducted. Housing development has also increased due to related demands.

Additionally, several development projects – like the construction of a main road to contour the imposing volcano San Salvador and give access to the city from the north – have been proposed. The Territorial Development Plan therefore responds to the need to structure and organize future and upcoming developments in sustainable ways, as well as to better define land use in consideration of the natural and cultural resources of the area.

The Territorial Development Plan is articulated on two levels: planning for the Zapotitan Valley as a whole and planning at the municipal level. Given the characteristics of the initiative, and the fact that it was being undertaken concurrently with the planning process at Joya de Cerén, the territorial plan represented a perfect opportunity to join efforts so as to integrate planning at the site level onto a territorial one. It also provided further protection by establishing natural and cultural heritage areas at the municipal and territorial levels (Zapotitan Valley). Additionally, the mapping system used to support the territorial planning and to document the plan and its related environment were compatible; both projects used CAD for drawings and were designed for their potential integration into a GIS system. The data provided by studies and surveys at Joya de Cerén informed the territorial plan, particularly in regard to the protection of the site and buffer zone management, because land use was determined amongst collaborating agencies. Properly integrated information within the management plan would also guarantee the preservation of the site and other potential remains, and promote integrated conservation of the natural and cultural heritage of the area.

Detailed information and surveys of the site and its values provided baseline documentation and substantiated proposals with a degree of detail needed to effectively protect the site and its surroundings. Issues raised during the study and documentation phase of the planning process, such as trends in expanding industrial development, unplanned construction along the major roads, and deficient infrastructure, among others, were discussed, not only in regard to potential impact but also taking into account the needs of adjacent communities.

Detrimental and on-going practices, such as looting, were addressed so as to recommend provisions for appropriate land use that would improve the overall conservation and presentation of the place.

Prescribing comprehensive management strategies for the buffer zone entailed revising the limits of the property inscribed as a World Heritage Site. A new proposal for zoning and land use was drafted and mapped for the site. Land tenure, as well as the process for ensuring the implementation of proposals, which includes limiting new development in the area, has yet to be fully defined.
The overall vision is to promote the continuity of a traditional rural landscape, to center housing development in the already developed areas and to guide further infrastructure development and placement without interfering with the site in its current surroundings.

Specific components that address the archaeological site of Joya de Cerén at the territorial level include:

Area I
Considers the site and those zones which have been defined as potential areas for extending the site.

Proposal
Progressive transfer of property to effectively delineate and promote a traditional rural landscape. There is a high potential for archaeological remains in the immediate area and today it provides protection for the site. Current land uses include: traditional farming, a cemetery and a low-traffic road. However, the road connecting the Canton Joya de Cerén with the main road, a junction between the municipality center San Juan Opico and the Pan-American Highway, serves as a block to the potential expansions of the site. This is a major concern for planning future development and an alternative should be sought to preserve the integrity

of a broader site. As for the cemetery, another location should be identified for future burial needs. Agricultural activities should continue at lots with traditional, less-intensive practices. Assigning an archaeological reserve status to the area would facilitate the establishment of an effective buffer zone and landscape designs to support the interpretation and presentation of the site.

Area Ib:
Considers the possible extension of the site separated by the road that connects San Juan Opico with the Pan-American Highway.

Proposal
There have been significant impacts in the area. However, limits are needed to allow for archaeological research and rescue operations as well as to regulate future land use and curb unplanned and uncontrolled development of commercial activities around the site.

Area II
Considers the opposite bank of the river. Although no formal surveys or archaeological research have been undertaken in the area, preliminary studies point to the importance of investigating the change of the course of the Rio Sucio, in conjunction with the study of the tephra and geology, focused on the volcanic events related to the site and the transformation of the river morphology.

Proposal
Restrict land use to traditional agricultural practices and carry out a geophysical survey. Consider the potential restoration of river vegetation for additional protection to the site and to promote the interpretation of the landscape.

Area III
Considers the area northwest of the arroyo.

Proposal
Restrict land use to traditional agricultural practices, mainly for its potential use in landscaping the surroundings. Like any other area, interventions should be carefully undertaken to anticipate the possible existence of archaeological remains.

Area IV
Considers the Joya de Cerén and Agua Escondida Cantons.

Proposal
Regulate construction so that buildings do not exceed two stories. Propose building codes and regulations for construction that include archaeological surveys prior to building as well as the promotion of alternative uses for archaeological finds that could benefit the community.

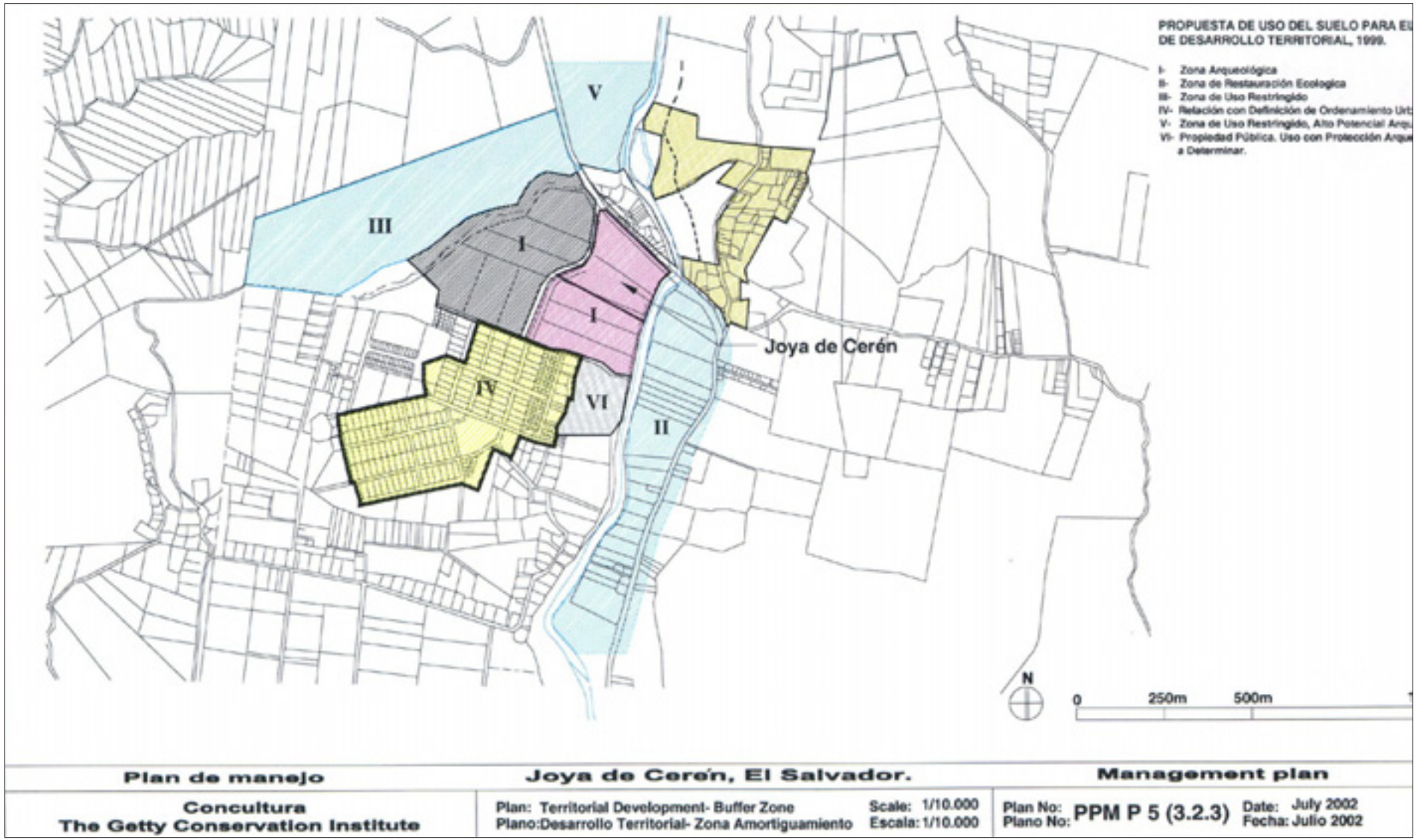
Area V
Considers the area between the Laguna Caldera volcano and the site.

