SANTA FE, NEW MEXICO

terra 2021

13th World Congress on Earthen Architecture
EXPRESSION OF INTEREST: Web Version | January 2019

Getty Conservation Institute, Los Angeles, CA
National Park Service Vanishing Treasures Program, Santa Fe, NM
University of Pennsylvania School of Design, Philadelphia, PA
Proposal submitted by

The Getty Conservation Institute

National Park Service
Vanishing Treasures Program

PennDesign

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Talus House and cavates at Bandelier National Monument.
Table of Contents

1. Introduction
2. Location and feasibility of venue
3. Proposed date
4. Relevance of location
5. Suggested main theme and subthemes
6. Official languages
7. Conference papers and posters
8. Conference proceedings
9. Pre-conference workshops and post-conference tours
10. Conference organization schedule
11. Conference program
12. Assurance of safety for participants and organizers
13. Quality and capacity of conference venue
14. Local accommodations
15. Typical climate during proposed date range
16. Accessibility to major airports and other transportation
17. Information regarding the issuing of visas and restrictions
Introduction

Thirty years after Adobe 90, the 6th International Conference on the Conservation of Earthen Architecture, held in Las Cruces, New Mexico, USA, the Getty Conservation Institute, the National Park Service, and the University of Pennsylvania propose to host the 13th World Congress on Earthen Architecture in Santa Fe, New Mexico, USA, bringing the conference back to the southwest of the United States, a region rich in earthen heritage, with a tradition of building, preserving, maintaining, planning, and sustainably developing the earthen heritage.

Since the first meeting of experts on the topic, held in 1972 in Iran, a series of international conferences devoted to the preservation of earthen architecture has been organized, and the field of earthen architecture conservation has grown tremendously. With each conference, the number of participants has increased along with their geographic and professional diversity.

After the GCI’s initial participation in the Fifth International Meeting of Experts on the Conservation of Earthen Architecture organized by ICCROM and CRATerre in Rome in 1987, and building on its research at Fort Selden, the Institute, New Mexico State Monuments, and the National Park Service joined with ICCROM and CRATerre-EAG to organize Adobe 90, the Sixth International Conference in Las Cruces, New Mexico.

Adobe 90 was instrumental to the development of the recent Terra conferences, which had previously been relatively small and specialized meetings of experts, greatly expanding the number and geographic distribution of participants and papers and producing substantive publications that have helped to disseminate and legitimize the work of the field. It ultimately set a new standard for conferences within the earthen architecture community and fostered institutions in other regions to take on sponsorship of the conference, which now occurs approximately every four years and receives hundreds of abstract proposals. The conference also highlighted the earthen heritage of the American southwest and promoted the work done by colleagues in the U.S. In 2008, the GCI partnered with the Ministry of Culture of Mali to convene the tenth international Terra conference in Bamako, Mali, the first to be held in Africa, which was attended by four hundred fifty participants from sixty-five countries.

To date, the twelve international conferences have strengthened collaboration, created regional networks, generated partnerships, and produced proceedings, two of which have been published by the GCI. Academics, scientists, architects, and conservation practitioners, united by their interest in earthen architecture and heritage, now convene every few years to discuss chemistry, soil science, seismology, hydrology, structural engineering, archaeology, sociology, sustainability, and more, as they pertain to earthen architectural heritage.

With the aim of building on the knowledge
disseminated in previous conferences to further advance the field of study and conservation of earthen heritage, the GCI, the National Park Service, and the University of Pennsylvania put forth this proposal to organize the 13th International Terra Conference in Santa Fe, New Mexico.

Location and feasibility of venue

Santa Fe, known as the “City Different,” is a small city situated in the southwestern United States, a region characterized by its earthen architecture which spans centuries. As the capital of New Mexico and the oldest state capital in the country, the region and its inhabitants—just 80,000 in the city and 140,000 in the county—comprise a community layered with history and culture. Over a thousand years of Native American presence and 400 years of Spanish influence reveal themselves in significant archaeological sites dating as early as the eleventh century to the eighteenth and nineteenth centuries and in the earthen buildings of the present day, thus making Santa Fe the ideal location for the next Terra conference.

