

UNESCO Chair *Earthen Architecture, Building Cultures and Sustainable Development* UNITWIN network

Architecture, Environment & Building Cultures (AE&CC)
CRATerre-ENSAG | International Centre of Earthen Architecture
Ecole Nationale Supérieure d'Architecture de Grenoble, France (ENSAG)
Hubert Guillaud | AE&CC-CRATerre Scientific Director, Chair Coordinator
Bakonirina Rakotomamonjy | AE&CC-CRATerre, Project Specialist
& Mariana Correia, Chairman of Escola Superior Gallaecia, Portugal



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
d'architecture
de grenoble



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Commission
nationale française
pour l'UNESCO

Introduction

The UNESCO Chair 'Earthen architecture, building cultures and sustainable development' was created at the initiative of UNESCO's Division of Higher Education. It was inaugurated in Oct. 1998 at the School of Architecture of Grenoble, France. CRAterre-ENSAG research laboratory, as a center of excellence, leads the Chair.

General Aim

Consistent with the objectives of the UNITWIN / UNESCO Chair Program, this chair and its network contributes *"to strength higher education and research capacity through transfer of knowledge and share in a spirit of international solidarity. Thus it promotes North-South, South-South and triangular cooperation, as a strategy for institutional development."*



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



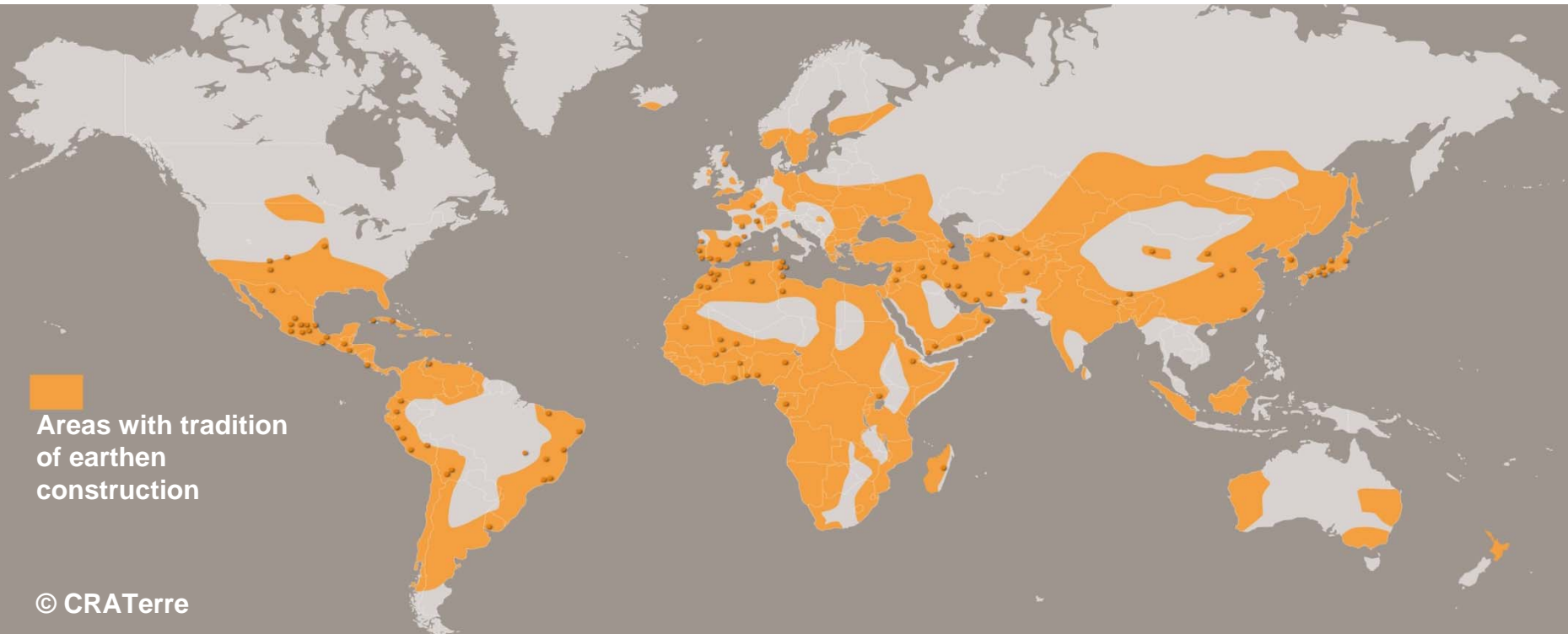
école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Specific Aim

