



**ICOMOS - ISCEAH**

International Scientific Committee  
on Earthen Architectural Heritage

---

International Council on  
Monuments and Sites

# **ISCEAH**

## **International Scientific Committee on Earthen Architectural Heritage**

### **3-Year Plan 2021-2023**

#### **Developed by:**

President: Maddalena Achenza; Vice-President: Amanda Rivera Vidal;

Secretary-General: Pamela Jerome; Treasurer: Ian Bowman;

Chair 1 (in-use): Lone Stiegler;

Chair 2 (archaeology): Masoud Nakhaei;

Chair 3 (technology): Bakonirina Rakotomamonjy;

Chair 4 (landscapes): Jorge Tomasi;

Chair 5 (seismic): Natalia Jorquera.

#### **Background:**

The purpose of a Triennial Plan is to assist in the development and implementation of an overall Scientific Development Strategy for ICOMOS. ICOMOS's Scientific Council has set up a scientific program of interdisciplinary themes seeking collaboration from other ISCs. Within that framework, ISCEAH's program can contribute through training, field projects, organization of conferences and seminars, publications, research, websites, disseminating through different platforms methods for response to requests for assistance, etc. The development of a road map to establish future reference documents for the conservation and management of earthen architectural, archaeological and cultural-landscape heritage is also an area of activity for ISCEAH to contribute to ICOMOS's overall programs.

#### **1. ISCEAH's Role**

ISCEAH has an important role studying, enhancing, and protecting earthen architecture and earthen heritage worldwide. This Scientific Committee is an



international organization committed to research and safeguard earthen architecture. As a result, the members of the Committee have an active standpoint contributing to the awareness and protection of earthen heritage worldwide.

## 2. Research Themes

2.1. **Objectives:** ISCEAH's research is developed under five main themes.

- Theme 1: In-Use - Conserving and studying the standing, and perhaps in use, architectural heritage (vernacular, historic, etc.).
- Theme 2: Archaeology - Conserving and studying the earthen archaeological environment, which may also include standing structures.
- Theme 3: Landscapes - Researching the contribution of earthen architectural heritage to cultural landscapes and its relation to the intangible heritage and living traditions.
- Theme 4: Technology - Cooperating in the process of understanding the historic/traditional techniques of earthen structures through research into materiality, including its impact on new earthen construction and encouraging/promoting/supporting additional research into the decay pathology of earthen building systems.
- Theme 5: Seismic - Researching ancient/historic a-seismic techniques and using these in addition to current research to inform retrofitting of existing structures and appropriate new construction.

### 2.2. Work Program:

A specialized sub-committee elected from the Board of Directors of ISCEAH leads each theme of research.

### 2.3. Background and Expected Results:

**Theme 1: In-Use** - ISCEAH is tasked with carrying out specialized, scientific studies and sharing information that contributes to the protection and conservation of the world's earthen architectural, archaeological and cultural landscape heritage. The sub-committee on In-Use (Scientific Theme 1) is concerned with conserving and studying extant, standing, and possibly in-use earthen architectural heritage of all kinds. ISCEAH has set out to create a *Charter for Earthen Architecture*. To support that endeavor, the



**ICOMOS - ISCEAH**  
International Scientific Committee  
on Earthen Architectural Heritage

---

International Council on  
Monuments and Sites

In-Use sub-committee is creating, following the ICOMOS definitions of doctrinal texts, a Guideline. The proposed *Guidelines for Earthen Architecture* will address the specific activities and processes to follow for the conservation of earthen architecture.

The ISCEAH sub-committee on In-Use has noted a lack of basic guidance documents in the international cultural heritage community that could instruct the preservation, conservation, and rehabilitation of historic earthen resources throughout the world and especially in those countries, which lack their own guidance documents. Building on other ICOMOS doctrinal texts such as the *Burra Charter 2013*, the sub-committee drafted a table of contents for such a document in December 2016 and will now begin the process of creating comprehensive guidelines for conserving a historic earthen resource.

The ISCEAH sub-committee on In-Use wishes to guide communities around the world in preserving, conserving and rehabilitating historic earthen resources worldwide. The sub-committee seeks to guide through a comprehensive illustrated document that can be easily disseminated online. The document will incorporate other support documents to create one comprehensive location for the dissemination of information regarding Earthen Architecture. For example, the Guidelines will incorporate the *ICOMOS – ISCEAH Glossary of Earthen Materials Deterioration Patterns* (presently under final revision), an illustrated glossary of terminology. The *Guidelines* document will specifically discuss how to evaluate and identify appropriate adaptive reuses for a resource. The document will use community-case studies from around the world as illustrative examples.