Santa Fe is located at the foot of the Sangre de Cristo mountains and is surrounded by tribal lands, national forests, and federally protected historic sites. This area, known by the Tewa inhabitants as Ogha Po’oge (“White Shell Water Place”), was originally occupied by indigenous Tanoan peoples, who lived in numerous Pueblo villages along the

The Palace of the Governors in Santa Fe, New Mexico.
Río Grande. One of the earliest known settlements in what is now downtown Santa Fe can be dated to sometime after 900. A group of native Tewa built a cluster of homes that centered around the modern plaza and spread for half a mile (0.8 km) to the south and west; the village was called Ogapoge in Tewa. Over time, the Tanoans and other Pueblo peoples steadily settled along the Santa Fe River. The city continued to be a hub of western migration, a meeting place for Native Americans before the arrival of the Spanish.

The city, founded by Spanish colonists in 1610 was named La Villa Real de la Santa Fe de San Francisco de Asís (“The Royal Town of the Holy Faith of Saint Francis of Assisi”). It is located at the termination points of the Camino Real de Tierra Adentro, which operated as a trade route from the U.S. to Mexico City from the sixteenth to nineteenth centuries, and the Santa Fe Trail, which connected Missouri and New Mexico in the nineteenth century. In 1912, when the town’s population was approximately 5,000 people, the city’s civic leaders designed and developed a sophisticated city plan that incorporated elements
of contemporary living while preserving the traditional style of the city. The plan anticipated limited future growth, considered the scarcity of water, and recognized the future prospects of suburban development on the outskirts.

In modern Santa Fe, visitors find themselves surrounded by evidence of this rich history in the architecture of Pueblos, churches, and government buildings and traditional and contemporary arts. Santa Fe is a member of UNESCO’s Creative Cities Network and regularly hosts world-renowned cultural events and markets, such as the International Folk Art Market, the Traditional Spanish Market, and the Santa Fe Indian Market. The historic city center has plentiful accommodations. The Santa Fe Community Convention Center is within walking distance of nearby hotels, restaurants, museums, art galleries, and shops, making it an ideal venue for hosting an international conference of an estimated 600-650 participants.

Proposed date

The proposed date of the conference is June 8-11, 2021, with pre-conference workshops and post-conference tours scheduled before and after the conference.

Relevance of location

Santa Fe, New Mexico and the greater Southwestern American region have long been associated with earthen architecture. Beginning with the traditional, indigenous communities that still make their homes here, earth has been used as a building material for many centuries in the area. This practice continued, and expanded, with the Spanish entrada, and it continues to this day. Numerous examples spanning more than 1000 years convey the history of this region. Acoma Pueblo and the Hopi village of Old Oraibi, arguably the two oldest continuously occupied villages in North America, both employ earthen construction in the form of adobe bricks, mortar, and plaster. Across the landscape, earthen materials are found in pre-contact, historic, and contemporary construction. In addition to Acoma and Oraibi, the many pueblos of the Rio Grande valley, Taos, Zuni, and the Hopi mesas all contain historical and contemporary earthen architecture. Representing additional pre-contact structures with earthen architecture are the archeological sites preserved in National and State parks such as El Morro, El
Malpais, Aztec Ruins, and Bandelier National Monuments, Chaco Culture National Historical Park, and Homol'ovi State Park.

The continued use of earthen architecture after the arrival of the Spanish can be seen in numerous mission churches throughout New Mexico and California, including the notable example of San Miguel Mission in Santa Fe. Throughout New Mexico there are also churches affiliated with Pueblos including Santo Domingo, Taos, and Acoma, while small community-based churches and chapels are found in places such as Chimayo, Española, and Canoncito. During this period, adobe was also used for defensive walls in towns like Las Trampas and Truchas.