To increase worldwide, the dissemination of scientific and technical know-how on earthen architecture, in three main areas:

(1) Environment, human settlements, habitat | (2) Earth as a material and other eco-materials | (3) World Heritage and Environment.





Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
d'architecture
de grenoble

UNESCO Chair - Earthen Architecture



Location of the Chair UNESCO members - institutional partners | April 2013 © CRATerre

4 continents | 21 countries | 44 chair members



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



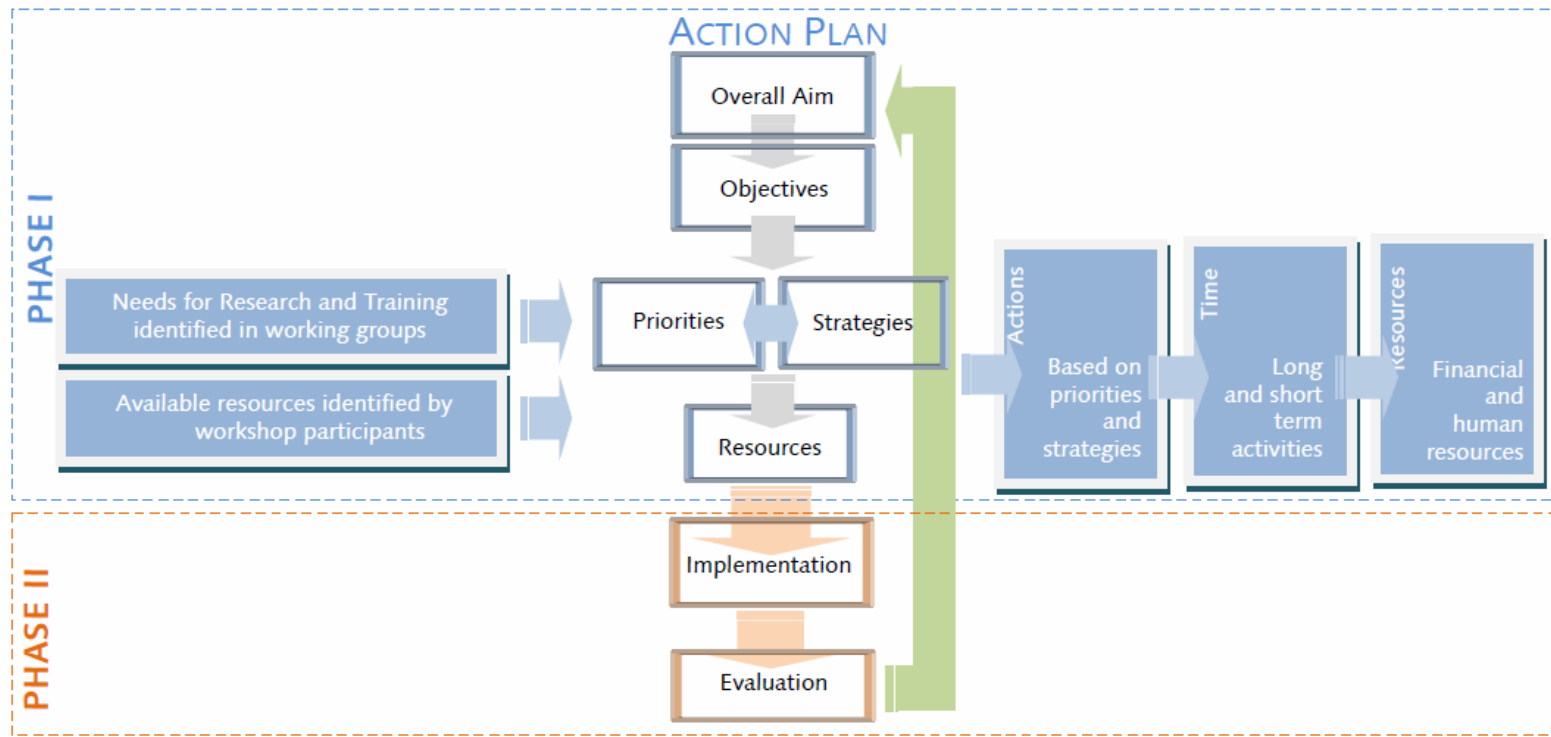
école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