Proposal
This area is key both for investigation and for interpretation of the site. Potential use should be limited to the maintenance of non-intensive agriculture and the protection of the natural resources identified around the crater.

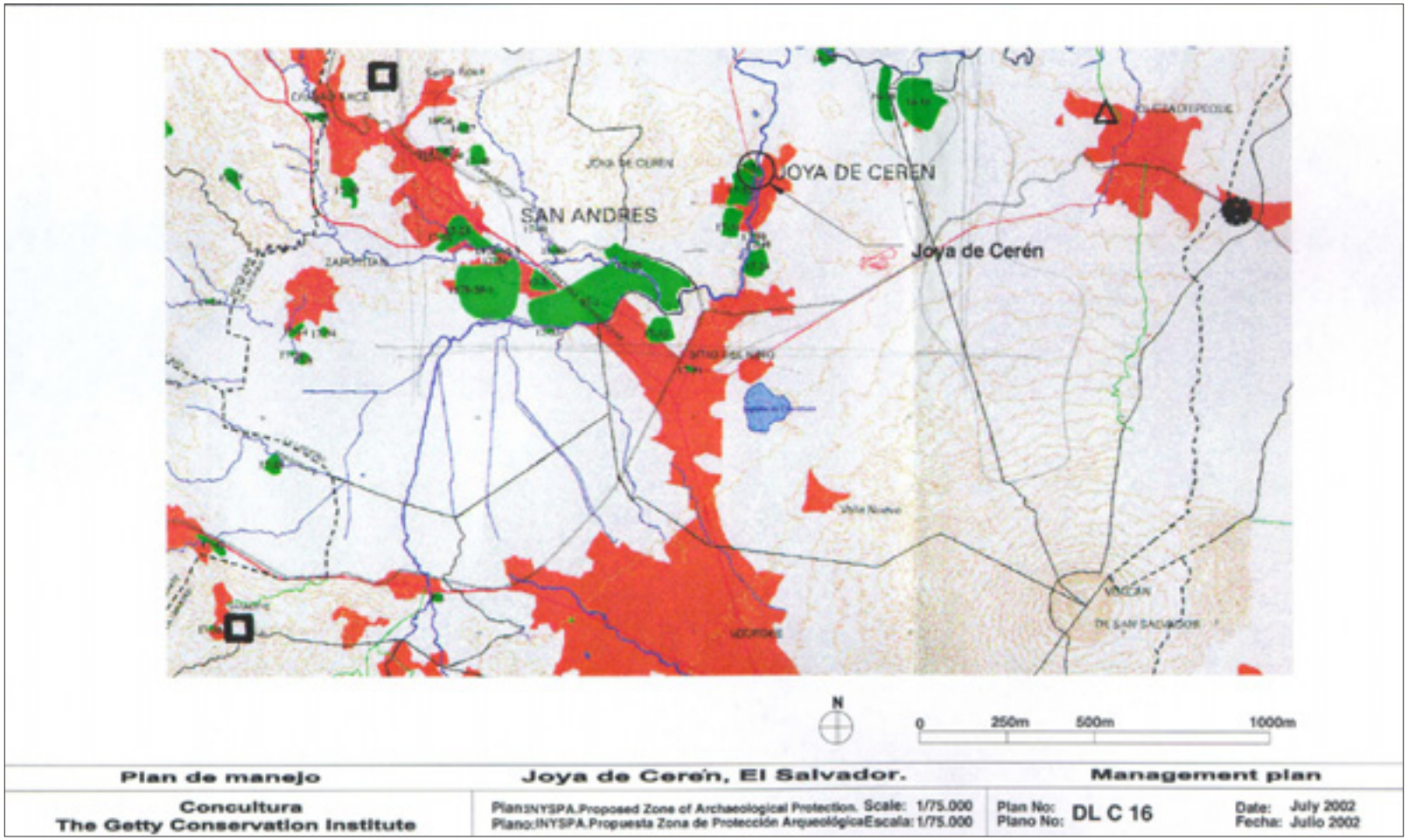
Area VI
Considers the area between Canton Joya de Cerén and the river that is still public property.

Proposal
Consider the area as a potential extension of the site and a zone to connect it with its larger context. After preliminary evaluation of the existence of archeological remains in the area, uses should be defined so as to benefit the conservation of the site and promote human development in the nearby community.

After establishing the Territorial Development Plan for Zapotitan Valley, the involved municipalities signed a collaborative agreement for its implementation. Important achievements to date include an agreement with the Instituto Salvadoreño de Transformación Agraria (ISTA) (Salvadorian Institute for Agrarian Reform) to facilitate land zoning and registering of property as well as to define new land uses. These agreements have promoted information exchange and have articulated actions for better co-management of the area and more expeditious implementation of diverse actions.



Territorial development plan proposal for the buffer zone. © J. Paul Getty Trust. Drawing: Francoise Descamps



Proposed area for archaeological protection. Courtesy of the Territorial Development Plan for the San Andres Valley Project.

State of conservation of structure 12. © J. Paul Getty Trust. Photo: Carolina Castellanos

Appendix 6

Stakeholders meeting

The stakeholders meeting was held during the fifth planning campaign (August 2000) and marked a critical point for strengthening the participatory process. Over 150 people attended, including communities, representatives from government agencies and other entities, to debate ideas about the site, its values and their interests in Joya de Cerén. The main objective of the meeting was to test defined values and to recognize others ascribed by interest groups, in order to understand how different elements were prioritized to define the course of action. Debates were organized under six main themes: scientific research, territorial development, infrastructure and services, tourism, education, and legislation and management.

The following sections describe the specific tasks undertaken for the preparation of the meeting, its facilitation and the derived results.

1. Prior preparation

During the fourth field campaign (March 2000), specific sessions were devoted to the preparation of the stakeholders meeting. This focused on the revision of the objectives of the meeting, as well as the definition of the expectations and results from it. The required elements for the preparation were reviewed: establishment of the objectives of the meeting, selection of content and writing of materials for the presentation, materials to be sent along with the invitation letter, definition of the participants list and logistical preparations for the event. Likewise, mechanisms for its organization were discussed so as to have issues identified and addressed before the end of the campaign.

A work plan to complete preparation and logistics for meeting was put together with the coordinator for these activities. Though the importance of the meeting was recognized by the team, there was still some reluctance in accepting that some decisions for the site needed to be taken jointly with other interest groups and not solely by Concultura. There were discussions on how collaboration needed to be sought before finalizing the plan so as to jointly produce the response, and not the other way around, seeking participation once everything had been decided by Concultura.

2. Documentation work

In August 2000, the first days of the campaign were spent evaluating documentation produced for the meeting and for the management plan. This included the revisions made on the documents produced during the fourth campaign, which had been sent to the Concultura team for prior evaluation. There was still some reluctance in accepting that both for the purposes of the meeting and for the management planning, only essential and key information needed to be included, so as to understand the significance of the site and the conditions that currently affect the place.

With regard to the background documentation needed for the stakeholders meeting, the Concultura team had decided to include just the introductory presentations as reference materials. Therefore, it was discussed that these papers would not suffice to clearly depict the elements of significance of the site or the synthesis of the diverse set of factors that today influence the conservation and management of Joya de Cerén. An effort needed to be made to articulate how different conditions at the site are interdependent and correlate to each other, as well as conditions which are derived from the activities of other stakeholders, so that potential strategies for collaboration could be gleaned during the meetings. The precise analysis of different conditions that currently affect the site and its surroundings, and its influence on the definition of policy and subsequently of projects, was revisited again with the planning team members. Once it had been agreed that these reference materials needed to be produced, the GCI team worked on compiling them to be evaluated later by Concultura before printing them for the meeting. Simultaneously, the rest of the written and graphic documentation was organized by each working group, so as to have additional consultation materials during the working sessions.

As a result, reference documents handed out to participants in the meeting included the following:

- Presentation of the project
- Objectives of the stakeholders meeting
- Expected outcome of the stakeholders meeting
- Planning methodology
- Description and significance of Joya de Cerén
- Current conditions at the site and surroundings.