As the seat of power for the Spanish Empire north of the Rio Grande, Santa Fe is home to early government and residential buildings such as the adobe-constructed Palace of the Governors and the Oldest House. Historic Santa Fe streetscapes with origins from this time include Palace Avenue, Santa Fe Plaza, and Canyon Road.

After New Mexico became a U.S. territory in 1850, adobe construction continued to be used, as seen in Indian War-era military installations such as Fort Union, Fort Bascome, and Fort Marcy, and in fortified civilian trading posts such as Alexander Barclay’s Fort. Twentieth century earthen construction includes the NPS’s Old Santa Fe Trail Building, built by the Civilian Conservation Corps, and the John Gaw Meem-designed complex of adobe buildings on Museum Hill.

Despite this rich tradition of earthen architecture, the first half of the 20th century was not generally kind to earthen structures in New Mexico and the American Southwest. The introduction of more modern materials not only relegated earthen architecture to a diminished status, the quest to lengthen maintenance cycles encouraged the use of incompatible modern materials in and on earthen buildings.

This began to change late in the second half of the 20th century with the realization of the damage caused by the incompatibility of traditional and modern materials. In order to reverse this trend, and preserve the wealth of traditional and historic earthen buildings throughout the Southwest, there was a return to the traditional building crafts and materials that were originally used to create these buildings. Since then, numerous initiatives have been undertaken in the southwest, addressing the preservation, conservation and continuity of earthen architecture locally.
and in the greater region.

Moreover, New Mexico has adopted building codes and guidelines for earthen structures to continue the tradition of building in earth for contemporary architecture, and to maintain an aesthetic closely linked to traditional earthen construction across the city, weaving old and new into the urban fabric of Santa Fe.

Earthen sites in the American Southwest were the first historic resources to be preserved in the late 19th-early and 20th century and their incredible state of preservation prompted American archaeologists to adopt innovative methods of conservation that defined an American school of preservation up to the present day. This long legacy of site preservation and interpretation is an important and contributing factor in convening an international forum of experts in Santa Fe.

The wealth, variety and significance of earthen heritage in the region combined, create an ideal setting for the 13th International Terra Conference. The theme and sub-themes draw directly from the examples and issues of earthen heritage in the region, and local and regional initiatives can help to inform and stimulate the conversations around the study and conservation of earthen heritage that will be the core of this international gathering of earthen professionals.

The National Park Service and the Vanishing Treasures Program’s work in the region

In 1966, the passage of the National Historic Preservation Act (NHPA) by the U.S. Congress signaled a national interest in the preservation of our cultural heritage through the Secretary of the Interior, making the NPS the lead government agency for the protection of cultural heritage in the U.S.

The NPS directly oversees the preservation of many of the most significant and intact cultural sites in the country. It also sets the standards for the preservation of sites and resources managed by other U.S. government and non-government agencies and organizations. Included within the system of National Parks, National Monuments, historic sites, historical parks, and recreation areas that are managed by the NPS are archeological sites, buildings, structures, and landscapes that include World Heritage Sites, National Historic Landmarks, and properties listed on the National Register of Historic Places.

In the western U.S. there are over thirty (30) NPS
units that are home to pre-contact and historic-era adobe buildings, along with dozens of additional sites that incorporate traditional earthen materials including mortars, plasters and renders. These buildings and structures include some that are preserved as ruins and interpretive sites while others are still in use as offices and public spaces. This collection of parks represents not only a wide geographic range and typology of earthen architecture, but is also a catalogue of research and conservation techniques used to prolong the lives of these historically significant structures.

For over 100 years, the NPS has developed its preservation expertise through the study and conservation of the traditional and historic structures that are found in these places. Beginning with work in the Southwestern U.S. on sites like the Great House at Casa Grande Ruins National Monument, the alcove sites at Mesa Verde National Park, the large masonry pueblos and community spaces at Chaco Culture National Historical Park, and the adobe mission church at Tumacacori National Historical Park, the NPS has advanced preservation practice and acquired and disseminated knowledge of traditional earthen building materials and skills.

