

Proceedings of
ICOMOS Scientific Symposium 2021
9-10 November 2021

LIVING HERITAGE & CLIMATE CHANGE





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**Proceedings of
ICOMOS Scientific Symposium 2021
9-10 November 2021**

edited by
Deirdre McDermott
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**ICOMOS
2023**

ICOMOS

INTERNATIONAL COUNCIL ON MONUMENTS AND SITES

LIVING HERITAGE & CLIMATE CHANGE

ICOMOS Scientific Symposium 2021

9-10 November 2021

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Document Design	Yolo Lucio, Yasemin Sarıkaya Levent

Proceedings of ICOMOS Scientific Symposium 2021 “Living Heritage & Climate Change”

ISBN: 978-2-918086-75-8

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Published by ICOMOS International Council on Monuments and Sites
International Secretariat 11 rue du Séminaire de Conflans - 94 220 Charenton-le-Pont, France

Available in the ICOMOS Open Archive at <https://openarchive.icomos.org/id/eprint/2908/>

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Symposium Opening

Deirdre McDermott

Scientific Symposium Co-ordinator
AdCom Officer and OCD-RBA Member

Dear colleagues across the world, it gives me great pleasure to welcome you to this, our first online scientific symposium on the very pertinent topics of Living Heritage and Climate Change.

A very brief word of explanation: due to the COVID-19 pandemic, there was no scientific symposium in 2020 as we all sought ways to communicate without our former modus operandi of face-to-face meetings. In the absence of a host National Committee again in 2021, to avoid this lack for a second year, the ADCOM officers sought the support of an organising committee comprised of the OCD-RBA WG as lead, the Intangible Heritage ISC, and the Indigenous Heritage WG, and with a number of other contributors from other NCs, ISCs, and WGs, set out to deliver this symposium.

Before I introduce the first speaker to you, I would like to thank all those who have worked so hard to make today the success we hope it will be. In particular, I would like to mention Yasemin Sarikaya Levent for her great knowledge and organisational skills – and heavy lifting from the start of the process; Paulette Wallace from the RBA Communications team; and Jessica Khan from the Secretariat, who have stepped up to coordinate this vital extra component required by an online symposium. Our thanks to them and to all those who have helped in so many ways. You are innumerable, and you are all my heroes!

So, without further ado, I would like to introduce our first speaker:

Bente Mathisen is a Norwegian chartered architect MNAL who works as a cultural heritage advisor at Statsbygg, Norway's Public Construction Department, Culture and Ministry Affairs. She has been the director and deputy director for the Heritage Management Office of the World Heritage (WH) City of Bergen Norway, Director for the Management Office of Cidade Velha Republic of Cape Verde, and executive partner at the Architect Group CUBUS, Bergen, Norway. She is a board member of Foundation Bryggen, World Heritage Site.



She coordinated for 10 years the Eastern African City-to-City network between the WH cities of Bergen Lamu, Zanzibar and Ilha. She was the project leader of a restoration and capacity-building project for the WH cities of Bergen, Norway, and Ilha, Mozambique. She coordinated the intangible heritage cooperation Timor Leste - Norway, empowering women of Timor Leste from 2001 until 2008.

She has been a Board member of ICOMOS Norway and is currently the focal point of the *Our Common Dignity Initiative - Rights-Based Approaches* working group.



Symposium Opening by Deirdre McDermott

Ananya Bhattacharya is a social entrepreneur with more than 30 years of global work experience. She is co-founder and director of **banglanatak dot com**, a social enterprise working for inclusive and sustainable development using culture-based approaches since 2000.



Ananya specialises in *culture, gender, and sustainability* and has worked with diverse communities for safeguarding INTANGIBLE cultural heritage, the development of creative enterprise and cultural tourism. Her papers and articles have been published in journals, books, and conference proceedings. A recent contribution is in Routledge *Research in Architectural Conservation and Historic Preservation: Heritage Conservation in Postcolonial India, Approaches and Challenges*.

Ananya actively works on developing global and regional CSO networks working on culture and development. She is a Board member of ICOMOS India, a Bureau member of the ISC on Cultural Tourism (ICTC) and a member of the ISC on Intangible CH (ICICH).

Ananya is delivering the keynote address on Living Heritage, at the opening of this first online ICOMOS scientific symposium *Living Heritage and Climate Change*.

Will Megarry is an archaeologist, geographical information systems (GIS), and heritage management specialist with over 15 years of commercial and academic experience and a particular interest in the application and transferability of geospatial technologies to archaeology and cultural heritage site management and protection – in which he has



published widely. He has worked at World Heritage Sites and other cultural heritage sites around the world, including Petra, Machu Picchu, and the Brú na Bóinne. He is a member of ICOMOS Ireland and an Expert Member of ICOMOS-ICAHM.

He is a Senior Lecturer in Geographical Information Science, teaching GIS and remote sensing, with a particular focus on their use as decision-support tools for policy and management decision-making. He is also an active field archaeologist with an ongoing project looking at Neolithic stone tool production in the Shetland Islands, UK, funded by the Society of Antiquaries of Scotland. When not researching prehistory, he is interested in the more recent archaeology of emigrant communities and is PI on the ***Hidden Histories Project***, exploring Ulster heritage in Ontario, Canada.

More recently, his research has been exploring the intersection between climate change and cultural heritage. He is the new ***Focal Point of the ICOMOS Climate Action Working Group*** and Principal Investigator on the AHRC-DCMS funded ***Values-based Climate Change Risk Assessment: Piloting the Climate Vulnerability Index for Cultural Heritage in Africa*** project, which is providing foundational training in climate vulnerability assessment to heritage professionals in Africa. He also coordinated the ***Heritage on the Edge*** Project, a collaboration between ICOMOS, CyArk, and Google Arts and Culture.

Ouverture du Symposium

Deirdre McDermott

Coordinatrice du Symposium Scientifique
Membre de l'AdCom et de l'OCD-RBA

Chers collègues du monde entier, j'ai le grand plaisir de vous accueillir à ce premier symposium scientifique en ligne sur les thèmes très pertinents du patrimoine vivant et du changement climatique.

Une brève explication : en raison de la pandémie COVID-19, il n'y a pas eu de symposium scientifique en 2020, car nous avons tous cherché des moyens de communiquer sans notre ancien modus operandi de réunions en face à face. En l'absence d'un comité national hôte en 2021, pour éviter ce manque pour une deuxième année, les responsables de l'ADCOM ont demandé le soutien d'un comité d'organisation composé du Groupe de Travail (GT) OCD-RBA en tant que chef de file, du CSI du patrimoine immatériel et du GT du patrimoine autochtone, et avec un certain nombre d'autres contributeurs d'autres CN, CSI et GT, ont entrepris d'organiser ce symposium.

Avant de vous présenter le premier orateur, je voudrais remercier celles et ceux qui ont travaillé si dur pour faire de cette journée le succès que nous espérons. En particulier, je voudrais mentionner Yasemin Sarıkaya Levent pour sa grande connaissance et ses compétences organisationnelles - et son travail considérable, depuis le début du processus ; Paulette Wallace de l'équipe de communication de la RBA et Jessica Khan du Secrétariat, qui se sont impliquées pour coordonner cette composante supplémentaire vitale qu'exige un symposium en ligne. Nous leur adressons nos remerciements, ainsi qu'à celles et ceux qui nous ont aidés de bien des manières. Vous êtes innombrables et vous êtes toutes et tous mes héros !

Sans plus attendre, je vous présente notre première oratrice :

Bente Mathisen est une architecte norvégienne agréée MNAL qui travaille comme conseillère en patrimoine culturel à Statsbygg, le département norvégien de la construction publique, de la culture et des affaires ministérielles. Elle a été directrice et directrice adjointe du Bureau de gestion du patrimoine de la ville de Bergen (Norvège), directrice du Bureau de gestion de la Cidade Velha (République du Cap-Vert) et associée exécutive du groupe d'architectes CUBUS, à Bergen (Norvège). Elle est membre du conseil d'administration de la Fondation Bryggen, site du patrimoine mondial.



Elle a coordonné pendant 10 ans le réseau City-to-City d'Afrique de l'Est entre les villes du patrimoine mondial de Bergen, Lamu, Zanzibar et Ilha. Elle a dirigé un projet de restauration et de renforcement des capacités pour les villes du patrimoine mondial de Bergen, en Norvège, et d'Ilha, au Mozambique. Elle a coordonné la coopération en matière de patrimoine immatériel entre le Timor-Leste et la Norvège, en donnant aux femmes du Timor-Leste les moyens d'agir, de 2001 à 2008.

Elle a été membre du conseil d'administration d'ICOMOS Norvège et est actuellement le point focal du groupe de travail *Our Common Dignity Initiative - Rights Based Approaches*.



Ouverture du Symposium par Deirdre McDermott

Ananya Bhattacharya est une entrepreneuse sociale avec plus de 30 ans d'expérience professionnelle internationale. Elle est cofondatrice et directrice de **banglanatak dot com**, une entreprise sociale qui œuvre depuis 2000 en faveur d'un développement inclusif et durable en utilisant des approches fondées sur la culture.



Ananya est spécialisée dans la culture, le genre et la durabilité et a travaillé avec diverses communautés pour la sauvegarde du patrimoine culturel INTANGIBLE, le développement d'entreprises créatives et le tourisme culturel. Ses documents et articles ont été publiés dans des revues, des livres et des actes de conférence. Une de ses récentes contributions figure dans *Routledge Research in Architectural Conservation and Historic Preservation* : **Heritage Conservation in Postcolonial India, Approaches and Challenges**.

Ananya travaille activement au développement de réseaux mondiaux et régionaux d'OSC travaillant sur la culture et le développement. Elle est membre du conseil d'administration d'ICOMOS Inde, membre du bureau du CSI sur le tourisme culturel (ICTC) et membre du CSI sur le patrimoine immatériel (ICICH).

Ananya prononcera le discours principal sur le patrimoine vivant, à l'ouverture du premier symposium scientifique en ligne de l'ICOMOS sur le *Patrimoine Vivant et le Changement Climatique*.

Will Megarry est archéologue, spécialiste des systèmes d'information géographique (SIG) et de la gestion du patrimoine. Il a plus de 15 ans d'expérience commerciale et universitaire et s'intéresse particulièrement à l'application et à la transférabilité des technologies géospatiales à l'archéologie et à la gestion et à la protection des sites du patrimoine culturel - domaine dans lequel il a publié de nombreux articles. Il a travaillé sur des sites du patrimoine mondial et d'autres sites du patrimoine culturel dans le monde entier, notamment Petra, Machu Picchu et Brú na Bóinne. Il est membre de l'ICOMOS Irlande et membre expert de l'ICOMOS-ICAHM.



Il est maître de conférences en sciences de l'information géographique et enseigne les SIG et la télédétection, en mettant l'accent sur leur utilisation en tant qu'outils d'aide à la décision pour la prise de décision en matière de politique et de gestion. Il est également un archéologue de terrain actif, avec un projet en cours sur la production d'outils en pierre néolithiques dans les

îles Shetland, au Royaume-Uni, financé par la Society of Antiquaries of Scotland. Lorsqu'il ne fait pas de recherches sur la préhistoire, il s'intéresse aux archéologies plus récentes des communautés d'émigrés et est PI sur le projet **Hidden Histories**, qui explore l'héritage de l'Ulster dans l'Ontario, au Canada.

Plus récemment, ses recherches ont porté sur l'intersection entre le changement climatique et le patrimoine culturel. Il est le nouveau **Point Focal de l'ICOMOS pour le Groupe de Travail sur l'action climatique** et chercheur principal dans le cadre de l'évaluation des risques liés au changement climatique fondée sur les valeurs, financée par l'AHRC-DCMS : **Piloter l'indice de vulnérabilité climatique pour le patrimoine culturel en Afrique**, qui fournit une formation de base à l'évaluation de la vulnérabilité climatique aux professionnels du patrimoine en Afrique. Il a également coordonné le projet **Heritage on the Edge**, une collaboration entre l'ICOMOS, CyArk et Google Arts and Culture.

Apertura del Simposio

Deirdre McDermott

Coordinadora del Simposio Científico
Oficial del AdCom y Miembro del OCD-RBA

Estimados colegas de todo el mundo, es para mí un gran placer darles la bienvenida a éste, nuestro primer simposio científico en línea sobre los muy pertinentes temas del Patrimonio Vivo y el Cambio Climático.

Una breve explicación: debido a la pandemia de la COVID-19, no hubo simposio científico en 2020 mientras buscábamos formas diferentes de comunicarnos sin nuestro antiguo modus operandi de reuniones presenciales. En ausencia de un Comité Nacional anfitrión de nuevo en 2021, y para evitar esta carencia por segundo año consecutivo, los responsables del ADCOM buscaron el apoyo de un comité organizador compuesto por el GT OCD-RBA como líder, el ISC de Patrimonio Inmaterial y el GT de Patrimonio Indígena, y con una significativa colaboración de otros CNs, ISCs y GTs, se propusieron llevar a cabo este simposio.

Antes de presentarles al primer orador, me gustaría agradecer a todos aquellos que han trabajado tan duro para que el día de hoy logremos el éxito que esperamos que sea este evento. En particular, me gustaría mencionar a Yasemin Sarıkaya Levent por su gran conocimiento y capacidad organizativa - y su arduo trabajo, desde el inicio del proceso; a Paulette Wallace del equipo de Comunicación de la RBA y a Jessica Khan de la Secretaría, que han dado un paso adelante para coordinar todo este vital componente tecnológico extra que requiere un simposio en línea. Nuestro agradecimiento a ambas y a todos los que han ayudado de tantas maneras. Sois innumerables y todos sois mis héroes.

Sin más dilación, me gustaría presentar a nuestro primer ponente:

Bente Mathisen es una arquitecta colegiada noruega MNAL que trabaja como asesora de patrimonio cultural en Statsbygg, en el Departamento de Construcción Pública, Cultura y Asuntos Ministeriales de Noruega. Ha sido directora y subdirectora de la Oficina de Gestión del Patrimonio de la Ciudad Patrimonio de la Humanidad (WH) de Bergen (Noruega), directora de la Oficina de Gestión de la Cidade Velha de la República de Cabo Verde y socia ejecutiva del grupo de arquitectos CUBUS, de Bergen (Noruega). Es miembro del consejo de la Fundación Bryggen, Patrimonio de la Humanidad.



Durante 10 años coordinó la red de ciudades de África Oriental, en las ciudades WH de Bergen, Lamu, Zanzíbar e Ilha. Dirigió un proyecto de restauración y capacitación para las ciudades Patrimonio de la Humanidad de Bergen (Noruega) e Ilha (Mozambique). De 2001 a 2008 y con el fin de empoderar a las mujeres de Timor Oriental, coordinó la cooperación entre Timor Oriental y Noruega en materia de patrimonio inmaterial.

Ha sido miembro de la Junta Directiva de ICOMOS Noruega y actualmente es el punto focal de la *Iniciativa "Nuestra Dignidad Común"* - Grupo de trabajo sobre enfoques basados en los derechos.



Apertura del Simposio por Deirdre McDermott

Ananya Bhattacharya es una emprendedora social con más de 30 años de experiencia laboral global. Es cofundadora y directora de **banglanatak dot com**, una empresa social que trabaja por el desarrollo inclusivo y sostenible utilizando enfoques basados en la cultura desde el año 2000.



Ananya está especializada en *cultura, género y sostenibilidad* y ha trabajado con diversas comunidades para salvaguardar el patrimonio cultural INTANGIBLE, el desarrollo de empresas creativas y el turismo cultural. Sus trabajos y artículos se han publicado en revistas, libros y actas de congresos. Una de sus contribuciones más recientes se ha publicado en Routledge *Research in Architectural Conservation and Historic Preservation: Heritage Conservation in Postcolonial India, Approaches and Challenges*.

Ananya trabaja activamente en el desarrollo de redes mundiales y regionales de organizaciones de la sociedad civil dedicadas a la cultura y el desarrollo. Es miembro de la Junta de ICOMOS India, y también miembro de la Junta del ISC sobre Turismo Cultural (ICTC) y miembro del ISC sobre Patrimonio Inmaterial (ICICH).

Ananya pronunciará el discurso de apertura de este primer simposio científico en línea de ICOMOS sobre *Patrimonio Vivo y Cambio Climático*.

Will Megarry es arqueólogo, especialista en sistemas de información geográfica (SIG) y gestión del patrimonio, con más de 15 años de experiencia comercial y académica y con un interés particular en la aplicación y transferibilidad de las tecnologías geoespaciales a la arqueología y la gestión y protección de sitios del patrimonio cultural, campo en el que ha publicado ampliamente. Ha trabajado en sitios del Patrimonio Mundial y otros sitios del



patrimonio cultural de todo el mundo, tales como Petra, Machu Picchu y el Brú na Bóinne. Es miembro de ICOMOS Irlanda y miembro experto de ICOMOS-ICAHM.

Es profesor titular de Ciencias de la Información Geográfica y enseña SIG y teledetección, con especial atención en el uso de herramientas de apoyo a la toma de decisiones políticas y de gestión. También es arqueólogo de campo en activo, con un proyecto en curso sobre la producción de herramientas de piedra neolíticas en las islas Shetland (Reino Unido), financiado por la Sociedad de Anticuarios de Escocia. Cuando no está investigando la prehistoria, se interesa por las arqueologías más recientes de las comunidades de emigrantes y es investigador principal del proyecto *Hidden Histories*, que explora el patrimonio del Ulster en Ontario (Canadá).

Más recientemente, sus investigaciones se han centrado en la intersección entre el cambio climático y el patrimonio cultural. Es el nuevo *Punto Focal del Grupo de Trabajo de Acción Climática del ICOMOS* e investigador principal del proyecto financiado por AHRC-DCMS *Values-based Climate Change Risk Assessment: Piloting the Climate Vulnerability Index for Cultural Heritage in Africa*, proyecto financiado por AHRC-DCMS que ofrece formación básica en evaluación de la vulnerabilidad climática a profesionales del patrimonio en África. También ha coordinado el proyecto *Heritage on the Edge*, una colaboración entre ICOMOS, CyArk y Google Arts and Culture.

Opening Speech

Bente Mathisen

Focal point of the Our Common Dignity | Rights-Based Approaches Working Group

Dear ICOMOS members, dear colleagues, dear all

It is a great honour to address you in opening the ICOMOS Scientific Symposium 2021 with the theme LIVING HERITAGE and CLIMATE CHANGE.

This Symposium is a virtual experience that will explore Living Heritage through keynote speeches, workshops, knowledge cafés, paper presentations, and posters, which all discuss responses to the rapid environmental change accelerated by the current climate crisis.

The Symposium presents regional responses to the climate emergency, it will show Living Heritage represented by local knowledge of places, culture and nature, and it seeks to demonstrate how Living Heritage may contribute to addressing the challenges of climate change, sustainability, and community development.

Living Heritage includes human practices, representations, expressions, knowledge, and skills, that continue with changes over time.

During these two days, we will explore questions raised in the call for presentations to this Symposium:

- Can regional and local responses to risks posed by climate change, risks to livelihoods and cultural heritage, become assets for climate actions and resilience?
- In our heritage practice, can we develop responses to climate change impacts - that strengthen the connections of people with heritage places, contributing to well-being and building resilience?
- What shifts in local, national, and international heritage policies and practices are in progress or are needed to activate heritage as a tool in developing effective responses to the climate emergency?

We live in a time where our responses to climate change have the potential to strengthen our Living Heritage, or having the potential to harm or destroy it.

The ICOMOS Triannual Scientific Plan 2021-24, which is devoted to Cultural Heritage and Climate Action sees engaging respectfully with traditional knowledge as a key opportunity and recommends a respectful discourse with traditional knowledge holders about climate change actions.

Further, the Triannual Scientific Plan 2021-24 recommends Rights-Based Approaches to heritage as a useful set of tools serving to involve rights-holders and duty-bearers. The term rights-holders is a key to involvement: All actors who have rights related to a World Heritage Site are rights-holders.

Rights-holders can be individuals, they can be groups of different kinds, and formed on the basis of different interests or external characteristics, and they can be interest organizations and NGOs. Rights also imply duties, and when referring to World Heritage the duty-bearer is always the State party or the representative of the State Party.



Opening Speech by Bente Mathisen

We, as ICOMOS members, may be representatives of the duty bearers, but we may also choose to advocate rights-holders positions.

When referring to Human Rights, it is the State party which account for legal measures, and thus is the duty bearer for Human rights.

The term rights-holders may be similar to the term stakeholder. A stakeholder is an involved part or an actor with an interest in the actual issue. However, the term stakeholder implies that there is a contract-like or reciprocal element in the relationship.

Rights-Based Approaches offer tools which go beyond contractual stakeholder cooperation.

Rights-Based Approaches offer opportunities to explore traditional knowledge, involving and listening to communities. Building relationships is an important element of Rights-Based Approaches.

Thus, Rights-Based Approaches may open up to knowledge of indigenous peoples and local communities knowledge systems, and may contribute to carrying through relevant environmental policies and actions.

The values of intangible living cultural expressions are essential elements in any Living Heritage. Intangible cultural heritage can be related to identity, memory and remembrance, belief and symbolism, nature, and the environment.

Such intangible heritage is enacted, renewed, and transmitted within communities, in response to their environment, their interaction with nature, and their history.

This Symposium is commissioned by the ICOMOS Advisory Committee and Scientific Council, prepared by the Our Common Dignity - Rights-Based Approaches Working Group, the Indigenous Heritage Working Group, the Intangible Heritage International Scientific Committee, supported by the Emerging Professional Working Group, and finally with a valuable, efficient support from the AdCom volunteers.

Main contributors who you will meet during the Symposium are the keynote speaker for the theme Living Heritage Ananya Bhattacharya and Will Megarry for the theme Climate Change.

You will also meet the presenters of the knowledge cafes, the workshops, papers, and posters, all mentioned in the program. They represent the global diversity of ICOMOS. Our sincere thanks to all who make this Symposium possible.

We believe this Symposium will contribute to engagement and learning, to a People-Centred Approach that honour heritage communities and individuals' rights, taking into consideration past and future generations, acknowledge their role in developing and implementing resilience strategies in a rapidly changing and unstable world, and assist authorities to empower citizens to maintain and develop their values and livelihoods in a dignified, responsible, and sustainable manner.

This Symposium is occurring at the same time as the United Nations Climate Change Conference in Glasgow, where ICOMOS members contribute to the summit.



Opening Speech by Bente Mathisen

It is encouraging to see that several summit parties highlight linkages between Cultural Heritage and the need for urgent actions to respond to the global climate emergency. The summit is aiming at uniting the World to tackle Climate Change, encouraging all parties to deliver.

We hope this ICOMOS Scientific Symposium will encourage you to deliver and contribute to a climate resilient Living Heritage and the sustainability and the well-being which local, national, and international heritage practice can provide.

It is an honour to wish you a good ICOMOS Scientific Symposium 2021.

Discours d'ouverture du Symposium Scientifique

Bente Mathisen

Point Focal du Groupe de travail Notre Dignité Commune | Approches fondées sur les droits

Chers membres de l'ICOMOS, chers collègues, chers tous, chères toutes,

C'est un grand honneur de m'adresser à vous pour ouvrir le Symposium Scientifique 2021 de l'ICOMOS dont le thème est PATRIMOINE VIVANT et CHANGEMENT CLIMATIQUE.

Ce symposium est une expérience virtuelle, qui explorera le patrimoine vivant à travers des discours, des ateliers, des cafés du savoir, des présentations et des posters, qui discutent des réponses aux changements environnementaux rapides accélérés par la crise climatique actuelle.

Le symposium présente les réponses régionales à l'urgence climatique, il montre le patrimoine vivant représenté par les connaissances locales des lieux, de la culture et de la nature, et il cherche à démontrer comment le patrimoine vivant peut contribuer à relever les défis du changement climatique, de la durabilité et du développement communautaire.

Le patrimoine vivant comprend les pratiques, les représentations, les expressions, les connaissances et les compétences humaines, qui se perpétuent avec des changements au fil du temps.

Pendant ces deux jours, nous explorerons les questions soulevées dans l'appel à présentations pour ce symposium :

- Les réponses régionales et locales aux risques posés par le changement climatique, risques pour les moyens de subsistance et le patrimoine culturel, peuvent-elles devenir des atouts pour les actions climatiques et la résilience ?
- Dans notre pratique du patrimoine, pouvons-nous développer des réponses aux impacts du changement climatique - qui renforcent les liens entre les personnes et les lieux patrimoniaux, contribuant ainsi au bien-être et à la résilience ?
- Quels changements dans les politiques et pratiques locales, nationales et internationales en matière de patrimoine sont en cours ou sont nécessaires pour activer le patrimoine en tant qu'outil dans le développement de réponses efficaces à l'urgence climatique ?

Nous vivons à une époque où nos réponses au changement climatique ont le potentiel de renforcer notre patrimoine vivant, ou de l'endommager ou de le détruire.

Le plan scientifique triennal 2021-24 de l'ICOMOS est consacré au patrimoine culturel et à l'action climatique. Il considère l'engagement respectueux avec les connaissances traditionnelles comme une opportunité clé et recommande un discours respectueux avec les détenteurs de connaissances traditionnelles sur les actions liées au changement climatique.