3. Meeting preparation

Working groups

Once all documentation had been organized, compiled and revised, a general working session was undertaken with the core planning team. The purpose was to address several issues that had come up during prior field campaigns and that

had been discussed in different sessions and subsequent sections of reports. Most of the discussion emphasized values and the vision for the site. Questions posed to planning team members were:

- What is wanted for the site over the next 15 years?
- How are current projects integrated and articulated with the development of the management plan?
- What is the best way to integrate the vision for the future of the site and the image for it?

Responding comprehensively to these questions was essential to get an initial idea of the sort of projects that would be required for the conservation and management of the site, but also to begin to balance and prioritize values with the proposed actions. Upon finalizing discussions, it was emphasized how this team vision and value assessment needed to be integrated with those from other stakeholders during the meeting, to reconcile their needs and priorities for the long-term sustainable conservation of the site.

Another focus of the session was to address concerns about the stakeholders meeting, in terms of the working groups, how to facilitate discussions, the role of Concultura's core planning team members, and the selling of the "product" vs. the selling of the "idea", among others. It was discussed how the meetings were not to be perceived as "battle grounds" for different ideas and positions. The working sessions had been thought of as a setting where Concultura could open up the decision-making process and reconcile the needs and interests of stakeholders linked to the site. Understanding of mutual concerns and interests among groups would lead to better negotiated proposals for the future management of the site. It was then agreed that Concultura would not be leading the discussions solely or making formal presentations that people had to buy into, but rather presenting the different conditions that existed and opening up discussion on the various means to address them. During these discussions, the different roles that each of the planning team members would play were assigned, and moderators from outside of the institutions were chosen for each working group. A document was compiled for each working group in which the participants and materials were listed.

Coordinators and moderators meeting

Once the moderators were selected by the core planning team, they were convened to meet with the working group coordinators. The basis for the discussion was systematized in a document, prepared beforehand, that provided a general framework for initiating and guiding the discussions. The reference document included the following:

At the start of the session, the coordinator will state how a guided discussion will take place, and will address the following:

- The role of the moderator and the reporter
- Election of the reporter
- Time allocation for participants to express their opinions
- Presentation of participants in the session

During the debates:

- Use key questions to promote discussion.
- Do not impose position or criticize misperceptions, use questions to promote reflection on particular issues.
- Be receptive to proposals.
- Highlight issues of common concern to participants: begin to post initial consensus on specific issues.
- Balance values and interests, underscore the importance of conservation.
- Seek to define a joint vision for the future, reconciling interests.

Session Theme 1: Values and cultural significance: the recognition of a shared responsibility

OBJECTIVES:

- Elucidate the values of the place from the perspective of different interest groups.
- Recognize shared responsibility for the conservation of the site.

GUIDING QUESTIONS:

- What do you know about the site? What physical features or attributes identify the place?
- How would the loss of the site affect you, on a personal and professional level?
- Why do you think Joya de Cerén is World Heritage Site?
- Who should participate / work in the conservation of the site?

Besides the objectives and general questions, each thematic working group should consider the following in their sessions:

1. EDUCATION
- Potential of Joya de Cerén from the educational perspective: education and scientific values.
- Valorization of Joya de Cerén by different social groups: impact on identity and sense of belonging.

2. TOURISM
- Potential of Joya de Cerén from the tourism perspective and as the core of development for the region.
- Current state of promotion and dissemination regarding Joya de Cerén: impact on valorization and appreciation of cultural significance.

3. SCIENTIFIC RESEARCH
- Significance and relevance of the site for the academic and scientific community.
- Interpretation of values and influence in the perspectives of different social groups.

4. TERRITORIAL DEVELOPMENT
- Significance and importance of the site on different levels and for distinct social groups.

5. LEGISLATION AND MANAGEMENT
- Significance and importance of the site on different levels and its status as a World Heritage Site.

6. INFRASTRUCTURE AND SERVICES
- Current state of infrastructure and services at Joya de Cerén: impact on the valorization and appreciation of cultural significance.

Session Theme 2: Possibilities for collaboration on different projects: coordination mechanisms among stakeholders

OBJECTIVES:
- Define specific actions / proposals for the site and its surroundings.
- Strengthen the sense of commitment to the place and foster participation of different interest groups.
- Establish practical mechanisms for collaboration among interest groups and participating institutions.

GUIDING QUESTION:
- How can we contribute to the conservation and safeguarding of the site on different levels: as a citizen, as a family, as a professional, as a community and as a nation?

Besides the general objectives and questions, each thematic working group should consider the following issues during the session:

1. EDUCATION
- Current state of education: textbooks, training of teachers, didactic materials, etc.
- Current state of knowledge about the place on different levels.

Ideas to promote:
- Capacity building needs in the field of cultural education.
- Strengthening of the formal, non-formal and informal education practices.

2. TOURISM
- Strategies for the development of local tourism: presentation of routes and coordination of tourism offers, improvements on infrastructure and services, security, etc.
- Strategies for social and economic development: creating new jobs and benefits for the local communities.

Ideas to promote:
- Cultural heritage constitutes an important tourism attraction.
- Tourism should contribute to heritage conservation.
- Integration of cultural and natural heritage as an element for development.

3. SCIENTIFIC RESEARCH

- Use of information from research and dissemination on different levels and for diverse uses: education, promotion, legislation, etc.
- Potential extension of the archaeological site.
- Gaps in knowledge: research priorities and potential multidisciplinary projects to advance the understanding of the place.
- Current conservation conditions and research projects to understand decay processes.
- Balance between the interests of archaeological research and the conservation of the materials and structures exposed.

Ideas to promote:

- Definition of potential research projects for different disciplines, according to the identified needs and to promote the scientific values of the site in the long term.
- Transfer of information and knowledge for different users and uses.
- Inter-institutional collaboration for the implementation of scientific research.

4. TERRITORIAL DEVELOPMENT

- Impact and loss of values as a consequence of unplanned and increased development in the area.
- Integration of the community in the conservation of the natural and cultural heritage of the area.
- Negative impacts derived from the implementation of unsustainable actions.

Ideas to promote:

- Integration of urban, industrial, agricultural and heritage projects.
- Collaboration in mitigating negative effects on the conservation of the site and its surroundings.
- Strengthening of social values.
- Participation of organized social groups and institutions to define projects for sustainable human development.

5. LEGISLATION AND MANAGEMENT

- Gaps in inventories and records of cultural heritage.
- Problems in implementing existing laws and regulations.
- Inclusion of the World Heritage Property in the National Registry.
- Property of the land and regulation of use in the lots adjacent to the site.
- Current state of inter-institutional collaboration.

Ideas to promote:

- Mechanisms for inter-institutional collaboration.
- Municipal regulations for the protection of the site.
- Regulation of land tenure status in the National Registry.
- Transfer of lots adjacent to the site to the State.

6. INFRASTRUCTURE AND SERVICES

- Current state of infrastructure and services at the site and its surroundings: needs and proposals for action.
- Current state of preparation in case of emergency / risk or disaster preparedness.

Ideas to promote:

- Cooperation on different levels to mitigate disasters: specific actions in case of an emergency and support from the community, military headquarters in the area, Municipality, etc.
- Adequate infrastructure to provide services both for visitors at the archaeological site and for the communities in the immediate surroundings.
- Development of an emergency preparedness plan for the archaeological site, in coordination with other institutions, with the community of Joya de Cerén and the Municipality.
- Basic infrastructure: water, electricity and telephone services.

Session Theme 3: The construction of a common vision: policies for heritage management

OBJECTIVES:

- Promote concerted actions at the site that contribute to sustainable development.
- Establish actions for attaining a common vision for the future.

GUIDING QUESTION:

- How would you like to see Joya de Cerén in 20 years? What would you like to see at the place?

Besides the general objectives and questions, each thematic working group should consider the following issues during the session:

1. EDUCATION
- Improve knowledge in regard to cultural and natural heritage.
- Generate educational actions that strengthen national identity.

2. TOURISM
- Importance of conservation for defining sustainable, long-term projects: negative impacts of uncontrolled visitation and lack of public use plans.

3. SCIENTIFIC RESEARCH
- Balance between the interests of archaeology and conservation needs for the site.
- Balance between the interests of archaeology and conservation and the presentation and interpretation of the site.
- Policy and regulations for the implementation of research projects.