The Vanishing Treasures Program (VT) of the NPS, works with both parks and traditional communities, and seeks to perpetuate traditional building crafts and skills through training, proactive preservation of heritage architecture, and engagement with traditional cultures. In the southwestern office, the VT Program has established long-standing relationships with universities, NGOs, non-profits, and other subject matter experts in order to build capacity, increase knowledge, and develop science-based approaches to the preservation of traditional architecture with a focus on earthen construction. Among those partners active in the preservation of earthen architecture in the region are Cornerstones Community Partnerships, the University of Pennsylvania Graduate Program in Historic Preservation (PENN-HSPV), and the Getty Conservation Institute (GCI).

The Getty Conservation Institute’s work in the region

The Getty Conservation Institute (GCI) over the past thirty years has engaged in projects and initiatives to advance the field of earthen conservation, all of which have involved robust collaborations with institutions and professionals around the
world like PENN-HSPV and the NPS. By working across borders and cultures, the GCI has sought to create new knowledge that capitalizes on both cutting-edge research and traditional know-how through its various initiatives. By leveraging its resources toward collective action, the GCI has helped to build and empower a global network dedicated to earthen architecture and its conservation through scientific study, field projects, education and dissemination of their work.

The GCI’s initial entry to the field of earthen architecture was through badly needed scientific research. In the 1980s, a small but important project was launched at the site of Fort Selden, under the aegis of New Mexico State Monuments (NMSM) and the National Park Service (NPS) Southwest Region, to investigate the treatment of earthen archaeological remains. In 1988, the GCI joined the NMSM to undertake Phase II of the research at Fort Selden, investigating chemical consolidants, capping, and protective coatings for the conservation of earthen walls and initiating the GCI’s direct engagement with the conservation of earthen architecture. Test walls were built and treated in a variety of ways, including drainage, sheltering, and reburial. New techniques for stabilizing adobe were also investigated in this project. Initial findings were presented and discussed at “Adobe 90,” the first international conference co-organized by the GCI in partnership with other organizations active in the field.

The University of Pennsylvania’s work in the region

The University of Pennsylvania’s work in the region has paralleled that of the National Park Service and the Getty Conservation Institute. Often working together, each organization has lent their expertise and capacity to shape research, practice, and dissemination in ways that have moved forward the preservation of earthen heritage regionally and globally. UPenn has sponsored over 25 years of research theses and field schools at Casa Grande, Mesa Verde, Hovenweep, Bandelier, Tumacacori, Fort Union, and other earthen sites. Materials and methods of site conservation have been proposed, tested, and applied in ways that are well reflected in the literature and conservation pedagogy. This experience and knowledge is now finding new opportunities through integrated vulnerability studies as earthen sites face unparalleled risk and threat under the influence of climate change.
(top left) Acoma Pueblo near Albuquerque, New Mexico; (top right) San Miguel Mission Chapel in Santa Fe; (bottom left) George Nakashima's Monastery of Christ in the Desert; (bottom right) A kiva in the ruins of Chetro Ketl in Chaco Canyon, New Mexico.
Suggested main theme and subthemes

Looking Back, Moving Forward: Advances in the study and conservation of earthen architecture

- 1. Conservation and study of earthen heritage in the southwestern United States
  - Care of earthen heritage by and for communities
- 2. Conservation and management of earthen archaeological sites
- 3. Conservation of historic earthen buildings
- 4. Conservation and development in urban settings with historic earthen heritage
  - Rehabilitation of earthen historic buildings
  - Contemporary architecture in historic earthen environments
  - Codes and guidelines
- 5. Conservation of cultural landscapes
- 6. History of conservation of earthen heritage: approaches and treatments
- 7. Education in the conservation and study of earthen architecture
  - New approaches
  - Regional courses
  - National and international initiatives
- 8. Advances in scientific research: tools and techniques for analysis
  - Material and structural analysis
  - Environmental research
  - Seismic mitigation
- Regional issues (e.g. Latin America, Middle East, Africa, etc.)