En outre, le plan scientifique triennal 2021-24 recommande les approches du patrimoine basées sur les droits comme un ensemble d'outils utiles permettant d'impliquer les détenteurs de droits et les détenteurs d'obligations.



Le terme « détenteurs de droits » est un élément clé de l'implication : Tous les acteurs qui ont des droits liés à un site du patrimoine mondial sont des détenteurs de droits. Les détenteurs de droits peuvent être des individus, des groupes de différents types, formés sur la base de différents intérêts ou caractéristiques externes, et des organisations d'intérêt et des ONG.

Les droits impliquent également des devoirs, et lorsqu'on se réfère au patrimoine mondial, le détenteur de devoirs est toujours l'État partie, ou le représentant de l'État partie.

En tant que membres de l'ICOMOS, nous pouvons être des représentants des détenteurs de devoirs, mais nous pouvons aussi choisir de défendre les positions des détenteurs de droits.

Lorsqu'il est question des droits humains, c'est l'État partie qui est responsable des mesures juridiques et qui est donc le détenteur des droits humains.

Le terme « détenteur de droits » peut être similaire au terme « partie prenante ». Une partie prenante est une partie impliquée ou un acteur ayant un intérêt dans le problème actuel. Mais le terme « partie prenante » implique qu'il existe un élément contractuel ou réciproque dans la relation.

Les approches basées sur les droits offrent des outils qui vont au-delà de la coopération contractuelle entre les parties prenantes.

Les approches basées sur les droits offrent la possibilité d'explorer les connaissances traditionnelles, en impliquant et en écoutant les communautés. L'établissement de relations est un élément important des approches basées sur les droits.

Ainsi, les approches basées sur les droits peuvent ouvrir l'accès aux systèmes de connaissances des peuples autochtones et des communautés locales, et contribuer à la mise en œuvre de politiques et d'actions environnementales pertinentes.

Les valeurs des expressions culturelles vivantes immatérielles sont des éléments essentiels de tout patrimoine vivant. Le patrimoine culturel immatériel peut être lié à l'identité, la mémoire et le souvenir, la croyance et le symbolisme, la nature et l'environnement.

Ce patrimoine immatériel est mis en œuvre, renouvelé et transmis au sein des communautés, en réponse à leur environnement, à leur interaction avec la nature et à leur histoire.

Ce Symposium a été commandé par le Conseil Consultatif et le Conseil Scientifique de l'ICOMOS, préparé par le Groupe de Travail Notre Dignité Commune - Approches fondées sur les droits, le Groupe de Travail sur le Patrimoine autochtone, le Comité Scientifique International du Patrimoine Immatériel, soutenu par le Groupe de Travail des Professionnels Émergents et enfin avec le soutien précieux et efficace des volontaires de l'AdCom.

Les principaux intervenants que vous rencontrerez pendant le symposium sont l'oratrice principale pour le thème du patrimoine vivant, Ananya Bhattacharya, et Will Megarry pour le thème du changement climatique.



Discours d'ouverture de Bente Mathisen

Vous rencontrerez également les présentateurs des cafés des savoirs, des ateliers, des communications et des posters, tous et toutes mentionnés dans le programme. Ils représentent la diversité globale de l'ICOMOS. Nos sincères remerciements à celles et ceux qui rendent ce Symposium possible.

Nous pensons que ce Symposium contribuera à l'engagement et à l'apprentissage, à une approche centrée sur les personnes qui honore les droits des communautés patrimoniales et des individus, en prenant en considération les générations passées et futures, en reconnaissant leur rôle dans le développement et la mise en œuvre de stratégies de résilience dans un monde instable et en évolution rapide, et en aidant les autorités à donner aux citoyens les moyens de maintenir et de développer leurs valeurs et leurs moyens de subsistance d'une manière digne, responsable et durable.

Ce Symposium se déroule en même temps que la Conférence des Nations Unies sur le changement climatique à Glasgow, où les membres de l'ICOMOS contribuent au sommet.

Il est encourageant de voir que plusieurs parties du sommet mettent en avant les liens entre le patrimoine culturel et le besoin d'actions urgentes pour répondre à l'urgence climatique mondiale. Le sommet vise à unir le monde pour lutter contre le changement climatique, en encourageant toutes les parties à agir.

Nous espérons que ce Symposium Scientifique de l'ICOMOS vous encouragera à livrer, à contribuer à un Patrimoine Vivant résilient au climat, et à la durabilité et au bien-être que la pratique du patrimoine local, national et international peut apporter.

C'est un honneur de vous souhaiter un bon Symposium Scientifique ICOMOS 2021.

Inauguración del Simposio

Bente Mathisen

Sede de Coordinación (Focal Point) del Grupo de Trabajo sobre "Nuestra Dignidad Compartida-
Enfoques Basados en los Derechos"

Queridos miembros del ICOMOS, queridos colegas, queridos todos,

Es un gran honor dirigirme a ustedes para inaugurar el Simposio Científico ICOMOS 2021 con el tema PATRIMONIO VIVO y CAMBIO CLIMÁTICO.

Este Simposio en una experiencia virtual está dirigido a explorar el significado del Patrimonio Vivo que se llevará a cabo mediante conferencias magistrales, talleres, cafés del conocimiento, presentaciones de ponencias y pósters en los que se debatirán las respuestas al rápido cambio medioambiental acelerado por la actual crisis climática.

El Simposio, que presenta las respuestas regionales a la emergencia climática, mostrará el carácter del Patrimonio Vivo representado por el conocimiento local de los lugares, la cultura y la naturaleza, y pretende demostrar cómo el Patrimonio Vivo puede contribuir a afrontar los retos del cambio climático, la sostenibilidad y el desarrollo comunitario.

El Patrimonio Vivo incluye prácticas humanas, representaciones, expresiones, conocimientos y habilidades que continúan con cambios a lo largo del tiempo.

Durante estos dos días exploraremos las cuestiones planteadas en la convocatoria de presentaciones a este Simposio:

- ¿Pueden las respuestas regionales y locales a los riesgos que plantea el cambio climático, los riesgos para los medios de subsistencia y el patrimonio cultural, convertirse en activos para las acciones climáticas y la resiliencia?
- En nuestra práctica patrimonial, ¿podemos desarrollar respuestas a los impactos del cambio climático que fortalezcan las conexiones de las personas con los lugares patrimoniales, contribuyendo al bienestar y al desarrollo de la resiliencia?
- ¿Qué cambios se están produciendo o son necesarios en las políticas y prácticas locales, nacionales e internacionales en materia de patrimonio para activar el patrimonio como herramienta en el desarrollo de respuestas eficaces a la emergencia climática?

Vivimos en una época en la que nuestras respuestas al cambio climático tienen el potencial de fortalecer nuestro Patrimonio Vivo, o de dañarlo o destruirlo.

El Plan Científico Trienal 2021-24 del ICOMOS está dedicado al Patrimonio Cultural y la Acción Climática, y considera el compromiso respetuoso con el conocimiento tradicional como una oportunidad clave y recomienda un discurso respetuoso con los portadores poseedores del conocimiento tradicional sobre las acciones relacionadas con el cambio climático.

Además, el Plan Científico Trienal 2021-24 recomienda los enfoques del patrimonio basados en los derechos como un conjunto útil de herramientas que sirven para implicar a los titulares de derechos y a los titulares de deberes.



Inauguración del Simposio por Bente Mathisen

El término titulares de derechos es clave para la implicación: todos los actores que tienen derechos relacionados con un sitio del Patrimonio Mundial son titulares de derechos. Los titulares de derechos pueden ser individuos, pueden ser grupos de diferentes tipos y formados sobre la base de diferentes intereses o características externas, y pueden ser grupos de intereses y ONG. Los derechos también implican deberes, y cuando nos referimos al Patrimonio Mundial el titular de deberes es siempre el Estado Parte, o el representante del Estado Parte.

Nosotros, como miembros del ICOMOS, podemos ser representantes de los titulares de deberes, pero también podemos optar por defender las posiciones de los titulares de derechos.

Cuando nos referimos a los Derechos Humanos, es el Estado parte el que da cuenta de las medidas legales, y por lo tanto es el titular de los derechos humanos.

El término “titulares de derechos” puede ser similar al término parte interesada. Una parte interesada es una parte implicada o un actor con un interés en el asunto en cuestión. Pero el término parte interesada implica que existe un elemento contractual o recíproco en la relación.

Los enfoques basados en los derechos ofrecen herramientas que van más allá de la cooperación contractual entre las partes interesadas.

Los enfoques basados en los derechos (Rights-Based Approaches) ofrecen oportunidades para explorar los conocimientos tradicionales, implicando y escuchando a las comunidades. El establecimiento de relaciones es un elemento importante de los enfoques basados en los derechos.

Así, los enfoques basados en los derechos (RBA) pueden abrirse al conocimiento de los sistemas de conocimiento de los pueblos indígenas y las comunidades locales, y pueden contribuir a llevar a cabo políticas y acciones medioambientales pertinentes.

Los valores de las expresiones culturales vivas inmateriales son elementos esenciales de cualquier Patrimonio Vivo. El patrimonio cultural inmaterial puede estar relacionado con la identidad, la memoria colectiva y el recuerdo, las creencias y el simbolismo, la naturaleza y el medio ambiente.

Dicho patrimonio inmaterial se promulga, renueva y transmite en el seno de las comunidades, en respuesta a su entorno, su interacción con la naturaleza y su historia. Este Simposio ha estado encargado por el Comité Consultivo y el Consejo Científico del ICOMOS, y organizado por el Grupo de Trabajo Nuestra Dignidad Común - Enfoques Basados en los Derechos, así como también el Grupo de Trabajo del Patrimonio Indígena, el Comité Científico Internacional del Patrimonio Inmaterial, apoyado por el Grupo de Trabajo de Profesionales Emergentes y finalmente con el valioso y eficaz apoyo de los voluntarios del AdCom.

Los principales colaboradores que conocerá durante el Simposio son la ponente principal para el tema “Patrimonio vivo”, Ananya Bhattacharya, y Will Megarry para el tema “Cambio climático”.



Inauguración del Simposio por Bente Mathisen

También conocerá a los presentadores de los “cafés del conocimiento”, los talleres, las ponencias y los pósters, todos ellos previamente mencionados en el programa. Representan la diversidad global de ICOMOS. Nuestro sincero agradecimiento a todos los que hacen posible este Simposio.

Creemos que este Simposio contribuirá al compromiso y al aprendizaje, a un enfoque centrado en las personas que honre los derechos de las comunidades patrimoniales y de los individuos, teniendo en cuenta a las generaciones pasadas y futuras y reconociendo su papel en el desarrollo y la aplicación de estrategias de resiliencia en un mundo rápidamente cambiante e inestable, y ayudará a las autoridades a capacitar a los ciudadanos para mantener y desarrollar sus valores y medios de vida de una manera digna, responsable y sostenible.

Este Simposio tiene lugar al mismo tiempo que se está realizando la Conferencia de las Naciones Unidas sobre el Cambio Climático en Glasgow, donde los miembros de ICOMOS también contribuyen a la cumbre.

Es alentador ver que varias partes de la cumbre han destacado los vínculos entre el Patrimonio Cultural y la necesidad de acciones urgentes para responder a la emergencia climática global. El objetivo de la cumbre radica en unir al mundo para hacer frente al cambio climático, alentando a todas las partes a cumplir.

Esperamos que este Simposio Científico del ICOMOS les anime a cumplir, a contribuir a un Patrimonio Vivo resistente al clima y a la sostenibilidad y el bienestar que la práctica del patrimonio local, nacional e internacional puede proporcionar.

Es un honor desearles un buen Simposio Científico ICOMOS 2021.

Living Heritage and Climate Change: Interconnections & Possibilities

Ananya Bhattacharya

Coordinator of the Working Group on Climate Change and Cultural Tourism

[1] Namaste.

My name is Ananya Bhattacharya. My work for the past two decades has focused on safeguarding intangible cultural heritage (ICH) for inclusive and sustainable development. I would like to start my thanking the ICOMOS Scientific Symposium Committee for inviting me to share on Living Heritage and Climate Change.

[2] Intangible cultural heritage is manifested in our oral traditions, art and craftsmanship, rituals and sports, traditional knowledge of the biosphere, natural resource use, and management. Unfortunately, just as we have seen denial in the past in accepting the realities of climate change, ICH is still missing in mainstream dialogue and discourse on actions to mitigate and adapt to climate change. Perhaps this culture-nature divide is a symptom of larger processes that have put us on an unsustainable path. In this talk I will like to explore the ways in which climate change is affecting our intangible cultural heritage. I will also discuss how as heritage professionals, we can bridge the gap between climate change and heritage conservation and safeguarding.

[3] I am from eastern India. I have been working with forest communities in Jangal Mahal, or the land of the forests in the eastern plateaus and in Sundarban. Kurmi, Orao, Munda, and Santhal are some of the Adivasis or indigenous communities living in these forests and have a very sustainable relationship with their living environment. They express their reverence and gratitude to nature in their songs.

Johar Johar Marangburu

Duniyak Tahara Guru

Sirjon Duniya Tahar

Liha Hiya Khulesa Nehar

In this song, they are praying to Marangburu or the Big hill who they believe is the Supreme Teacher.

[4] We all know how climate impacts like rising temperatures and sea-level, acidification of the oceans, extreme precipitation, flooding, coastal erosion, drought, desertification, wildfires are affecting biodiversity and ecosystems. Climate change is affecting our food production and food safety of supply chain, resulting in water scarcity. Environmental degradation is leading to the loss of traditional livelihoods. Agriculture and pisci-culture are affected by the loss of biodiversity and changing weather conditions.

Plant and animal species are shifting with the change in climate. All across the world, people make basketry and mats with natural fibre. From the Maoris in the islands of New Zealand to the Dumbara mat makers of Sri Lanka, we hear of challenges in access to raw materials.

The lower hills of the Himalayas were known for the orange orchards. Rising temperature is shifting orange cultivation to higher altitudes. Communities are facing new challenges with biome changes like increased locust invasion. Our greatest challenge is the limited human ability to anticipate the ecological and sociological effects of ongoing environmental



changes. The COVID-19 pandemic has given us a feel of the challenges we face with limited human knowledge to cope with the Anthropocene impact on the environment.

With displacement and forced migration, customs and cultural practices, languages, and traditional skills are at risk of disappearing. In a globalised world, we are in the age of Supra diversity, where culture travels across continents as people migrate for education and employment opportunities. Small island communities have already started facing the loss of cultural continuity where islanders disperse, and traditional social systems are disrupted. Coastal communities are already threatened. Boatmen in Sundarbans used to sing Bhatiyali songs on nature and rivers. Today there are only a handful of Bhatiyali singers. There is a loss of traditional knowledge on predicting weather or species movement or practices like vernacular architecture mitigating risks of disasters.

Thus we see that climate change, be it the slow onset processes or sudden calamities, is threatening the sustainability of ICH. Natural spaces and cultural sites necessary for expressing ICH are being lost or destroyed. Traditional festivals and cultural exchanges are no longer happening. The loss of ICH practices and cultural spaces where people met and interacted is disrupting social anchors, which make communities cohesive and resilient. There is an increased threat of conflict and institutional breakdown. These intangible dimensions of impacts of climate change, the gender dimensions, the non-economic losses pertaining to loss of cultural heritage, and rights pertinent to local communities need to be assessed and documented.

- [5] Now what does ICH offer for averting, reducing, and addressing economic as well as non-economic losses resulting from climate change? COP has recognized the need to strengthen knowledge, technologies, practices, and efforts of local communities and indigenous peoples related to addressing and responding to climate change.

Environmentalists are using nature-based solutions to protect, sustainably manage and restore natural and modified ecosystems. Indigenous and local communities must be included in community based social ecological monitoring and climate change hazard impact assessment to leverage the traditional knowledge.

These are photos of mangrove plantation in Sundarban - the world's largest mangrove delta and a region extremely affected by climate change. Mangroves provide a natural defense against storm surges, coastal erosion, and coastal flooding. There are failure stories in earlier years when mangroves planted did not survive. During the re-introduction and re-establishment of assemblages of native mangrove species to sites to develop the mangrove ecosystems, the community was not consulted, and inappropriate species were planted.

- [6] Climate change impact assessment tools are now mandated to consult the communities to develop an understanding on local biodiversity and the technology traditionally used. Communities living in Sundarban know how to trace honeycombs in dense forests from the drone of the bees. They know the breeding seasons when fishing is avoidable and do not fish in breeding areas of the river. They understand from the tidal flow the direction of the cyclone.

Harnessing such local knowledge systems, traditional early warning systems, and working with communities to make micro plans for climate action will support improving conservation. Climate research and policy platforms need to integrate cultural heritage - traditional knowledge systems, tools, and governance mechanisms on biodiversity,

managing landscapes and seascapes. The operational directives of UNESCO 2003 Convention on Safeguarding of Intangible Cultural Heritage highlight the need for scientific studies and research with communities to ensure the viability of diverse traditional knowledge and practices related to nature in order to respond to climate change challenges at the local, national, and international levels. Kalbelias are the nomadic communities of the Thar deserts. Their song and dance are inscribed in the UNESCO Representative List of heritage of humanity. They have rich knowledge of traditional medicines and desert biodiversity. Frameworks for the ethical engagement of indigenous knowledge holders and ethical use of local and indigenous knowledge within the context of climate change policy and action should be established.

- [7] Innovations can effectively use the rich wealth of traditional knowledge and practices as tools for climate action. Stilts houses can be adapted for flood-prone, rural areas to cope with the hazard. This is an example of experimental work in Sundarbans exploring existing materials like bamboo and local materials but a better resilient design with bamboo-reinforced concrete foundations to make shelters. Rural settlements in these islands are mainly constructed with thatches, bamboo, etc., with untreated earth bases having minimum or no foundation. In most cases, these structures have almost no lateral load resistance mechanism. During floods and storm surges, rural houses go under water, causing severe damage to their bases. With a little innovation and adaptation of traditional construction techniques, life and property can be saved and people will not have to abandon their houses during normal floods.

Traditional knowledge of the local community in managing natural resources and community-based decision-making models should be integrated into planning mitigation strategies and innovating models for resilience and adaptation.

- [8] In COP 26, we see manifestations of the use of art and culture to influence change of attitudes and strengthen advocacy for action.

Globally we all need to adopt a different way of living and working for adaptation and mitigation. This communication needs to reach everyone. The aspirations for a good life should pivot to sustainability. Minimalism, Slow food, Slow fashion, Lowering energy use, Minimising footprint - how can these become the Mantra of our collective life?

ICH is the wellspring of creativity embedded among us. Every community has a tradition of social communicate - through art and songs, storytelling, and satirical drama. Worldwide let us work with the communities to integrate local cultural belief systems and leverage heritage values into risk communication and mitigation measures.

This is *Bonbibi* - the lady of the forest and protector of the people. The story centres around a little boy who is protected by Bonbibi from a tiger attack - the popular folk drama through tales of battles of Bonbibi talks of protecting the natural resources. For generations, communities on these islands have prayed to Bonbibi before entering the forest. The story has sensitised them to managing the common resources without conflict. The troupes nowadays have created productions on contemporary issues ranging from man-animal conflict and the impact of climate change to stopping animal and human trafficking.

Investment is needed for capacity building of tradition bearers to work with the communities to enhance understanding about climate change and the need for action. The dialogue needs to overcome the barriers of a few languages in which documents are published, and that will create the much needed buzz.

- [9] ICH can play an enormous role in strengthening climate science education. How can we give young people opportunities to learn about values and knowledge embedded and transmitted through ICH practices? Cultural institutions and museums can play a key role in inspiring young people to work for the development of heritage information for effective policies as a field of practice. ICH is a powerful means for identifying and imagining possible futures.
- [10] Nature-based solutions for ecosystem conservation and restoration are working to promote agro-biodiversity and agroecological production. Integrating traditional knowledge and skills leads to developing green and resilient livelihoods, generating income, promoting entrepreneurship, and strengthening local organisations. Sola or pith is a reed that grows in riverine areas in Gangetic Bengal. Some of you may recall the pith helmet popular in the early 20th century. The communities traditionally made ritualistic products and festive decorations. Capacity building in developing contemporary products supported women collectives through income when two successive supercyclones and the pandemic had created a difficult situation.
- [11] Responsible and Sustainable Cultural Tourism based on ICH builds on local resources, empowers communities, and has low footprint. Community museums or eco museums sharing about ICH and cultural landscape can become powerful conduits of awareness and advocacy.
- [12] As we are aware, the CultureNature Journey (CNJ) is an informal space for collaboration between ICOMOS, IUCN, and a range of partner organisations, including ICCROM, the World Heritage Centre UNESCO and the Secretariat of the Convention on Biological Diversity, and others. Experts, researchers, practitioners, and policy-makers are working to create new knowledge and methods to address problems arising from the embedded separation of nature and culture in conservation processes. In the 2016 IUCN World Conservation Congress, Nature Culture journey participants shared the interconnected nature of natural and cultural heritage and committed to 'Mālama Honua – to care for our island Earth'. In 2017 the ICOMOS General Assembly in Delhi, the statement of commitment Yatra aur Tammanah was drawn up. The doctrine on Yatra and Tamanna speaks about Kuleana - our role as custodians, responsible caring and stewardship of our land and seas, our responsibilities, and our rights.

As heritage professionals, let us use available platforms to discuss, document, and promote the role of intangible cultural heritage in improving conservation outcomes and sustainability objectives.

I learned in a conference about the Island Ark Project, where digital technologies are being used to safeguard the ICH of the islands of Asia Pacific and bridge the gap between migrants and their home communities. We need to ensure funding and technology support to enable access to traditional knowledge while respecting customary practices governing access to specific aspects.

Appropriate legal, technical, administrative, and financial measures are needed to identify, enhance and promote effective systems and practices and conserve and protect natural spaces whose existence is necessary for expressing the intangible cultural heritage. We have a long road ahead, and let us work together. I look forward to learning and reflections in the upcoming symposium.

Thank you.

Patrimoine Vivant et Changement Climatique: Interconnexions & Possibilités

Ananya Bhattacharya

Coordinateur du Groupe de Travail sur le Changement Climatique et le Tourisme Culturel

[1] Namaste.

Je m'appelle Ananya Bhattacharya. Mon travail au cours des deux dernières décennies s'est concentré sur la sauvegarde du Patrimoine Culturel Immatériel (PCI) pour un développement inclusif et durable. Je voudrais commencer par remercier le Comité du Symposium Scientifique de l'ICOMOS de m'avoir invitée à partager sur le Patrimoine Vivant et le Changement Climatique.

[2] Le patrimoine culturel immatériel se manifeste dans nos traditions orales, l'art et l'artisanat, les rituels et les sports, les connaissances traditionnelles de la biosphère, l'utilisation et la gestion des ressources naturelles. Malheureusement, tout comme nous avons assisté par le passé à un refus d'accepter les réalités du changement climatique, le patrimoine culturel immatériel est toujours absent du dialogue et du discours général sur les actions d'atténuation et d'adaptation au changement climatique. Peut-être que ce clivage culture-nature est un symptôme de processus plus larges qui nous ont mis sur une voie non durable. Dans cet exposé, j'aimerais explorer les façons dont le changement climatique affecte notre patrimoine culturel immatériel. J'aborderai également la question de savoir comment, en tant que professionnels du patrimoine, nous pouvons combler le fossé entre le changement climatique et la conservation et la sauvegarde du patrimoine.

[3] Je suis originaire de l'est de l'Inde. J'ai travaillé avec les communautés forestières de Jangal Mahal ou le pays des forêts dans les plateaux orientaux et les Sundarbans. Les Kurmi, Orao, Munda, Santhal sont quelques-unes des communautés indigènes ou Adivasis qui vivent dans ces forêts et ont une relation très durable avec leur environnement. Ils expriment leur révérence et leur gratitude envers la nature dans leurs chansons.

Johar Johar Marangburu

Duniyak Tahara Guru

Sirjon Duniya Tahar

Liha Hiya Khulesa Nehar

Dans cette chanson, ils prient Marangburu ou la grande colline qui, selon eux, est le maître suprême.

[4] Nous savons tous et toutes comment les impacts climatiques tels que l'augmentation des températures et du niveau de la mer, l'acidification des océans, les précipitations extrêmes, les inondations, l'érosion côtière, la sécheresse, la désertification, les incendies de forêt affectent la biodiversité et les écosystèmes. Le changement climatique affecte notre production alimentaire, la sécurité de la chaîne d'approvisionnement alimentaire, et entraîne une pénurie d'eau. La dégradation de l'environnement entraîne la perte des moyens de subsistance traditionnels. L'agriculture et la pisciculture sont affectées par la perte de biodiversité et l'évolution des conditions climatiques.

Les espèces végétales et animales se déplacent en fonction des changements climatiques. Partout dans le monde, les gens fabriquent des paniers et des nattes avec des fibres naturelles. Des Maoris des îles de la Nouvelle-Zélande aux fabricants de nattes Dumbara du Sri Lanka, nous entendons parler des difficultés d'accès aux matières premières.