To identify key actors and resources

THEME 1: MANAGEMENT AND CONSERVATION OF EARTHEN SITES

THEME 2: EARTHEN ARCHITECTURE FOR SUSTAINABLE DEVELOPMENT



MEDITERRANEAN WORKSHOP, March 2009 | Key experts from 17 countries | Organised by:

**UNICA - Univ. of Cagliari (Italy) | ESG - Escola Superior Gallaecia (Portugal) |
CRATerre-ENSAGrenoble (France) | GCI - Getty Conservation Institute (USA) |**

UNESCO Chair of Earthen Architecture.



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Strategy

Integrated approach

NATIONAL PLATFORMS



INTERDISCIPLINARY PLATFORM



EUROPEAN PLATFORM



TRANSREGIONAL PLATFORMS



INTERNATIONAL PLATFORM



Transfer of knowledge (Who – How)

National associations through seminars/
research/ workshops/ etc.

Different Faculties of architecture,
engineering, archaeology, etc. through
workshops, research & PhDs programmes.

European Universities through funded
research programmes.

PROTERRA - Iberian-American Network
through research projects, publications,
workshops, SIACOT seminars | **TerrAsia,**
Mediterra, through conferences.

ICOMOS-ISCEAH - International Committee
on Earthen Architectural Heritage from
ICOMOS.



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Strategy | target public

Transfer of knowledge

REGIONAL EXPOSITIONS / SEMINARS →

NATIONAL SEMINARS →

WORKSHOPS →

CREDIT COURSES →

REFERENCE PUBLICATIONS →

INDEX PAPERS IN JOURNALS →

POS-GRADUATE RESEARCH →

RESEARCH PROJECTS →

TRAINING COURSES →

Target public

Awareness: General public / regional stakeholders

Key Actors: Municipalities & National Institutions

General public: other professionals & researchers from other disciplines

University students: Grad.+MSc +PhD

Researchers: experts / PhD & Master students / interested public.

Interdisciplinary: Researchers & experts
Researchers: experts / PhD students

Research Centers / Universities

Interested people: Master Students / etc.



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Main recent achievements :

According to the activities of the UNITWIN / UNESCO Chairs, the earthen architecture Chair includes activities on **training**, **research** and **academic exchanges** and provides a framework for sharing information.

Main activities of the Chair	Number of activities undertaken by the Chairholder (CRATerre-ENSAG) in 2012	Number of activities undertaken by UNESCO Chair members in 2012	Total of the production in 2012
Academic training	3 activities	13 activities	26 activities
Professional courses	3 Professional courses	33 Professional courses	36 Professional courses
Conferences	55 Interventions in conferences	34 Interventions in conferences	89 Conferences
Publications	152 paper publications	21 paper publications	173 paper publications

UNESCO'S Chair 2012 Annual Report (25% of members contributed to the report).



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Main recent achievements: Academy graduation



ACTIVITIES IN 2012	N ^o of People
Academic activities	477
Africa	213
America	138
Europe	126
<i>General total</i>	954



UNESCO'S Chair 2012 Annual Report (25% of members contributed to the report).