The main objective of the program is to present the state of the art on the study and conservation of earthen heritage worldwide. The conference will be comprised of sessions presenting technical information, management issues, methodology, advances in research, case studies, and guidelines for best practice as a mix of presentations, discussion groups, special interest sessions, and a poster session to encourage cross-disciplinary exchange of information among participants across different specialties and from different geographic regions. The proposal considers a combination of high quality presentations in general sessions followed by parallel sessions in English and Spanish to further discuss different topics among participants.
Official languages

The official languages of the conference will be English and Spanish. English has been selected as it is the first language of the country and Spanish as a common secondary language in the region.

Conference papers and posters

A call for papers and posters will be sent out. Papers and posters will be accepted in English and Spanish. Abstracts will be printed in the abstracts volume in both languages.

Conference proceedings

Papers will be peer reviewed and all papers that qualify for publication will be published. Proceedings will be produced by Getty Publications as a digital publication, for sale in hard copy, and eventually available for download on the Getty website. Authors whose papers are not published will be notified in advance of the publication of the proceedings.

Pre-conference workshops and post-conference tours

In conjunction with the conference, several optional one- to four-day pre-conference workshops and post-conference tours will be organized. Workshops will provide practical experience and technical information on topics related to various conference themes. Post-conference tours will explore the earthen heritage of the region. Specific details about workshops and tours will be made available once the program is further developed. The optional pre-conference workshops and post-conference tours will be an additional cost to the conference registration.

Photo: © J. Paul Getty Trust.

CCI staff preparing testing samples for repointing for a workshop at the church of Kuñotambo, Perú.
Conference organization schedule

In 2019, it is projected that the scientific committee will be selected and meet. The conference will then be formally announced and a call for abstracts will be sent out. In 2020, abstracts will be reviewed and selected, and registration for the conference will open. The conference will be held in June 2021, and the conference proceedings will be published the following year. The aforementioned schedule is preliminary and subject to change.

Conference program

The program will include various general sessions with presentations addressing subthemes and relevant topics, break-out discussion sessions, and a poster session. Some time will tentatively be dedicated to site visits in and around Santa Fe, committee meetings, and special interest group meetings. An exhibit may be organized in the community gallery of the conference center.

Assurance of safety for participants and organizers

Santa Fe was rated one of New Mexico's 20 safest cities in 2018 by safewise.com. Many shops and businesses in major commercial districts remain open until 8 or 9 p.m. The proximity of hotels to the conference center ensures a short walk from lodging to conference venue. Commonsense prudence is advised as in any city. The 911 telephone hotline is available throughout the United States in case of emergency. The Santa Fe Police Department is also available in case of local non-emergency concerns.

Quality and capacity of conference venue

The recently built Santa Fe Community Convention Center can accommodate up to 2,000 people, making it an ideal location to host an international conference with an estimated 600-650 participants. The conference center is located in close proximity to scores of hotels, shops, and restaurants and is designed to echo the adobe structures so characteristic of New Mexico.

While it references a centuries-old architectural...
style, the Santa Fe Community Convention Center has state-of-the-art audio/visual capabilities and high-speed Wi-Fi throughout the building.

The convention center has one ballroom, seven breakout rooms, a courtyard, gallery space, and lobby within its 40,000 square foot interior space. The ballroom can be divided into subsections to provide the optimal space for any size group. The center is compliant with the Americans with Disabilities Act (ADA) and thus fully handicapped accessible. Food and beverage, shuttles, and entertainment are available by contract. Accessible by foot, car, or bus, there is adequate onsite vehicle and bus parking.