Les basses collines de l'Himalaya étaient connues pour leurs vergers d'orangers. L'augmentation de la température entraîne un déplacement de la culture des orangers vers des altitudes plus élevées. Les communautés sont confrontées à de nouveaux défis liés aux changements de biome, comme l'invasion accrue de criquets. Notre plus grand défi est la capacité humaine limitée à anticiper les effets écologiques et sociologiques des changements environnementaux en cours. La pandémie de la COVID-19 nous a donné une idée des défis auxquels nous sommes confrontés avec des connaissances humaines limitées pour faire face à l'impact de l'Anthropocène sur l'environnement.

Avec les déplacements et les migrations forcées, les coutumes et les pratiques culturelles, les langues et les compétences traditionnelles risquent de disparaître. Dans un monde globalisé, nous sommes à l'ère de la supra-diversité, où la culture voyage à travers les continents alors que les gens migrent pour l'éducation et les opportunités d'emploi. Les petites communautés insulaires ont déjà commencé à se voir confrontées à la perte de continuité culturelle alors que les insulaires se dispersent et que les systèmes sociaux traditionnels sont perturbés. Les communautés côtières sont déjà menacées. Les bateliers des Sundarbans avaient l'habitude de chanter des chansons bhatiyali sur la nature et les rivières. Aujourd'hui, il ne reste plus qu'une poignée de chanteurs bhatiyali. Il y a une perte des connaissances traditionnelles sur la prévision du temps ou le déplacement des espèces, ou des pratiques comme l'architecture vernaculaire qui atténuent les risques de catastrophes.

Nous voyons donc que le changement climatique, qu'il s'agisse de processus à évolution lente ou de calamités soudaines, menace la durabilité du PCI. Les espaces naturels et les sites culturels nécessaires à l'expression du PCI sont perdus ou détruits. Les festivals traditionnels et les échanges culturels n'ont plus lieu. La perte des pratiques du PCI et des espaces culturels où les gens se rencontraient et interagissaient perturbe les ancrages sociaux qui rendent les communautés cohésives et résilientes. La menace de conflit et de rupture institutionnelle s'accroît. Ces dimensions immatérielles des impacts du changement climatique, les dimensions de genre, les pertes non économiques liées à la perte du patrimoine culturel et des droits pertinents pour les communautés locales doivent être évaluées et documentées.

- [5] Maintenant, que propose le PCI pour éviter, réduire et traiter les pertes économiques et non économiques résultant du changement climatique ? La Conférence des Parties a reconnu la nécessité de renforcer les connaissances, les technologies, les pratiques et les efforts des communautés locales et des peuples autochtones en matière de lutte et de réponse au changement climatique. Les écologistes utilisent des solutions fondées sur la nature pour protéger, gérer durablement et restaurer les écosystèmes naturels et modifiés. Les communautés autochtones et locales doivent être incluses dans le suivi socio-écologique communautaire et l'évaluation de l'impact des risques liés au changement climatique afin de tirer parti de leurs connaissances traditionnelles.

Voici des photos d'une plantation de mangrove dans les Sundarban, le plus grand delta de mangroves du monde et une région extrêmement touchée par le changement climatique. Les mangroves constituent une défense naturelle contre les ondes de tempête, l'érosion côtière et les inondations côtières. Il y a eu des échecs dans les années précédentes, lorsque les mangroves plantées n'ont pas survécu. Lors de la réintroduction et du rétablissement d'assemblages d'espèces de mangroves indigènes sur des sites pour développer les écosystèmes de mangroves, la communauté n'a pas été consultée et des espèces inappropriées ont été plantées.

- [6] Les outils d'évaluation de l'impact du changement climatique sont désormais tenus de consulter les communautés pour mieux comprendre la biodiversité locale et les technologies traditionnellement utilisées. Les communautés vivant dans les Sundarbans savent comment repérer les nids des abeilles dans les forêts denses à partir de leur bourdonnement. Elles savent quelles sont les saisons de reproduction où la pêche est à éviter et ne pêchent pas dans les zones de reproduction de la rivière. Ils comprennent, à partir du flux des marées, la direction des cyclones.

L'exploitation de ces systèmes de connaissances locales, des systèmes traditionnels d'alerte précoce et la collaboration avec les communautés pour élaborer des micro-plans d'action climatique qui contribueront à améliorer la conservation. Les plateformes de recherche et de politique climatique doivent intégrer le patrimoine culturel - les systèmes de connaissances traditionnelles, les outils et les mécanismes de gouvernance sur la biodiversité, la gestion des paysages terrestres et marins. Les directives opérationnelles de la Convention de 2003 de l'UNESCO sur la sauvegarde du patrimoine culturel immatériel soulignent la nécessité de mener des études scientifiques et des recherches avec les communautés pour assurer la viabilité des diverses connaissances et pratiques traditionnelles liées à la nature afin de répondre aux défis du changement climatique aux niveaux local, national et international. Les Kalbelias sont les communautés nomades des déserts du Thar. Leurs chants et leurs danses sont inscrits sur la liste représentative du patrimoine de l'humanité de l'UNESCO. Ils ont une riche connaissance des médecines traditionnelles et de la biodiversité du désert. Il convient d'établir des cadres pour l'engagement éthique des détenteurs de connaissances autochtones et l'utilisation éthique des connaissances locales et autochtones dans le contexte de la politique et de l'action en matière de changement climatique.

- [7] Les nouvelles innovations peuvent utiliser efficacement la richesse des connaissances et des pratiques traditionnelles comme outils de l'action climatique. Les maisons sur pilotis peuvent être adaptées aux zones rurales sujettes aux inondations pour faire face aux risques. Il s'agit d'un exemple de travail expérimental dans les Sundarbans, qui explore les matériaux existants, comme le bambou et les matériaux locaux, mais aussi une conception plus résistante avec des fondations en béton armé de bambou pour fabriquer des abris. Les établissements ruraux de ces îles sont principalement construits avec des chaumes, des bambous, etc., avec une base de terre non traitée ayant un minimum ou aucune fondation. Dans la plupart des cas, ces structures n'ont pratiquement aucun mécanisme de résistance aux charges latérales. Pendant les inondations et les marées de tempête, les maisons rurales sont submergées et leurs bases sont gravement endommagées. Avec un peu d'innovation et d'adaptation des techniques de construction traditionnelles, la vie et la propriété peuvent être sauvées et les gens n'auront pas à abandonner leur maison pendant une inondation normale.

Les connaissances traditionnelles des communautés locales en matière de gestion des ressources naturelles et les modèles de prise de décision communautaires devraient être intégrés dans la planification des stratégies d'atténuation et dans l'innovation des modèles de résilience et d'adaptation.

- [8] Lors de la COP 26, nous avons vu des manifestations de l'utilisation de l'art et de la culture pour influencer le changement des attitudes et renforcer le plaidoyer pour l'action. Au niveau mondial, nous devons tous adopter un mode de vie et de travail différent pour l'adaptation et l'atténuation. Cette communication doit atteindre tout le monde. Les

aspirations à une bonne vie devraient être axées sur la durabilité. Minimalisme, slow food, slow fashion, réduction de la consommation d'énergie, minimisation de l'empreinte écologique - comment faire de tout cela le mantra de notre vie collective ?

Le PCI est la source de créativité qui se trouve parmi nous. Chaque communauté a une tradition de communication sociale - à travers l'art et les chansons, les contes et le théâtre satirique. Dans le monde entier, travaillons avec les communautés pour intégrer le système de croyances culturelles locales et tirer parti des valeurs du patrimoine dans la communication des risques et les mesures d'atténuation.

Voici *Bonbibi* - la dame de la forêt et la protectrice du peuple. L'histoire est centrée sur un petit garçon qui est protégé par Bonbibi de l'attaque d'un tigre. Le drame populaire, à travers les récits des batailles de Bonbibi, parle de la protection des ressources naturelles. Depuis des générations, les communautés de ces îles prient Bonbibi avant d'entrer dans la forêt. Les troupes ont aujourd'hui créé des productions sur des questions contemporaines telles que les conflits entre l'homme et l'animal, l'impact du changement climatique et la lutte contre le trafic d'animaux et d'êtres humains.

Il est nécessaire d'investir dans le renforcement des capacités des détenteurs de traditions afin qu'ils puissent travailler avec les communautés pour mieux comprendre le changement climatique et la nécessité d'agir. Le dialogue doit surmonter la barrière des quelques langues dans lesquelles les documents sont publiés. Cela créera le buzz tant attendu.

- [9] Le PCI peut jouer un rôle énorme dans le renforcement de l'enseignement des sciences du climat. Comment pouvons-nous donner aux jeunes l'occasion d'apprendre les valeurs et les connaissances intégrées et transmises par les pratiques du PCI ? Les institutions culturelles et les musées peuvent jouer un rôle clé en incitant les jeunes à travailler au développement de l'information sur le patrimoine pour des politiques efficaces en tant que domaine de pratique. Le PCI est un moyen puissant pour identifier et imaginer des futurs possibles.
- [10] Les solutions fondées sur la nature pour la conservation et la restauration des écosystèmes permettent de promouvoir la biodiversité et les productions agro-écologiques. L'intégration des connaissances et des compétences traditionnelles permet de développer des moyens de subsistance écologiques et résilients, de générer des revenus, de promouvoir l'esprit d'entreprise et de renforcer les organisations locales. Le sola ou moelle végétale est un roseau qui pousse dans les zones fluviales du Bengale gangétique. Certains d'entre vous se souviennent peut-être du casque colonial en moelle végétale populaire au début du 20e siècle. Les communautés fabriquaient traditionnellement des produits rituels et des décorations de fête. Le renforcement de la capacité à développer des produits contemporains a permis aux collectifs de femmes d'obtenir des revenus alors que deux super cyclones successifs et une pandémie avaient créé une situation difficile.
- [11] Le tourisme culturel responsable et durable basé sur le PCI s'appuie sur les ressources locales, renforce les communautés et a une faible empreinte. Les musées communautaires ou les écomusées qui partagent des informations sur le PCI et le paysage culturel peuvent devenir de puissants vecteurs de sensibilisation et de plaidoyer.
- [12] Comme nous le savons, le Voyage Nature-Culture (CNJ) est un espace informel de collaboration entre l'ICOMOS, l'UICN et une série d'organisations partenaires dont l'ICCROM, le Centre du patrimoine mondial de l'UNESCO et le Secrétariat de la Convention

sur la diversité biologique, entre autres. Des experts, des chercheurs, des praticiens et des décideurs politiques travaillent à la création de nouvelles connaissances et méthodes pour résoudre les problèmes découlant de la séparation intégrée de la nature et de la culture dans les processus de conservation. En 2016, lors du Congrès mondial de la nature de l'UICN, les participants au voyage Nature-Culture ont partagé sur la nature interconnectée du patrimoine naturel et culturel et se sont engagés à « Mālama Honua - prendre soin de notre île Terre ». En 2017, l'Assemblée générale de l'ICOMOS à Delhi a rédigé la déclaration d'engagement Yatra aur Tammanah. La doctrine sur Yatra et Tamanna parle de Kuleana - notre rôle de gardiens, de soins responsables et d'intendance de nos terres et de nos mers, nos responsabilités et nos droits.

En tant que professionnels du patrimoine, utilisons les plateformes disponibles pour discuter, documenter et promouvoir le rôle du patrimoine culturel immatériel dans l'amélioration des résultats de la conservation et des objectifs de durabilité.

Lors d'une conférence, j'ai appris l'existence du projet Island Ark, dans le cadre duquel les technologies numériques sont utilisées pour sauvegarder le PCI des îles de l'Asie-Pacifique et combler le fossé entre les migrants et leurs communautés d'origine. Nous devons garantir un financement et un soutien technologique pour permettre l'accès aux connaissances traditionnelles tout en respectant les pratiques coutumières régissant l'accès à des aspects spécifiques.

Des mesures juridiques, techniques, administratives et financières appropriées sont nécessaires pour identifier, améliorer et promouvoir des systèmes et des pratiques efficaces, conserver et protéger les espaces naturels dont l'existence est nécessaire à l'expression du patrimoine culturel immatériel. Nous avons un long chemin à parcourir et travaillons ensemble. Je me réjouis d'apprendre et de réfléchir au cours du prochain symposium.

Merci beaucoup.

Patrimonio Vivo y Cambio Climático: Interconexiones y Posibilidades

Ananya Bhattacharya

Coordinación del Grupo de Trabajo de Cambio Climático y Turismo Cultural

[1] Namaste.

Me llamo Ananya Bhattacharya. Mi trabajo durante las dos últimas décadas se ha centrado en la salvaguarda del Patrimonio Cultural Inmaterial (PCI) para un desarrollo inclusivo y sostenible. Me gustaría empezar dando las gracias al Comité del Simposio Científico del ICOMOS por invitarme a compartir sobre Patrimonio Vivo y Cambio Climático.

[2] El patrimonio cultural inmaterial se manifiesta en nuestras tradiciones orales, arte y artesanía, rituales y deportes, conocimiento tradicional de la biosfera, uso y gestión de los recursos naturales. Desgraciadamente, al igual que en el pasado, hemos sido testigos de la negación de la realidad del cambio climático y el patrimonio cultural inmaterial sigue ausente del diálogo y el discurso dominantes sobre las medidas para mitigar el cambio climático y adaptarse a él. Quizá esta división entre cultura y naturaleza sea un síntoma de procesos más amplios que nos han llevado por un camino insostenible. En esta charla me gustaría explorar las formas en que el cambio climático está afectando a nuestro patrimonio cultural inmaterial. También hablaré de cómo los profesionales del patrimonio podemos salvar la distancia entre el cambio climático y la conservación y salvaguardia del patrimonio.

[3] Soy del este de la India. He estado trabajando con comunidades forestales en Jangal Mahal o la tierra de los bosques en las mesetas orientales y en Sundarban. Kurmi, Orao, Munda, Santhal son algunas de las comunidades adivasi o indígenas que viven en estos bosques y mantienen una relación muy sostenible con su entorno vital. Expresan su reverencia y gratitud a la naturaleza en sus canciones.

Johar Johar Marangburu

Duniyak Tahara Guru

Sirjon Duniya Tahar

Liha Hiya Khulesa Nehar

En esta canción rezan a Marangburu o la Gran Colina, a quien consideran el Maestro Supremo.

[4] Todos sabemos que los efectos del clima, como el aumento de las temperaturas y del nivel del mar, la acidificación de los océanos, las precipitaciones extremas, las inundaciones, la erosión costera, la sequía, la desertificación y los incendios forestales están afectando a la biodiversidad y a los ecosistemas. El cambio climático está afectando a nuestra producción de alimentos, a la seguridad alimentaria de la cadena de suministro y está provocando escasez de agua. La degradación medioambiental está provocando la pérdida de los medios de vida tradicionales. La agricultura y la piscicultura se ven afectadas por la pérdida de biodiversidad y el cambio de las condiciones meteorológicas.

Las especies vegetales y animales están cambiando con el cambio climático. En todo el mundo se fabrican cestas y esteras con fibras naturales. Desde los maoríes de las islas de Nueva Zelanda hasta los fabricantes de esteras Dumbara de Sri Lanka nos hablan de las dificultades para acceder a la materia prima.

Las colinas bajas del Himalaya eran conocidas por los huertos de naranjos. El aumento de la temperatura está desplazando el cultivo de naranjas a mayor altitud. Las comunidades



se enfrentan a nuevos retos con los cambios en el bioma, como el aumento de la invasión de langostas. Nuestro mayor reto es la limitada capacidad humana para prever los efectos ecológicos y sociológicos de los cambios medioambientales en curso. La pandemia de COVID-19 nos ha dado una idea de los retos a los que nos enfrentamos con los limitados conocimientos humanos para hacer frente al impacto del Antropoceno en el medio ambiente.

Con los desplazamientos y las migraciones forzosas, las costumbres y prácticas culturales y las lenguas y los conocimientos tradicionales corren el riesgo de desaparecer. En un mundo globalizado nos encontramos en la era de la supra diversidad, en la que la cultura viaja a través de los continentes a medida que la gente emigra en busca de educación y oportunidades de empleo. Las pequeñas comunidades insulares ya han empezado a enfrentarse a la pérdida de continuidad cultural cuando los isleños se dispersan y los sistemas sociales tradicionales se ven alterados. Las comunidades costeras ya están amenazadas. Los barqueros de Sundarbans solían cantar canciones bhatiyali sobre la naturaleza y los ríos. Hoy sólo quedan unos pocos cantantes bhatiyali. Se pierden los conocimientos tradicionales sobre la predicción meteorológica o el desplazamiento de especies, o prácticas como la arquitectura vernácula para mitigar los riesgos de catástrofes.

Así, vemos que el cambio climático, ya sean procesos de aparición lenta o calamidades repentinas, está amenazando la sostenibilidad del PCI. Los espacios naturales y los lugares culturales necesarios para expresar el PCI se están perdiendo o destruyendo. Los festivales tradicionales y los intercambios culturales están desapareciendo. La pérdida de las prácticas del PCI y de los espacios culturales donde la gente se reunía e interactuaba está perturbando los anclajes sociales que hacen que las comunidades estén cohesionadas y sean resistentes. Aumenta la amenaza de conflictos y rupturas institucionales. Es necesario evaluar y documentar estas dimensiones intangibles de los impactos del cambio climático, las dimensiones de género, las pérdidas no económicas relativas a la pérdida del patrimonio cultural y los derechos pertinentes para las comunidades locales.

- [5] Ahora bien, ¿qué ofrece el PCI para evitar, reducir y hacer frente a las pérdidas económicas y no económicas derivadas del cambio climático? La COP ha reconocido la necesidad de reforzar los conocimientos, las tecnologías, las prácticas y los esfuerzos de las comunidades locales y los pueblos indígenas relacionados con el tratamiento y la respuesta al cambio climático. Los ecologistas están utilizando soluciones basadas en la naturaleza para proteger, gestionar de forma sostenible y restaurar los ecosistemas naturales y modificados. Hay que incluir a las comunidades indígenas y locales en el seguimiento ecológico social basado en la comunidad y en la evaluación del impacto de los peligros del cambio climático para aprovechar los conocimientos tradicionales. Estas son fotos de una plantación de manglares en Sundarban, el mayor delta de manglares del mundo y una región muy afectada por el cambio climático. Los manglares constituyen una defensa natural contra las mareas de tempestad, la erosión costera y las inundaciones del litoral. Hay casos de fracaso en años anteriores, cuando los manglares plantados no sobrevivieron. Durante la reintroducción y el restablecimiento de conjuntos de especies autóctonas de manglares en lugares para desarrollar los ecosistemas de manglares, no se consultó a la comunidad y se plantaron especies inadecuadas.
- [6] Las herramientas de evaluación del impacto del cambio climático tienen ahora el mandato de consultar a las comunidades para conocer la biodiversidad local y la tecnología utilizada

tradicionalmente. Las comunidades que viven en Sundarban saben cómo rastrear panales en bosques densos a partir del zumbido de las abejas. Saben cuáles son las épocas de cría en las que no se puede pescar y no pescan en las zonas de cría del río. A partir del flujo de las mareas, conocen la dirección de los ciclones.

Aprovechar estos sistemas de conocimiento local, los sistemas tradicionales de alerta temprana y trabajar con las comunidades para elaborar microplanes de acción climática contribuirá a mejorar la conservación. Las plataformas políticas y de investigación sobre el clima deben integrar el patrimonio cultural, los sistemas de conocimientos tradicionales, las herramientas y los mecanismos de gobernanza en materia de biodiversidad, gestión de paisajes terrestres y marinos. Las directrices operativas de la Convención para la Salvaguardia del Patrimonio Cultural Inmaterial de la UNESCO de 2003 destacan la necesidad de realizar estudios científicos e investigaciones con las comunidades para garantizar la viabilidad de los diversos conocimientos y prácticas tradicionales relacionados con la naturaleza a fin de responder a los retos del cambio climático a escala local, nacional e internacional. Los kalbelias son las comunidades nómadas de los desiertos del Thar. Sus cantos y danzas están inscritos en la Lista Representativa del Patrimonio de la Humanidad de la UNESCO. Poseen un rico conocimiento de las medicinas tradicionales y de la biodiversidad del desierto. Deben establecerse marcos para el compromiso ético de los portadores seedores de conocimientos indígenas y el uso ético de los conocimientos locales e indígenas, en el contexto de la política y la acción sobre el cambio climático.

- [7] Las nuevas innovaciones pueden utilizar eficazmente la riqueza de los conocimientos y prácticas tradicionales como herramientas para la acción climática. Las casas con zancos pueden adaptarse a las zonas rurales propensas a las inundaciones para hacer frente al peligro. Este es un ejemplo de trabajo experimental en Sundarbans, explorando materiales existentes como el bambú y materiales locales pero con un diseño más resistente con cimientos de hormigón reforzado con bambú para hacer refugios. Los asentamientos rurales de estas islas están contruidos principalmente con paja, bambú, etc., con una base de tierra sin tratar y con cimientos mínimos o inexistentes. En la mayoría de los casos, estas estructuras carecen prácticamente de mecanismos de resistencia a las cargas laterales. Durante las inundaciones y las mareas de tempestad, las casas rurales se sumergen en el agua causando graves daños a sus bases. Con un poco de innovación y adaptación de las técnicas de construcción tradicionales, se pueden salvar vidas y propiedades y la gente no tendrá que abandonar su casa durante una inundación normal.

El conocimiento tradicional de la comunidad local en la gestión de los recursos naturales y los modelos de toma de decisiones basados en la comunidad deben integrarse en la planificación de estrategias de mitigación y en la innovación de modelos para la resiliencia y la adaptación.

- [8] En la COP 26 estamos viendo manifestaciones del uso del arte y la cultura para influir en el cambio de actitudes y reforzar la defensa de la acción.

A nivel mundial, todos necesitamos adoptar una forma diferente de vivir y trabajar para la adaptación y la mitigación. Esta comunicación debe llegar a todos. Las aspiraciones a una buena vida deben girar en torno a la sostenibilidad. Minimalismo, *slow food*, *slow fashion*, reducir el consumo de energía, minimizar la huella ecológica... ¿cómo pueden convertirse en el mantra de nuestra vida colectiva?

El ICH es el manantial de creatividad que hay entre nosotros. Todas las comunidades tienen una tradición de comunicación social a través del arte y las canciones, la narración de cuentos y el teatro satírico.

Esta es *Bonbibí*, la dama del bosque y protectora del pueblo. La historia gira en torno a un niño al que Bonbibí protege del ataque de un tigre. El folklore popular, a través de los cuentos de batallas de Bonbibí, habla de la protección de los recursos naturales. Desde hace generaciones, las comunidades de estas islas rezan a Bonbibí antes de entrar en el bosque. Hoy en día, las compañías han creado producciones sobre temas de actualidad, como el conflicto entre el hombre y los animales, el impacto del cambio climático o la lucha contra el tráfico de animales y seres humanos.

Es necesario invertir en la capacitación de los portadores de la tradición para que trabajen con las comunidades a fin de mejorar la comprensión del cambio climático y la necesidad de actuar. El diálogo debe superar la barrera de los pocos idiomas en los que se publican los documentos. Esto contribuirá a crear la tan necesaria expectativa.

- [9] El PCI puede desempeñar un enorme papel en el fortalecimiento de la enseñanza de las ciencias del clima. ¿Cómo podemos dar a los jóvenes oportunidades de aprender sobre los valores y conocimientos incorporados y transmitidos a través de las prácticas del PCI? Las instituciones culturales y los museos pueden desempeñar un papel clave a la hora de inspirar a los jóvenes para que trabajen por el desarrollo de la información sobre el patrimonio para políticas eficaces como campo de práctica. El PCI es un poderoso medio para identificar e imaginar futuros posibles.
- [10] Las soluciones basadas en la naturaleza para la conservación y restauración de los ecosistemas están trabajando para promover la agrobiodiversidad y las producciones agroecológicas. La integración de conocimientos y técnicas tradicionales está conduciendo al desarrollo de medios de vida ecológicos y resistentes, generando ingresos, promoviendo el espíritu empresarial y fortaleciendo las organizaciones locales. Sola o pith es un junco que crece en las zonas ribereñas del Ganges de Bengala. Algunos recordarán el casco de médula, popular a principios del siglo XX. Las comunidades fabricaban tradicionalmente productos rituales y adornos festivos. El desarrollo de capacidades para elaborar productos contemporáneos ayudó a los colectivos de mujeres a obtener ingresos cuando dos superciclones sucesivos y la pandemia habían creado una situación difícil.
- [11] El turismo cultural responsable y sostenible basado en el PCI aprovecha los recursos locales, empodera a las comunidades y deja una huella reducida. Los museos comunitarios o los ecomuseos que comparten información sobre el PCI y el paisaje cultural pueden convertirse en poderosos conductos de sensibilización y promoción.
- [12] Como sabemos, el "Viaje Cultura-Naturaleza" (Culture-Nature Journey: CNJ) es un espacio informal de colaboración entre el ICOMOS, la IUCN y una serie de organizaciones asociadas como el ICCROM, el Centro del Patrimonio Mundial de la UNESCO y la Secretaría del Convenio sobre la Diversidad Biológica, entre otras. Expertos, investigadores, profesionales y responsables políticos trabajan en la creación de nuevos conocimientos y métodos para abordar los problemas derivados de la arraigada separación entre naturaleza y cultura en los procesos de conservación. En el Congreso Mundial de la Naturaleza de la IUCN de 2016, los participantes de "Viaje Cultura-Naturaleza" compartieron la naturaleza interconectada del patrimonio natural y cultural y se comprometieron a "Mālama Honua"- "cuidar de nuestra isla Tierra". En 2017 la Asamblea



Discurso de Apertura de Ananya Bhattacharya
"Patrimonio Vivo y Cambio Climático: Interconexiones y Posibilidades"

General del ICOMOS en Delhi redactó la declaración de compromiso Yatra aur Tammanah. La doctrina sobre Yatra y Tamanna habla sobre Kuleana - nuestro papel como custodios, el cuidado responsable y la administración de nuestra tierra y mares, nuestras responsabilidades y nuestros derechos.