**Theme 2: Archaeology** - The primary purpose of the ISCEAH Archaeology sub-committee is the conservation and study of earthen archaeological sites. During the last three years, the Archaeology sub-committee of ISCEAH has developed an important glossary for earthen heritage deterioration patterns (which is presently under final revision). Respecting the efforts of the last responsible Board, we can better disseminate the glossary by translating it into different languages. Moreover, concerning a documentation gap of earthen heritage traditional knowledge and modern techniques, providing a database of different traditional knowledge and modern techniques for reducing the vulnerability and maintenance of earthen heritage is proposed as an essential effort by this sub-committee. Conservation is an ongoing and cyclical process; understanding the current conditions of conservation techniques is an essential first step to good conservation practice. This database could provide a useful resource for the conservation of archaeological sites in various topics



**ICOMOS - ISCEAH**  
International Scientific Committee  
on Earthen Architectural Heritage

---

International Council on  
Monuments and Sites

such as methodology, material modification, climate change adaptation, conservation and restoration. This information could be achieved by data collection and literature review, through the participation of ISCEAH members.

**Theme 3: Technology** - ISCEAH is tasked with carrying out specialized, scientific studies and sharing information that contributes to the protection and conservation of the world's earthen architectural, archaeological and cultural landscape heritage. The Technology sub-committee intends to focus this 3-year plan on the inventory of earthen architectural heritage technologies around the world. As confirmed by the UNESCO -World Heritage Centre in the presentation of the World Heritage program for Earthen architecture (WHEAP), "Earthen architecture is one of the most original and powerful expressions of our ability to create a built environment with readily available resources. It includes a great variety of structures, ranging from mosques, palaces and granaries, to historic city centers, cultural landscapes and archaeological sites." Despite this, diversity and particularity of earthen heritage is often diminished, leading to banalization of this architecture. Too many times we read sentences such as "this unique architecture is characterized by round hut made of mud." Characterization of the uniqueness of this heritage is a key to better value and protect this heritage.

**Theme 4: Landscapes** - The concept of landscape refers to a portion of the territory with its multiplicity of elements, but also to a particular way of perceiving and conceiving the world, culturally and socially defined. In this sense, rather than a static support for people's activities, landscape is an agent within a network of relationships between people, their productions and the natural world, which shapes practices, as well as being shaped by them, within a dynamic process of permanent creation and recreation. In any case, being a concept generated within occidental geographical traditions, it requires a permanent revision in order to recognize other ways of thinking about space and social relations. Regarding earthen cultural landscapes (ECL), it offers us the possibility of thinking about these architectures in their broader territorial contexts of production, considering their interactions with a multiplicity of social actors and cultural conceptions of nature. Moreover, it invites us to insert earthen heritage within the complexity of local social realities and their challenges.

Since 2008, the ECL sub-committee has been reviewing theoretical frameworks based on the contributions of different authors and organizations, towards the construction of a landscape definition that allows a better understanding of earthen heritage, within the diversity of realities around the world. Based on a questionnaire developed in different languages, the group has started working on an ECL atlas, which will show



the challenges and opportunities presented by the different sites, and then recommend strategies for their integral conservation. Since then, a collaborative CRAterre initiative with ISCEAH has developed CARTOterra as a "participative atlas of earthen architecture", to address the crosscutting issues of the earthen architecture. These antecedents and actions are the necessary basis to deepen the work of conceptualization, understanding, intervention and dissemination for an integrally sustainable management of the ECLs, recognizing their dynamic character.

For the cycle 2021-2023, the ECL group is expected to achieve the following collective goals:

- Updated conceptual framework incorporating new discussions from geography and anthropology to recognize other ontologies of the landscape, which should serve as a basis for the definition of intervention strategies.
- Expanded questionnaire with new parameters to recognize the complexity of the social realities in the ECLs and the common challenges that arise, in dialogue with the Sustainable Development Goals.
- International network of actors and local organizations linked to ECLs.
- Guidelines for the integral conservation of ECLs, contributing to the *Charter for Earthen Architecture*.
- International Conference on Earthen Cultural Landscape (virtual or face to face)
- Publication with in-depth analysis of different case studies, representative of the global reality (book or dossier in a journal).