4. TERRITORIAL DEVELOPMENT
- Controlled and sustainable development in the immediate surroundings of the site and in the Municipality.
- Promoting the values of the communities for holistic human development.
- Integration of cultural and natural heritage with the physical surroundings to foster sustainable human development.

5. LEGISLATION AND MANAGEMENT
- Inclusion in the National Registry of the different properties that comprise the archaeological site (including its potential extension).
- Strengthening of concerted actions at the site and its surroundings, integration of activities.

vImplementation of existing legislation and regulations.

6. INFRASTRUCTURE AND SERVICES
- Cooperation on different levels to mitigate disasters and emergencies.

4. Stakeholders meetings

Introductory sessions

The first sessions of the meetings were focused on providing a general background for the participants. A general presentation of Salvadorian archaeology and cultural policies was made, followed by the description of the Maya Initiative, the methodological framework, and the presentation on Joya de Cerén. Questions and answers emphasized the role of the stakeholders meetings and anticipated the expected results of the working group sessions to follow.

Working groups: discussion and facilitation

Three working sessions were carried out during the two days of meetings. Each group had a series of issues to address (see outline of the prepared reference document above) and followed the guidelines for each session. Since roles had been clearly assigned and discussed during the preparation, facilitation and recording of sessions was easily undertaken.

Stakeholders had been strategically assigned to each theme, e.g. people involved in tourism participated in scientific research discussions, not only to raise their awareness on the issues of conservation but also so the academic community could link and balance tourism needs and interests with theirs. The incorporation of representatives of different interest groups in the thematic sessions proved to be productive, as important issues were raised and discussions took place to reach consensus on them. Though Concultura still provided general information, their role was also to be part of the negotiations and not the imposing party. Moderators from other entities were also an important asset, as discussions were not "biased" by Concultura's agenda and all represented entities got to participate.

Results from the first day were discussed with coordinators from the working groups, and generally they were all pleased with how things had gone and the obtained results. Needless to say, there were important frictions among some of the participants and agendas that required thorough analysis by all the working groups in order to reach consensus and compromise. These were subsequently dealt with during the following working sessions to attain the best results.

Presentations that summarized the results and conclusions from the working groups on the three themes were made at a plenary meeting, by reporters chosen by the group who did not represent Concultura. The initial perception was of a stronger commitment to the conservation of the place by different participating

stakeholders, particularly the tourism sector, but also the recognized need for sustainable development of the area. A general overview of conclusions, on behalf of the participants, was made by a representative of the Albert Einstein University, with a call to be "part of the solution, not part of the problem". Final comments were made by Ma. Isaura Arauz, committing Concultura to the follow up and the continuous participation and integration of all represented entities. All of the working sessions were recorded in writing and some were taped.

5. Results

Information processing

After the meeting, three days were spent compiling the information that resulted from the three working sessions carried out during the meetings. Each working group assigned two people to review all of the post-it notes produced, notes taken by people at each session, and the general session conclusions. These were later all compiled and distributed to the groups so as to have a base document for further discussions and evaluation of results.

Evaluation of the meeting

The last session of the campaign focused on the evaluation of the stakeholders meetings with the core planning team. The first issue to address was the working groups that had been formed and the key stakeholders that would need to be involved in the subsequent phase of the process, i.e. developing the response.

Results of the discussions include:

- Definition and prioritization of values;
- Recognition of the direct and indirect impact of diverse actions implemented in the site's surroundings and their relation with heritage conservation.
- Acceptance that the site does not exist in isolation but is embedded in a dynamic physical and human landscape, which is impacted by factors such as industrial development, urban encroachment, tourism, etc.
- Identification of the potential benefits of heritage conservation, from economics to human development.
- Establishment of a reference framework for the plan: definition of a collective vision and outline of policies for future interventions at the site and its surroundings.
- Definition of collaborative mechanisms to foster concerted actions between the public and private sectors, to attain a larger commitment and participation in heritage endeavors.

Therefore, the meeting was essential to discuss values, interpretations of the site and to provide visions for its future. The use of external moderators, in a guided discussion, allowed for the definition of new spokespersons between government agencies and organized social groups and fostered an open atmosphere for analysis.

Site Museum where industrial structures were reutilized to house collections. © J. Paul Getty Trust. Photo: Carolina Castellanos

General view of conditions at Structure 4. © J. Paul Getty Trust. Photo: Irene Sen

Temporary interventions at the site and state of conservation of the tephra walls. © J. Paul Getty Trust. Photo: Carolina Castellanos

Appendix 7

Study and documentation

As in other planning processes, the study and documentation phase at Joya de Cerén was essential to obtain all necessary data to make informed decisions. This phase took longer than initially planned because of several factors: professionals in the team could not allot sufficient time to the assigned tasks; information did not exist or could not be obtained; logistical problems, etc. But the most important factor impeding progress was that there had been other planning processes during which information had been collected, so it was assumed that all the data was available and the need for further study was difficult to convey.

During the first field campaign, documentation relevant to Joya de Cerén was revised by the team members. Since there was no central repository of available materials and documents, it was requested that all documentation, including plans and maps relevant to the site, be compiled and listed first.

The review of documentation provided an idea of what existed, what needed to be updated and what needed to be produced for the planning process. Apparently, many documents and data had been completed at different moments, but without a clear idea of the purpose or intended use of that information. Thus, documents relevant to the site varied from simple descriptions of natural patrimony, to reports on the conditions of the protective shelters and proposals on developing a tourist route.

This also reflected the fact that the information had not been systematically analyzed to develop comprehensive projects for the site. For example, there was environmental data collected, but no analysis on what that data meant in relation to the conditions at specific structures or the site as a whole. At best, there were minor compilations of conditions that endorsed the undertaking of different tasks.

It is worth mentioning that in spite of the significance of Joya to the Salvadorian context, there was no complete plan or precise delimitations of the site. When reviewing the existing documentation, some plans were found in which the assigned cultural area was almost three times the size of that depicted in others. Thus, having a site plan and a precise description of the status of land tenure became a key issue for the development of further tasks in the process.

Regarding the review of produced field reports from archaeological research, some gaps could be identified, particularly in terms of reconstructing the history of excavations. Given the importance of this issue for understanding conditions at the site, a campaign was undertaken in Boulder, Colorado, to obtain field records that would allow the fulfillment of this task.

Concerning reports produced by several missions to the site, there was no systematic analysis of the causes and effects of deterioration. In the majority of them, assumptions were made about what was happening and recommendations were given to address those problems. For example, moisture is a problem, thus it needs to be eliminated, but in other areas desiccation is the problem, so structures need to be periodically wetted. This lack of systematic interpretation misled the team into assuming that there was knowledge about what was happening at the site. The fact was that the complexities of interacting factors still needed to be understood and analyzed through condition recording and monitoring before an attempt could even be made in developing a conservation program.

After these reviews, there were several meetings with the planning groups and individuals, both at the site and Concultura´s offices, to assign tasks for the subsequent phase. The main purpose was to define the specific objectives for each area, to determine the assignments that would achieve those objectives and to establish the final product that would result from the documentation.

The results from these meetings were compiled into charts that indicated the objectives of each theme, the person responsible for each undertaking and how they related to the planning process. Working groups were defined, as well as the means by which they would collaborate throughout their development. The ways in which information was to be processed and systematized were also agreed upon.

The main tools used during the study and documentation phase included maps, plans, photographs, videos, forms for condition recording, forms for public use surveys, environmental charts, statistics, and the existing bibliography.

As for working mechanisms, a person was assigned to coordinate collaboration and exchange among the specific groups. Weekly meetings were scheduled to evaluate rate of progress, problems faced and alternatives for moving forward. Logistics were also discussed, as well as reviews made to identify potential collaborators outside Concultura.

Issues that required particular attention included creating a central repository of information, equipment availability, working areas for the specific teams, adequate use of limited resources and promoting the use of students to help in the documentation tasks.

The following table illustrates how tasks were set out during the field campaign. This was the main reference used to verify rate of progress and to compile the needed documentation for subsequent phases.