- Master, Postmaster, PHD



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



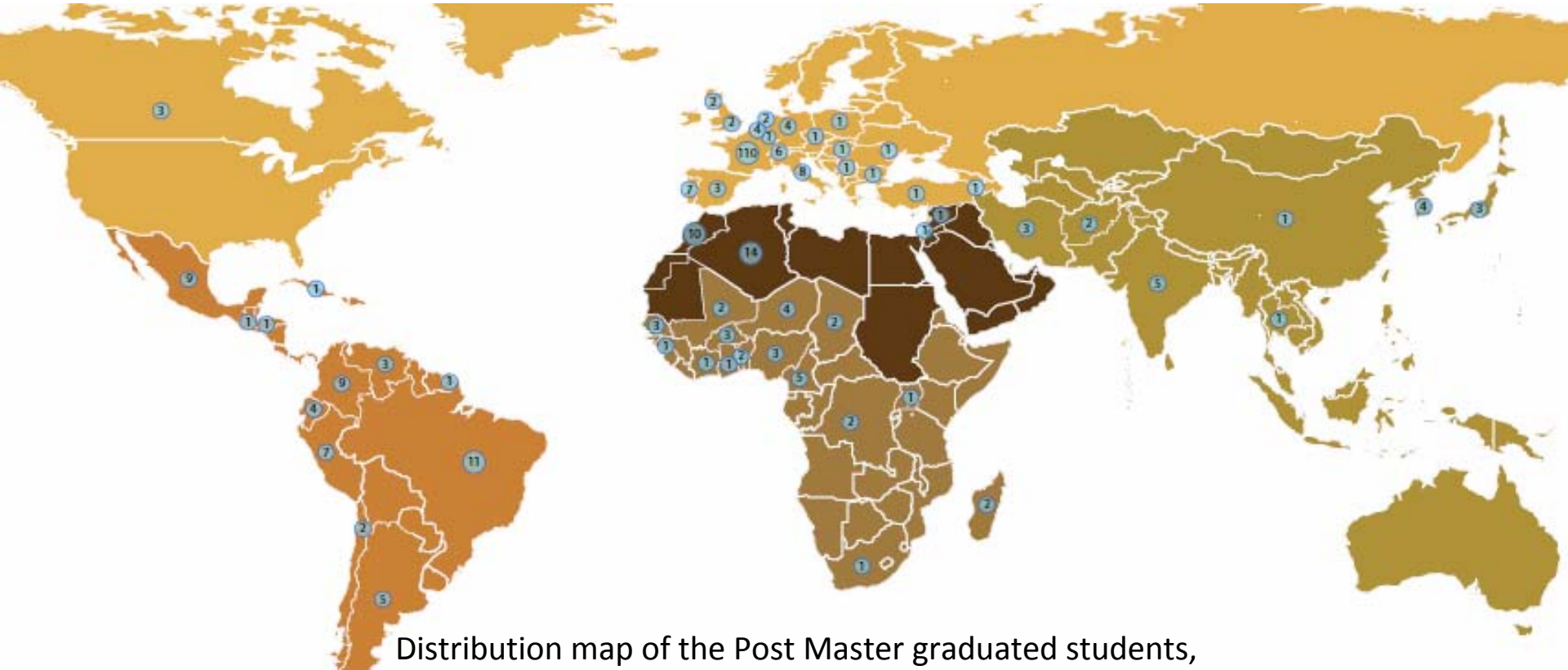
Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Main recent achievements: Academic & Professional Training



Distribution map of the Post Master graduated students, from 1984 to 2011 © CRATerre

- . Post master « Architecture de terre » ENSAG, Grenoble, France, & its Network of 300 students from 54 countries.