**Theme 5: Seismic** - Many earthen buildings, earthen historical centers and earthen rural settlements are in seismic areas, and often suffered several types of damage after earthquakes. Besides, in areas where earthquakes are frequent, local populations are always 'between two earthquakes' and, therefore, in addition to post-earthquake recovery, pre-earthquake preparedness is an essential task to save lives and to maintain heritage authenticity. Therefore, the prevention of the seismic risk of earthen heritage should be a central theme of the *Charter for Earthen Architecture*. Preparedness is based on achieving a substantial knowledge about the seismic vulnerability of earthen heritage (architectural typologies, building techniques and recurrent failure mechanisms) and on learning about the damage caused by earthquakes in the same locality, to prevent seismic risk.

In that context, the Seismic sub-committee of ISCEAH will be working over the next three years (2021-2023) on the prevention of seismic risk of earthen buildings and settlements, through:



- 1) Collecting damage assessment forms, created to assess quickly repetitive earthen typologies and 'minor' architecture on an urban scale.
- 2) Identifying and disseminating the most typical failure mechanisms of earthen structures, associating typical damage and forms of vulnerability to the different earthen building techniques (this can be worked on together with the Technology sub-committee).
- 3) Identifying and disseminating the most suitable and simple retrofitting techniques to be simply implemented by local communities (this can be worked on together with the In-Use sub-committee).

The three outcomes expected to be achieved during this mandate will continue the work done in the previous period, when developing the *Earthquake Mitigation Guidelines* of what to do and not to do before, during and after an earthquake to earthen historic structures, with a focus on the 'what to do before an earthquake'.

### 3. ISCEAH Management

**3.1. Annual Activities Report:** The annual activities report will be developed and submitted by all members within the end of March each year.

**3.2. Membership:** The number of members of ISCEAH increased significantly in the last three years going from 113 to 143 members. According to the new By-Laws, members who have been totally inactive for the last 3 years will be contacted, and if no longer interested in participating, will be removed from the list of members.

**3.3. Website:** The website will change management. From 2021 it will be updated by Amanda Rivera, Vice President.

**3.4. Management of ISC Platform:** The ISC platform has relevant data from each member. All ISCEAH members will update and revise personal data.

**3.5. Social Media:** ISCEAH has a Facebook group where information and photos are shared between members since 2018. In order to collaborate in the dissemination of earthen architectural heritage to younger generations, an Instagram profile and Facebook page will be opened and managed by EPs.

**3.6. NC Designated voters:** The list of NC-designated voters needs to be updated and implemented, as not all National Committees are now represented.



## 4. TERRA World Congress

The Terra World Congress was postponed due to the pandemic and will now take place in June 2022 in Santa Fe, NM (US). ISCEAH is involved in its organization.

## 5. Working Groups

**5.1. Working Groups internal to ISCEAH:** there are two Working Groups internal to ISCEAH; each one of them has a Focal Point:

1. **Emerging Professionals:** To respond to the request of the ICOMOS Secretariat, an Emerging Professionals Working Group was created within ISCEAH in 2018. An Emerging Professional has been nominated to represent ISCEAH at the international ICOMOS Emerging Group. (Focal Point: Julieta Barada)
2. **Climate Change:** An expert represents ISCEAH at the Climate Change Working Group. The Secretary General is the ISCEAH liaison to the ICOMOS Board. (Focal Point: Masoud Nakhaei; in addition, Fernando Vegas-Manzanares has been appointed by ICOMOS Spain to represent his Nat Com on the CCWG)

**5.2. Potential expansion of ISCEAH's existing Working Group on climate change:** The Triennial General Assemblies in New Delhi (2017) and Sydney (2020) both adopted resolutions on the risk of climate change to cultural heritage. ISCEAH was one of the co-sponsors of the New Delhi resolution, which resulted in the formation by ICOMOS International of the CCWG. As a result of ICOMOS's recognition of the climate change heritage emergency, the Scientific Council (SC) has adopted a three-year scientific program on climate change. The plan is to fully integrate climate change into the research of all ISCs over the next three years. Therefore, ISCEAH will confirm that its internal Working Group includes representatives from the five Sub-Committees in order to coordinate with the Scientific Council's three-year mandate to integrate research on the impact of climate change (risk preparedness and resiliency interventions for earthen architecture to cope with climate change).