Typical climate during proposed date range

Typical temperatures in June (as recorded in 2018) are highs of 83 degrees fahrenheit (28.3° C) during the day, lows of 50 degrees fahrenheit (10° C) at night with average high temperatures in the 80s (26.6° C) and low temperatures in the 50s (10° C), with very little likelihood of precipitation.

Local accommodations

Lodging options are plentiful within a short walk of the Santa Fe Community Convention Center, ranging from large-scale hotels like the Drury Plaza Hotel and Eldorado Hotel and Spa to historic hotels such as the Hilton Santa Fe Historic Plaza and La Fonda on the Plaza.

There are over a dozen three- and four-star hotels that are no more than a 10-minute walk from the conference center and have private bathrooms, air conditioning, Wi-Fi, business centers, breakfast, and parking. The average rate in these hotels (with no group discount taken into consideration) is approximately $165 USD for a single room and $180 USD for a double room. Triple rooms are available in some hotels. There are also many low-cost options in the surrounding area, including two-star hotels as low as $68 per night, bed and breakfasts, and over 300 Airbnbs, beginning as low as $30 per night.

For lists of accommodations in Santa Fe, see the following links:
- [https://santafe.org/Visiting_Santa_Fe/Accommodations/](https://santafe.org/Visiting_Santa_Fe/Accommodations/)

Accessibility to major airports and other transportation

Santa Fe is easily accessible via two airports: the Albuquerque International Sunport (ABQ) and the Santa Fe Regional Airport (SAF), 67 and 12 miles from the convention center, respectively.

International flights arrive via Dallas/Fort Worth International Airport (DFW) or George Bush Intercontinental Airport (IAH) with connections into Albuquerque. There are also many domestic flights from major airports to ABQ, which is a one-hour car ride from Santa Fe.

Fewer nonstop flights exist into SAF, but short connecting flights may be taken from Denver International Airport (DEN), Dallas/Fort Worth International Airport (DFW), or Phoenix Sky Harbor International Airport (PHX). SAF is a 20-minute car ride to the city center and its
Information regarding the issuing of visas and restrictions

A citizen of a foreign country who seeks to enter the United States generally must first obtain a U.S. visa, which is placed in the traveler's passport, a travel document issued by the traveler's country of citizenship. The conference organizers will provide participants coming from outside the United States with a formal letter of registration to facilitate the visa process.

The cost of a U.S. visa is $160 USD for a nonimmigrant visitor visa, which allows the traveler to remain in the U.S. for up to 90 days at a time for business and pleasure, including attendance at conferences and courses, and is valid for 10 years. Considerations will be made for participants who require a U.S. visa.

Certain international travelers may be eligible to travel to the United States without a visa if they meet the requirements for visa-free travel. The Visa Waiver Program enables most citizens or nationals of 38 countries* to travel to the United States for tourism or business for stays of 90 days or less without obtaining a visa. Travelers must have a valid Electronic System for Travel Authorization (ESTA) approval prior to travel.

Citizens or nationals of the following countries* are eligible to travel to the United States under the Visa Waiver Program:

- Andorra
- Australia
- Austria
- Belgium
- Brunei
- Chile
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Japan
- Latvia
- Liechtenstein
- Lithuania
- Luxembourg
- Malta
- Monaco
- Netherlands
- New Zealand
- Norway
- Portugal
- San Marino
- Singapore
- Slovakia
- Slovenia
- South Korea
- Spain
- Sweden
- Switzerland
- Taiwan*
- United Kingdom**

Currently, there are restrictions on issuing visas to persons from Iran, Libya, North Korea, Somalia, Syria, Venezuela, and Yemen, although this does not preclude the issuance of some visas for professional conferences of a short duration. These visas are reviewed on a case by case basis.

Foreign Students and Exchange Visitors: The United States supports international education and welcomes foreign students and exchange visitors. Students and exchange visitors must be accepted by their schools or program sponsors before applying for visas. **