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Main recent achievements: Research + Conferences

TERRA 2012
XI Conferencia Internacional sobre el Estudio y Conservación del Patrimonio Arquitectónico de Tierra
XIth International Conference on the Study and Conservation of Earthen Architecture Heritage

XII SIAGOT
Seminario Iberoamericano de Arquitectura y Construcción con Tierra

SismoAdobe 2012

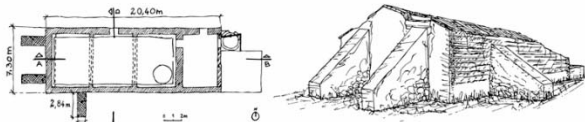
22 / 23 / 24 / 25 / 26 / 27 Abril / April 2012 Campus PUCP Lima / Perú

Logos: UNESCO, PUCP, SIAGOT, SismoAdobe, ICCROM, The Getty Foundation, ICOMOS PERÚ, CRAterre, etc.

LABEX AE&CC Seminar

Disaster-resistant building cultures: the ways forward

organised by CRAterre laboratory / Research Unit AE&CC
National School of Architecture of Grenoble, May 27 - 28, 2013



Drawings: Mariana Correia

TERRA INCOGNITA
EARTHEN ARCHITECTURE IN EUROPE

versus
Vernacular Heritage Sustainable Architecture
European Research Project

Abstract | Aims | Outcomes | Institutional support | Partners | Conferences

Colloque sur la conservation de l'architecture de terre du Patrimoine mondial
Colloquium on World Heritage earthen architecture conservation

PARIS, 17 & 18 DÉCEMBRE 2012
SIÈGE DE L'UNESCO, SALLE XI

PARIS, DECEMBER 17 & 18, 2012
ROOM XI, UNESCO HEADQUARTERS

WHEAP
WORLD HERITAGE EARTHEN ARCHITECTURE PROGRAMME
PROGRAMME DU PATRIMOINE MONDIAL POUR L'ARCHITECTURE DE TERRE

Logos: UNESCO, ICCROM, EPA, CHBA, CRAterre, etc.

- **Research** | VERSUS: Vernacular heritage for Sustainable Architecture + Terra Incognita
- **Experts meetings** | Disaster Resistant building culture: the ways forward + TerraEducation 2010
- **Conferences** | WHEAP-UNESCO (Dec.2012) + TERRA 2012 World Conference (April 2012)