Como profesionales del patrimonio, utilicemos las plataformas disponibles para debatir, documentar y promover el papel del patrimonio cultural inmaterial en la mejora de los resultados de la conservación y los objetivos de sostenibilidad.

En una conferencia conocí el proyecto Island Ark, en el que se utilizan tecnologías digitales para salvaguardar el patrimonio cultural inmaterial de las islas de Asia-Pacífico y salvar la distancia entre los emigrantes y sus comunidades de origen. Tenemos que garantizar la financiación y el apoyo tecnológico para permitir el acceso a los conocimientos tradicionales, respetando al mismo tiempo las prácticas consuetudinarias que rigen el acceso a aspectos específicos.

Se necesitan medidas jurídicas, técnicas, administrativas y financieras adecuadas para identificar, mejorar y promover sistemas y prácticas eficaces, conservar y proteger los espacios naturales cuya existencia es necesaria para expresar el patrimonio cultural inmaterial.

Tenemos un largo camino por delante y debemos trabajar juntos. Espero aprender y reflexionar en este simposio.

Muchas gracias.

Living Heritage in a Changing Climate: Challenges, Solutions and Opportunities

Dr William P. Megarry

ICOMOS Focal Point for Climate Action Working Group

[1] Hello everyone everywhere, bonjour tout le monde agus dia daoibh gach duine.

My name is Will Megarry and I am the incoming ICOMOS Focal Point for Climate Action Working Group and Senior Lecturer in Archaeology at the School of Natural and Built Environment, Queen's University Belfast.

I am honoured and grateful to be speaking to you all today at this wonderful event and on this important topic. I would like to start by thanking the organizing committee. Conferences are difficult to organize at the best of times, and the COVID-19 pandemic has created some unique challenges; however, as we have learned over the last year, remote events like this can increase accessibility and certainly help to reduce carbon emissions.

Today I will talk about climate change and living heritage. This is a very relevant and timely subject. At this very moment, the leaders of nearly 200 countries are meeting in Glasgow for the 26th Conference of Parties or COP, where they will attempt to find a consensus on meaningful climate action. Like most, I am somewhat sceptical about what will be achieved as discussions are increasingly focused on what richer countries must sacrifice. However, this morning I heard the President of Palau Surangel Whipps Jr. being interviewed about the conference on the World Service. In his response, he did not refer to economic impacts or nationally defined contributions. Instead, he focused on the loss of identity and culture as people's homes are inundated by rising waters. Places that anchor them to this planet, ironically being set afloat.

And so, culture is at the heart of this topic and living culture in particular, and in the presentation, I would like to dwell on some of the ways it intersects with the climate crisis. The question we are being asked to consider over the next few days is: *How will climate change affect understanding, assessing, and managing places directly or tangibly associated with events or living traditions with ideas or beliefs and artistic and literary works?* This directly relates to the operational guidelines of the World Heritage Convention, which describes these as being directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.

[2] And I wanted to start with quote a broad or high-level overview, thinking about existing references to heritage (and living heritage in particular) in current drivers in both climate and heritage policy. There is much talk this week about implementing the Paris Agreement, but it may come as some surprise that this Agreement does include a reference to what we may call 'living heritage' in Article 7.5. This stresses the need for adaptation *'guided by the best available science and, as appropriate, traditional knowledge, the knowledge of indigenous peoples and local knowledge systems'*. I am sure many of us would challenge this division between knowledge systems. Yet, it is an important inclusion that has been reflected in every ICOMOS declaration since including, most recently, the 2020 Climate and Ecological Emergency declaration. This stresses the value and centrality of heritage – both tangible



and intangible in climate action. It also noted the importance of solidarity, meaningful engagement, equity, and climate justice when working with indigenous communities, vulnerable and frontline groups.

In recent months, these key messages have made it into the much-anticipated update to the Policy Document on the Impacts of Climate Change on World Heritage Sites.

- [3] Perhaps the most important driver for us within the ICOMOS community was the Future of Our Pasts report. Released in 2018, this is the widest-ranging study of cultural heritage and climate change in existence. It has over 30 authors and was peer-reviewed by over 100 experts and organisations, including, I am sure, some people watching now. It began from the premise that culture is uniquely suited to communicate about climate change and that it is an underused asset in our global response to it.
- [4] The Future of Our Pasts report was a more detailed dive into the many, many intersections between cultural heritage and climate change, and – unsurprisingly – living heritage is a common topic throughout. The report is built around four key and a range of cross-cutting themes. Key themes are shown on the slide and include two very large areas: adaptation, which is described by the IPCC as “*The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects*”, and mitigation which, in climate science, refers solely to human interventions to reduce the sources or enhance the sinks of greenhouse gases.

Examples of both from living and intangible heritage are many.

- Examples of mitigation include traditional knowledge systems for biodiversity management or building techniques which stay warm and cool due to innovative designs.
- Examples of adaptation strategies, on the other hand, include historical water management in The Netherlands and, as pictured in this slide, architectural adaptations from places like Majuli, a river island in North East India which lives with regular flooding during the monsoon season.

These topics are talks in-their-own-right, so in this talk, I want to focus on the remaining two themes – Impacts and Vulnerability and Stressing Urgency or climate communication, as it is also called. I want to do this by providing examples from two projects which ICOMOS has been part of in the last two years. These are CVI Africa and The Heritage on the Edge Project.

- [5] Much ink has been spilled on the topic of the vulnerability of heritage sites, and rightly so, but these have tended to focus on hazards and impacts to extant built heritage like the Gereza fort at the World Heritage Property of the Ruins of Kilwa Kisiwani and the Ruins of Songo Mnara in Tanzania, as pictured on this slide.

In a minority of other cases, the focus is on archaeology, both extant and subsurface, and impacts to this are particularly acute in coastal areas, like at the Irish coastal fort of Dúnbeg, pictured here.

However, things get some complex when it comes to impacts on ‘living heritage. One example of this is cultural landscapes, and continual or associative cultural landscapes (as described in the operation guidelines) in particular.

- [6] Landscapes are dynamic systems where culture and nature interact. This is a complex dynamic. As an undergraduate student, I remember reading this quote from the American geographer Carl Sauer which presented culture as the agent which transformed the natural landscape into the cultural one. In reality, I think this dynamic is far more nuanced and reciprocal, and climate change illustrates this complexity. It also makes assessing impacts to these places much harder, and I would like to illustrate this with an example of a landscape type found on all continents. These are landscapes where community and production are entwined, and they are particularly vulnerable to the impacts of climate change.
- [7] This slide contains examples of such properties from three continents. They are the Coffee Cultural Landscape of Colombia, the Rice Terraces of the Philippine Cordilleras and the Champagne Hillside, Houses and Cellars of France. These are all landscapes where production aligns with living traditions, and they are some of the most vulnerable to changing climates. Having evolved within specific climates, changes can be acutely felt. The 2019 State of Conservation report for the Champaign Hillside noted potential impacts on both the quality and quantity of the wine, but also on long established cultivation practices. To make a difficult situation worse, adaptation is particularly difficult in these cases where changing climates can render entire crops and traditions associated with harvesting and production irrelevant. There is no protective wall tall enough to reduce this impact, and these landscapes risk losing their outstanding universal value through no fault of their own and with little ability to respond.
- [8] These intangible traditions are often what are lost when communities are impacted by climate change. While climate hazards like temperature change, coastal erosion, increased precipitation, and flooding may erode the mortar and build fabric of extant heritage, they also threaten the traditions and customs which act as a social mortar for communities. At the end of the Future of Our Past report, there is a table which records impacts on various aspects of our cultural heritage from different hazards, including associated and traditional communities and intangible cultural heritage. In all hazard cases, the combined number of impacts on both outnumber other heritage categories like archaeology, buildings, and structures, and this is before secondary impacts like climate migration or economic factors are taken into account.

So how can we understand the vulnerability of ‘living heritage’? I would suggest that it must start with the values which make these places and traditions significant. Over the last five years, the ICOMOS working group has been working with partners from Australia, Scotland, and, more recently Tanzania and Nigeria to explore the utility of a tool called the climate vulnerability index (or CVI), specifically to cultural heritage World Heritage properties.

The CVI is a values-driven, science-based and community led technique, ideally suited to assessing impacts and the vulnerability of different types of heritage sites. I would like to present some very brief observations of its application as part of the UK-funded CVI Africa Project which coming to an end in the next few months.

- [9] Developed by Dr Scott Heron and Dr John Day from James Cook University, the CVI is a *rapid* tool that provides an overall assessment of low, moderate, or high, of the vulnerability of World Heritage Sites.

The process initially identifies the unique heritage and socio-economic values of an individual site, working with the community to identify key values. This often starts with the statement of outstanding universal value but also includes socio-economic or spiritual values where not included in the SOUV. It then works with in-country climate scientists to identify potential impacts to these values, balancing these with the adaptive capacities of both the sites and their associated communities to provide an assessment of the vulnerability of the property.

Prior to the project, the CVI process has only been applied to sites in Western Europe and Australia, and the CVI Africa project will be its first application to properties in Africa.

- [10] The project involves two parts – training a cohort of heritage professionals from across the continent and two workshops at properties in Tanzania, at the Ruins of Kilwa Kisiwani and the Ruins of Songo Mnara, and in Nigeria, at the Sukur cultural landscape. In the latter case, it was the first time the CVI had been applied to a cultural landscape, especially one with strong intangible cultural elements.

At Kilwa Kisiwani, a historic Swahili coastal town, the OUV focus was very much on the built heritage and archaeological deposits, so other significant property values were identified through consultation with the local community. These included living elements, including traditions of pilgrimage and ongoing religious activity at some monuments, which were included in the vulnerability assessment.

The statement of outstanding universal value for the Sukur cultural landscape includes reference to past structures, landscape, and contemporary traditions, so it is a very good place to start when considering values. Many of these values were intricately associated with the community who continued to live within the site, and their presence at the in-person workshop in Yola, Northern Nigeria, allowed the CVI process to give full consideration to all aspects of cultural and natural significance at the site.

Results from both workshops, which were held in September and October of this year, will be published in the next six months, but initial feedback from stakeholders was very positive.

- [11] The second theme I want to explore from the Future of Our Pasts is that of stressing the urgency and climate communication and a project we ran with CyArk and Google Arts and Culture between 2018 and 2020.

The basic premise of the project was that – for many – the topic of climate change can be overwhelming, and people can very quickly get lost in a forest of scientific terms and doomsday predictions.

Heritage is about people and things which are important to people. As such, it humanises the conversation and makes it people-centred. It is a lens through which we can understand these wider issues in an accessible and human-centred way.

The Heritage on the Edge Project was about using technology, interviews, and narratives to tell stories from iconic heritage sites from around the world, which reflect the wide range of climate impacts and the lived experience of those who live and work in them.

We often use the phrase ‘Every place has a climate story’, and this is particularly true of living heritage sites. I would like to illustrate this by exploring one of our five sites from the

project and explaining how the story there developed over the course of the project to include elements of past and present ‘living’ heritage. This is the Historic Mosque City of Bagerhat in Bangladesh.

- [12] The site is a wonderful example of past (and present) climate adaptation. It was built by the Turkish general Ulugh Khan Jahan in the 15th century on the edge of the Sundarbans, a vast riverine Delta in the Bay of Bengal. This was a challenging landscape, and from the outset, its designer used materials sympathetic to the landscape and the environment, including stone foundations which prevented saline intrusion into the mudbrick architecture.

It was inscribed on the World Heritage list in 1985 and continues to be a living site and landscape, central to local and Bangladeshi national identity. As such, the history of the site remains deeply engrained in its present, allowing us to explore the intersection between heritage and local values. In this sense, it remains a living heritage site.

- [13] The issue impacting Bagerhat is less direct than other climate impacts - rising sea levels across Bangladesh are resulting in increasing salinity of fresh water. This is having significant health impacts on people. It is also damaging sites like Bagerhat through a process called *efflorescence*, which is a combination of saturation, evaporation, and aridity.
- [14] So, the narrative or story of Bagerhat involved combinations of both past and present elements and an understanding of the different values of the site both archaeologically, historically, and socially.

The site itself is a testimony to past environmental historical adaptation and resilience being situated on the edge of a marginal environment.

As a living world heritage site, the climate impacts on the property affect both the physical structures and the surrounding community, and these impacts also enable us to explore issues of climate justice which are so important to the climate change narrative. After some of the small island states, Bangladesh represents perhaps the most unfair manifestation of the climate emergency. While they rank only 144th in the world in terms of carbon and greenhouse gas emissions, they are amongst the most vulnerable of countries.

The actions of the wealthiest nations - who are best able to adapt to the consequences of climate change – are most acutely felt by countries that are least able to. The Heritage on the Edge attempted to communicate this message through the world heritage site. Through this site, it was possible to communicate these key messages about climate change and its impacts. This was part of the climate story of Bagerhat, but most sites have similar stories to tell.

- [15] Before finishing, I would like to address some of the challenges facing Living Heritage, not from climate change but from climate action.

One of the more complex intersections between heritage and climate action is where conflict exists between carbon adaptation or mitigation and heritage. For past heritage, this may be impacts on landscapes from renewable energy schemes like wind or solar farms, but there are also more direct conflicts where living traditions directly contribute to climate change.

Examples of this may be the rich industrial heritage – both past and living – which survive in often marginal mining communities in places like the north of England or West Virginia. Living heritages of music and labour which tie communities together are intricately connected to an activity which directly contributes to climate change.

In Ireland, this conflict is visible in the ancient tradition of turf cutting on our bog lands. Bog lands form over thousands of years and are some of the most important carbon sinks in Europe. They are also key to biodiversity and contain an irreplaceable record of landscape and climate history.

Yet, burning peat is one of the most evocative smells for Irish people, and most – myself included – remember turning, stacking, and transporting peat from upland landscapes in our childhood. How do we balance our need to reduce carbon yet not lose these traditions? Like with built heritage, must we triage some aspects of our living heritage and accept that we cannot save everything?

I have no answer to this conflict except to propose that decisions are made within wider carbon mitigation strategies that consider community impacts and the potential scale of activities.

- [16] So, in conclusion, the relationship between living heritage and climate change can be both very simple and quite complex. Heritage is both an asset to our response and can be used to stress the urgency and *communicate the myriad impacts of climate change on sites, peoples and their landscapes*⁷. It is also increasingly vulnerable and understanding this vulnerability is key to protecting it. Such assessments need to be values-based, incorporating wider social, spiritual, and economic values, science-driven and community led.

As a concluding thought, I would like to return to the topic of adaptation – both in the past and the present. I am always sceptical of arguments that stress our past adaptability as a reason to feel optimistic about the future as I fear they omit the personal or individual reality of these processes, reducing thousands of years of failure (and less often, success) into a comfortable soundbite.

Yet our heritage is alive, and living things can and do adapt and evolve, sometimes in strange ways. This evolution is visible all around us. Last weekend I went to the Hill of Tara, home of the ancient high kings of Ireland and the location of many of the most important events in our history. In Ireland, the Isle of Man and Scotland, there is a tradition of rag trees at ancient sites or wells, where people tie strips of cloth or ribbons onto berry trees. This is a ritual practiced in many societies around the world. During my recent visit I noted a new addition to the tree – face masks – which had been tied to the tree alongside ribbons, perhaps to represent people lost or sick, or even just to acknowledge these difficult and challenging times.

This last year has shown us that huge changes are possible in a short amount of time, where political will and desire is present. It will take a complete change in mind-set or a cultural-shift, and we must make sure that culture and heritage is at its heart.

Thank you very much.

Le Patrimoine Vivant dans un Climat Changeant: Défis, Solutions et Opportunités

Dr William P. Megarry

Point Focal de l'ICOMOS pour le Group de Travail sur l'action Climatique

[1] Hello everyone everywhere, bonjour tout le monde agus dia daoibh gach duine.

Je m'appelle Will Megarry et je suis le nouveau point focal de l'ICOMOS pour le Groupe de Travail sur l'action Climatique et maître de conférences en archéologie à l'école de l'environnement naturel et construit de l'université Queen's de Belfast.

Je suis honoré et reconnaissant de m'adresser à vous tous et toutes aujourd'hui lors de ce merveilleux événement et sur ce sujet important. Je voudrais commencer par remercier le comité d'organisation. Les conférences sont difficiles à organiser dans le meilleur des cas et le COVID-19 a créé des défis uniques. Cependant, comme nous l'avons appris l'année dernière, les événements à distance comme celui-ci peuvent augmenter l'accessibilité et certainement aider à réduire les émissions de carbone.

Aujourd'hui, je vais vous parler du changement climatique et du patrimoine vivant. C'est un sujet très pertinent et opportun. En ce moment même, les dirigeants de près de 200 pays se réunissent à Glasgow pour la 26e conférence des parties ou COP, où ils tenteront de trouver un consensus sur une action significative en matière de climat. Comme la plupart des gens, je suis quelque peu sceptique quant à ce qui sera réalisé, car les discussions se concentrent de plus en plus sur ce que les pays riches doivent sacrifier. Mais ce matin, j'ai entendu le président des Palaos, Surangel Whipps Jr., être interviewé au sujet de la conférence sur le World Service. Dans sa réponse, il n'a pas fait référence aux impacts économiques ou aux contributions définies au niveau national. Il s'est plutôt concentré sur la perte d'identité et de culture, les maisons des gens étant inondées par la montée des eaux. Les lieux qui les ancrent sur cette planète sont ironiquement mis à flot.

Ainsi, la culture est au cœur de ce sujet, et la culture vivante en particulier, et dans la présentation, je voudrais m'attarder sur certaines des façons dont elle se croise avec la crise climatique. Les questions que l'on nous demande d'examiner au cours des prochains jours sont les suivantes : *Comment le changement climatique affecte-t-il la compréhension, l'évaluation et la gestion des lieux directement ou matériellement associés à des événements, ou des traditions vivantes avec des idées ou des croyances et des œuvres artistiques et littéraires ?* Cette question est directement liée aux directives opérationnelles de la Convention du patrimoine mondial, qui décrit ces lieux comme étant directement ou matériellement associés à des événements ou à des traditions vivantes, à des idées, à des croyances ou à des œuvres artistiques et littéraires ayant une signification universelle exceptionnelle.

[2] Et je voulais commencer par citer un aperçu général ou de haut niveau, en réfléchissant aux références existantes au patrimoine (et au patrimoine vivant en particulier) dans les moteurs actuels de la politique climatique et du patrimoine. Cette semaine, il est beaucoup question de la mise en œuvre de l'Accord de Paris, mais vous serez peut-être surpris d'apprendre que cet accord fait référence à ce que nous pourrions appeler le « patrimoine vivant » à l'article 7.5. Celui-ci souligne la nécessité d'une adaptation « *guidée par les*



meilleures connaissances scientifiques disponibles et, le cas échéant, par les connaissances traditionnelles, les connaissances des peuples autochtones et les systèmes de connaissances locaux ». Je suis sûr que beaucoup d'entre nous contesteraient cette division entre les systèmes de connaissances, mais il s'agit d'une inclusion importante qui a été reflétée dans toutes les déclarations de l'ICOMOS depuis, y compris, plus récemment, la déclaration 2020 sur l'urgence climatique et écologique. Celle-ci souligne la valeur et la centralité du patrimoine - matériel et immatériel - dans l'action climatique. Elle note également l'importance de la solidarité, de l'engagement significatif, de l'équité et de la justice climatique lorsqu'on travaille avec des communautés autochtones, des groupes vulnérables et de première ligne.

Ces derniers mois, ces messages clés ont été intégrés dans la mise à jour très attendue du document d'orientation sur les impacts du changement climatique sur les sites du patrimoine mondial.

- [3] Le moteur le plus important pour nous au sein de la communauté de l'ICOMOS a peut-être été le rapport *L'Avenir de notre passé : Engager le patrimoine culturel dans l'action pour le climat*. Publié en 2018, il s'agit de l'étude la plus vaste qui existe sur le patrimoine culturel et le changement climatique. Il compte plus de 30 auteurs et a été examiné par plus de 100 experts et organisations, y compris, j'en suis sûr, certaines personnes qui nous regardent maintenant. Il part du principe que la culture est particulièrement adaptée pour communiquer sur le changement climatique et qu'elle est un atout sous-utilisé dans notre réponse globale à ce phénomène.
- [4] Le rapport *L'Avenir de notre passé* est une plongée plus détaillée dans les nombreuses intersections entre le patrimoine culturel et le changement climatique et - sans surprise - le patrimoine vivant est un thème commun à tous les rapports. Le rapport s'articule autour de quatre thèmes clés et d'une série de thèmes transversaux. Les thèmes clés sont présentés sur la diapositive et comprennent deux domaines très importants : l'adaptation, décrite par le GIEC comme « le processus d'ajustement au climat réel ou prévu et à ses effets. Dans les systèmes humains, l'adaptation vise à modérer ou à éviter les dommages ou à exploiter les opportunités bénéfiques. Dans certains systèmes naturels, l'intervention humaine peut faciliter l'ajustement au climat prévu et à ses effets », et l'atténuation qui, dans le domaine de la science du climat, désigne uniquement les interventions humaines visant à réduire les sources ou à renforcer les puits de gaz à effet de serre.

Les exemples de ces deux types d'intervention sur le patrimoine vivant et immatériel sont nombreux.

- Parmi les exemples d'atténuation, citons les systèmes de connaissances traditionnelles pour la gestion de la biodiversité ou les techniques de construction qui permettent de rester au chaud ou au frais grâce à des conceptions innovantes.
- Les exemples de stratégies d'adaptation, quant à eux, comprennent la gestion historique de l'eau aux Pays-Bas et, comme le montre cette diapositive, les adaptations architecturales de lieux tels que Majuli, une île fluviale du nord-est de l'Inde qui subit régulièrement des inondations pendant la mousson.

Ces sujets font l'objet de discussions à part entière, c'est pourquoi je souhaite me concentrer sur les deux autres thèmes - Impacts et Vulnérabilité et Souligner l'Urgence ou

la communication climatique, comme on l'appelle également. Je veux le faire en fournissant des exemples de deux projets auxquels l'ICOMOS a participé au cours des deux dernières années. Il s'agit du CVI Africa (Climate Vulnerability Index) et du projet « Heritage on the Edge ».

- [5] La question de la vulnérabilité des sites du patrimoine a fait couler beaucoup d'encre, à juste titre, mais elle a eu tendance à se concentrer sur les risques et les impacts sur le patrimoine bâti existant, comme le fort de Gereza sur le site du patrimoine mondial des Ruines de Kilwa Kisiwani et des Ruines de Songo Mnara en Tanzanie, tel qu'illustré sur cette diapositive.

Dans une minorité d'autres cas, l'accent est mis sur l'archéologie, à la fois existante et souterraine, et les impacts sur celle-ci sont particulièrement importants dans les zones côtières, comme au fort côtier irlandais de Dúnbeg, illustré ici.

Mais les choses se compliquent lorsqu'il s'agit d'impacts sur le « patrimoine vivant ». Les paysages culturels et, en particulier, les paysages culturels continus ou associatifs (tels que décrits dans les lignes directrices de l'opération) en sont un exemple.

- [6] Les paysages sont des systèmes dynamiques où la culture et la nature interagissent. Il s'agit d'une dynamique complexe. Lorsque j'étais étudiant de premier cycle, je me souviens avoir lu cette citation du géographe américain Carl Sauer qui présentait la culture comme l'agent qui transforme le paysage naturel en paysage culturel. En réalité, je pense que cette dynamique est bien plus nuancée et réciproque, et le changement climatique illustre cette complexité. Il rend également beaucoup plus difficile l'évaluation des impacts sur ces lieux et j'aimerais l'illustrer par l'exemple d'un type de paysage que l'on retrouve sur tous les continents. Il s'agit de paysages où communauté et production sont intimement liées et qui sont particulièrement vulnérables aux impacts du changement climatique.

