

Session Track: Sustainable Heritage Conservation
Session Code: CS01a

Paper: Environmentally Efficient Architecture and Quincha Technology in Peru

Presented by

Carmen A. Díaz H.
Columbia University
New York, NY USA

Speaker(s) Biography

Juan E. De Orellana R. Chief of the Department of Architecture of the University of the Sacred Heart (UNIFE) Architect (URP, Lima), Master in Architecture (UNFV, Lima); Master in Conservation and Restauration of Historical Monuments (UNI, Lima).

Diploma of Landscape Architecture (U. de Lima, Lima).

Professor of History of Universal Architecture, and Theory of Restauration. Many projects of restauration of historical buildings. Last project: The "Plaza de Armas de Lima" Conservation.

Researchs: On the rapport between the Semiotics Systems in the Presentation of the restaured Building and his rights "reads".

"La Quincha en el Perú" Long research about The conservation of a traditional Earthquake-proof construction.

Abstract

For the last few years, around the world, there have been studies related to vernacular architecture, as well as sustainable conservation and development. Both subjects are related because civilizations with little or no Western influence did not follow general trends nor did they seek a universal formula of development. Therefore, these cultures tend to exploit their natural resources as well as make the most of their geography in order to adapt to their environmental conditions.

Premodern civilizations had a sacred relation with their environment. They did not feel the need to antagonize or dominate their environment, but instead live in communion with it. They accomplished this by creating technologies that remain in use today and that should be preserved.

In the Peruvian coastline, Quincha was used as a technology based on readily available resources. However, Quincha was also perfect for such a seismic region and did not ravage the area, as stated at the APTi Conference in San Juan. Thus, Peru's Universidad Femenina del Sagrado Corazón (UNIFE) is investigating Quincha applying a transdisciplinary approach, looking into not only its technology and sustainability, but also the materials used in Quincha construction. UNIFE is currently analyzing these materials' contribution to sustaining the environment.

The use of high windows (sobreluces) in doors, windows and walls, the use of skylights (teatinas) oriented south or north depending on the building location to get the most light or fresh air during summer; lighting or zenithal ventilation through the "farolas" (another skylights windows), ports of entry, enclosed balconies, and other architectural elements are examples of the environmental efficiency of quincha architecture. These architectural elements were not the result of random application or pure imitation of other civilizations. They are the result of constructive analysis taking into account both climate and territorial conditions.

Finally, the analysis of Quincha continues today in order to apply Quincha technology as another solution to the housing problem in the Peruvian coast.

The main questions of the research: Is the Quincha, like a complete system of building and architecture, possible in the contemporary Peruvian reality? Is the quincha system of building, sustainable yet in our country? Is the self building a solution?

Session Track: Sustainable Heritage Conservation
Session Code: CS01b

Paper: Conservation as a Sense of Place: The Indigenous Architecture Project

Presented by

Sue Ann Pemberton, AIA
University of Texas at San Antonio/College of Architecture
San Antonio, TX USA

Speaker(s) Biography

Ms Pemberton is a practicing architect and teacher of preservation in architecture, details, material and community. She holds a Master of Architecture degree from Texas A&M University and has spent her career studying material and detail. Her professional work includes the preparation of design guidelines for communities along with conditions assessments and rehabilitation projects. Her teaching focus is on material, sustainability and preservation of the built environment. The primary goal is to engage students in learning by observation and the art of making.

Abstract

Sustainable Heritage Conservation
As Sense of Place

The Indigenous Architecture Project is a study of vernacular architecture, construction techniques and materials throughout the Sierra Region. The Studio is intended to promote the awareness of the unique, handcrafted responses to the environment, available materials, cultural impact and architectural form and diversity of the built environment in the rural areas of the Sierra. The beauty, design and character of the built form reveal an often overlooked and lost understanding of the environment and sustainable design. These concepts, which worked for generations, are being lost to new technology and materials recently available to the region, compromising the integrity of the original design and material. The past has much to offer in understanding the environment, the architecture and the people.

Our Project is a laboratory of learning. The program supports Rarámuri efforts to preserve their cultural heritage through the construction of an educational and cultural center. It offers students matchless opportunities to gain international, cross-cultural experience while learning how best to adapt ancient, earth-architectural methods to the construction of modern buildings and to apply modern technology to restore centuries-old adobe buildings.

The Rarámuri Indian culture is one of the largest and most traditional Indigenous societies in all of North America. They are our client and our teachers.

The program takes place in and around the Rarámuri (Tarahumara) Indian community of Norogachi, Chihuahua, located 250 miles south of the US-Mexico border in the uplands of northern Mexico's Sierra Tarahumara.

This paper depicts how creating a field school in this region established an opportunity for students to become engaged in research through an inimitable approach; immerse upper level students into a dramatically different culture in a remote location to learn about the people, culture and the built heritage of the region by means of a hands-on endeavor. We work side-by-side with the local people, learning the language, culture and the art of traditional building.