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre

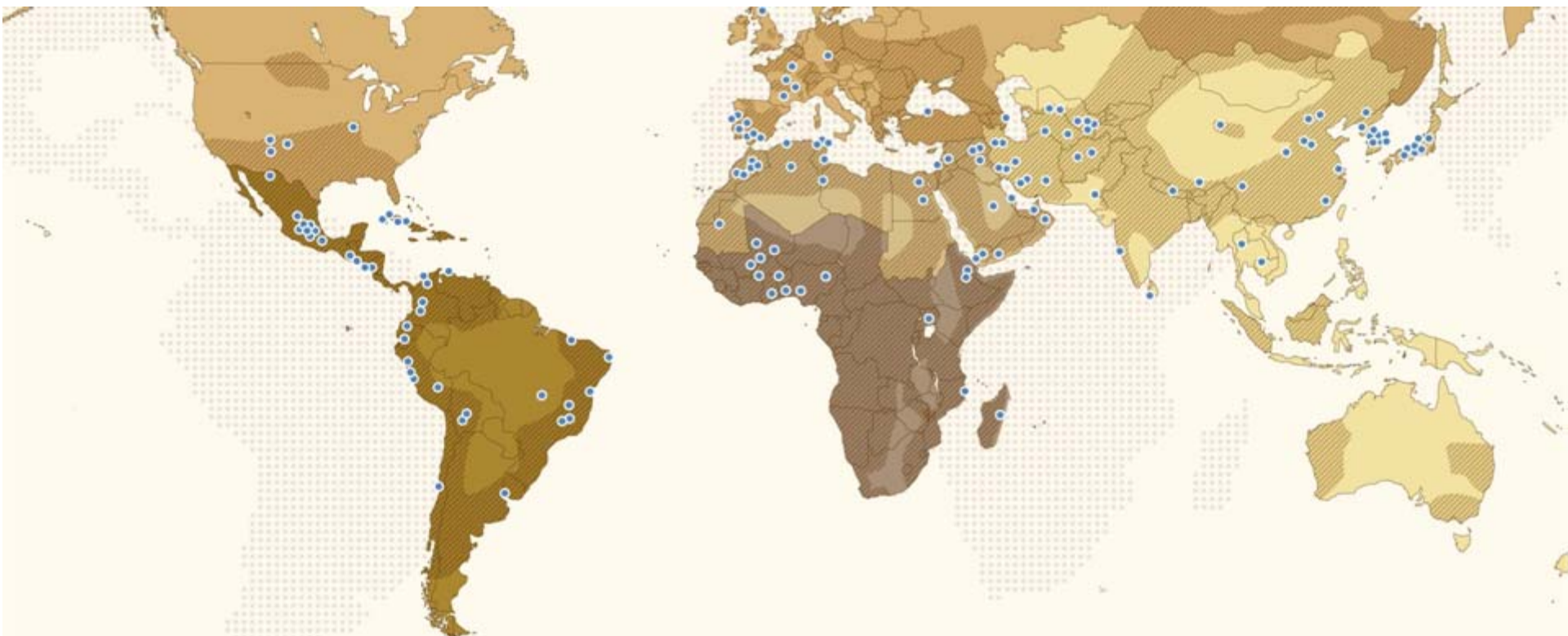


école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Main recent achievements : Research

WHEAP | World Heritage Earthen Architectural Programme



150 sites: 20% of the World Heritage List (Cultural & mixed sites)



United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation,
la science et la culture



World
Heritage
Convention

Convention
du patrimoine
mondial

WORLD HERITAGE / PATRIMOINE MONDIAL

Inventory of earthen architecture
Inventaire de l'architecture de terre

WHEAP
WORLD HERITAGE
EARTHEN ARCHITECTURE
PROGRAMME



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



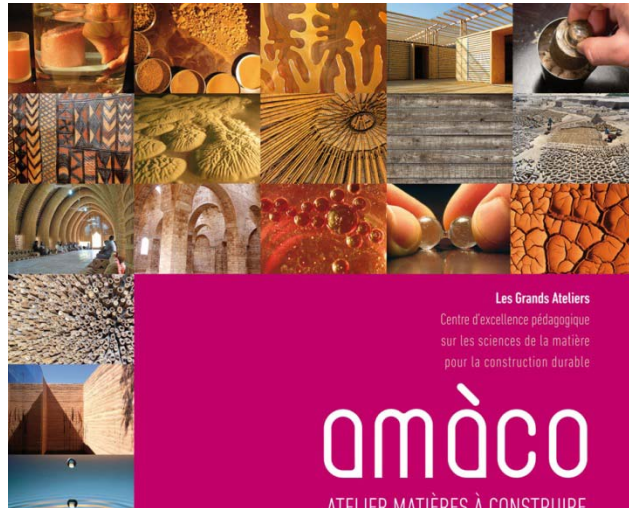
Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Main recent achievements: Experimentation



- Grands Ateliers de l'Isle d'Abeau (Great Workshops in the city of Isle d'Abeau, France)
- Amaco, Atelier Matière à Construire (Workshop Materials for construction)
- Chantiers de Paterre, ATCCDD / Maroc (Activities of the Moroccan partner)



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Main recent achievements: Professional training



ACTIVITIES IN 2012 (organised by partners)	Nº people
Professional trainings	1932
Awareness	90

Pirate
Provide Instructions and Resources for Assessment
and Training in Earthbuilding

Home About PIRATE Project Calendar Documents Partners

ECVET Earth building Europe

PIRATE is a European project gathering 18 partners from 8 countries to establish the new standards of competence needed by the growing market of sustainable building with earth material. Units of learning outcomes will be created with and for professionals, trainers and certifying bodies.