**5.3. Working Groups' representation requested by the International Secretariat:** there are four Working Groups developed within ICOMOS International. ISCEAH has nominated representative Focal Points:

1. **Sustainable Development Goals Working Group:** two expert members have been nominated representing ISCEAH to the ICOMOS SDG-WG (Focal Points: Maribel Beas and Jorge Tomasi).
2. **Covid 19 Working Group:** an expert member has been nominated representing ISCEAH (Focal Point: Jonathan Bell).
3. **Heritage Impact Assessment Working Group:** An expert member has been nominated representing ISCEAH (Focal Point: Jonathan Bell).



4. **Rights-Based Approach in Cultural Heritage Working Group:** An expert member has been nominated representing ISCEAH (Focal Point: pending).

## **6. Charter for Earthen Architecture**

To better address the conservation and the preservation of earthen heritage worldwide, especially when so much heritage is being destroyed by inappropriate interventions, ISCEAH considers it is crucial to create a road map and start working on a proposal that contributes to the preservation of the still standing earthen heritage. An expert member is in charge of coordinating related actions.

## **7. Workshop on the Conservation of Earthen Architecture**

ISCEAH intends to contribute to the dissemination of knowledge concerning earthen architecture by formulating a practical workshop Syllabus at the disposal of institutions, associations, academics and other bodies who would like to take advantage of a group of distinguished experts in the field.

## **8. Budget**

At present, ISCEAH has 6,232€ held for the Committee by the ICOMOS International Secretariat. This was possible due to the donations of its members when addressing World Monuments Watch assessments, Desk-reviews of World Heritage Nominations assessments, an exhibition on earthen architecture, desk reviews of Tentative Lists in certain regions, etc. This funding could be used to pay for fees for the website, to cover unexpected management costs, to finance editorial activities, and to contribute, if necessary, to the participation of appointed members at important meetings. A document will be developed by the Treasurer with specific rules and criteria for the use of this fund.





**ICOMOS - ISCEAH**

International Scientific Committee  
on Earthen Architectural Heritage

---

International Council on  
Monuments and Sites

## **ANNEXES**

### **Appendix 1 – Theme 1: In-Use**

ISCEAH has set out to create a *Charter for Earthen Architecture*. To support that endeavor the In-Use sub-committee is creating, following the ICOMOS definitions of doctrinal texts, a Guideline. The proposed Guideline for Earthen Architecture will address the specific activities and processes to follow for the conservation of earthen architecture. The ISCEAH sub-committee on In-Use wishes to guide communities around the world in preserving, conserving and rehabilitating historic earthen resources worldwide.

#### **Objectives**

The sub-committee seeks to guide through a comprehensive illustrated document that can be easily disseminated online. The document will incorporate the illustrated glossary of terminology that has already been created with doctrinal text regarding methodology for approaching work on a historic resource, including documentation and evaluation, assessment of best treatment/levels of intervention, and assessment of attainable and sustainable results. The document will specifically discuss evaluating and identifying appropriate adaptive reuses for a resource. The document will use community case studies from around the world as illustrative examples.

#### **Results**

The guidance document has the working title of *Guidelines for Earthen Architecture: Guidance for Identification, Documentation, Evaluation, Treatment, and Management*. The proposed contents of this document were developed through an extensive evaluation of existing guidance documents from around the world. ICOMOS charters, and UNESCO and ICCROM recommendations, such as the *Venice Charter*, *Nara Document on Authenticity*, *Burra Charter* and *Riga Charter* were referenced to identify major international themes. The way in which different countries translated these universal themes into policies, principles, and standards was explored through an evaluation of the national guidance documents of the United States, China, and the United Kingdom. Country-specific evaluations were further supplemented by specific practical and technical recommendations from site-specific documents, such as the Kasbah Taourirt plan.