The choices are not always obvious when new materials and techniques influence the perception of socio-cultural affluence. In a culture where tradition is being eroded by the outside world, conflicting values and the need for progress, it is imperative to study the built heritage and to learn from it. That is the focus of our studio course but it also offers the opportunity to encourage the preservation of construction methods and materials that have been a part of the Tarahumara for hundreds of years. As we study sustainable building, it is our opportunity to explain why lime and mud plaster are a better application on adobe than the new Portland cement plaster. The traditional,

handcrafted wood doors and windows are far more beautiful and more energy efficient than the new steel and glass models which signify affluence and are replacing the traditional. We introduce the idea of a clerestory window to allow light to enter deep into the building through the thick adobe walls and encourage the use of natural ventilation.

This paper explores how a small group of students can find a sense of place in the middle of nowhere. How they can discover an amazing culture in a strange place and, in a place where there is nothing, they can build from the earth. This is truly a sustainable approach to conserving a building heritage.

Session Track: Sustainable Heritage Conservation
Session Code: CS01c

Paper: Sustaining the Sustainable: Preserving Gustav Stickley's Craftsman Farms

Presented by

Stephanie M. Hoagland
Jablonski Building Conservation, Inc.
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Speaker(s) Biography

Stephanie M. Hoagland has a Master of Science in Historic Preservation from Columbia University's Graduate School of Architecture, Planning and Preservation. She is currently employed as an Associate and Architectural Conservator at Jablonski Building Conservation, Inc. in New York City. Ms. Hoagland has worked on a variety of preservation and conservation projects throughout the northeastern United States including the Historic Structures Report for Hageman Farms in New Jersey, the Cultural Resource Survey for New York's Washington Square Park including the conservation treatment plan for the Washington Square Fountain, and a Conditions Assessment and Conservation Recommendations for Isamu Noguchi's Playscape in Atlanta, Georgia. In addition to being a member of APT, Ms. Hoagland is also a member of the National Trust for Historic Preservation and the American Institute for the Conservation of Historic and Artistic Works.

Abstract

Sustaining the Sustainable: Preserving Gustav Stickley's Craftsman Farms.

At a time when much of the country was reaping the benefits of inexpensive, machine made items, Gustav Stickley, one of the main proponents of the Arts and Crafts Movement in America, was determined to convince the public that purchasing hand crafted objects, constructed of durable materials and made to last for generations was a better idea. In his magazine, *The Craftsman*, he promoted the movement's design philosophy which included; living simply, staying connected to nature, and maintaining integrity of space. These ideas were clearly visible in his plans for his personal estate at Craftsman Farms.

Nearly a century old, the buildings and landscape of Craftsman Farms are in need of restoration. This paper will discuss the issues of how to sustainably conserve a historic site that originally promoted sustainability.

Originally situated on 650 acres of abandoned farmland, Craftsman Farms consisted of eleven buildings for both housing and agricultural purposes. These buildings were constructed using local materials found on the site and were designed to blend in with the environment. They were constructed compactly and efficiently with the idea that they would require minimal repairs. In describing his plans for these structures and the property as a whole, Stickley often used phrases associated with today's idea of sustainability including economy of scale, use of local materials and the concept of a "back to nature" movement. By designing buildings based on these beliefs, Stickley's cottages, farm buildings and the Log House are just as relevant today as they were at the beginning of the last century.

The Craftsman Farms Foundation, which oversees the property, has developed a Historic Site Master Plan that includes the preservation and conservation of both the buildings and the landscape. One of the components of the plan is the philosophical issues that arise in the preservation of the site. Examples include the use of wood for replacement elements and the restoration of heavily altered buildings.

Over time, wood structural elements have rotted. The majority of the buildings on the site were constructed using Chestnut trees which were being cleared during the re-grading of the property. Chestnut was also used because the trees were in the process of dying from Chestnut blight, which would eventually decimate the species in America. Today, arguments can be made for both using salvaged Chestnut, which would have to be trucked in from various locations, or to use the lumber from existing trees on the site which will be cut down during the restoration of the landscape.

The alterations made to the buildings also raise sustainability issues. Several Stickley-era buildings on the site have been greatly altered by subsequent owners. One of the buildings, the White Cottage, has had an entire second floor added to the one-story bungalow which completely obscures its original form. In this instance is the interpretation of the original cottage of greater importance than the materials that will end up in the landfill after the selective demolition?

With the landscape designer, archeologist, architect and conservators working together and taking Stickley's original intentions into consideration, sustainability is the driving influence in the preservation and conservation of the site.