- [7] Cette diapositive contient des exemples de tels biens provenant de trois continents. Il s'agit du paysage culturel du café de Colombie, des rizières en terrasses des cordillères des Philippines et des coteaux, maisons et caves de Champagne en France. Ce sont tous des paysages où la production s'aligne sur des traditions vivantes, et ils sont parmi les plus vulnérables aux changements climatiques. Ayant évolué dans des climats spécifiques, les changements peuvent être ressentis avec acuité. Le rapport 2019 sur l'état de conservation des collines de Champagne a noté des impacts potentiels à la fois sur la qualité et la quantité du vin, mais aussi sur des pratiques culturelles établies de longue date. Pour aggraver une situation difficile, l'adaptation est particulièrement difficile dans ces cas où les changements climatiques peuvent rendre impraticables des cultures entières et les traditions associées à la récolte et à la production. Il n'existe pas de mur de protection suffisamment haut pour réduire cet impact et ces paysages risquent de perdre leur valeur universelle exceptionnelle sans qu'ils en soient responsables et sans qu'ils puissent y répondre.

- [8] Ces traditions immatérielles sont souvent ce qui est perdu lorsque les communautés sont touchées par le changement climatique. Si les risques climatiques tels que le changement de température, l'érosion côtière, l'augmentation des précipitations et les inondations peuvent éroder le mortier et le tissu bâti du patrimoine existant, ils menacent également les traditions et les coutumes qui servent de mortier social aux communautés. À la fin du rapport *L'Avenir de notre Passé*, un tableau recense les impacts de différents aléas sur

divers aspects de notre patrimoine culturel, notamment les communautés associées et traditionnelles et le patrimoine culturel immatériel. Dans tous les cas de danger, le nombre combiné d'impacts sur ces deux catégories dépasse celui des autres catégories de patrimoine, comme l'archéologie, les bâtiments et les structures, et ce avant de prendre en compte les impacts secondaires comme la migration climatique ou les facteurs économiques.

Comment comprendre la vulnérabilité du « patrimoine vivant » ? Je dirais qu'il faut commencer par les valeurs qui rendent ces lieux et ces traditions importants. Au cours des cinq dernières années, le groupe de travail de l'ICOMOS a travaillé avec des partenaires d'Australie, d'Écosse et, plus récemment, de Tanzanie et du Nigeria, afin d'explorer l'utilité d'un outil appelé indice de vulnérabilité climatique (ou *CVI - Climate Vulnerability Index* en anglais), spécifiquement pour les biens du patrimoine culturel mondial.

L'indice de vulnérabilité est une technique axée sur les valeurs, fondée sur la science et dirigée par la communauté, qui convient parfaitement à l'évaluation des impacts et de la vulnérabilité de différents types de sites patrimoniaux. J'aimerais présenter quelques brèves observations sur son application dans le cadre du projet africain de l'indice de vulnérabilité (CVI Africa), financé par le Royaume-Uni, qui s'achève dans les prochains mois.

- [9] Développé par le Dr Scott Heron et le Dr John Day de l'Université James Cook, le CVI est un outil rapide qui fournit une évaluation globale - faible, modérée ou élevée - de la vulnérabilité des sites du patrimoine mondial.

Le processus identifie d'abord le patrimoine unique et les valeurs socio-économiques d'un site individuel, en travaillant avec la communauté pour identifier les valeurs clés. Cela commence souvent par la déclaration de valeur universelle exceptionnelle, mais inclut également les valeurs socio-économiques ou spirituelles lorsqu'elles ne sont pas incluses dans la valeur universelle exceptionnelle. Le CVI travaille ensuite avec les climatologues du pays pour identifier les impacts potentiels sur ces valeurs, en les mettant en balance avec les capacités d'adaptation des sites et des communautés qui y sont associées, afin de fournir une évaluation de la vulnérabilité du bien.

Avant ce projet, le processus du CVI n'a été appliqué qu'à des sites d'Europe occidentale et d'Australie, et le projet CVI Africa sera sa première application à des biens en Afrique.

- [10] Le projet comportait deux volets : la formation d'une cohorte de professionnels du patrimoine de tout le continent et deux ateliers sur des sites en Tanzanie, aux Ruines de Kilwa Kisiwani et aux Ruines de Songo Mnara, et au Nigeria, au paysage culturel de Sukur. Dans ce dernier cas, c'était la première fois que l'indice de vulnérabilité climatique était appliqué à un paysage culturel, en particulier un paysage comportant de forts éléments culturels immatériels.

A Kilwa Kisiwani, une ville côtière historique swahilie, la valeur universelle exceptionnelle se concentrait essentiellement sur le patrimoine bâti et les gisements archéologiques, de sorte que d'autres valeurs patrimoniales importantes ont été identifiées en consultation avec la communauté locale. Il s'agissait d'éléments vivants, notamment les traditions de pèlerinage et l'activité religieuse permanente de certains monuments, qui ont été inclus dans l'évaluation de la vulnérabilité.

La déclaration de valeur universelle exceptionnelle pour le paysage culturel de Sukur fait référence aux structures passées, au paysage et aux traditions contemporaines ; il s'agit donc d'un très bon point de départ pour l'examen des valeurs. Nombre de ces valeurs étaient étroitement associées à la communauté qui continue à vivre sur le site et leur présence à l'atelier en personne à Yola, dans le nord du Nigeria, a permis au processus du CVI de prendre pleinement en compte tous les aspects de l'importance culturelle et naturelle du site.

Les résultats des deux ateliers, qui ont eu lieu en septembre et octobre de cette année, seront publiés dans les six prochains mois, mais les premiers retours des parties prenantes ont été très positifs.

- [11] Le deuxième thème que je souhaite explorer à partir de *L'Avenir de notre passé* est celui de l'accentuation de l'urgence et de la communication climatique et d'un projet que nous avons mené avec CyArk et Google Arts et Culture entre 2018 et 2020.

Le principe de base du projet était que - pour beaucoup - le sujet du changement climatique peut être accablant, et les gens peuvent très vite se perdre dans une forêt de termes scientifiques et de prédictions apocalyptiques.

Le patrimoine concerne les personnes et les choses qui sont importantes pour les gens. En tant que tel, il humanise la conversation et la rend centrée sur les personnes. C'est une lentille à travers laquelle nous pouvons comprendre ces questions plus larges d'une manière accessible et centrée sur l'humain.

Le projet « Heritage on the Edge » consistait à utiliser la technologie, des entretiens et des récits pour raconter des histoires de sites patrimoniaux emblématiques du monde entier, qui reflètent le large éventail d'impacts climatiques et l'expérience vécue de ceux qui y vivent et y travaillent.

Nous utilisons souvent l'expression « Chaque lieu a une histoire climatique », et c'est particulièrement vrai pour les sites du patrimoine vivant. Je voudrais illustrer cela en explorant l'un de nos cinq sites du projet et expliquer comment l'histoire s'est développée au cours du projet pour inclure des éléments du patrimoine « vivant » passé et présent. Il s'agit de la ville historique des mosquées de Bagerhat, au Bangladesh.

- [12] Le site est un merveilleux exemple d'adaptation climatique passée (et présente). Il a été construit par le général turc Ulugh Khan Jahan au XVe siècle à la lisière des Sundarbans, un vaste delta fluvial dans la baie de Bengale. Il s'agissait d'un paysage difficile et, dès le départ, son concepteur a utilisé des matériaux respectueux du paysage et de l'environnement, notamment des fondations en pierre qui empêchaient l'intrusion saline dans l'architecture en briques crues.

Le site a été inscrit sur la liste du patrimoine mondial en 1985 et reste un site et un paysage vivant, au cœur de l'identité locale et nationale bangladaise. En tant que tel, l'histoire du site reste profondément ancrée dans son présent, ce qui nous permet d'explorer l'intersection entre le patrimoine et les valeurs locales. En ce sens, il demeure un site patrimonial vivant.

- [13] Le problème qui touche Bagerhat est moins direct que d'autres impacts climatiques : la montée du niveau de la mer au Bangladesh entraîne une augmentation de la salinité de l'eau douce. Ce phénomène a des répercussions importantes sur la santé des populations.

Elle endommage également des sites comme Bagerhat par un processus appelé efflorescence, qui est une combinaison de saturation, d'évaporation et d'aridité.

- [14] Ainsi, le récit ou l'histoire de Bagerhat implique des combinaisons d'éléments passés et présents, et une compréhension des valeurs différentes du site, tant sur le plan archéologique qu'historique et social.

Le site lui-même est un témoignage de l'adaptation historique et de la résilience environnementales passées, étant situé à la limite d'un environnement marginal. En tant que site du patrimoine mondial vivant, les impacts climatiques sur le bien affectent à la fois les structures physiques et la communauté environnante. Ces impacts nous permettent également d'explorer les questions de justice climatique qui sont si importantes dans le récit du changement climatique. Après certains des petits États insulaires, le Bangladesh représente peut-être la manifestation la plus injuste de l'urgence climatique. Bien qu'il ne se classe qu'au 144^e rang mondial en termes d'émissions de carbone et de gaz à effet de serre, il fait partie des pays les plus vulnérables.

Les actions des nations les plus riches - qui sont les mieux à même de s'adapter aux conséquences du changement climatique - sont ressenties de manière plus aiguë par les pays qui en sont le moins capables. Le projet « Heritage on the Edge » a tenté de communiquer ce message par le biais du site du patrimoine mondial.

Grâce à ce site, il a été possible de communiquer ces messages clés sur le changement climatique et ses impacts. Cela faisait partie de l'histoire climatique de Bagerhat, mais la plupart des sites ont des histoires similaires à raconter.

- [15] Avant de terminer, j'aimerais aborder certains des défis auxquels le patrimoine vivant est confronté, non pas en raison du changement climatique, mais de l'action climatique.

L'une des intersections les plus complexes entre le patrimoine et l'action climatique s'observe quand il y a conflit entre l'adaptation au carbone ou son atténuation et le patrimoine. Pour le patrimoine passé, il peut s'agir des impacts sur les paysages de projets d'énergie renouvelable comme les parcs éoliens ou solaires, mais il existe aussi des conflits plus directs lorsque les traditions vivantes contribuent directement au changement climatique.

On peut citer comme exemple le riche patrimoine industriel - à la fois passé et vivant - qui survit dans des communautés minières souvent marginales dans des endroits comme le nord de l'Angleterre ou la Virginie occidentale. Les patrimoines vivants de la musique et du travail qui lient les communautés sont intimement liés à une activité qui contribue directement au changement climatique.

En Irlande, ce conflit est visible dans l'ancienne tradition de l'extraction de la tourbe. Les tourbières se forment sur des milliers d'années et font partie des plus importants puits de carbone d'Europe. Elles sont également essentielles à la biodiversité et contiennent un témoignage irremplaçable de l'histoire du paysage et du climat.

Pourtant, le feu de tourbe est l'une des odeurs les plus évocatrices pour les Irlandais et la plupart d'entre eux - moi compris - se souviennent d'avoir retourné, entassé et transporté la tourbe des hautes terres dans leur enfance. Comment trouver un équilibre entre notre

besoin de réduire le carbone et celui de ne pas perdre ces traditions ? Comme pour le patrimoine bâti, devons-nous trier certains aspects de notre patrimoine vivant et accepter que nous ne puissions pas tout sauver ?

Je n'ai pas de réponse à ce conflit, si ce n'est de proposer que les décisions soient prises dans le cadre de stratégies plus larges d'atténuation du carbone, qui prennent en compte les impacts sur la communauté et l'échelle potentielle des activités.

- [16] Ainsi, en conclusion, la relation entre le patrimoine vivant et le changement climatique peut être à la fois très simple et très complexe. Le patrimoine est à la fois un atout pour notre réponse et peut être utilisé pour souligner l'urgence et communiquer les myriades d'impacts du changement climatique sur les sites, les peuples et leurs paysages. Il est également de plus en plus vulnérable et il est essentiel de comprendre cette vulnérabilité pour le protéger. Ces évaluations doivent être fondées sur des valeurs, incorporer des valeurs sociales, spirituelles et économiques plus larges, être guidées par la science et dirigées par la communauté.

En guise de conclusion, j'aimerais revenir sur le thème de l'adaptation - tant dans le passé que dans le présent. Je suis toujours sceptique à l'égard des arguments qui soulignent notre capacité d'adaptation passée comme une raison d'être optimiste quant à l'avenir, car je crains qu'ils omettent la réalité personnelle ou individuelle de ces processus, réduisant des milliers d'années d'échec (et plus rarement de succès) en une banalité confortable.

Pourtant, notre patrimoine est vivant et les êtres vivants peuvent s'adapter et évoluer, parfois de manière étrange. Cette évolution est visible tout autour de nous. Le week-end dernier, je me suis rendu sur la colline de Tara, où vivaient les anciens hauts-rois d'Irlande et où se sont déroulés bon nombre des événements les plus importants de notre histoire. En Irlande, sur l'île de Man et en Écosse, il existe une tradition d'arbres à chiffons sur les sites ou les puits anciens, où les gens attachent des bandes de tissu ou des rubans aux arbres à chiffons. Il s'agit d'un rituel pratiqué dans de nombreuses sociétés à travers le monde. Lors de ma récente visite, j'ai remarqué un nouvel ajout à l'arbre - des masques sanitaires - qui avaient été attachés à l'arbre avec des rubans, peut-être pour représenter des personnes perdues ou malades, ou même simplement pour reconnaître ces temps difficiles et plein de défis.

Cette dernière année nous a montré que d'énormes changements sont possibles en peu de temps, lorsque la volonté politique et le désir sont présents. Il faudra un changement complet de mentalité ou un changement culturel, et nous devons nous assurer que la culture et le patrimoine sont au cœur de ce changement.

Merci beaucoup.

Patrimonio Vivo en un Clima Cambiante: Retos, Soluciones y Oportunidades

Dr. William P. Megarry

Sede de la Coordinación (Punto Focal) del Group de Trabajo de Acción Climática de ICOMOS

[1] Hola a todos, bonjour tout le monde, agus dia daoibh gach duine.

Mi nombre es Will Megarry y soy el nuevo Punto Focal del Group de Trabajo de Acción Climática de ICOMOS y Profesor Titular de Arqueología en la Escuela de Medio Ambiente Natural y Construido de la Queen's Univeristy, en Belfast.

Me siento honrado y agradecido de poder dirigirme hoy a todos ustedes en este maravilloso evento y sobre este importante tema. Quisiera empezar dando las gracias al comité organizador. Las conferencias son difíciles de organizar en el mejor de los casos y la COVID-19 ha creado algunos retos únicos; sin embargo, como hemos aprendido en el último año, los eventos a distancia como este pueden aumentar la accesibilidad y, sin duda, ayudar a reducir las emisiones de carbono.

Hoy hablaré del cambio climático y el patrimonio vivo. Se trata de un tema muy pertinente y oportuno. En este mismo momento, los líderes de casi 200 países se reúnen en Glasgow para celebrar la 26ª Conferencia de las Partes o COP, en la que intentarán llegar a un consenso sobre una acción climática significativa. Como la mayoría, soy algo escéptico sobre lo que se conseguirá, ya que los debates se centran cada vez más en lo que los países más ricos deben sacrificar. Pero esta mañana escuché al Presidente de Palaos, Surangel Whipps Jr., ser entrevistado sobre la conferencia en el Servicio Mundial. En su respuesta, no se refirió a las repercusiones económicas ni a las contribuciones definidas a nivel nacional. En su lugar, se centró en la pérdida de identidad y cultura a medida que los hogares de la gente se ven inundados por la subida de las aguas. Lugares que los anclan a este planeta, irónicamente, siendo puestos a flote.

Así pues, la cultura está en el centro de este tema y la cultura viva en particular, y en la presentación me gustaría detenerme en algunas de las formas en que se entrecruza con la crisis climática. Las preguntas que se nos plantean para los próximos días son: *¿Cómo afectará el cambio climático a la comprensión, evaluación y gestión de lugares directa o tangiblemente asociados a acontecimientos, o a tradiciones vivas con ideas o creencias y obras artísticas y literarias?* Esto está directamente relacionado con las directrices operativas de la Convención del Patrimonio Mundial, que las describe como lugares directa o tangiblemente asociados con acontecimientos o tradiciones vivas, con ideas o creencias y con obras artísticas y literarias de excepcional importancia universal.

[2] Y quería empezar citando una visión general o de alto nivel, pensando en las referencias existentes al patrimonio (y al patrimonio vivo en particular) en los impulsores actuales tanto de la política climática como del patrimonio. Esta semana se ha hablado mucho de la aplicación del Acuerdo de París, pero puede resultar sorprendente que este acuerdo incluya una referencia a lo que podríamos llamar "patrimonio vivo" en el artículo 7.5. En él se subraya la necesidad de adaptación "al cambio climático". En él se subraya la necesidad de adaptación "*guiada por los mejores conocimientos científicos disponibles y, según proceda, por los conocimientos tradicionales, los conocimientos de los pueblos indígenas y los sistemas de conocimientos locales*". Estoy seguro de que muchos de



nosotros cuestionaríamos esta división entre sistemas de conocimiento, pero se trata de una inclusión importante que se ha reflejado en todas las declaraciones del ICOMOS desde entonces, incluida, más recientemente, la declaración de Emergencia Climática y Ecológica 2020. En ella se subraya el valor y la centralidad del patrimonio, tanto material como inmaterial, en la acción por el clima. También señalaba la importancia de la solidaridad, el compromiso significativo, la equidad y la justicia climática cuando se trabaja con comunidades indígenas y grupos vulnerables y de primera línea.

En los últimos meses, estos mensajes clave se han incluido en la muy esperada actualización del Documento de Política sobre los Impactos del Cambio Climático en los Sitios del Patrimonio Mundial.

- [3] Quizás el motor más importante para nosotros dentro de la comunidad del ICOMOS fue el informe *Futuro de nuestros pasados (Future of our Past)*. Publicado en 2018, se trata del estudio de mayor alcance sobre patrimonio cultural y cambio climático que existe. Tiene más de 30 autores y fue revisado por pares por más de 100 expertos y organizaciones, incluidas, estoy seguro, algunas personas que están viendo ahora. Partía de la premisa de que la cultura es el medio más adecuado para comunicar sobre el cambio climático y que es un activo infrutilizado en nuestra respuesta global al mismo.
- [4] El informe *El futuro de nuestros pasados (Futures of our Past)* profundiza en las numerosas intersecciones entre el patrimonio cultural y el cambio climático y, como era de esperarse, el patrimonio vivo es un tema común en todo el informe. El informe se articula en torno a cuatro temas clave y otros tantos transversales. Los temas clave se muestran en la diapositiva e incluyen dos áreas muy amplias: la adaptación, que el IPCC describe como "El proceso de ajuste al clima real o previsto y a sus efectos. En los sistemas humanos, la adaptación pretende moderar o evitar los daños o aprovechar las oportunidades beneficiosas. En algunos sistemas naturales, la intervención humana puede facilitar el ajuste al clima previsto y a sus efectos", y la mitigación, que en la ciencia del clima se refiere únicamente a las intervenciones humanas para reducir las fuentes o mejorar los sumideros de gases de efecto invernadero.

Hay muchos ejemplos de ambos tipos de patrimonio, tanto vivo como inmaterial.

- Ejemplos de mitigación son los sistemas de conocimientos tradicionales para la gestión de la biodiversidad o las técnicas de construcción que mantienen el calor y el frío gracias a diseños innovadores.
- Los ejemplos de estrategias de adaptación, por su parte, incluyen la gestión histórica del agua en los Países Bajos y, como se ve en esta diapositiva, las adaptaciones arquitectónicas de lugares como Majuli, una isla fluvial del noreste de la India que convive con inundaciones periódicas durante la estación de los monzones.

Estos temas son participaciones por derecho propio, así que en esta charla quiero centrarme en los dos temas restantes: Impactos y Vulnerabilidad y Acentuar la Urgencia o comunicación climática, como también se le llama. Quiero hacerlo aportando ejemplos de dos proyectos en los que el ICOMOS ha participado en los dos últimos años. Se trata del CVI África y del Proyecto Patrimonio en el Borde.

- [5] Se ha escrito mucho sobre el tema de la vulnerabilidad de los sitios patrimoniales, y con razón, pero se ha tendido a centrar la atención en los peligros y los impactos sobre el patrimonio construido existente, como el fuerte de Gereza en el Patrimonio Mundial de las

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Ruinas de Kilwa Kisiwani y las Ruinas de Songo Mnara en Tanzania, como se muestra en esta diapositiva.

En una minoría de otros casos, la atención se centra en la arqueología, tanto la existente como la subterránea, y los impactos sobre ella son especialmente graves en las zonas costeras, como en el fuerte costero irlandés de Dúnbeg, en la foto.

Pero las cosas se complican cuando se trata del impacto en el "patrimonio vivo". Un ejemplo de ello son los paisajes culturales y, en particular, los paisajes culturales continuos o asociativos (como se describen en las directrices de la operación).

- [6] Los paisajes son sistemas dinámicos en los que interactúan la cultura y la naturaleza. Se trata de una dinámica compleja. Cuando era estudiante universitario recuerdo haber leído esta cita del geógrafo estadounidense Carl Sauer que presentaba la cultura como el agente que transformaba el paisaje natural en cultural. En realidad, creo que esta dinámica es mucho más matizada y recíproca, y el cambio climático ilustra esta complejidad. También hace que sea mucho más difícil evaluar las repercusiones en estos lugares y me gustaría ilustrarlo con un ejemplo de un tipo de paisaje que se encuentra en todos los continentes. Son paisajes en los que comunidad y producción están entrelazadas y son especialmente vulnerables a los efectos del cambio climático.
- [7] Esta diapositiva contiene ejemplos de este tipo de bienes procedentes de tres continentes. Se trata del Paisaje Cultural Cafetero de Colombia, las Terrazas de Arroz de las Cordilleras de Filipinas y las Laderas, Casas y Bodegas de Champagne de Francia. Todos ellos son paisajes en los que la producción se alinea con tradiciones vivas, y son algunos de los más vulnerables a los cambios climáticos. Al haber evolucionado en climas específicos, los cambios pueden sentirse de forma aguda. El informe de 2019 sobre el estado de conservación de las laderas de Champagne señaló posibles impactos tanto en la calidad como en la cantidad del vino, pero también en las prácticas de cultivo establecidas desde hace mucho tiempo. Para empeorar una situación difícil, la adaptación es especialmente difícil en estos casos, en los que los cambios climáticos pueden hacer irrelevantes cultivos enteros y tradiciones asociadas a la cosecha y la producción. No existe un muro protector lo suficientemente alto como para reducir este impacto y estos paisajes corren el riesgo de perder su valor universal excepcional sin tener culpa alguna y con poca capacidad de respuesta.
- [8] Estas tradiciones intangibles son a menudo las que se pierden cuando las comunidades se ven afectadas por el cambio climático. Mientras que los riesgos climáticos como el cambio de temperatura, la erosión costera, el aumento de las precipitaciones y las inundaciones pueden erosionar la argamasa y construir el tejido del patrimonio existente, también amenazan las tradiciones y costumbres que actúan como argamasa social para las comunidades. Al final del informe *El futuro de nuestros pasados* figura un cuadro en el que se registran las repercusiones de los distintos peligros sobre diversos aspectos de nuestro patrimonio cultural, incluidas las comunidades asociadas y tradicionales y el patrimonio cultural inmaterial. En todos los casos de peligro, el número combinado de impactos sobre ambos supera al de otras categorías de patrimonio como la arqueología, los edificios y las estructuras, y ello antes de tener en cuenta impactos secundarios como la migración climática o los factores económicos.

Entonces, ¿cómo podemos entender la vulnerabilidad del "patrimonio vivo"? Yo sugeriría que debemos empezar por los valores que hacen que estos lugares y tradiciones sean

significativos. Durante los últimos cinco años, el grupo de trabajo del ICOMOS ha estado trabajando con socios de Australia, Escocia y, más recientemente, Tanzania y Nigeria para explorar la utilidad de una herramienta llamada índice de vulnerabilidad climática (o IVC), específicamente para los bienes del patrimonio cultural del Patrimonio Mundial.

El IVC es una técnica basada en valores, fundamentada en la ciencia y dirigida por la comunidad, ideal para evaluar los impactos y la vulnerabilidad de diferentes tipos de sitios patrimoniales. Me gustaría presentar algunas breves observaciones sobre su aplicación en el marco del proyecto CVI África, financiado por el Reino Unido, que finalizará en los próximos meses.

- [9] Desarrollado por el Dr. Scott Heron y el Dr. John Day de la Universidad James Cook, el IVC es una herramienta rápida que proporciona una evaluación general o baja, moderada o alta, de la vulnerabilidad de los sitios del Patrimonio Mundial.

El proceso identifica inicialmente los valores patrimoniales y socioeconómicos únicos de un sitio individual, trabajando con la comunidad para identificar los valores clave. A menudo se parte de la declaración del Valor Universal Excepcional, pero también se incluyen los valores socioeconómicos o espirituales cuando no están incluidos en el VUE. A continuación, trabaja con científicos del clima del país para identificar los posibles impactos sobre estos valores, sopesándolos con las capacidades de adaptación tanto de los sitios como de sus comunidades asociadas para proporcionar una evaluación de la vulnerabilidad de la propiedad.

Antes del proyecto, el proceso IVC sólo se había aplicado a sitios de Europa Occidental y Australia, y el proyecto IVC África será su primera aplicación a bienes de África.