Tasks for the study and documentation phase. March 1999

Tasks for the study and documentation of the site have been identified from the review of existing information and are centered on specific themes. The expected outcomes are critical to acquiring the required data for the assessment of cultural significance and conditions and to defining sustainable strategies for the management of Joya de Cerén.

Objectives	Tasks
General information	
• Define the extension and area of the place: archaeological reserve, archaeological park and area limited by ISTA (Salvadorian Institute for Agrarian Reform). • Interpret the use and spatial organization of areas adjacent to the site.	• Topographic survey considering the three criteria for extension of the site. • Revise and update the existing plans. • Update the information on land tenure and on property to be transferred to Conculcultura. • Define land use at the adjacent areas limited by ISTA.
Archaeology	
• Define the hypothetical extent of the prehispanic settlement. • Undertake analysis of the archaeological work: identify field seasons, their duration, areas excavated and time invested in exposing structures. • Understand strategies for research.	• Review reports from different field seasons of archaeological research. • Review topographic map prior to excavation. • Systematize existing plans in relation to 0/0 datum point. • Identify phases and levels of excavation for each structure (time and space).
Conservation	
• Know the history of conservation, protection and presentation interventions. • Identify decay factors for the structures. • Determine the state of conservation of the protective measures. • Understand methodology for conservation and maintenance used today.	• Record conditions on archaeological structures, excavation pits and collections. • Record conditions of shelters and protective fences. • Review technical reports from different experts at the site. • Review reports produced by site personnel and revise them. • Check maintenance and conservation actions in the field.
Architecture	
• Document the evolution of the archaeological site. • Understand the construction systems of the structures. • Understand the spatial and functional organization of the prehispanic settlement.	• Review existing information in regard to the architecture of the site. • Revise data in relation to the updated documentation for the structures. • Record information on the base plan for the site.
Environment	
• Know the existing ecosystems and the relevant aspects of hydrology and geology. • Understand environmental conditions at the site. • Analyze the evolution of the landscape in the surroundings. • Know the type of vegetation and its effects on the different strata. • Know the aspects related to water sources at the site.	• Bibliographic review of ecosystems, environmental conditions, hydrology and geology. • Collect documentation on the prior and current conditions of the natural surroundings. • Review the characteristics of each type of vegetation. • Document the evolution of land use at different times. • Correlate changes in land use with actual environmental conditions.

Human context	
• Know the elements of the surroundings that influence the conservation and management of Joya de Cerén (1 and 5 km radius). • Know the potential conditions that could alter the area surrounding the site. • Identify the structure and value of production activities in the municipality. • Know the potential for social pressure at the site. • Understand the diverse social groups related to the site. • Identify power groups and decision-making mechanisms in the communities. • Identify expectations surrounding the site.	• Identify and update information on socioeconomic elements in the surroundings: infrastructure, services, community development, economic activities, etc. • Review components of the immediate surroundings: characteristics and typology of settlements, distribution, land use, production activities, etc. • Determine the quality, availability and infrastructure for services: water, electricity, etc. • Revise plans and projects from other entities that might impact the site. • Revise work carried out with the communities: identify potential conflicts, community needs and means of subsistence.
Public use	
• Know the profile and behavior of visitors at the site, examine reasons that promote visitation to the site. • Analyze how different services for tourism are being provided. • Analyze issues related to the presentation and interpretation of the site. • Evaluate the effectiveness of mechanisms for raising awareness and dissemination. • Assess issues related to carrying capacity at the site.	•Update visitor statistics and obtain information on visitor profiles and expectations. • Examine behavior of visitors to the site. • Know the use of the image of the site in dissemination and promotion projects. • Analyze the efficacy of tourism promotion activities from other entities. • Corroborate the offers of different tourism products. • Assess carrying capacity in physical and spatial terms.
Education	
• Evaluate the level of knowledge about the archaeological site. • Analyze heritage education at different levels. • Understand how the site is being valued and interpreted in education.	• Determine the number of students and teachers in the formal education system in the Municipality (primary, secondary and upper levels). • Review programs and school curricula regarding heritage and Joya de Cerén in particular. Analyze differences between public and private schools. • Review information on official textbooks regarding heritage and environment.
Legislation	
• Know the legal context of Joya de Cerén. • Know the institutional frameworks and arrangements related to the site. • Understand the legal context for cultural and natural heritage in El Salvador.	• Review existing legislation in regard to heritage, tourism and environment. • Review municipal codes. • Assess institutional frameworks and evaluate potential collaboration. • Examine the efficacy of legal frameworks for heritage protection.
Administration	
• Determine the efficacy of organization and administration of resources at the site. • Know the institutional resources available for heritage and site conservation.	• Revise existing documentation related to administrative issues. • Revise how resources are invested at the site.

Expected written results
(that will be complemented by cartographic information)

1. List of property lots in the community of Joya de Cerén with their extent, property status and current use.
2. Justification of the hypothetical extent of the prehispanic site.
3. Detailed chronological history of the excavations: duration of the field seasons, problems faced, measures taken between excavation periods.
4. Detailed chronological history of conservation, protection and presentation interventions: materials, techniques and guiding criteria.
5. Summary of recommendations from different missions and correlation with implemented actions (derived from recommendations).
6. Synthesis of the state of the protective elements, such as fences, shelters, etc.
7. Relations between actions and patterns in maintenance and conservation interventions (weekly, semester and annual).
8. List of materials used and application process for consolidation, sacrificial layers, structural stabilization, grouting, etc.
9. List of criteria used for the application of certain treatments or interventions.
10. List of existing photographic documentation for comparative analysis in conservation.
11. Synthesis of the state of conservation of objects in the collections.
12. Synthesis of construction techniques used in prehispanic architecture (illustrated with schematic drawings).
13. Synthesis of the physical evolution of structures.
14. Synthesis of the analysis of spatial and functional organization in response to the conditions of the environment and in relation to the use of space.
15. Charts with climate conditions: temperature, humidity, wind direction, etc., with station and annual variations.
16. Synthesis of the ecosystem: elements and functions.
17. List of conservation conditions in the natural environment.
18. List of significant changes in land use.
19. List of types of vegetation and characteristics that influence the conservation of cultural heritage.
20. List of infrastructure and services, land use, land tenure, identifying potential problems in the surroundings.
21. List of projects by diverse entities that can potentially impact the archaeological site.
22. Description of related elements (cultural and natural sites) of potential interest for tourism.
23. Synthesis of community elements: organized groups, decision-making, leadership.
24. Analysis of interests and expectations surrounding the site.
25. Analysis of the social and economic situation in relation to production activities.
26. List of ethnic and cultural groups connected to the site.
27. Identification of visitor profiles, expectations and results of their visits.
28. Definition of the visitation patterns at the site.
29. Analysis of issues linked to the presentation and interpretation of the site.
30. List of opportunities, benefits and impacts of additional tourism offers at other sites.
31. List of education programs: actions undertaken, limitations and opportunities.
32. List of aspects highlighted in textbooks in relation to cultural heritage in general and Joya de Cerén specifically.
33. List of activities undertaken in regard to environmental education.
34. List of relevant legislative articles and codes that can impact the conservation and management of the site.
35. List of legal aspects to consider for the implementation of the management plan.
36. Synthesis of the problems faced in regard to the application of legislation and regulations.
37. List of the number of personnel, functions and responsibilities related to the archaeological site.
38. Analysis of the investment structure at the site.
39. Cost-benefit analysis of the investments at the site.
40. List of general costs for the maintenance and operation of the site.
41. List of costs in case of emergencies, implications for future operation.