PROJECT PIRATE: 18 partners / 8 countries.
Implementation of new standards of competence
required to the earth construction material



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Main recent achievements: Awareness & Advocacy



France



India



Colombia



Uruguay



Italy



Austria



The Grains d'Iserre Festival (France) is a laboratory of ideas and experimentations, Which is reinterpreted by several UNESCO Chair institution members, at regional scale.



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Main recent achievements: International Impact

INTERNATIONAL & ITINERANT EXHIBITION



Ma terre première, pour construire demain
(Cité des Sciences et de l'Industrie, Paris).
1 000 000 visitors

PUBLICATION



'Bâtir en terre' (2009, Edition Belin)
7 000 copies in French and Korean

INTERNATIONAL PRICES RECEIVED BY THE MEMBERS



Wang Shu | Pritzker 2012
Anna Heringer | Aga Khan Award Arch. 2007
Mu Jun | RIBA 2009



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
d'architecture
de grenoble

UNESCO Chair - Earthen Architecture

Main recent achievements: Transfer of Knowledge through networking

- Site web de CRAtterre : www.craterre.org
- Liste de diffusion : craterre-unesco@archi.fr
- Projet Pirate : <http://pirate.greenbuildingtraining.eu>
- Projet Versus 2012-2014 www.esg.pt/versus
- List of European Union key-actors and key-institutions working on earthen architecture: culture-terra-incognita.org



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Links between activities undertaken & the strategic orientation of UNITWIN 2007

According with the *Strategic Directions of the UNITWIN 2007*, activities include:

- Chair as “think tanks” and “bridge builders”;
- Realignment with UNESCO’s priorities
[\(Medium Term Strategy for 2008-2013 \(in pdf\)\)](#);
- To stimulate the triangulation North-South-South cooperation;
- To create regional/sub-regional poles of innovation & excellency;
- Closer cooperation with the [United Nations University \(UNU\)](#).



UNESCO Chair - Earthen Architecture

Chair's contribution to the Strategic Vision:

Mediterranean Platform

Regional Approach

France, Portugal, Italy, Algeria, Morocco



Workshop Portugal-Italy
in V. N. Cerveira | Portugal

Workshop Italy-Portugal
in Cagliari | Italy

Workshops 2010-2013
in Algiers | Algeria

Workshop Italy-Portugal-Morocco
in South of Morocco



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Chair's contribution to the Strategic Vision: Regional Approach

National Platforms France, Chili, Mexico

THE CENTER FOR EXCELLENCY in FRANCE

Ecole Nationale Supérieure
d'Architecture de Grenoble
Laboratoire CRAterre-ENSAG /
Unité de recherche AE&CC

LABoratoires d'EXcellence
LABEX AE&CC

N° ANR -10- LABEX-78

FOUNDATION JOFRE & ARCOT UNIVERSITY PLATFORM in CHILI

1. Fac. Arquitectura, Construcción y Diseño, Universidad del Bío-Bío
2. Universidad de Concepción
3. Escuela de Arquitectura, Universidad Católica del Norte
4. Universidad Técnica Federico Santa María
5. Universidad Arturo Prat
6. Universidad de Chile
7. Universidad de la Serena
8. Universidad de Talca
9. Universidad de Santiago

MEXICAINE PLATFORM

1. CIPTEV, Centro de Investigación y Producción de Tecnología Ecológica para la Vivienda, Zapopan, Jalisco
2. Universidad Autónoma Metropolitana, Unidad Xochimilco, Mexico
3. Facultad de Arquitectura, Diseño y Urbanismo de la Universidad Autónoma de Tamaulipas Centro Universitario Tampico – Madero





Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Chair's contribution to the Strategic Vision:

Extending the Network

Relying & contributing for existing International Platforms

PROTERRA (Earthen Architecture Iberian-American Network) | **ISCEAH** (International Scientific Committee of Earthen Architecture) | **Algerian Festival ArchiTerre** | **TerrAsia** |



Construtierra 2006 | **COLOMBIA**
10° SIACOT | **URUGUAY**

Festival ArchiTerre | Exhibition, Workshop & Conference organised by the Ministry of Culture + Italian, French & Portuguese partners | **ALGERIA**



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

International Conferences upcoming

2013

- **CIAV 2013 | 7th seminar on earthen architecture 2013.** Portugal
- **13th SIACOT, Material universal, realidades locales.** Chile.