Following this in-depth investigation – from the broadest context to the most specific – the sub-committee identified the terms, concepts, methodologies, technologies, and case studies that are necessary to address the needs of those working on historic resources. This information will be arranged in a logical manner that allows the reader



to first gain a basic understanding of cultural heritage preservation concepts and terminology and then continue on to an evaluation of his or her specific resource. *Guidelines for Earthen Architecture* will guide the reader through the steps of addressing a cultural resource in order and will attempt to provide guidance for most major considerations and treatment options; where guidance cannot be given, resources are suggested for further research.

### **Visual Glossary**

The inclusion of a glossary is crucial in a document which may be used by cultural heritage professionals and laymen from different countries and educational backgrounds and who speak different languages. The sub-committee in prior meetings determined that a visual glossary – one which supplements textual definitions with photographs, diagrams, and other graphics – will be especially useful in creating a comprehensible guide. Therefore, the document proposes to incorporate the *ICOMOS – ISCEAH Glossary of Earthen Materials Deterioration Patterns*, August 2019 Draft.

### **Extended discussions of conceptual issues**

In addition to the visual glossary, *Guidelines for Earthen Architecture* will contain longer discussions of more complex or conceptual terms such as authenticity, significance, condition versus integrity, and the concept of minimal intervention. These terms, which are so critical to the understanding and practice of cultural heritage work and so ingrained into the minds of heritage professionals, must be thoroughly and clearly explored for the benefit of the layman or new professional.

### **Methodologies**

*Guidelines for Earthen Architecture* will guide the reader through five stages of interaction with their historic resource: identification, recordation and documentation, evaluation, treatment, and management. Within each of these stages, the document will address more specific methodologies. What is a survey and when might different survey types be applicable? What is the best way to document a particular resource? What tasks should be performed by a specialist and which can a generalist undertake?

The document will also include information on technical topics such as cleaning historic earthen architecture, materials testing, and documentary technologies. The Sub-committee acknowledges that it is not possible to cover every possible methodological and technological question and that the field is always evolving. In the



interest of providing the most complete guidance, however, the Sub-committee will provide a robust appendix of recommended resources for further research and study.

## Workplan

Chapter	Section	Description
1. Introduction	1.A. Visual glossary	This section will define the terminology not only for this guidance document but for the field in general. To include such words/concepts as terms for the spectrum of intervention in different countries, technical terminology, acronyms, etc. Photographs and/or diagrams to accompany definitions.
	1.B. International guidance documents	Introduce the reader to existing international guidance frameworks such as ICOMOS charters and documents as well as country-specific guidance documents.
	1.C. Generalized methodology	Introduce the reader to the general methodology of approaching a historic resource from initial identification through ongoing management. Each of these steps will constitute a full chapter in this document, so this section is introductory in nature. (Identify / document / evaluate / treat / manage)
2. Identify	2.A. Site history / historic context	Discuss and evaluate existing standards / guidelines, applicable technologies, basic methodologies, and resources for further research.
	2.B. Site boundaries	
	2.C. Existing conditions	
3. Document	3.A. Surveys	Types of surveys and their respective purposes/strengths/applications. Survey standards, guidelines, and technologies.
	3.B. Graphical documentation	Types of graphical documentation and their respective purposes/strengths/applications. Documentation standards, guidelines, and technologies.
	3.C. Narrative documentation	Types of narrative documentation and their respective purposes/strengths/applications. Documentation standards and guidelines.
	3.D. Documentation Repositories	Examples from case studies, pointing out benefits/uses/limitations/drawbacks of each.



4. Evaluate	4.A. Significance/integrity	This section will guide the reader through different aspects of evaluating the significance and integrity of a historic resource, beginning with a conceptual discussion of what significance and integrity are and ending with a discussion on how to come to a final conclusion about a resource's eligibility for listing, protection, etc.
	4.B. Registers	Examples from case studies, pointing out benefits/uses/limitations/drawbacks of each.
5. Treat	5.A. Treatment levels	This section will introduce the reader to treatment philosophies and technologies. Since treatment is so resource-specific, the science is constantly evolving, and on-site treatment can be somewhat improvised, this section may benefit more from case study examples than prescriptive methodologies. Address terminology, standards, and case studies.
	5.B. Standards/guidelines	
	5.C. Treatment technologies	
6. Manage	6.A. Ongoing management planning	Guide the reader through different aspects of managing a historic resource after treatment is complete. The importance of continued management may be best conveyed through case study examples of successful and unsuccessful management planning.
	6.B. Record of treatment	
	6.C. Periodic re-evaluation	