Description of the cartographic information

Plan	Description
Plan of El Salvador	Records five main volcanic events in El Salvador and the extent of their effects.
Plan 1: Plan of the context	Scale 1: 25,000. Reference documents: Cadastral plans no.2357 IV SE, 2357 III NE, 2357 III NW, 2357 IV SW Coordinates: 89o 30´ 00´´, 13o 15´ 00´´, 89o15´ 00´´, 13o 55´ 00´´. Base document to record elements or factors on the macro scale that can directly or indirectly impact the site.
Plan 1 A: Water/ hydrology	Records the general water system, locating surface water (lakes, rivers) and areas for water infrastructure (rivers, extraction from the subsurface, water retention areas, etc.).
Plan 1 B: Geology	Records types of soils, geological formations and extent of volcanic events.
Plan 1 C: Climate and vegetation	Records temperature, humidity, direction of predominant winds and vegetation areas.
Plan 1 D: Land use	Records areas for agricultural production, existing forests, habitation, industrial activity, commerce and institutions.
Plan 1 E: Projects	Records the evaluation of the possible impact from projects including changes in land use, urban expansion, industrial expansion and agricultural production.
Plan 1 F: Socioeconomic	Records services and infrastructure for the general population including sports facilities, religious services, education centers, cemeteries, health centers and recreation areas.
Plan 1 G: Education centers	Precise location of education centers indicating primary, secondary and high school levels.
Plan 1 H: Infrastructure	Records infrastructure, identifying companies and capacities, including telephone networks, electricity, water supply, sewage and water treatment facilities.
Plan 1 I: Communications infrastructure	Records formal and informal communication routes including highways, roads, streets, unpaved roads, railroads, airports and landing strips.
Plan 1 J: Related elements and sites	Records related sites such as historical settlements, natural areas and reserves, natural distinctive features and archaeological sites.
Plan 1 K: Distribution of ethnic groups	
Plan 2: Plan of the immediate context	Scale 1: 5,000. Reference documents: aerial photograph and property lots. Base document to record elements or factors at a 1 km radius from the site that can directly or indirectly impact the site.
Plan 2 A: Water / hydrology	Records the general water system, locating surface water (lakes, rivers) and areas for water infrastructure (rivers, extraction from the subsurface, water retention areas, etc.), relationship between rivers and water tables and wells for water extraction.
Plan 2 B: Geology	Records types of soils, geological formations and extent of volcanic event of Laguna Caldera.
Plan 2 C: Vegetation	Records existing types of vegetation.

Plan 2 D: Land use	Records areas for agricultural production, existing forests, habitation, industrial activity, commerce and institutions.
Plan 2 E: Socioeconomic	Records services and infrastructure for the general population including sports facilities, religious services, education centers, cemeteries, health centers and recreation areas, commercial areas (markets, etc.), areas for garbage collection and administration centers (location of public entities).
Plan 2 F: Infrastructure	Records infrastructure, identifying companies and capacities, including telephone networks, electricity, water supply, sewage and water treatment facilities.
Plan 2 G: Land tenure	Locates properties and tenure status: State, Municipality, Cooperatives, Private and Public Institutions.
Plan 3: Plan of the place	Scale 1:1000 or 1: 2000. Reference documents: extension of plan 2. Base document to locate archaeological and contemporary elements on the surface. It includes: the restricted area, the archaeological park, the adjacent properties, the communication roads that cross the area and the river.
Plan 3 A: Land tenure	Records the current status of properties and regularization process in place.
Plan 3 B: Prehispanic settlement	Records the exposed remains, remains detected through geophysical surveys and anomalies that could potentially be cultural remains.
Plan 3 C: Distribution of vegetation	Records trees, grass areas, bushes and agricultural production areas.
Plan 3 D: Land use	Records areas for agricultural production, existing forests, habitation, industrial activity, commerce and institutions.
Plan 3 E: Infrastructure	Records services and infrastructure for the general population including sports facilities, religious services, education centers, cemeteries, health centers and recreation areas, commercial areas (markets, etc.), areas for garbage collection and administration centers (location of public entities).
Plan 4: Plan of the actual zone	Scale 1: 500. Reference documents: 1999 topographic survey. Base document to locate archaeological and contemporary elements on the surface. It includes the restricted archaeological area and the archaeological park.
Plan 4 A: Location of elements at the site	Records contemporary constructions (silos, protective shelters, storage areas, museum, cafeteria, parking spaces, visitation paths, etc.), vegetation (trees and garden) and archaeological structures.
Plan 4 B Longitudinal and transversal sections	2 transversal sections of the site and 1 longitudinal section (divided in two).
Plan 4 C: Functioning of the public zone	Records interpretative areas (museum, guides, ticket sales), sanitary services, food services, security, rest areas, parking, vehicle and pedestrian circulation, access and areas for garbage deposits.
Plan 4 D: Protection and security system	Records conditions on the perimeter fence, the archaeological reserve fence and protection at the pits.
Plan 4 E: History of archaeological investigation	Records areas excavated in different field seasons and areas partially backfilled between field seasons.
Plan 4 F: Topography of the site prior to excavations	Records existing levels prior to excavation and the location of deposits of materials from excavation during field seasons.
Plan 4 G: Current topography of the site	Records actual level of the surface, the archaeological level of the pits and the partial levels of excavation at the pits.

Plans 4 H: History of interventions	
Plan 4 H 1: Presentation interventions	Records interventions and infrastructure for presentation: museum, visitor paths, visitor services, trees planted, etc.
Plan 4 H 2: Protection interventions	Records location of protective shelters and their relation with water circulation, as well as different fencing systems.
Plan 4 H 3: Conservation interventions	
Plan 4 I: Visitation patterns	Records paths that visitors use during their visit to the site and illustrates the visual sequences.
Plan 5: Plans of the excavation pits	Scale 1: 50. Reference documents: 1999 topographic survey. Base document to locate archaeological and contemporary elements within the excavation pits.
Plan 5 A: Individual floor plans (4, one per pit)	Floor plans to locate specific elements in the pit, including: levels of the actual surface, level of the archaeological surface (including unexcavated tephra levels), elements of prior interventions (shelter supports, water collection system), current supports for the shelter, delimitations of the pit (walls with wire, walls, wooden fences, etc.) and the location of the archaeological structures.
Plan 5 B: Individual sections (8, two per pit)	Longitudinal and transversal sections to determine the volume and form of the space according to the location of the following elements: archaeological structures, protective structures, stratigraphy of the pit and profile of the current level.
Plan 5 C: Elevations	Elevations of the four sides of the pits to identify the composition and layers of the geological strata and the facades of the protective structures.
Plan 5 D: Floor plans for condition recording (4)	Records humidity zones.
Plan 5 E: Elevations for condition recording	Records state of conservation of the tephra, vegetation growth in the pits and animal or insect nests.
Plan 5 F: Archaeological stratigraphy	Most representative elevation to locate and describe tephra layers, location of cultural and natural elements (such as the tree layer).
Plan 6: General plan of the archaeological site	Scale 1:200 or 1:100, depending on the results of the topographic survey. Reference documents: topographic survey 1:200. Base documents to locate the archaeological elements, for the identification of materials and construction techniques, as well as the constructive evolution of each structure, condition recording and the specific documentation of interventions and maintenance actions.
Plan 6 A: Synthesis of Plan 7 A: Materials and construction techniques	
Plan 6 B: Synthesis of Plan 7 D: Condition recording	
Plan 6 C: Synthesis of Plan 7 E: Previous interventions	
Plan 6 D: Synthesis of Plan 7 F: Maintenance	
Plan 6 E: Synthesis of Plan 7 B: Construction evolution	
Plan 6 F: Current shelters and water circulation and drainage in relation to the shelters	

Plan 6 G: Analysis of spatial organization and functions of the prehispanic settlement.	Records structures, prehispanic trash heaps, gardens, and the spatial and functional relationships among elements.
Plan 7: Plans of the archaeological structures	Scale 1:50 for the floor plans, Scale 1: 20 for the elevations. Reference Documents: 1996 Survey (APSIS). Base documents to locate the archaeological elements, for the identification of materials and construction techniques, as well as the constructive evolution of each structure, condition recording and the specific documentation of interventions and maintenance actions.
Plan 7 A: Materials and construction techniques	Floor plans and elevations for each structure to record materials and construction techniques.
Plan 7 B: Construction evolution	Floor plans and elevations for each structure to record different phases of construction.
Plan 7 C: Location of archaeological materials	Floor plans for each structure to record location of archaeological materials recovered during the excavations.
Plan 7 D: Condition recording	Floor plans and elevations for each structure to record decay phenomena and factors.
Plan 7 E: Previous interventions	Floor plans and elevations for each structure to record conservation interventions.
Plan 7 F: Maintenance	Floor plans and elevations for each structure to record maintenance activities.