Session Track: Sustainable Heritage Conservation
Session Code: CS01d

Paper: The Walls of Cartagena de Indias, Ordering Element of the Old City Urban Historic Landscape

Presented by

Alberto Herrera Diaz
Sociedad de Mejoras Publicas de Cartagena-SMPC
cartagena, Columbia

Speaker(s) Biography

Alberto herrera Diaz, Arquitecto con especializacion en urbanismo y restauracion del Patrimonio Historico en restauracion y conservacion del Patrimonio Arquitectonico, con Mas de 25 años de ejercicio profesional., la mayor experiencia profesional ha estado enfocada en la conservacion y restauracion del patrimonio Arquitectonico y he apoyado a la sociedad de Mejoras Publicas de Cartagena en su Mision Gestion y Amon para la conservacion del patrimonio militar de la ciudad, igualmente he ejercido como docente en la catedra de restauracion a nivel de pregrado y postgrado.

pertenezco a varias entidades como la Sociedad Colombiana de Arquitectos, Sociedad de Mejoras Publicas, Sociedad de Ingenieros y Arquitectos.

Premios Obtenidos: ganador del concurso el plan maestro para la rehabilitacion del patrimonio construido por las murallas de cartagena de Indias, premio nacional de Arquitectura por la restauracion de la iglesia Santo Domingo (2006); por la restauracion del angel San Rafael en 1998, Obras seleccionada para publicacion Casa de la Moneda 2002.

Diseño de varias edificaciones del Centro Historico para su restauracion, actualmente en proceso de construccion y direccion de las Obras de Restauracion de Casa del Santisimo, Casa de la Cofradia, Casa Santos de Piedra, Hotel de la Mantilla LM entre otros.

Abstract

Cartagena de Indias,, ha avanzado en porcentajes muy significativos en: normas y reglamentaciones; intervenciones y restauraciones de edificaciones de carácter religioso, civil, domestico y militar; igualmente capacitación de especialistas técnicos para la conservación y restauración de su patrimonio arquitectónico y urbanístico. Esta labor ha contado con apoyo incondicional de entidades públicas, privadas, educativas y carácter civil, con acompañamiento, aval de entidades y expertos internacionales; de estos compromisos se destaca la labor de una entidad de carácter civil, sin animodelucro, con 80 años de funcionamiento nivel nacional, como lo es la SOCIEDAD DE MEJORAS PUBLICAS SMPC,

He escogido tema para ser presentado dentro de las mesas de discusión, el cual hemos denominado

MURALLAS DE CARTAGENA DE INDIAS
ELEMENTO ORDENADOR DEL PAISAJE URBANO HISTORICO DE
LA CIUDAD ANTIGUA.

Este tema, una interesante experiencia que se ha desarrollado durante mas de 50 años en la ciudad, en la cual se presenta lo logrado en uno de los conjuntos patrimoniales Arquitectónico-militar y Monumental mas grandes importante de América y los resultados que se obtienen cuando existe coordinación en la gestión para la conservación del patrimonio cultural y arquitectónico, destacándose en la recuperación de las estructuras del Cordón Amurallado del centrohistórico de Cartagena, elementos constitutivos como son, Baluartes Santa Catalina, SanFrancisco Javier, Santo Domingo, SanJuanBautista y el Castillo SanFelipe Barajas dentro perimetro urbano, y; los Castillos SanJoséBocachica, y SanFernando en zona insular, dentro del desarrollo del Plan Maestro para la rehabilitación del patrimonio constituido por las murallas de Cartagena y su zona de influencia, el cual aun a la fecha continua .

Entre los proyectos recientes, se desarrolló el Plan para reglamentar usos para Conservación del CordónAmurallado, y Estudio d capacidad portante de 11 kilómetros existente, según tipologías estructurales, para la definición de usos urbanos contemporáneos

En la presentación de este tema se trataran los siguientes aspectos, presentándolos en forma documental-fotográfica

"Evolución en conservación y puesta en valor de elementos estructurales constitutivos de lamuralla.

"Evolución Histórica - Arquitectónica

"Metodología implementada para intervención y conservación

"Equipo interdisciplinario requerido para recuperación e intervenciones.

organización técnica, administrativa, Gestión para su conservación.

"Y Propuesta nuevos Usos y Ampliación de la oferta turística histórica-cultural, complementando e integrando los recorridos por las murallas con los castillos y estructuras militares insulares para finalizar con la materialización del Parque cultural Fortificado, que incluye el rescate del patrimonio arqueológico existente en área insular de Tierrabomba y Bocachica. Según la nueva dinámica urbana y teniendo en consideración cambios en diferente tiempos sobre esta estructuras, pero siempre teniendo como premisa considerar el patrimonio como un bien socialmente útil y rentable, considerando termino rentable como todo el beneficio de la comunidad, lo que nos permitie actuar legitimamente sobre nuestro patrimonio.

Para el logro de estas últimas consideraciones en especial lo referente al Parque cultural fortificado, se concluye que se debe ampliar el grupo interdisciplinario y buscar mayor apoyo y colaboración, de entidades y fortalecer la unión del trío privado, publico y civil;

Para nuevas intervenciones no solo se deben tener en cuenta los elementos construidos sino el entorno donde están implantados, para ello se requiere de continuar con el apoyo de los expertos tradicionales y aumentar nuevas disciplinas como son expertos en urbanismo, especialistas en medio ambiente, ecosistemas, economistas, administradores de empresas, expertos turísticos, y vinculación comunitaria entre otros.