## Appendix 2 - Theme 2: Archaeology

Conservation of earthen archaeological sites is one of the controversial issues between earthen heritage practitioners due to its vulnerability to different factors. The various components have contributed to the damage to these sites causing loss of their value ranging from different weather conditions to man-made hazard. It has been observed that even under normal circumstances, inappropriate interventions and unprofessional treatment have affected the integrity of earthen heritage. In between, traditional knowledge of local and indigenous people is increasingly recognized as an important source for the conservation of earthen heritage, and it could be introduced as one of the low-cost strategies in the long-term sustainable conservation of earthen heritage against different hazards. However, the less addressed issue is the problem of losing traditional knowledge and technical skills due to the discontinuance of knowledge transmission across generations, lack of internal creativity and experimentation, and the absence of professional masters and skilled workers.

On the other hand, in some cases, traditional techniques alone are not able to protect the earthen heritage and it is necessary to collect and evaluate modern conservation methods. Applied modern techniques and strategies in different parts of the world can act as a useful source to deal with new hazards, vulnerability and when traditional knowledge cannot meet our needs. At present, it is necessary to collect various conservation techniques including traditional and modern techniques that have been done in different parts of the world to complete the purposeful studies of ISCEAH with the aim of conservation of earthen heritage. The database of traditional and modern knowledge and techniques of earthen heritage could be useful in different studies. Identifying the most appropriate methods will also prevent common and ongoing mistakes in the conservation of earthen archaeological sites. In the end, evaluation of the strength and weakness of these collecting methods could also help to progress the *Charter for Earthen Architecture*, and climate change actions, as well as evaluating the current state of earthen heritage conservation.

### Objective

- To conclude glossary of earthen heritage deterioration patterns.
- Improving accessibility to glossary of earthen heritage deterioration patterns by adding other languages.
- To provide a comprehensive database of traditional knowledge and modern techniques in conservation of earthen heritage, highlighting the traditional knowledge at risk.
- Understanding the state of earthen heritage conservation globally for future studies and needs.



## Result

Given that the traditional knowledge and conservation practices at the national and local levels are not mostly recorded, it caused obscurity and difficulty to give an overview of what has been done around the world. Furthermore, it seems essential to evaluate the most appropriate and sustainable techniques to reduce the repetition of common mistakes.

Providing a database of earthen heritage traditional knowledge can be useful for specifying the knowledge at risk of being forgotten and evaluating the effective parameters on that, which would be useful in different aspects of earthen heritage conservation (restoration, sustainability, methodology, local participation, and so on).

## Workplan

Activity	2021	2022	2023
Conclude glossary of earthen heritage deterioration patterns	█		
Call for participation in translation of glossary in other languages	█		
Open call for the participation of all ISCEAH members for contribution on collecting different conservation techniques	█		
Providing a database of traditional knowledge approaches		█	
Collecting the current conservation methods and measures through literature review and ISCEAH members participation		█	
Evaluation of all Data by the advisory group		█	
Categorizing data			█
Open call to all ISCEAH to contribute for the comment and review			█
Final evaluation and recommendations			█



### Appendix 3 - Theme 3: Technology

The proposed inventory on which the sub-committee intends to focus will contribute to a better knowledge of earthen heritage. It will provide a database of earthen heritage at risk of being forgotten. It will illustrate the universality and diversity of earthen architecture. Furthermore, this inventory will demonstrate the universal potentiality all over the world to continue building with local material as earth, in respect to the environment, with the right technology, with cost effective strategies and with a socio-cultural integration.

This inventory will be undertaken in a participatory way. To that matter, an online collaborative atlas will be set up. A simple inventory form will be designed. This form will be composed of a) a part briefly presenting the heritage; b) a part describing the relevance and significance of the inventoried site and c) a part mentioning the landscape of the site and potential associated vernacular earthen architecture involved. To facilitate this, references through a collective literature review on the subject will be carried out. A special reference to VERSUS will be made. To recall, “VERSUS, heritage for tomorrow: vernacular knowledge for sustainable architecture”, establishes key principles, regarding vernacular knowledge and its contribution for sustainable development. Inputs from all members of ISCEAH all over the world are expected. Members shall at minimum fill the presentation part of the form and if possible, fill the relevance part of the form. It is projected that all members provide at least 5 sites.