- [10] El proyecto constaba de dos partes: la formación de una cohorte de profesionales del patrimonio de todo el continente y dos talleres en bienes situados en Tanzania, en las ruinas de Kilwa Kisiwani y las ruinas de Songo Mnara, y en Nigeria, en el paisaje cultural de Sukur. En este último caso, era la primera vez que se aplicaba el IVC a un paisaje cultural, especialmente a uno con fuertes elementos culturales inmateriales.

En Kilwa Kisiwani, una histórica ciudad costera suajili, el VUE se centraba en gran medida en el patrimonio construido y los yacimientos arqueológicos, por lo que se identificaron otros valores patrimoniales significativos mediante consultas con la comunidad local. Entre ellos figuraban elementos vivos como las tradiciones de peregrinación y la actividad religiosa permanente en algunos monumentos, que se incluyeron en la evaluación de la vulnerabilidad.

La Declaración de Valor Universal Excepcional del paisaje cultural de Sukur hace referencia a las estructuras del pasado, el paisaje y las tradiciones contemporáneas, por lo que es un buen punto de partida para considerar los valores. Muchos de estos valores estaban estrechamente relacionados con la comunidad que seguía viviendo en el sitio y su presencia en el taller presencial de Yola, en el norte de Nigeria, permitió que el proceso de IVC tuviera plenamente en cuenta todos los aspectos de importancia cultural y natural del sitio.

Los resultados de ambos talleres, que se celebraron en septiembre y octubre de este año, se publicarán en los próximos seis meses, pero los primeros comentarios de las partes interesadas fueron muy positivos.

- [11] El segundo tema que quiero explorar sobre el informe *Futuro de nuestros pasados* es el de la urgencia y la comunicación sobre el clima y un proyecto que llevamos a cabo con CyArk y Google Arts and Culture entre 2018 y 2020.

La premisa básica del proyecto era que *-para muchos-* el tema del cambio climático puede ser abrumador, y la gente puede perderse muy rápidamente en un bosque de términos científicos y predicciones catastrofistas.

El patrimonio trata de personas y cosas que son importantes para la gente. Como tal, humaniza la conversación y la centra en las personas. Es una lente a través de la cual podemos entender estas cuestiones más amplias de una manera accesible y centrada en el ser humano.

El proyecto Heritage on the Edge consistía en utilizar la tecnología, las entrevistas y los relatos para contar historias de lugares emblemáticos del patrimonio de todo el mundo, que reflejaran la amplia gama de impactos climáticos y la experiencia vivida por quienes viven y trabajan en ellos.

A menudo utilizamos la frase "Cada lugar tiene una historia climática", y esto es especialmente cierto en el caso de los sitios del patrimonio vivo. Me gustaría ilustrar esto explorando uno de nuestros cinco lugares del proyecto y explicar cómo la historia se desarrolló en el transcurso del proyecto para incluir elementos del patrimonio "vivo" pasado y presente. Se trata de la Mezquita Histórica de Bagerhat, en Bangladesh.

- [12] El sitio es un maravilloso ejemplo de adaptación climática pasada (y presente). Fue construido por el general turco Ulugh Khan Jahan en el siglo XV al borde de los Sundarbans, un vasto delta fluvial en la bahía de Begal. Se trataba de un paisaje difícil y, desde el principio, su diseñador utilizó materiales respetuosos con el paisaje y el medio ambiente, incluidos cimientos de piedra que impedían la intrusión salina en la arquitectura de adobe.

Fue inscrito en la Lista del Patrimonio Mundial en 1985 y sigue siendo un lugar y un paisaje vivos, fundamentales para la identidad local y nacional de Bangladesh. Como tal, la historia del lugar sigue profundamente arraigada en su presente, lo que nos permite explorar la intersección entre el patrimonio y los valores locales. En este sentido, el sitio sigue siendo un patrimonio vivo.

- [13] El problema que afecta a Bagerhat es menos directo que otros impactos climáticos: la subida del nivel del mar en Bangladesh está provocando un aumento de la salinidad del agua dulce. Esto tiene importantes consecuencias para la salud de la población. También está dañando lugares como Bagerhat a través de un proceso llamado eflorescencia, que es una combinación de saturación, evaporación y aridez.
- [14] Así pues, la narrativa o historia de Bagerhat implicaba combinaciones de elementos del pasado y del presente, y una comprensión de los diferentes valores del yacimiento tanto arqueológicos como históricos y sociales.

El propio yacimiento es un testimonio de la adaptación histórica al medio ambiente y de su capacidad de recuperación, ya que está situado al borde de un entorno marginal.

Como patrimonio mundial vivo, los efectos del clima en el bien afectan tanto a las estructuras físicas como a la comunidad circundante, y estos efectos también nos permiten

explorar cuestiones de justicia climática que son tan importantes para la narrativa del cambio climático. Después de algunos de los pequeños Estados insulares, Bangladesh representa quizá la manifestación más injusta de la emergencia climática. Aunque sólo ocupa el puesto 144 del mundo en cuanto a emisiones de carbono y gases de efecto invernadero, se encuentra entre los países más vulnerables.

Las acciones de las naciones más ricas -que son las que mejor pueden adaptarse a las consecuencias del cambio climático- se dejan sentir con mayor intensidad en los países que menos pueden hacerlo. Heritage on the Edge intentó transmitir este mensaje a través del sitio del Patrimonio Mundial.

A través de este sitio, fue posible comunicar estos mensajes clave sobre el cambio climático y sus impactos. Esto formaba parte de la historia climática de Bargerhat, pero la mayoría de los sitios tienen historias similares que contar.

- [15] Antes de terminar, me gustaría abordar algunos de los retos a los que se enfrenta el Patrimonio Vivo no por el cambio climático, sino por la acción climática.

Una de las intersecciones más complejas entre el patrimonio y la acción climática es cuando existe un conflicto entre la adaptación al carbono o su mitigación y el patrimonio. En el caso del patrimonio del pasado, puede tratarse del impacto en los paisajes de proyectos de energías renovables como parques eólicos o solares, pero también hay conflictos más directos cuando las tradiciones vivas contribuyen directamente al cambio climático.

Ejemplos de ello pueden ser el rico patrimonio industrial -tanto pasado como vivo- que sobrevive en comunidades mineras a menudo marginales en lugares como el norte de Inglaterra o Virginia Occidental. Los patrimonios vivos de la música y el trabajo que unen a las comunidades están estrechamente relacionados con una actividad que contribuye directamente al cambio climático.

En Irlanda, este conflicto es visible en la antigua tradición de corte de césped en nuestras tierras pantanosas. Las turberas se forman a lo largo de miles de años y son uno de los sumideros de carbono más importantes de Europa. También son clave para la biodiversidad y contienen un registro irremplazable de la historia del paisaje y el clima.

Sin embargo, la quema de turba es uno de los olores más evocadores para los irlandeses y la mayoría -incluido yo mismo- recordamos cuando éramos niños haber tenido que apilar y transportar turba de las tierras altas. ¿Cómo equilibrar nuestra necesidad de reducir las emisiones de carbono sin perder estas tradiciones? Al igual que ocurre con el patrimonio arquitectónico, ¿debemos priorizar algunos aspectos de nuestro patrimonio vivo y aceptar que no podemos salvarlo todo?

No tengo respuesta a este conflicto, salvo proponer que las decisiones se tomen en el marco de estrategias más amplias de mitigación del carbono que tengan en cuenta los impactos en la comunidad y la escala potencial de las actividades.

- [16] En conclusión, la relación entre el patrimonio vivo y el cambio climático puede ser a la vez muy simple y muy compleja. El patrimonio es a la vez un activo para nuestra respuesta y puede utilizarse para subrayar la urgencia y comunicar los innumerables impactos del cambio climático en los sitios, los pueblos y sus paisajes". También es cada vez más

vulnerable y comprender esta vulnerabilidad es clave para protegerlo. Estas evaluaciones deben basarse en valores, incorporar valores sociales, espirituales y económicos más amplios, basarse en la ciencia y estar dirigidas por la comunidad.

Para concluir, me gustaría volver al tema de la adaptación, tanto en el pasado como en el presente. Siempre me he mostrado escéptico ante los argumentos que subrayan nuestra capacidad de adaptación en el pasado como razón para sentirnos optimistas respecto al futuro, pues temo que omitan la realidad personal o individual de estos procesos, reduciendo miles de años de fracasos (y, con menos frecuencia, de éxitos) a una cómoda frase hecha.

Sin embargo, nuestro patrimonio está vivo y los seres vivos pueden adaptarse y evolucionar, y de hecho lo hacen, a veces de formas extrañas. Esta evolución es visible a nuestro alrededor. El fin de semana pasado fui a la colina de Tara, hogar de los antiguos reyes de Irlanda y escenario de muchos de los acontecimientos más importantes de nuestra historia. En Irlanda, la Isla de Man y Escocia existe la tradición de los árboles de bayas en lugares o pozos antiguos, donde la gente ata tiras de tela o cintas a los árboles de bayas. Se trata de un ritual practicado en muchas sociedades de todo el mundo. Durante mi reciente visita observé una nueva adición al árbol: máscaras faciales que habían sido atadas al árbol junto con cintas, quizás para representar a personas perdidas o enfermas, o incluso simplemente para reconocer estos tiempos difíciles y desafiantes.

Este último año nos ha demostrado que es posible lograr grandes cambios en poco tiempo, siempre que exista voluntad política. Será necesario un cambio completo de mentalidad o un cambio cultural, y debemos asegurarnos de que la cultura y el patrimonio estén en su centro.

Muchas gracias a todos.



KEYNOTE PAPERS

Ananya Bhattacharya
“Living Heritage and Climate Change:
Interconnections & Possibilities”

Dr William P. Megarry
“Living Heritage in a Changing Climate:
Challenges, Solutions and Opportunities”

Living Heritage and Climate Change: Interconnections & Possibilities

Ananya Bhattacharya

Intangible cultural heritage (ICH) is manifested in our oral traditions, art and craftsmanship, rituals and sports, traditional knowledge of biosphere, natural resource use and management. Unfortunately, just as we have seen denial in the past in accepting the realities of climate change, ICH is still missing in the mainstream dialogue and discourse on actions to mitigate and adapt to climate change. Perhaps this culture-nature divide is a symptom of larger processes which have put us in an unsustainable path. The following sections explore the ways in which climate change is affecting our intangible cultural heritage and the role of heritage professionals in bridging the gap between climate change and heritage conservation and safeguarding.

While working with the indigenous communities, we find how closely nature is connected to their way of life. I am from the eastern India. I have been working with the forest communities in Jangal Mahal or the land of the forests in eastern plateaus and in the Sundarbans. Kurmi, Orao, Munda, Santhal are some of the Adivasis or indigenous communities living in these forests and they have a very sustainable relationship with their living environment. They express their reverence and gratitude to nature in their songs.

*“Johar Johar Marangburu
Duniyak Tahara Guru
Sirjon Duniya Tahar
Liha Hiya Khulesa Nehar”*

*“Marangburu, the Big Hill,
You are the ancient teacher of this forest.
You are the creator of this world.
We give you all our love and affection from the bottom of our heart.
We indigenous people of this land,
All of us seek your blessing.
We worship you with flowers and garlands.”*

In this song they are praying to Marangburu or the Big hill who they believe is the Supreme Teacher.

We know about the climate change impacts like rising temperatures and sea-level, acidification of the oceans, extreme precipitation, flooding, coastal erosion, drought, desertification, wildfires and their effects on biodiversity and eco systems. Climate change is also disrupting the ICH eco-system. It is affecting our food production, food safety, and supply chain and resulting in water scarcity. Environmental degradation is leading to the loss of traditional livelihoods. Agriculture and pisciculture are affected by the loss of biodiversity and the changing weather conditions. Plant and animal species are shifting with change in climate. For some practices, climate change is posing the challenge of loss of materials. All across the world people make basketry and mats with natural fibre. From the Maoris in the islands of New Zealand to the Dumbara mat makers of Sri Lanka, we hear of challenges in access to raw material.

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A. Bhattacharya

“Living Heritage and Climate Change: Interconnections & Possibilities”

The lower hills of the Himalayas were known for the orange orchards. Rising temperature is shifting orange cultivation to higher altitude. Communities are facing new challenges with biome changes like increased locust invasion. Our greatest challenge is the limited human ability to anticipate the ecological and sociological effects of ongoing environmental changes. The COVID-19 pandemic has given us a feel of the challenges we face with limited human knowledge to cope with Anthropocene impact on environment. With displacement and forced migration, customs and cultural practices, languages and traditional skills are at a risk of disappearing. In a globalised world we are in the ages of Supra-diversity, where culture travels across continents as people migrate for education, and employment opportunities.

Small island communities have already started facing the loss of cultural continuity where islanders disperse and traditional social systems are disrupted. Coastal communities are already threatened. Boatmen in the Sundarbans used to sing Bhatiyali songs on nature and rivers. Today there are only a handful of Bhatiyali singers. There is loss of traditional knowledge on predicting the weather conditions or species movement or practices like vernacular architecture mitigating risks of disasters. Thus we see that climate change, be it the slow onset processes or the sudden calamities, threatening the sustainability of ICH. Natural spaces and cultural sites, necessary for expressing ICH are being lost or destroyed. Traditional festivals and cultural exchanges are no longer happening. Loss of ICH practices and cultural spaces where people met and interacted, are disrupting the social anchors which make communities cohesive and resilient. There is increased threat of conflict and breakdown of community-institutions. These intangible dimensions of impacts of climate change, the gender dimensions, the non-economic losses pertaining to the loss of cultural heritage, and the rights pertinent to local communities need to be assessed and documented by heritage professionals.

Integrating traditional knowledge in nature conservation is the key to averting, reducing and addressing economic as well as the non-economic losses resulting from climate change. The knowledge of local communities is vital for developing effective nature based solution to protect, manage, and restore natural and modified ecosystems. The Conference of Parties (COP 26) has recognised the need to strengthen knowledge, technologies, practices and efforts of local communities and indigenous peoples related to addressing and responding to climate change. Environmentalists are using nature-based solutions to protect, sustainably manage and restore natural and modified ecosystems. Indigenous and local communities must be included in community based social ecological monitoring and climate change hazard impact assessment to leverage their traditional knowledge.

The Sundarbans is the worlds' largest mangrove delta and a region extremely affected by climate change. Mangroves provide a natural defence against storm surges, coastal erosion, and coastal flooding. There are failure stories of mangroves being planted and not surviving. During the re-introduction and re-establishment of assemblages of native mangrove species to sites to develop the mangrove ecosystems, community was not consulted and inappropriate species were planted. As a result, the efforts to rebuild the mangrove eco-systems failed. Climate change impact assessment tools are now mandated to consult the communities to develop understanding on local biodiversity and technology traditionally used. Communities living in the Sundarbans know how to trace honeycombs in dense forests from the drone of the bees. They know which are the breeding seasons when fishing is avoidable and do not fish in the breeding areas of the river. They understand from

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the tidal flow the direction of cyclone. Harnessing such local knowledge systems, traditional early warning systems and working with communities to make micro plans for climate action will support improving conservation. Climate research and policy platforms need to integrate cultural heritage - traditional knowledge systems, bio-cultural practices, food adaptations, tools and governance mechanisms on biodiversity, managing landscapes and seascapes. The operational directives of UNESCO 2003 [Convention on Safeguarding of Intangible Cultural Heritage](#) highlights the need for scientific studies and research with communities and ensuring the viability of diverse traditional knowledge and practices related to nature, in order to respond to climate change challenges at the local, national, and international levels. The Kalbelias are the nomadic communities of the Thar deserts. Their songs and dances are inscribed in the UNESCO Representative list of intangible cultural heritage of humanity. They have rich knowledge of traditional medicines and desert biodiversity. Frameworks for ethical engagement of indigenous knowledge holders and ethical use of local and indigenous knowledge within the context of climate change policy and action should be established. Traditional knowledge of local community in managing natural resources and community-based decision-making models should be integrated in planning mitigation strategies and innovating models for resilience and adaptation. ICH is indeed an asset for sustainable development. New innovations can effectively use the rich wealth of traditional knowledge and practices as tools for climate action. Stilt houses, can be adapted for flood prone, rural areas to cope with the hazard. Traditional knowledge of local community in managing natural resources and community-based decision-making models should be integrated in planning mitigation strategies and innovating models for resilience and adaptation.

ICH is a powerful tool for mobilising change. In COP 26, art and culture was used in varied ways for influencing change of attitudes and strengthening advocacy for action. Globally we all need to adopt a different way of living and working for adaptation and mitigation. This communication needs to reach everyone. The aspirations for a good life should pivot on sustainability. Minimalism, slow food, slow fashion, lowering energy use, minimising footprint - how can these become the Mantra of our collective life? Cultural narratives have great power to enhance understanding within diverse audiences about climate change and the urgency of climate action. ICH is the wellspring of creativity embedded amongst us. Every community has tradition of social communiques - through art and songs, storytelling and satirical drama. Worldwide let us work with the communities to integrate local cultural belief system and leverage heritage values, into risk communication and mitigation measures. In the Sundarbans, communities worship the Bonbibi, meaning the lady of the forest, as the protector of the people and the forest inhabitants. The story of popular folk drama, Bonbibir Pala, centres around a little boy who is protected by Bonbibi from tiger attack. The play shares on the importance of protecting the natural resources. Since generations, communities in these islands pray to Bonbibi before entering the forest. The story has sensitised them into managing the common resources without conflict. The drama troupes nowadays have created productions on contemporary issues ranging from man animal conflict, impact of climate change, to stopping animal and human trafficking. Investment is needed, for capacity building of tradition bearers to work with the communities, to enhance understanding about climate change, and need for action. The dialogue for adapting to climate change needs to overcome the barriers of a few languages in which documents are published. Use of ICH will create the much needed buzz.

ICH can play an enormous role in strengthening climate science education and improving climate literacy. How can we give young people opportunities to learn about values and

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knowledge embedded and transmitted through in ICH practices? Educational and cultural institutions, museums can play a key role in inspiring young people to work for development of heritage information for effective policies as a field of practice. By learning about values and knowledge embedded in ICH, creativity of young people may be unleashed for imagining possible futures.

The potential of using ICH for developing alternative livelihoods, generating income, promoting entrepreneurship and strengthening local organisations is not adequately tapped. Nature based solutions for eco system conservation and restoration are promoting agro-biodiversity and agro-ecological productions. Integrating traditional knowledge and skills is leading to development of green and resilient livelihoods. Sola or pith is a reed which grows in the riverine areas of Gangetic Bengal in eastern India. The pith helmet used to be popular in Europe in the early 20th century. The communities traditionally made ritualistic products and festive decorations. Capacity building in developing contemporary products supported the women collectives with income opportunities when two successive super cyclones and the pandemic had created a difficult situation disrupting agriculture and livelihood. Community led cultural tourism based on ICH and eco-museums support green tourism, builds resilience, and engages young people in safeguarding and conservation. Responsible and sustainable cultural tourism based on ICH builds on local resources, empowers the communities and has low footprint. Community museums or eco-museums sharing about ICH and cultural landscape can become powerful conduits of awareness and advocacy for adapting and mitigating climate change impacts.

The Culture-Nature Journey (CNJ) is an informal space for collaboration between ICOMOS, IUCN and a range of partner organisations including ICCROM, the UNESCO World Heritage Centre, and the Secretariat of the Convention on Biological Diversity and others. Experts, researchers, practitioners and policy makers are working to create new knowledge and methods to address problems arising from the embedded separation of nature and culture in conservation processes. In 2016 IUCN World Conservation Congress, Culture-Nature Journey participants shared on the interconnected nature of natural and cultural heritage and committed to 'Mālama Honua – to care for our island Earth'. In 2017, the ICOMOS General Assembly at Delhi drew up the statement of commitment 'Yatra aur Tammanah'. The doctrine on Yatra and Tamanna speaks about Kuleana - our role as custodians, responsible caring and stewardship of our land and seas, our responsibilities and our rights. As heritage professionals let us use available platforms to discuss, document and promote the role of intangible cultural heritage in improving conservation outcomes, and work towards sustainability objectives.

I learned in a conference about the Island Ark Project where digital technologies are being used to safeguard ICH of the islands of Asia Pacific and bridge the gap between the migrants and their home communities. We need to ensure funding and technology support for enabling access to traditional knowledge while respecting customary practices governing access to specific aspects. Participatory ethno-ecological research, training and exchanging experiences, access to financing mechanisms for documenting ICH at risk, ethical engagement and use of ICH are some of the key areas of action. Appropriate legal, technical, administrative and financial measures are needed to identify, enhance and promote effective systems and practices, conserve and protect natural spaces whose existence is necessary for expressing the intangible cultural heritage. We have a long road ahead and let us work together.

Living Heritage in a Changing Climate: Challenges, Solutions and Opportunities

Dr William P. Megarry

Introduction

This paper will discuss the important topics of climate change and living heritage. This is a very relevant and timely subject. When delivered in October 2021, the leaders of nearly 200 countries were meeting in Glasgow for the 26th conference of parties (COP) where they will attempt to find consensus on meaningful climate action. Since then, the 27th COP has met and concluded in Egypt. It can be hard not to be somewhat skeptical about what are achieved at these events as discussions are increasingly focused on what richer countries must sacrifice. But like many others who heard world leaders from the global south and small island developing states (SIDS), it was hard not to be moved by their lived experience of climate change and its impacts on daily life in many parts of the world. Many of these responses did not refer to economic impacts or nationally defined contributions. Rather, they focused on the loss of identity and culture as people's homes are inundated by rising waters. Places which anchor them to this planet, ironically being set afloat.

And so, culture is at the heart of this topic and living culture and this paper will explore some of the ways it intersects with the climate crisis. The symposium is exploring how climate change will affect understanding, assessing and managing places directly or tangibly associated with events, or living traditions with ideas or beliefs and artistic and literary works? This relates to the operational guidelines of the World Heritage Convention which describes these as being directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.

Climate Change and Heritage: An Overview

Before diving deeper into specifics, it is worth reviewing existing references to heritage (and living heritage in particular) in current drivers in both climate and heritage policy. There is much talk this week about implementing the [Paris Agreement](#), but it may come as some surprise that this Agreement does include a reference to what we may call 'living heritage' in Article 7.5. This stresses the need for adaptation "*guided by the best available science and, as appropriate, traditional knowledge, the knowledge of indigenous peoples and local knowledge systems*". Many readers will rightly challenge this division between knowledge systems, yet it is an important inclusion which has been reflected in every ICOMOS declaration since including, most recently, the 2020 Climate and Ecological Emergency declaration. This stresses the value and centrality of heritage – both tangible and intangible - in climate action. It also noted the importance of solidarity, meaningful engagement, equity and climate justice when working with indigenous communities, vulnerable and frontline groups.

Within the heritage sector and ICOMOS, the Climate Change and Cultural Heritage Working Group (later named as Climate Action Working Group) was established in 2016 to directly input into heritage policy on climate change; specifically, to provide inputs into the update of the Policy Document on the Impacts of Climate Change on World Heritage Sites. This process remains ongoing. Perhaps the most important driver for us within the ICOMOS community was the [Future of Our Pasts](#) report. Released in 2018, this is the widest ranging study of cultural heritage and climate change in existence. It has over 30 authors and was peer-reviewed by over 100 experts and organisations. It began from the premise that

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culture is uniquely suited to communicate about climate change, and that it is an underused asset in our global response to it.

Climate Change and Living Heritage

The *Future of Our Pasts* report explored the intersections between cultural heritage and climate change and – unsurprisingly – living heritage is a common topic throughout. The report is built around four key, and a range of cross-cutting, themes. Key themes are shown on the slide and include two very large areas: adaptation, which is described by the IPCC as “*The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects*”, and mitigation which, in climate science refers solely to human interventions to reduce the sources or enhance the sinks of greenhouse gases.



Figure 1. Traditional architecture on the Island of Majuli in Assam, India © W. Megarry, 2017

Examples of both from living and intangible heritage are many including the importance of traditional knowledge systems for biodiversity management or building techniques which result in structures which stay warm and cool, mitigating carbon. Adaptation strategies include examples of historical water management in The Netherlands and architectural adaptations from places like Majuli, a river island in Northeast India which lives with regular flooding during the monsoon season (Figure 1). These topics deserve papers in-their-own-right, so the focus here is on the remaining two themes: impacts and vulnerability, and stressing urgency or climate communication. This will be done through the lens of two recent projects by members of the ICOMOS Working Group. These are the Values-Based Climate Change Risk Assessment: Piloting the Climate Vulnerability Index for Cultural Heritage in Africa (CVI Africa) Project and The Heritage on the Edge Project.

Climate Change, Living Heritage, and Assessing Vulnerability

Much ink has been spilled on the topic of vulnerability of heritage sites, and rightly so, but these have tended to focus on hazards and impacts to extant build and monumental

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heritage. Examples of well publicized sites-at-risk include the iconic Moai of Rapa Nui or the city of Venice in Italy. In a minority of other cases, the focus is on archaeology, both extant and subsurface and impacts to this are particularly acute in coastal areas. But things get some complex when it comes to impacts on ‘living’ heritage. One example of this are cultural landscapes and, continual or associative cultural landscapes in particular. These are described in Article 10 of the *Operational Guidelines for the Implementation of the World Heritage Convention* as, “*landscapes on the World Heritage List... justifiable by virtue of the powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence, which may be insignificant or even absent*”. In these cases, a lack of impacts to anthropogenic physical elements can make understanding vulnerability more challenging. Landscapes are dynamic systems where culture and nature interact. This is a complex dynamic. As the American geographer Carl Sauer noted, culture is often seen as the agent which transformed the natural landscape into the cultural one. But this dynamic is far more nuanced and reciprocal, and climate change illustrates this complexity. It also makes assessing the impacts to and the vulnerability of these places much harder.