2014

- **2nd Conference TerrAsia 2014** in China with national partners (China Academy of Arts University of Xi'an, University Tongji of Shanghai)
- **2nd Conférence Méditerranée**

2016

- **12th International Conference on the Study and Conservation of Earthen Architectural Heritage: TerraLyon.** 600 people expected.





Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture



315 abstracts received from 57 countries

www.esg.pt/ciav2013 | info-ciav2013@esg.pt

International Conference and Annual Meeting of the
Vernacular Architecture Scientific Committee of ICOMOS

CIAV 2013

7^o ATP | VerSus

7th ATP

7th Seminar of Earthen Architecture in Portugal

16-20 Oct. 2013

VERSUS 2013

Vila Nova de Cerveira, PORTUGAL

International Conference of the European Research Project
'VerSus-Lessons from Vernacular Heritage to Sustainable Architecture'

Aegis:
PROTERRA
ICOMOS-ISCEAH
CHAIRE UNESCO – Earthen Architecture

Organisers
Escola Superior Gallaecia
ICOMOS-CIAV



With the support of the
Culture Programme of the European Union

This project has been funded
with support from the European Commission
PROGRAMME CULTURE 2007-2013| PROJECT N° 522550





Mediterranean Conference on Earth Architecture

MEDITERRA | VERSUS | 2014
September 2014 | Valencia, SPAIN
www.esg.pt/versus

Organisers & Partners
Valencia Polytechnic University (SP)
Escola Superior Gallaecia (PT) | UNICA (IT)
CRATERRE-ENSAG (FR) | UNIFI (IT)



With the support of the Culture Programme of the European Union
This project has been funded with support from the European Commission
PROGRAMME CULTURE 2007-2013 | PROJECT N° 522550




Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Priority Principles

Chair UNESCO members accept the Ethical Commitment and the Priority Principles contributing to qualified and active professionals in:

- Local human, social, economic and cultural development;
- Protection of the environment & its resources for sustainable development;
- Respect, protection and promotion of cultural diversity;
- The preservation and significance of tangible and intangible cultural heritage;
- The relationship between civil society, local communities, policy makers and the economic sector.



Organisation
des Nations Unies
pour l'éducation,
la science et la culture



Chaire UNESCO
Architecture
de terre



école nationale
supérieure
architecture
grenoble

UNESCO Chair - Earthen Architecture

Short terms perspectives to address challenges

The development of research

- Identifying priority areas of research.

Networking

- Sharing didactics, teaching methods, pedagogies.
- Sharing expertise and experiences.
- Structuring patterns of national, regional and international collaboration.

Capacity building

- Contribute for project development and research in regional networks.
- Fund research to consolidate research and experimentation platforms.

Interdisciplinarity

- Strengthening transversal approach.
- Increasing the contribution of different disciplines to earthen architecture.

UNESCO Chair

Earthen Architecture, Building Cultures and Sustainable Development

UNITWIN network



Architecture, Environment & Building Cultures (AE&CC)
CRATerre-ENSAG | International Centre of Earthen Architecture
Ecole Nationale Supérieure d'Architecture de Grenoble,
(ENSAG)

 Organisation des Nations Unies pour l'éducation, la science et la culture	 Chaire UNESCO Architecture de terre	 école nationale supérieure d'architecture de grenoble
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------

 Organisation des Nations Unies pour l'éducation, la science et la culture	 Commission nationale française pour l'UNESCO
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------

THANK YOU