#### Result

An alpha version of the atlas of remarkable traditional techniques of earthen structures in countries where members undertake works and researches. Remarkable traditional techniques shall be original or judicious technical architecture or details. It is expected that this inventory will demonstrate the relevance of earthen architecture as a tool for better resilience and sustainable mitigation and adaptation of cultural heritage against climate change. Finally, it is hoped that this inventory will inspire future conservators and builders.

#### Workplan

Activity	2021	2022	2023
Adoption the inventory form			
Open call for the participation of all ISCEAH members			
Feeding the online atlas on earthen architecture			
Open call to all ISCEAH to contribute for the comment and review			



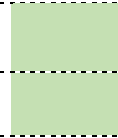
**ICOMOS - ISCEAH**  
International Scientific Committee  
on Earthen Architectural Heritage

---

**International Council on  
Monuments and Sites**

-----  
Harmonization of the data collected

-----  
Final evaluation and recommendations  
-----







## **Appendix 4 - Theme 4: Landscapes**

The concept of landscape refers to a portion of the territory with its multiplicity of elements, but also to a particular way of perceiving and conceiving the world, culturally and socially defined. In this sense, rather than a static support for people's activities, landscape is an agent within a network of relationships between people, their productions and the natural world, which shapes practices, as well as being shaped by them, within a dynamic process of permanent creation and recreation. In any case, being a concept generated within occidental geographical traditions, it requires a permanent revision in order to recognize other ways of thinking about space and social relations. Regarding earthen cultural landscapes (ECL), it offers us the possibility of thinking about these architectures in their broader territorial contexts of production, considering their interactions with a multiplicity of social actors and cultural conceptions of nature. Moreover, it invites us to insert earthen heritage within the complexity of local social realities and their challenges.

Since 2008, ECL working group has been reviewing theoretical frameworks based on the contributions of different authors and organizations, towards the construction of a landscape definition that allows a better understanding of earthen heritage, within the diversity of realities around the world. Based on a questionnaire developed in different languages, the group has started working on an ECL atlas, which will show the challenges and opportunities presented by the different sites, and then recommend strategies for their integral conservation. Since then, a collaborative CRAterre initiative with ISCEAH has developed CARTOterra as a "participative atlas of earthen architectures", to address the crosscutting issues of the earthen architecture. These antecedents and actions are the necessary basis to deepen the work of conceptualization, understanding, intervention and dissemination for an integrally sustainable management of the ECLs, recognizing its dynamic character.

One of the main challenges for the development of the group's activities is to achieve an interaction between the conceptual and the empirical in terms of understanding and intervention in ECLs. Many times the definitions we use do not achieve an instrumental character that really changes the way in which we work for the protection of landscapes or the improvement of people's living conditions. In this sense, it is necessary to propose, together with the conceptualization, the way in which these definitions could have an impact on the reality of the sites. To this end, it is necessary to include local social actors and their organizations in the discussions, and the formation of an international network will be one of the objectives for the current 2021-2023 cycle.

### **Objectives**

1. Update the conceptual framework for understanding the LCAs (Life Cycle Assessment), taking into account the specific needs of the sites.
2. Broaden the scope of the survey by incorporating parameters for analyzing socioeconomic realities.



3. Consolidate an international network of local social actors and organizations to discuss the challenges in the different sites.
4. Develop the Guidelines, considering the conceptual framework, the results of the surveys and local perspectives.
5. Generate a conference and a specialized publication based on the case studies.

### Expected results

For the cycle 2021-2023, It is expected to achieve the following collective goals:

- Updated conceptual framework incorporating new discussions from geography and anthropology to recognize other ontologies of the landscape, which should serve as a basis for the definition of intervention strategies.
- Expanded questionnaire with new parameters to recognize the complexity of the social realities in the ECLs and the common challenges that arise, in dialogue with the Sustainable Development Goals.
- International network of actors and local organizations linked to ECLs.
- Guidelines for the integral conservation of ECLs, contributing to the *Charter for Earthen Architecture*.
- International Conference on Earthen Cultural Landscape (virtual or face to face)
- Publication with in-depth analysis of different case studies, representative of the global reality (book or dossier in a journal).