Figure 2. Bangaan Village in the Rice Terraces of the Philippine Cordilleras World Heritage property
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A particularly complex dynamic is found where landscape, community and production are entwined. Examples include World Heritage (WH) properties like the Coffee Cultural Landscape of Colombia, the Rice Terraces of the Philippine Cordilleras (Figure 2) and the Champagne Hillsides, Houses and Cellars of France. These are all landscapes where production aligns with living traditions, and they are some of the most vulnerable to changing climates. Having evolved within specific climates, changes can be acutely felt. The 2019 State of Conservation report for the Champaign Hillsides noted potential impacts on both the quality and quantity of the wine, but also on long established cultivation practices. To make a difficult situation worse, adaptation is particularly difficult in these

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cases where changing climates can render entire crops and traditions associated with harvesting and production irrelevant. These intangible traditions are often what are lost when communities are impacted by climate change. While climate hazards like temperature change, coastal erosion, increased precipitation, and flooding may erode the mortar and build fabric of extant heritage, they also threaten the traditions and customs which act as a social mortar for communities. These impacts are noted in the 2019 *Future of Our Pasts* report which was published by the Working Group. This contains a table which records impacts on various aspects of our cultural heritage from different hazards. In all hazard cases, the combined number of impacts on communities and intangible cultural heritage outnumber other heritage categories like archaeology, buildings, and structures, and this is before secondary impacts like climate migration or economic factors are considered. To be clear: there is no protective wall tall enough to reduce this impact and these landscapes risk losing both their outstanding universal value and their wider social, community and economic values through no fault of their own and with little ability to respond.

Case Study: The CVI Africa Project

So, how can we understand the vulnerability of ‘living heritage’? Reflecting the *Burra Charter*, it must start with the values which make these places and traditions significant. Over the last five year, the ICOMOS working group has been working with partners from Australia, Scotland and, more recently Tanzania and Nigeria to explore the utility of a tool

called the climate vulnerability index (CVI), specifically to cultural heritage World Heritage properties. The CVI is a values-drive, science-based and community led technique, ideally suited to assessing impacts and the vulnerability of different types of heritage sites. It was designed as a *rapid* tool which provides an overall assessment or low, moderate, or high, of the vulnerability of World Heritage Sites by initially identifying the unique heritage and socioeconomic values of an individual site, working with the community to identify key values. This often starts with the statement of outstanding universal values (SOUV) but also include socio-economic or spiritual values were not included in the SOUV. It then works with in-country climate scientists to identify potential impacts to these values, balancing these with the adaptive capacities of both the sites and their associated communities to provide an assessment of the vulnerability of the property. Prior to the project, the CVI process has only been applied to sites in Western Europe and Australia, and the CVI Africa project was its first application to properties in Africa.

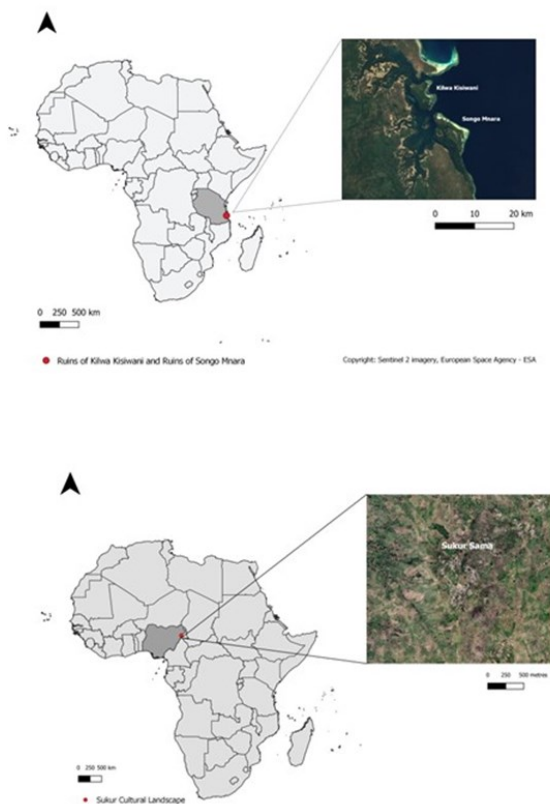


Figure 3. The CVI Africa Project sites: The Ruins of Kilwa Kisiwani and Ruins of Songo Mnara in Tanzania (top), and the Sukur Cultural Landscape (below) © own elaboration

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The project had two parts. Firstly, it provided training a cohort of heritage professionals from across the continent in climate change, cultural heritage and vulnerability. Secondly, working with local stakeholders it ran two workshops at the Ruins of Kilwa Kisiwani and the Ruins of Songo Mnara WH property in Tanzania and at the Sukur cultural landscape in Nigeria (Figure 3). In the latter case, it was the first time that the CVI had been applied to a cultural landscape, especially one with strong intangible cultural elements. At Kilwa Kisiwani, a historic Swahili coastal town, the OUV focus was very much on the built heritage and archaeological deposits, so other significant property values were identified through consultation with the local community. These included living elements including traditions of pilgrimage and ongoing religious activity at some monuments, which were included in the vulnerability assessment. The Statement of outstanding universal value for the Sukur cultural landscape includes reference to past structures, landscape, and contemporary traditions so it is a very good place to start when considering values. Many of these values were intricately associated with the community who continued to live within the site and their presence at the in-person workshop in Yola, Northern Nigeria allowed the CVI process to consider all aspects of cultural and natural significance at the site.

Results from this project indicated that both sites had a moderate to low vulnerability to climate change. This was based primarily on impacts to their OUV and incorporating impacts to community values and living heritage was greatly facilitated when these are including in the SOUV. Climate impacts were also considered alongside the adaptive capacity of the communities to respond to them. This is key when thinking about intangible culture and living traditions who are often highly adaptable to change.

Case Study: Heritage on the Edge

The second them and project explored here is the Future of Our Past project which was a collaboration between Cy Ark and Google Arts and Culture between 2018 and 2020. The project aimed to stress urgency and raise awareness about the impacts of climate through the lens of iconic cultural heritage sites, promoting culture as an asset in climate action. This was based on the premise that – for many - the topic of climate change can be overwhelming, and people can very quickly get lost in a forest of scientific terms and doomsday predictions. Heritage is about people and things which are important to people. As such, it humanises the conversation and makes it people centred. It is a lens through which we can understand these wider issues in an accessible and human-centred way. The Heritage on the Edge Project was about using technology, interviews, and narratives to tell stories from iconic heritage sites from around the world, which reflect the wide range of climate impacts and the lived experience of those who live and work in them. The phrase ‘every place has a climate story’ is often used when discussing climate and heritage but it is the Historic Mosque City of Bagerhat in Bangladesh.

The site is a wonderful example of past (and present) climate adaptation. It was built by the Turkish general Ulugh Khan Jahan in the 15th century on the edge of the Sundarbans, a vast riverine Delta in the Bay of Bengal. This was a challenging landscape and from the outset, its designer used materials sympathetic to the landscape and the environment including stone foundations which prevented saline intrusion into the mudbrick architecture. It was inscribed on the World Heritage list in 1985 and continues to be a living site and landscape, central to local and Bangladeshi national identity. As such, the history of the site remains deeply engrained in its present allowing us to explore the intersection between heritage and local values. In this sense, it remains a living heritage site. The issue impacting

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Figure 4. Efflorescence at the Historic Mosque City of Bagerhat. 1) The Sixty Dome Mosque, 2) Infographic showing rising saltwater permeation into brick masonry, 3) Infographic showing water evaporation from structure and, 4) salt on brick masonry © Images from Google Arts and Culture, 2021

Bagerhat is less direct than other climate impacts - rising sea-levels across Bangladesh are resulting in increasing salinity of fresh water. This is having significant health impacts on people. It is also damaging sites like Bagerhat through a process called *efflorescence*, which is a combination of saturation, evaporation, and aridity (Figure 4).

The narrative or story of Bagerhat involved combinations of both past and present elements, and an understanding of the difference values of the site both archaeologically, historically, and socially. The physical site itself is a testimony to past environmental historical adaptation and resilience being situated on the edge of a marginal environment. As a living world heritage site, the climate impacts on the property affect both the physical structures and the surrounding community and these impacts also enable us to explore issues of climate justice which are so important to the climate change narrative. After some of the small island states, Bangladesh represents perhaps the most unfair manifestation of the climate emergency. While they rank only 144th in the world in terms of carbon and greenhouse gas emissions, they are amongst the most vulnerable of countries. The actions of the wealthiest nations - who are best able to adapt to the consequences of climate change – are most acutely felt by countries which are least able to. The Heritage on the Edge attempted to communicate this message through the world heritage site. Through this site, it was possible to communicate these key messages about climate change and its impacts. This was part of the climate story of Bagerhat, but most sites have similar stories to tell.

Climate Change and Living Heritage: Some Challenges

Before concluding this paper, it is worth exploring some of the challenges facing Living Heritage not from climate change, but from climate action. One of the more complex

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intersections between heritage and climate action is where conflict exists between carbon adaptation or mitigation and heritage. For past heritage, this may be impacts on landscapes from renewable energy schemes like wind or solar farms, but there are also more direct conflicts where living traditions directly contribute to climate change. Examples of this may be the rich industrial heritage – both past and living – which survive in often marginal mining communities in places like the north of England or West Virginia. Living heritages of music and labour which tie communities together are intricately connected to an activity which directly contributes to climate change. An example from Ireland is the conflict visible in the ancient tradition of turf cutting on our bog lands. Bog lands form over thousands of years and are some of the most important carbon sinks in Europe. They are also key to biodiversity and contain an irreplaceable record of landscape and climate history. Yet burning peat is one of the most evocative smells for Irish people and many associate it with memories of turning, stacking and transporting peat from upland landscapes in childhood. How do we balance our need to reduce carbon yet not lose these traditions? Like with build heritage, must we triage some aspects of our living heritage and accept that we cannot save everything? There is no easy answer to this conflict except to propose that decisions are made within wider carbon mitigation strategies which consider community impacts and the potential scale of activities.

Conclusion

In conclusion, the relationship between living heritage and climate change can be both very simple and quite complex. Heritage is both an asset to our response and can be used to stress urgency and communicate the myriad impacts of climate change on sites, peoples and their landscapes. It is also increasingly vulnerable and understanding this vulnerability is key to protecting it. Such assessments need to be values-based, incorporating wider social, spiritual, and economic values, science-driven and community led. Heritage is alive and living things can and do adapt and evolve, sometimes in strange ways. This global health pandemic has shown us that huge changes are possible in a short amount of time, where political will and desire is present. It will take a complete change in mind-set or a cultural-shift, and we must make sure that culture and heritage is at its heart.

PAPER PRESENTATIONS

Sustainability and Methodology

Koorosh Attarian, Linda Shetabi, Behnaz Safar Ali Najar
“Impact of Climate Change on Sustainable Underground Living Heritage”

Athanasios Votsis, Irina Pavlova, Milla Mikkola, Fabrice Renaud
“The Role of Natural and Mixed Cultural-Natural Heritage in Increasing the Resilience of Socio-Ecological Systems to Climate Change Impacts”

Ivana KaturiĆ, Mario Gregar, Katarina Lukić
“Approach to the Preparedness and Risk Management for the UNESCO World Heritage Property ‘Old City of Dubrovnik’”

Yvon Velot
“Partenariat Université-Entreprise pour la Protection du Patrimoine Vivant”

Communities and Miscellaneous Case Studies

Bély Hermann Abdoul-Karim Niangao
“Les Pratiques Culturelles dans les Paysages Ruraux Comme Exemples de Conservation des Écosystèmes au Burkina Faso”

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“English Parish Churches and Sustainability”

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“Figuig, ou de l’Immatériel dans le Patrimoine Matériel”

Interconnections, Methodologies and Case Studies

Fernando Roberto Chiapa Sánchez
“El Paisaje de Chinampas de la Ciudad de México ante el Cambio Climático”

Carmen Daly Schelbert, Cecilia Calderón Puente
“Cultural Routes as an Instrument of Resilience”

Silvia Arroyo Duarte
“El Urbanismo y la Arquitectura Tradicional de la Región de Azuero en Panamá: Un Ejemplo de Sostenibilidad y Patrimonio Vivo”

Maria Elena Sanchez Roldan
“Propuesta Metodológica para la Preservación del Patrimonio Vivo; Caso: Distrito Minero Pachuca y Real del Monte, Hidalgo México”

Impact of Climate Change on Sustainable Underground Living Heritage

Koorosh Attarian, Linda Shetabi*, Behnaz Safar Ali Najar

Climate change and contemporary lifestyle choices are important factors in the deterioration of the built heritage. The design and setting of certain historic buildings and vernacular architecture in Dezfūl, Iran, can offer climate change mitigation and adaptation strategies for water use and indoor climate regulation. Climate change has had two major impacts on the underground living heritage of Dezfūl, a) reduction in precipitation and b) increase in temperature. This has resulted in decreased humidity and lower water levels in canals conducting water to the city and agricultural land, as well as disrupting historic water flows, making historic access to cold water difficult for families. Several solutions have been implemented to protect this unique living heritage, including social activities aimed at conserving historic public water supply systems and the conservation and rehabilitation of prestigious historic houses and underground living spaces, led by cultural heritage organisations, homeowners, and private funders.

Keywords: climate change, underground historic city, living heritage, sustainability, SDG6

Impact du Changement Climatique sur le Patrimoine Vivant Souterrain Durable

Le changement climatique et les choix de mode de vie contemporains sont des facteurs importants de la détérioration du patrimoine bâti. La conception et le cadre de certains bâtiments historiques et de l'architecture vernaculaire à Dezfūl, en Iran, peuvent offrir une atténuation du changement climatique et les stratégies d'adaptation pour l'utilisation de l'eau et la régulation du climat intérieur. Le changement climatique a eu deux impacts majeurs sur le patrimoine vivant souterrain de Dezfūl, a) réduction des précipitations et b) augmentation de la température. Cela a entraîné une diminution de l'humidité et une baisse des niveaux d'eau dans les canaux conduisant l'eau vers la ville et les terres agricoles, ainsi qu'une perturbation des débits d'eau historiques, rendant difficile l'accès historique à l'eau froide pour les familles. Pour protéger ce patrimoine vivant unique, plusieurs solutions ont été mises en œuvre, y compris les activités sociales visant à conserver les systèmes publics historiques d'approvisionnement en eau, et la conservation et la réhabilitation de demeures historiques prestigieuses et d'espaces de vie souterrains, dirigée par des organismes du patrimoine culturel, des propriétaires et des bailleurs de fonds privés.

Mots-clés: changement climatique, ville historique souterraine, patrimoine vivant, durabilité, ODD6

El Impacto del Cambio Climático en el Patrimonio Vivo Subterráneo Sostenible

El cambio climático y las opciones de estilo de vida contemporáneo son factores importantes en el deterioro del patrimonio construido. El diseño y el entorno de ciertos edificios históricos y arquitectura vernácula en Dezfūl, Irán, pueden ofrecer estrategias de mitigación y adaptación al cambio climático para el uso del agua y la regulación del clima interior. El cambio climático ha tenido dos impactos importantes en el patrimonio vivo subterráneo de Dezfūl, a) reducción de la precipitación y b) aumento de la temperatura. Esto ha provocado una disminución de la humedad y niveles más bajos de agua en los canales que conducen el agua a la ciudad y a las tierras agrícolas además de interrumpir los flujos de agua históricos, lo que dificulta el acceso histórico al agua fría para las familias. Para proteger este patrimonio vivo único se han implementado varias soluciones, incluidas las actividades sociales destinadas a conservar los sistemas públicos de suministro de agua históricos, y la conservación y rehabilitación de prestigiosas casas históricas y espacios habitables subterráneos, liderado por organizaciones de patrimonio cultural, propietarios de viviendas y financiadores privados.

Palabras clave: cambio climático, ciudades históricas subterránea, patrimonio vivo, sostenibilidad, SDG6

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The Role of Natural and Mixed Cultural-Natural Heritage in Increasing the Resilience of Socio-Ecological Systems to Climate Change Impacts

Athanasios Votsis*, Irina Pavlova, Milla Mikkola, Fabrice Renaud

Agendas to reduce the risks associated with climate change and increase resilience to impacts have become rather inclusive in the types of social effects they consider. They also acknowledge their embeddedness in socio-ecological networks, geographies, and scales. Heritage, like many other semantically rich social and cultural notions, is both underrepresented and underspecified in climate change policy assessments. It is, therefore, important, beyond merely recognising the importance of heritage, to keep sketching out how this importance looks in practice and how it can connect to policy assessment. In this paper and accompanying talk, we overview our ongoing research work to clarify two complementary aspects: the benefits of heritage within the exposure and vulnerability structure of seven living socioecological systems and the monetary added value of UNESCO inscription in the eurozone's regional economies.

Keywords: natural heritage, nature-based solutions, resilience, fuzzy cognitive maps

Le Rôle du Patrimoine Naturel et Mixte Culturel-Naturel dans l'augmentation de la Résilience des Systèmes Socio-Écologiques aux Impacts du Changement Climatique

Les programmes visant à réduire les risques associés au changement climatique et à accroître la résilience aux impacts sont devenus plutôt inclusifs quant aux types d'effets sociaux qu'ils prennent en compte, reconnaissant également leur ancrage dans les réseaux socio-écologiques, les géographies et les échelles. Le patrimoine, comme de nombreuses autres notions sociales et culturelles sémantiquement riches, est à la fois sous-représenté et sous-spécifié dans les évaluations des politiques sur le changement climatique. Il est donc important, au-delà de la simple reconnaissance de l'importance du patrimoine, de continuer à esquisser à quoi ressemble cette importance dans la pratique et comment elle peut être liée à l'évaluation des politiques. Dans cet article et l'exposé qui l'accompagne, nous passons en revue nos travaux de recherche en cours pour clarifier deux aspects complémentaires : les avantages du patrimoine dans la structure d'exposition et de vulnérabilité de sept systèmes socio-écologiques vivants ; et la valeur ajoutée monétaire de l'inscription par l'UNESCO dans les économies régionales de la zone euro.

Mots-clés: patrimoine naturel, solutions fondées sur la nature, résilience, cartes cognitives floues

El Papel del Patrimonio Natural y Cultural-Natural Mixto en el Aumento de la Resiliencia de los Sistemas Socioecológicos a los Impactos del Cambio Climático

Las agendas para reducir los riesgos asociados con el cambio climático y aumentar la resiliencia a los impactos se han vuelto bastante inclusivas en los tipos de efectos sociales que consideran, reconociendo también su arraigo en redes, geografías y escalas socioecológicas. El patrimonio, como muchas otras nociones sociales y culturales semánticamente ricas, está subrepresentado y subespecificado en las evaluaciones de políticas de cambio climático. Por tanto, es importante, más allá del simple reconocimiento de la importancia del patrimonio, seguir esbozando cómo se ve esta importancia en la práctica y cómo se puede conectar con la evaluación de políticas. En este documento y la charla que lo acompaña, revisamos nuestro trabajo de investigación en curso para aclarar dos aspectos complementarios: los beneficios del patrimonio dentro de la estructura de exposición y vulnerabilidad de siete sistemas socioecológicos vivos; y el valor añadido monetario de la inscripción de la UNESCO en las economías regionales de la eurozona.

Palabras clave: patrimonio natural, soluciones basadas en la naturaleza, resiliencia, mapas cognitivos difusos

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Introduction

The preservation and incorporation of heritage in the planning and functioning of urban and rural regions and territories have yielded a significant range of benefits that spread over multiple sustainable development goals and subgoals. A less frequently explored aspect that merits a more systematic look is the concurrent capacity of natural and mixed cultural-natural heritages to reduce the risk of climate change impacts in their host regions.

More specifically, natural and mixed cultural-natural heritage represents a unique living heritage that adds ecosystem functions, goods, and services to the already substantial list of benefits found in non-natural heritage (Osipova *et al.*, 2014). Natural and mixed heritage can therefore be approached also as a nature-based solution that can reduce the risk of severe weather and climate change impacts while at the same time providing the more fundamental benefits of heritage. Therefore, it is a type of living heritage whose spread and degree of integration into multiple social and ecological processes of a territory render it a high-potential strategy for addressing the resilience and sustainability of the local socio-ecological system.

In this paper, we demonstrate, based on ongoing research work by the European Commission research project OPERANDUM, how the interconnections between heritage and socio-ecological systems can be represented and explored in the context of reducing hydro-meteorological risks in rural and urban communities (OPERANDUM, no date). Our focus is on seven experimental open-air laboratories across Europe - located in Austria, Finland, Germany, Greece, Ireland, Italy, and Scotland - and we demonstrate, by means of fuzzy cognitive maps and scenarios (Kosko, 1986), how natural and mixed natural-cultural heritage can be part of a broader strategy to increase community resilience to climate change impacts while concurrently offering a sustainable approach to reducing the associated risks. Lastly, we touch upon an analysis of the regional economic effects of UNESCO-inscribed heritage in European regions as a means to demonstrate that the benefits of heritage move beyond local communities and have measurable impacts at the regional level (Throsby, 2019).

The Question of Value in Heritage

Literature on the importance of heritage for individuals and society is diverse, encompassing, among others, knowledge from history, cultural studies, anthropology, economics, political science, and sociology (Osipova *et al.*, 2014; Throsby, 2019). More recently, literature has also been raising the fact that, in addition to social and economic importance, natural or mixed natural-cultural heritage represents ecosystems too, therefore providing the multitude of functions, goods, and services documented in ecosystem service assessments in the past (De Groot, Wilson and Boumans, 2002; UK National Ecosystem Assessment, 2011). Two main approaches to the benefits of heritage can be recognised: a social complexity perspective and an economic utility perspective. The two have significant overlaps as to what is important, but their distinguishing difference is their definition of the value of heritage. Not only is the difference theoretical, but the difference has ramifications for how each approach can best inform policy-making and climate action.

The social complexity approach is rooted in the humanities and perceives the value of heritage as intrinsic and non-derivative: heritage is an intrinsic value and constitutive attribute of human communities, and, although in many cases this generates contingent

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monetary benefits, the value of heritage is not derived from these monetary benefits. The economic utility approach is rooted in empirical positivism, perceiving the value of heritage as extrinsic and derivative: heritage is instrumentally valuable because it is useful to people, generating clearly defined monetary benefits that are unwise to forgo for alternative investments. In practice, neither approach stays true to its premises, latently merging heritage's intrinsic and extrinsic qualities.

Table 1. Differences between social complexity and economic utility approaches to the value of heritage

Approach	Premise	Value for socioecological systems
Social complexity	Intrinsic, non-derivative value	Heritage is valuable per se as a constituent of geographically embedded socioecological networks, with pervasive connectivity to other key components.
Economic utility	Extrinsic, derivative value	Heritage is instrumentally valuable, representing a total economic value too great to forgo for alternative investments or socioecological configurations.

Representing the Role of Heritage in Socio-Ecological Systems

From a climate change perspective, the Intergovernmental Panel on Climate Change (IPCC, 2012) has highlighted that the specific entanglements of vulnerability and exposure with socioeconomic pathways, governance, and concrete adaptation and mitigation actions are crucial in reducing climate change risks for humans and the environment in the context of hydro-meteorological hazards. Concurrently, research in the geographies of sustainability transitions has highlighted that the diversity of transitions is due to the diverse geographical contexts in which these transitions occur (Coenen, Benneworth and Truffer, 2012). Sustainability transitions are contextualised, firstly, in relational spaces that are socially constructed and of pronounced materiality (Coenen, Benneworth and Truffer, 2012; Hansen and Coenen, 2015) and, secondly, across multiple scales (Raven, Schot and Berkhout, 2012).

Both approaches (social complexity and economic utility) towards the value of heritage can provide practical guidance for delineating the functional roles of living heritage in a geographically contextualised socio-ecological system. However, they will highlight different aspects of the transition towards more sustainable and resilient configurations.

The social complexity approach discusses the role of living heritage in the well-functioning of a community. Consequently, such an approach to heritage centres on such notions as identity, social capital, community resilience, and place-making to highlight the pervasive presence of heritage in the makeup of well-functioning and resilient communities (Osipova *et al.*, 2014). As noted, a distinctive feature of this approach is an emphasis on communities as geographies of socially constructed materiality, in which heritage has multiple and overlapping endpoints. This conceptual paradigm is primarily qualitative to avoid reducing the semantic richness of heritage into a few quantitative variables. As a result, we test the grounds for utilising this complexity analytically. The method of fuzzy cognitive mapping is particularly suitable to highlight the semantic richness of heritage, as it can maintain the representation of the multidimensional role of living heritage in socio-ecological networks by also adding a participatory component with what-if scenario explorations.