Structure 1 at the time of excavation, the depth of the tephra layers covering the site can be appreciated. Photo courtesy of Payson Sheets

Appendix 8
Response

During the planning process, there were significant discussions about how to structure the actual management plan and the level of detail that was needed. In conjunction with the Salvadorian counterparts, it was decided that proposed strategies needed to be largely detailed because institutional frameworks precluded the possibility of assigning full-time personnel to develop precise action plans that were needed for implementation. Consequently, it was decided to produce specific projects that would be synthesized for the purposes of the plan, but available at the institution for ease of implementation. It was agreed that all projects would have the same information so that they could be easily systematized and integrated with the plan.

All projects had the following information:
- Name / title
- Description
- Location
- Background information and justification
- Objectives
- Expected results
- Beneficiaries
- Actions
- Timeline / schedule for implementation
- Budget
- Requirements
- Responsibilities
- Conditions needed for implementation
- Monitoring indicators / performance evaluation

Almost three field campaigns were centered on the development and review of these projects. Projects were identified based on the results of the assessment carried out in prior field seasons and from the information gleaned from the stakeholders meetings. A series of working meetings were carried out with personnel from Concultura according to their specific areas of expertise and the precise themes to be discussed (education, tourism, archaeological research, human development, and natural environment, among others). These meetings helped in identifying and prioritizing projects, defining interrelations and the conditions required for their implementation. Ultimately, as a result from the meetings, a preliminary chart of projects was prepared, in which programs, subprograms and projects were identified, as well as the person responsible for developing the specific content of the project. The chart also helped in the identification of working groups for the development of integrated programs, so as to avoid overlaps in the proposed strategies and objectives as much as possible. For example, archaeological research was essential to determine additional areas for legal protection and was required prior to the design of conservation proposals.

Defined projects were later grouped into specific programs that integrated activities with similar orientations, i.e. archaeological research, conservation research, interventions, etc. All of these proposals constitute the actual means of implementing the management plan, and achieving their specific results contributes to the conservation of values and significance at the site and to attaining the overall vision for the future.

Because it was critical to guarantee feasible implementation, a series of general strategies for implementation were discussed, which ranged from the technical conditions that needed to be created, to political and financial ones.

The following tables illustrate, to some extent, how the process of articulating the response evolved.

Programs and projects – Initial structure, November 2000

Program	Project	Involved entities
Conservation	Interventions at the site	Concultura
	Maintenance actions	Concultura
	Environmental monitoring	Concultura – GCI
	Condition monitoring	Concultura – GCI
	Backfilling of archaeological test pits	Concultura
Research	Archaeological materials	University of Arizona
	Paleobotany	NY Botanical Garden
	Conservation	GCI
	Rescue archaeology	Concultura
	Ceramics catalogue	Concultura
	Geophysical surveys in adjacent areas	Concultura
Presentation	Landscape design Inter-American	Development Bank – Concultura
	Interpretation / visitor routes	Concultura
	Public use	Patronato
Natural environment	Assessment and projects for natural heritage	Fundación Tazumal and adjacent communities
Social context	Capacity building in adjacent communities	Inter-American Development Bank – Concultura
	Mundo Maya Initiative	Mundo Maya Organization
	Territorial development at San Andrés	OPES – PAES
	Presentation of other cultural areas	Corsatur

Education	Didactic materials for heritage education	Concultura
	World Heritage in Young Hands	Concultura
	Education project in private schools	Concultura– American School
	Education project in private schools	Concultura- German School
Dissemination	Joya de Cerén publications	University of Colorado
	Site museum	Inter-American Development Bank – Concultura
Administration	Land registry	Concultura – CNR
	Mundo Maya projects	Fundación Empresarial Mundo Maya
	Implementation of the management plan	UNESCO

Programs and projects – Structure, March 2001

Program	Subprogram	Project	Subproject
Research	Archaeology	Site concept	Agricultural sectors
			Civic group
			Domestic groups
			Architecture and landscape in prehispanic times
		Limits	Site
			Tephra
		Chronology	
		Interpretation of world view	
		Ceramics catalogue	
		Rescue archaeology in the immediate surroundings	
		Study of artifacts and archaeological materials	
	Conservation	Carrying capacity	
		Water table levels	
		Reburial	
		Tephra slopes stabilization	
	Cultural landscape	Anthropological study of the communities	
		Landscape transformation	
		Landscape typology	
		Original course of the Rio Sucio	
		Vulcanology	
		Cultural properties for additional visitation	
		Botany (actual and paleo)	

Conservation		Interventions on structures	
		Maintenance	
		Shelters	
		Condition monitoring	
		Stabilization of tephra banks and slopes	
		Disaster preparedness and mitigation	
		Movable property / collections	
Human development	Community strengthening	Vocational workshops	
		Production workshops	
		Strengthening of micro-enterprise	
		Integration of local community projects	
		Technical support to municipal projects	
	Education and dissemination	Cultural education for adjacent communities	
		Capacity building for teachers	
		Permanent activities for dissemination on the national level	
		Publications	
		Educational activities at the site	General public
			Students
		Didactic materials	Guides
			Textbooks
			Audiovisuals
		Environmental education	
		Strengthening of higher level educational programs	
		Curriculum development for Joya de Cerén	

Human development	Cultural and environmental tourism	Road signaling	
		Cultural activities	
		Promotion of rural tourism	
		Tourism routes	
		Connection routes Joya de Cerén – San Andrés	
		Connection routes Joya de Cerén- Laguna Caldera	
		Training of visitor guides	
Landscape	Public use	Equipment	
		Infrastructure	
		Maintenance	
	Services	Equipment	
		Infrastructure	
		Maintenance	
	Site	Equipment	
		Infrastructure	
		Maintenance	
	Immediate surroundings	Connection routes Joya de Cerén – San Andrés	
		Connection routes Joya de Cerén- Laguna Caldera	
		Territorial development	
	Environment	Flora and fauna management	
		Recovery of natural areas	
		Recovery of the Rio Sucio	
		Conservation and restoration of river gallery forests	
		Conservation of primary forests at Laguna Caldera	
		Territorial development	

Immediate improvements		Preventative actions	
		Protection works	
		Presentation	
		Services: telephone, electricity, water, sewage, etc.	
		Solid waste management	
Administration		Permanent collaboration	
		Stakeholders communication	
		Land tenure and land use ordinance	
		Legal protection	
		Decree for Natural and Cultural Reserve	

Programs and projects – Final structure in the management plan

Program	Subprogram	Project
Research	**Archaeology**	Site concept: Civic-center complex
		Site concept: Residential units
		Site concept: Agricultural sectors
		Architecture and landscape in the prehispanic era
		Limits: Geophysical survey
		Limits: Tephra
		Limits: Archaeological test pits
		Limits: Mud flows
		Rescue archaeology in the adjacent area
		Ceramics catalogue
		Chronology of the Joya de Cerén archeological site
		Study of artifacts and archaeological materials
		Interpretation of world view
	Conservation	Soils, slopes and hydrology at the site
		Botany
		Load capacity at the site and in the area of impact
		Re-burial
	Landscape	Anthropological study of the surrounding communities
		Identification of cultural sites of interest in the area
		Transformation of the landscape
		Rio Sucio basin and original river course
		Vulcanology

Conservation	**Archaeological structures**	Interventions on structures
		Maintenance activities
		Protective shelters and water control systems
		Monitoring of conditions
	Movable property / collections	Immediate actions for artifacts in situ
		Conservation of artifacts
	Prevention	Stabilization of excavation pits and slopes
		Disaster mitigation and preparedness
		Maintenance of the Site Museum
		Maintenance of the Archaeological Park
Landscape	**Site landscape**	Immediate improvements, protection, and presentation
		Presentation of the site
		Research center
	Landscape immediate surroundings	Visitor route from Joya de Cerén to San Andrés
		Visitor route from Joya de Cerén to Laguna Caldera
		Territorial development - buffer zone
	Environment	Follow-up to the San Andrés Territorial Development Plan
		Conservation of the Laguna Caldera forest
		Restoration of the Sucio River
		Conservation and restoration of the river gallery forest
		Management of wildlife at the El Playón Complex
		Restoration of the El Playón Complex natural areas