### Workplan

The expected results will be addressed following this activity planning:

Year 1 | 2021

Main result: Conceptual framework & Updated Survey

Activity	Jan-March	Apr-Jun	Jul-Sept	Oct-Dec
1.1 Collective discussion on the group's objectives and actions				
1.2 Exchange of theoretical publications				
1.3 Consensus on the main conceptual aspects to be affirmed about the landscape				
1.4 Presentation and dissemination of the proposed definitions				



1.5	Definition of the parameters to be included in the questionnaire for the analysis of social realities	[Green bar]			
1.6	Dissemination of the expanded questionnaire with geographic diversity	[Green bar]			

**Year 2 | 2022**

**Main result: Network & Guidelines**

Activity	Jan-March	Apr-Jun	Jul-Sept	Oct-Dec
2.1 Analysis and dissemination of the results of the questionnaires	[Green bar]			
2.2 Identification and call for the first 20 local organizations for the creation of the network		[Green bar]		
2.3 Launch of network activities			[Green bar]	
2.4 Discussion of the objectives and scope of the Guidelines			[Green bar]	
2.5 Exchange on its structure and contents			[Green bar]	
2.6 Presentation and discussion of the draft and articulation with the Charter				[Green bar]

**Year 3 | 2023**

**Main result: Conference & Publication**

Activity	Jan-March	Apr-Jun	Jul-Sept	Oct-Dec
2.1 Conference organization	[Green bar]			
2.2 Conference		[Green bar]		
2.3 Final discussion of the Guidelines during the conference		[Green bar]		
2.4 Publication preparation		[Green bar]		
2.5 Submission of final papers				[Green bar]
2.6 Publication in 2024				



## **Appendix 5 - Theme 5: Seismic**

Often earthen buildings, earthen historical centers and earthen rural settlements are in seismic areas, and suffered several types of damage after earthquakes, putting lives and heritage authenticity at risk. While information about how to assess damage and to recover damaged earthen heritage post-earthquake has been developed in the last years, there is still an important lack in prevention of seismic risk in earthen structures. Prevention and, therefore, mitigation of seismic risk in earthen structures and sites is possible, by achieving a greater knowledge about the seismic vulnerability of earthen heritage (architectural typologies, building techniques and recurrent failure mechanisms) and on learning about the damage caused by earthquakes in the same locality. Therefore, the work of the Seismic sub-committee of ISCEAH will be focused on the pre-earthquake preparedness, as an essential task to include in the Charter for Earthen Architecture.

### **Objectives**

- 1) Collecting damage assessment forms, created to assess quickly repetitive earthen typologies and 'minor' architecture on an urban scale.
- 2) Identifying and disseminating the most typical failure mechanisms of earthen structures, associating typical damage and forms of vulnerability to the different earthen building techniques.
- 3) Identifying and disseminating the most suitable and simple retrofitting techniques to be simply implemented by local communities.

### **Methodology and expected results**

During the first months of 2021, the work done in the last period will be revised and will be complemented with the collection of damage assessment forms, created to assess repetitive earthen typologies and 'minor' architecture of urban centers and rural areas. To this purpose, as well as to identify typical failure mechanisms and suitable retrofitting techniques for earthen structures, all the work will be done through the collection of already existing information in scientific publications, manuals and building codes of countries located in seismic areas.

The work will be done by the interested members of ISCEAH, together with the interested members ISCARSAH and ICORP, and will be coordinated with other sub-committee, such as In-Use, Technology and maybe Archaeology, as there are many aspects in common.





2.1 Conclusions and synthesis of damages assessment forms, both for individual Monumental buildings (work of the last period) and repetitive earthen typologies of urban centers and rural areas.

2.2 Collection of information about typical failures mechanisms of earthen structures, associating typical damages and vulnerability to the different earthen building techniques (together with Technology sub-committee).

2.3 Conclusions and graphic synthesis (graphic glossary) of typical failures mechanisms related to earthen building techniques.

3.1 Collection of information about suitable retrofitting techniques (together with In-Use sub-committee).



**ICOMOS - ISCEAH**

International Scientific Committee  
on Earthen Architectural Heritage

International Council on  
Monuments and Sites

---

3.2 Conclusions and graphic synthesis (graphic glossary or manual) of suitable retrofitting techniques.

---

3.3 Developing Guidelines for Earthquake Mitigation containing what to Do and don't do, before, during and after an earthquake.

---

3.4 Dissemination of the products in ISCEAH website and social media.