Human development	**Community strengthening**	Immediate improvements to services
		Technical support for municipal cultural heritage projects
		Training workshops on productive activities for communities
		Strengthening micro-enterprise in surrounding communities
	Education and dissemination	Teacher training for educational centers in surrounding areas
		Cultural education for surrounding communities
		Educational activities at the site: General Public
		Educational activities at the site: Students
		Environmental education, Municipality of San Juan Opico
		Inclusion of site content in formal education
		Teaching materials: Design of teaching guides
		Teaching materials: Design of audiovisual materials
		Strengthening of programs for higher education
		Ongoing national outreach activities
		Publications on Joya de Cerén
	Strengthening of cultural and environmental tourism	Zoning and road signs
		Tourist routes
		Training of interpreter-guides
		Development of rural tourism
		Support for cultural activities in San Juan Opico

VII. Glossary

VII. Glossary

The following definitions have been taken from:

- *Draft Guidelines for the protection, management and use of Aboriginal and Torres Strait cultural heritage places,* Department of Communications and the Arts, Canberra, 1997 (GPM)
- *The Burra Charter, Australia* ICOMOS inc., Sydney, 1994 (BURRA)
- *Protecting Local Heritage Places: A guide for communities,* Australian Heritage Commission, 1999. (PLHP)
- *National estate values in the Central Highlands of Victoria: draft project report, Australian Heritage Commission and Dept of Conservation and Natural Resources, Victoria,* 1994 (NEVCHV)

Heritage place: A site, area, region, building or other structure (together with associated contents and surroundings) that has heritage value.

Cultural landscape: The way in which perceptions, beliefs, stories, experiences and practices give shape, form and meaning to the landscape.

Landscape: A place containing cultural and natural features and values which extend over a large area. Sometimes used to refer to rural landscapes, but may also include extensive places within urban areas such as parks or gardens.

Place: May be a landscape, seascape, feature, area, site, building or other work, group of buildings, or other works or landscapes, together with associated contents and surrounds.

Heritage protection: The means of taking care of natural and cultural heritage values of a place; includes legislation, policies and management frameworks.

Management: Management of a place involves making conscious choices about what happens to the place and taking action to make those things happen. In the context of this document, it is undertaken in order to, amongst other things, ensure that the cultural significance of a place is retained. Management includes the widest possible range of actions and decisions, such as:

- establishing the appropriate decision-making group and processes;
- assessing significance;
- deciding to open or not open a site to visitor management;
- approving site works and physical conservation;
- setting up decision-making structures to implement strategies;
- arranging access rights or means to achieve access (such as transport); and
- deciding to take no action.

Conservation: Conservation implies keeping in safety or preserving the existing state of a heritage resource from destruction or change, i.e., the action taken to prevent decay and to prolong life (Feilden, 1982: 3). Another definition of conservation is broader. This is the Burra Charter definition which is "all the processes of looking after a place so as to retain its cultural significance" (Article 1.4). The general concept of conservation implies various types of treatments aimed at safeguarding buildings, sites or historic towns; these include management, maintenance, repair, consolidation, reinforcement.

Preventive Conservation consists of indirect action to retard deterioration and prevent damage by creating optimal conservation conditions as far as is compatible with its social use.

Fabric: The physical material of the place.

Remedial (or Physical) Conservation consist mainly of direct action carried out on the cultural property with the aim of retarding further deterioration.

Maintenance: The continuous protective care of the fabric, contents or setting of a place. In technical terms maintenance consists of regular inspections of a monument or site and may involve small-scale treatments (e.g. surface cleaning, renewal of protective coatings, etc.).

Preventative maintenance is a powerful tool to prevent decay and avoid large-scale conservation-restoration treatments. A suitable maintenance program implemented after the conservation treatment aims at preserving its improved conditions.

Preservation: This is often used as a synonym of conservation; many people use the word in an all encompassing sense, including also issues related to the broader administrative, economic, legal, political and social context in which conservation takes place (e.g. legal protection, policies, public awareness)

Stabilization: Maintaining the fabric of a place in its existing state and retarding or slowing deterioration.

Protection: In legal terms, preservation is the action required to provide the conditions for a monument, site or historic area to survive. The term is also related to the physical protection of historic sites to ensure their security against theft or vandalism, as well as environmental attack and visual intrusions. Buffer zones also provide protection to historic areas.

Legal protection, which is based on legislation and planning norms, aims to guarantee defense against any harmful treatment, provide guidelines for proper action, and institute corresponding punitive sanctions.

Physical protection includes the addition of roofs, shelters, coverings, etc., or even removing an endangered object to safety.

Restoration: most commonly accepted definition was to return to an object its lost form or appearance. In North America, the term is often linked to "period restoration," i.e., the re-creation of the aesthetic design concept of a building in a given period. In England, "restoration" was considered as a negative or destructive treatment, following the debates led by John Ruskin. In Latin languages, "restoration" has often been used as a general term related to the conservation of the built cultural heritage.

In Articles 9-13 of the Venice Charter "The aim of restoration is not only to conserve the integrity of the resource, but also to reveal its cultural values and to improve the legibility of its original design. Restoration is a highly specialized operation based on a critical-historical process of evaluation, and must not be based on conjecture. The aim of modern restoration - to reveal the original state within the limits of still existing material - thus differs from the past aim of bringing back the original by rebuilding a lost form. The French term mise-en-valeur is closely linked to this notion. Restoration in this manual means returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling components without the introduction of new material.

Reconstruction: This is returning a place as nearly as possible to a known earlier state and is distinguished by the introduction of material (new or old) into the fabric.

Renewal: Any action which renews, or revitalizes, the cultural significance of the place. Sometimes these actions may affect the fabric or the physical aspects of the place. Renewal may simply be 'continued use', which may or may not result in 'protective care'. Renewal or revitalization can occur as a result of activities which do not alter the fabric; for example, by the telling of new stories, or by the use of the site for new ceremonies.

Adaptation: Modifying a place to suit proposed compatible uses.

Continued use: The continued use of a place may not be consciously motivated by a desire to conserve cultural significance but may actually do this. Activities which fit this category would include making new deposits at living sites, and rearranging, or adding to stone arrangements, etc.

Compatible use: A use which involves no change to the culturally significant fabric, changes which are substantially reversible, or changes which have minimal impact.

Sustainable development: Use of an area within its capacity to sustain its cultural or natural significance, and ensure that the benefits of the use to present generations do not diminish the potential to meet the needs and aspirations of future generations.

Ecologically sustainable development: Using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained and the total quality of life - now and in the future - can be increased.

Cultural Significance: Social, aesthetic, historic, or scientific value for present, past, or future generations.

Natural significance: The importance of ecosystems, biological diversity and geodiversity for their existence or intrinsic value, or for present and future generations in terms of their scientific/research, social, aesthetic and life support value.

Aesthetic value: Aspects of sensory perception for which criteria can be stated. These criteria may include consideration of form, scale, color, texture and material of the fabric or landscape, the smells and sounds associated with the place and its use.

Historic value: History of aesthetics, science and society, and therefore could be used to encompass a range of values. A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase, or activity. It may be the site of an important event. History can describe the 'story' of a place or its people and can apply to any period, though not usually the current period.

Social value: Range of qualities for a place such as spiritual, traditional, economic, political, or national qualities which are valued by the majority or minority group of that place. Social values include contemporary cultural values.

Management Plan: A document which details how to look after the heritage and non-heritage features of a place. It may contain a conservation plan and/or its components. They go further than conservation plans in their consideration of the practical circumstances, including the economic and political context which affects the use of places.

Conservation Plan: This documents the sequence of steps undertaken in the conservation process. It sets out what is significant in a place, and, consequently, what policies are appropriate to enable the significance to be retained in its future use and development. Consultation is a process of discussion between those proposing a course of action and those likely to be affected by those actions.

Documentation is the written, visual, audio and electronic information about a place.

Condition assessment: A record of the state of the critical aspects of the place at a given time. This should be suitable for:

- developing options for future action;
- and, as a record against which to judge change.

Interpretation: Interpretation is a means of communicating ideas and feelings which help people enrich their understanding and appreciation of their world and their role within it.