A fuzzy cognitive map (FCM) is an artificial intelligence method—a type of neural network—that represents and explores (a) the mental and physical components of a system as

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perceived by groups or individuals, (b) the structure and strength of connectedness between the components, and (c) how the interactions between the components or changes in them will result in new states of the system. The fuzzy component enters by two ways into this approach. First, as a soft computing technique, by compelling the computer to operate with linguistic constructs about a socio-ecological system as opposed to the other way around (as is the case in statistical analysis, for instance). Secondly, through an imprecise approach to the strength of interactions between the system’s components by corresponding linguistic expressions of strength (e.g., “rather strong positive influence”) to a numerical interval (e.g., 0.7). Kosko (1986) provides a more comprehensive technical presentation of the method, whereas Ozesmi and Ozesmi (2004) demonstrate its application to a real community's collaborative understanding of its socio-ecological system.

A combination of community and expert knowledge led to the development of impact chains for each of the seven open-air laboratories (OALs) (Shah *et al.*, 2019). These impact chains are mental maps of the multiple interdependencies between significant components of the socio-ecological system in each OAL, focusing on hydro-meteorological hazards and arranged mainly according to the IPCC’s risk framework in hazard, exposure, and vulnerability clusters. We subsequently approached these impact chains as the first stage in developing fuzzy cognitive maps by first converting the impact chains into contingency matrices (see Figure 1 top), producing one version of fuzzy cognitive maps (see Figure 1 bottom). We subsequently utilised our groundwork on heritage values and inserted the heritage effects relevant to each OAL, producing a second version of contingency matrices and subsequent fuzzy cognitive maps. The fuzzy cognitive maps can therefore be used to explore the influence that decisions about components of the socio-ecological system have on its resilience to hydro-meteorological hazards and to understand both the role of and the impacts on the heritage of such decisions. Standard explorations include setting a desired level of quality or quantity for one or more community attributes and exploring the trade-offs between alternative decisions in a collaborative setting. However, since two sets of fuzzy

IRELAND	Social interaction	Significance of the area	Historic legacy	Contribution to education	Political network	Identity and sense	Increased know	Increased confidence	Community resilience	Conflict resolution
VULNERABILITY										
Sustainable land use policy	0,1	0,4	0	0	0	0,1	0	0,1	0,3	0,2
Unplanned land use in floodplain	0	-0,4	0	0	0	0	0	0	-0,3	-0,3
Water retention capacity	0	0	0	0	0	0	0	0	0	0
Wetland management capacity	0	0,4	0	0	0	0,1	0	0	0	0
Quality of Tidal wetland	0	0,4	0	0	0	0	0	0	0	0
Tidal basin	0	0	0	0	0	0	0	0	0	0
Quality of urban planning	0,3	0,4	0,2	0,2	0,2	0,4	0,1	0,5	0,6	0,2
Flood proofing of properties and buildings and	0	0	0	0	0	0	0	0	0,5	0
HERITAGE POLICY										
Income/revenue	0	0,4	0	0	0	0	0	0,5	0,5	0
Commercial space	0	0	0	0	0	0	0	0	0	0
Tourism	0,6	0	0	0	0,3	0,1	0	0	0	0
Recreation	0,4	0	0	0	0,1	0,1	0	0	0	0
Entertainment	0,4	0	0	0	0,1	0	0	0	0	0
Community image	0	0	0,2	0	0	0,7	0,2	0,5	0,1	0,1
Environmental quality	0	0,4	0	0	0	0	0	0	0	0
Aesthetic quality	0	0,4	0	0	0	0,6	0	0	0	0
Valorisation of existing assets	0	0,4	0,5	0	0	0,5	0	0	0	0
Social interaction	0	0,4	0	0	0,7	0,6	0	0,5	0,5	0
Significance of the area	0	0	0,5	0	0	0,5	0	0,5	0	0

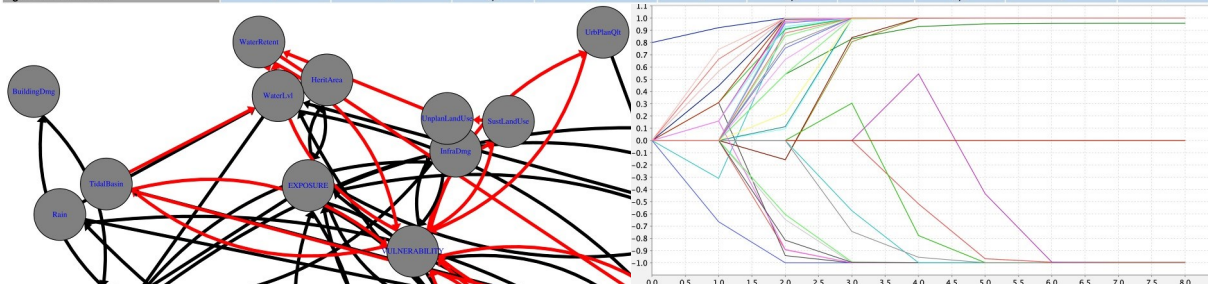


Figure 1. (Top) A contingency matrix showing a subset of the interactions between vulnerability and heritage aspects in the Dodder River floodplain in Ireland © own elaboration (Bottom) A subset of representation of the fuzzy cognitive map © own elaboration

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cognitive maps are available, with and without living heritage, the truly interesting feature of this research is not the exploration and minimization of trade-offs but a richer understanding of the structural changes in the resilience of a socio-ecological system when living heritage is actively fostered and pursued as a policy.

The Economic Dimension: The Added Monetary Value of Formal Inscription

Given that a social complexity approach can be exploited with state-of-the-art methods to substantiate the multidimensional role of heritage in socio-ecological systems, a further question arises: Does a formal acknowledgement of heritage represent any detectable monetary value added for the public sector? We explore this question by adopting an economic utility approach on the regional scale. We hypothesise that the total economic value of living heritage (Throsby, 2019) will be reflected in the long-term in the wealth of a territory, traceable in key performance indicators (KPIs) of that territory. Thus, instead of measuring the individual monetary benefits of heritage, we attempt to understand whether the formal incorporation of heritage in the economic inputs and outputs of a regional economy (as hinted by the social complexity approaches) has an aggregate long-term effect. Moreover, we approach living heritage as a composite public good and explore whether different attributes of the inscribed sites contribute differently to the added monetary value they bring to their territory. Due to readily available statistics, we focus on the eurozone’s NUTS-2 and NUTS-3 administrative levels and test whether the presence of UNESCO-inscribed sites in those territories yields added-value (measured by KPIs such as gross domestic product and per capita gross domestic product), how much, and with what contribution from individual qualities of the formal heritage site, controlling for known macroeconomic factors of regional economic performance such as unemployment, population, and degree of territorial development.

Concluding Remarks

Our demonstrations aim to contribute to the wider effort to represent and substantiate the multiple roles of living heritage in the resilience of local socio-ecological systems and communities - in particular, their capacity for adaptation, learning, and transformation - in a sustainable manner (IPCC, 2014), while at the same time clarifying the monetized incentives of integrating heritage in wider regional development policies.

Fuzzy cognitive mapping is well suited to represent the relational nature of the value of the living heritage that social complexity views of heritage highlight. This is especially valuable when identifying policies or configurations that can transition a socio-ecological system outside its current lock-ins while still maintaining its essential identity and structure (IPCC, 2014). On the other hand, a regional economics perspective appears useful in communicating the public monetary benefits of formally recognising living heritage in a territory—in our case, through UNESCO inscription in European administrative regions. Such an approach can also be applied at more local scales, but the question of what benefits should be measured is much more contextualised per area and scale. The two approaches are complementary and produce qualitative and quantitative information usable in a wide range of governance and public policy paradigms since the non-monetary inputs of both approaches to non-monetary cost-effectiveness or multi-criteria analysis can readily supplement the inputs of the economic approach to cost-benefit analysis.

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Approach to Preparedness and Risk Management for the UNESCO World Heritage Property 'Old City of Dubrovnik'

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The City of Dubrovnik is the first city in Croatia to prepare a UNESCO World Heritage Management Plan aimed at its protected historic city core, i.e., the Old City of Dubrovnik. Besides being a World Heritage Property (WHP), Dubrovnik's historic core is also home to more than 1500 residents, making it a 'living city'. One of the important issues emphasised by the Management Plan are natural and anthropogenic risks for both cultural heritage and 'living city'. This work aims to present a means of developing a methodology and various aspects to be considered in elaborating the preparedness and risk management for the UNESCO WHP in Dubrovnik as a necessary part of implementing the *Management Plan for UNESCO WHP 'Old City of Dubrovnik'*. In the development process, a participatory approach is highlighted as an essential methodological tool for involving local communities in co-creating content and raising awareness of the importance of living heritage and the anthropogenic impacts on climate change.

Keywords: Dubrovnik, UNESCO, world heritage property, risk management, climate change

Approche de la Prparation et de la Gestion des Risques pour le bien du Patrimoine Mondial de l'UNESCO 'Vieille Ville de Dubrovnik'

La ville de Dubrovnik est la premire ville de Croatie  prparer un plan de gestion du patrimoine mondial de l'UNESCO visant son cur historique protg, c'est--dire la vieille ville de Dubrovnik. En plus d'tre un bien du patrimoine mondial (BPM), le cur historique de Dubrovnik abrite galement plus de 1500 habitants, ce qui en fait une « ville vivante ». L'une des questions importantes soulignes par le plan de gestion sont les risques naturels et anthropiques pour le patrimoine culturel et la « ville vivante ». Ce travail vise  prsenter un moyen de dvelopper une mthodologie et divers aspects  prendre en compte dans l'laboration de la prparation et de la gestion des risques pour le BPM de l'UNESCO  Dubrovnik en tant que partie ncessaire de la mise en uvre du plan de gestion du BPM de l'UNESCO « Vieille ville de Dubrovnik ». Dans le processus de dveloppement, une approche participative est mise en vidence comme outil mthodologique essentiel pour impliquer les communauts locales dans la co-cration de contenu et la sensibilisation  l'importance du patrimoine vivant et des effets anthropiques sur le changement climatique.

Mots-cls: Dubrovnik, UNESCO, patrimoine mondial, gestion des risques, changement climatique

Enfoque de la Preparacin y la gestin de Riesgos para la Propiedad del Patrimonio Mundial de la UNESCO 'Ciudad Vieja de Dubrovnik'

La ciudad de Dubrovnik es la primera ciudad de Croacia en preparar un Plan de gestin del Patrimonio Mundial de la UNESCO dirigido a su ncleo histrico protegido, es decir, la Ciudad Vieja de Dubrovnik. Adems de ser Patrimonio de la Humanidad (WHP), el centro histrico de Dubrovnik tambin alberga a ms de 1500 residentes, lo que la convierte en una "ciudad viva". Una de las cuestiones importantes que destaca el plan de gestin son los riesgos naturales y antropognicos tanto para el patrimonio cultural como para la "ciudad viva". Este trabajo tiene como objetivo presentar un medio para desarrollar una metodologa y varios aspectos a ser considerados en la elaboracin de la preparacin y la gestin de riesgos para la WHP de la UNESCO en Dubrovnik como parte necesaria de la implementacin del Plan de Gestin de la PTH de la UNESCO "Ciudad Vieja de Dubrovnik". En el proceso de desarrollo, se destaca un enfoque participativo como una herramienta metodolgica esencial para involucrar a las comunidades locales en la co-creacin de contenido y concienciar sobre la importancia del patrimonio vivo y los efectos antropognicos sobre el cambio climtico.

Palabras clave: Dubrovnik, UNESCO, patrimonio mundial, gestin de riesgos, cambio climtico

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Introduction

The historic city core of the City of Dubrovnik – the ‘*Pearl of the Adriatic*’; is a protected UNESCO World Heritage Property (WHP). Dubrovnik’s urban core is a masterpiece of human creativity and one of the most characteristic and preserved examples of mediaeval urban planning, with outstanding artistic and architectural achievements. Although facing depopulation like many other European historic city cores, the protected core of Dubrovnik is still a living urban body and the heart of the city. At the same time, its residents are fellow heirs and carriers of Dubrovnik’s living heritage (Klempić Bogadi, Vukić and Čaldarović, 2018). Its outstanding universal value (OUV) was acknowledged in 1979 with its enlistment on UNESCO’s World Heritage List as the UNESCO WHP ‘Old City of Dubrovnik’ (UNESCO WHC, 1979).⁽¹⁾ Moreover, at the beginning of 2021, the *Management Plan for UNESCO WHP ‘Old City of Dubrovnik’ (2021)* (hereinafter: *WHP Management Plan*) was adopted to protect, preserve, and sustainably manage the WHP and its buffer zone.



Figure 1. UNESCO WHP ‘Old City of Dubrovnik’ and its buffer zone © own elaboration

Moreover, at the beginning of 2021, the *Management Plan for UNESCO WHP ‘Old City of Dubrovnik’ (2021)* (hereinafter: *WHP Management Plan*) was adopted to protect, preserve, and sustainably manage the WHP and its buffer zone.

The development of the preparedness and risk management system was recognised as a prerequisite for future management of the WHP ‘Old City of Dubrovnik’. In the context of preservation and valorization of cultural heritage, the issue of natural and anthropogenic risk management is a constituent of UNESCO’s *Operational*

Guidelines for the Implementation of the World Heritage Convention (UNESCO WHC, 2019) and *Recommendation on the Historic Urban Landscape* (UNESCO, 2011). Numerous authors have integrated elements of risk management into academic literature addressing the preservation of cultural heritage. This became fundamental for the development of modern concepts of cultural heritage management. (Feilden, 1987; Stovel, 1998)

Dubrovnik Risk Issues Overview

The City of Dubrovnik, its buffer zone, and setting (surrounding) are significantly endangered by natural and anthropogenic risks, where the risks of potential earthquakes, fires, floods, and the consequences of climate change have been identified the most in the history of data collection and monitoring. Furthermore, throughout its history, Dubrovnik has suffered numerous catastrophic events. All these identified risks should be considered in planning risk preparedness in the WHP and its wider setting.

As stated earlier, the Dubrovnik area and its wider setting have a high seismic risk. Thus, its infrastructure and construction facilities ought to be continuously adjusted to earthquakes. However, the unpredictability of earthquakes makes it a painstaking task. According to the seismic data collected so far, the wider area of Dubrovnik-Neretva County has a high

1. Since then, the spatial coverage of the WHP ‘Old City of Dubrovnik’ has been slightly expanded (UNESCO WHC, 1994). Likewise, in 2018, the Republic of Croatia has submitted a proposal for minor changes in the buffer zone boundaries. This request is still pending (UNESCO WHC, 2018).

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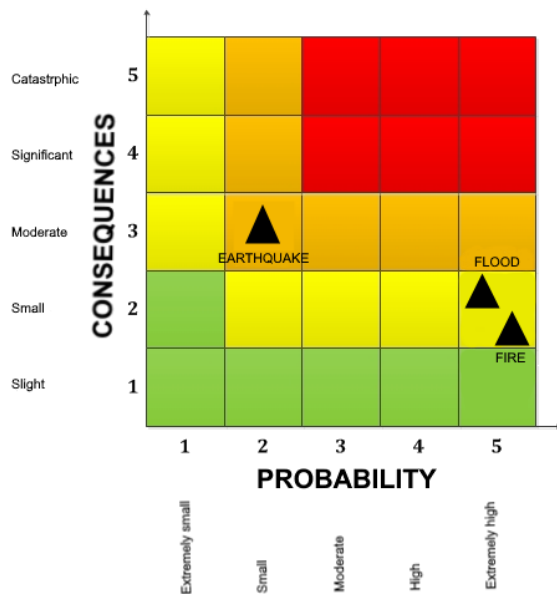


Figure 2. Risk assessment for the City of Dubrovnik
© ‘Risk assessments of major accidents for the City of Dubrovnik’, 2018

probability of earthquake occurrence that can reach high seismic intensity, i.e., VIII° to IX° according to the MSK scale (‘Seismological map of the Republic of Croatia’, 2021). The city has already experienced the strength of seismic events, most severely in the 1667, 1979, and 1996 earthquakes. Since the 1979 earthquake, the Institute for Reconstruction of Dubrovnik has been carrying out seismic rehabilitation of buildings in the historic core under UNESCO protection (‘Risk assessments of major accidents for the City of Dubrovnik’, 2018).

Apart from earthquakes, fires represent a very high natural and anthropomorphic risk. According to the ‘Risk Assessments of Major Accidents for the City of Dubrovnik’ (2018), the probability of fire is very high, and the damage can be fierce. Moreover, fire occurrences are most

closely related to human misconduct. This risk is especially linked to restaurants and catering facilities in the historic city core. However, fire hazards can also be external, occurring outside the historic city core. Said fire risks are exceptionally high during dry and extremely hot summer seasons. The duration and intensity of such climate conditions have increased in the last decade due to global climate change.

Furthermore, the specific risk of flooding in the historic core of Dubrovnik occurs due to the large amount of rainwater that the sewage and drainage systems cannot absorb in a short time. Thus, there is an overflow hazard in the lowermost parts, such as in Stradun Street and in front of the Rector’s Palace. Huge amounts of rainfall can lift the manholes and flood the ground floors and basements. In addition to this risk, there are risks of torrents and sedimentation in the wider area of the city, as well as the contamination of drinking water. The consequences of the flood risk are relatively small; however, their probability is extremely high (‘Risk assessments of major accidents for the City of Dubrovnik’, 2018).

Another threat to the UNESCO WHP ‘Old City of Dubrovnik’ and its OUV features is excessive tourism (over-tourism), especially cruising, which puts pressure on the cultural property. This is also an environmental issue. Hence, in 2015, UNESCO issued a *Report on the UNESCO-ICOMOS reactive monitoring mission to Old City of Dubrovnik, Croatia from 27 October to 1 November 2015*, demanding the reduction of the cruising tourism receiving capacity to 8,000 people per day (UNESCO WHC, 2015).

Preparedness and Risk Management in Dubrovnik

Considering that the area of the City of Dubrovnik as a whole, but especially the UNESCO World Heritage Site, has a high degree of potential threats from natural and anthropogenic risks, the *Management Plan for UNESCO WHP ‘Old City of Dubrovnik’* (2021) envisages the development of the Preparedness and Risk Management Plan. To elaborate a

comprehensive and well-structured management plan for the WHP, a participatory approach was used to involve all relevant local stakeholders and the local community in developing the strategic framework of the Plan. This enabled a holistic analysis and resulted in a quality Management Plan covering all aspects and issues of managing a WHP. Thus, such methodology should be implemented in designing and developing the Preparedness and Risk Management Plan. Cooperation between all involved stakeholders and relevant actors is likewise essential for delivering an effective management document.⁽²⁾

It was determined to approach unified risk management and define the steps needed to increase the level of preparedness for protecting the inscribed UNESCO WHP ‘Old City of Dubrovnik’ and its setting. The development of such a document must be in parallel with the relevant guidelines of competent international bodies for cultural heritage such as UNESCO, ICOMOS, and ICCROM. These are, among others, *Guide to the Methodological Study of Monuments and Causes of their Deterioration* (De Angelis d’Ossat, 1982), *Risk Preparedness: A Management Manual for World Cultural Heritage* (Stovel, 1998), *Management Guidelines for World Cultural Heritage Sites* (Stovel and Jokilehto, 1998) and *Between Two Earthquakes – Cultural Property in Seismic Zones* (Feilden, 1987). In addition, since certain anthropogenic risks represent threats to the environment, documents in question should follow the ‘Five C’s’ of the *UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage* (UNESCO, 1972), striving to establish the balance between human interaction with natural and cultural heritage and their preservation.

Risk management consists of three main phases, i.e., before, during, and after risk activation. The analysis of the city’s risk preparedness encompasses activities including risk assessment, prevention measures, and mitigation of specific hazards (maintenance, monitoring, formulation, and implementation of various risk management policies and programmes, etc.), while the development of emergency preparedness before risk activation comprises measures such as the creation of emergency teams, the development of warning and exercise systems, the development of evacuation plans, the clear marking of evacuation routes, temporary shelters, etc. During the preparation of the document, it is necessary to integrate all segments of risk management, such as risk reduction, strengthening preparedness, and defining responses in case of risk activation and recovery from potential damage caused by risk activation (‘Management Plan for UNESCO WHP ‘Old City of Dubrovnik’’, 2021). Therefore, the development of the document should consider:

- all types of threats as well as identification of possible threats to the UNESCO WHP ‘Old Town of Dubrovnik’,
- the analysis of the vulnerability of the WHP (or its components), including the buffer zone and the setting (surroundings),
- the assessment of the potential impact of identified threats, measures to reduce risk and/or strengthen resilience, and
- measures to respond and recover in the event of risk activation.

As illustrated earlier (in Figure 2), the Dubrovnik WHP is exposed to many risks. Regarding the development of the Management Plan, it is necessary to present in advance all possible risks that may occur and organise a series of activities that would provide possible protection and increase the resilience of the WHP and stability in a risky situation. In addition to physical components of outstanding universal value, it is necessary to consider

2. Preparedness and risk management documents and systems used in England, France, Netherlands, Switzerland and Italy can serve as examples of good practices of the holistic approach and well-operated response activities. (Stovel, 1998)

the intangible values and aspects of cultural heritage associated with the historic core of Dubrovnik. Likewise, the examined area of the Preparedness and Risk Management Plan ought to include the WHP’s buffer (contact) zone with the urban setting. It should be kept in mind that most risks are external and connected to a spatial area of potential action. In other words, the WHP should be assessed in a wider geographical context. This is mainly related to integrating climate change adaptation measures. Dubrovnik cannot directly change the effects of climate change. Nonetheless, changing certain urbanistic elements in its surroundings and stimulating green infrastructure and nature-based solutions (NBS) can reduce the negative impact on the micro-level (e.g., heat islands). Such activities should be focused on the buffer zone since strict and inflexible protection and preservation acts on heritage property constrain changes.

Given the latent danger of earthquakes and fires, preparedness and evacuation plans need to be harmonised with existing building structures, e.g., fireproof wooden roofs, buildings of damaged construction and load-bearing stone walls, occupancy of individual assemblies, the flow of streets, the existence of a hydrant network, etc. Therefore, all plans to mitigate potential risks should be made in cooperation with the Institute for Reconstruction of Dubrovnik, where the necessary data is available. The WHP Management Plan highlighted the need to strengthen the knowledge base on earthquake risk, mainly because the national system and network of seismographs are outdated and inconsistent with modern standards (‘Management Plan for UNESCO WHP ‘Old City of Dubrovnik’’, 2021). It is necessary to continue the activities of the Seismological Institute and the Institute for Reconstruction of Dubrovnik to find adequate facilities and locations for permanent seismographs so that seismic activity can be monitored and regularly reported to the local government and the Institute for Reconstruction of Dubrovnik. This data should be used in long-term plans to mitigate potential earthquake damage. Earthquakes, for example, cannot be stopped. However, the damage could be reduced by adjusting infrastructure and educating residents to increase resilience.

Likewise, according to the WHP Management Plan, reconstruction plans ought to be aligned with planned evacuation corridors (‘Management Plan for UNESCO WHP ‘Old City of Dubrovnik’’, 2021). Furthermore, the city must be equipped with adequate infrastructure enabling quick response and the implementation of protection measures (water flows with sufficient extinguishing pressure, infrastructural accessibility to fire and other emergency vehicles, etc.). It is also necessary to adjust the storm water and wastewater drainage infrastructure to avoid and mitigate flood risk. Therefore, the Preparedness and Risk Management Plan must identify and evaluate evacuation routes and establish an evacuation plan, which is particularly important in the response phase to potential risk activation.

Considering the impact of human activities, specifically those regarding tourism, it is important to include monument and environmental deterioration risks due to excessive tourism in planning the risk management system.

The vulnerability issue is relevant to the condition of individual buildings and the ability of owners or tenants to bear the risks associated with their property within its environment. Vulnerability is also a matter of the overall environmental context, which includes both urbanised and natural areas. For this reason, it is essential to connect the local community with experts on natural and anthropogenic risks and educate and strengthen the knowledge of the public and stakeholders on the matter. Everyone living in the historic core of Dubrovnik should be aware of the procedures if a risk arises.

Additionally, it is necessary to functionally strengthen and enhance the capacities of the Institute for Reconstruction of Dubrovnik for various aspects of monitoring and risk management. The institute was established after the 1979 earthquake to manage the reconstruction of the city. The WHP Management Plan identified it as the main coordinator of the Preparedness and Risk Management Plan.

Conclusion

The invaluable historic city core of Dubrovnik, the ‘Old City of Dubrovnik’, has been on the UNESCO World Heritage List for more than 40 years now. Collecting data and monitoring accidents and potential threats has enabled the identification of all known risks and the assessment of their probability and severity. According to historical data and the assessment, the UNESCO WHP ‘Old City of Dubrovnik’ has the highest risk of earthquakes, fires, floods, and the consequences of climate change.

Many natural risks are often perceived as an occasional ‘inevitability’ as we cannot predict them (e.g., earthquakes) either in terms of occurrences or in terms of intensity and potential consequences. However, for such risks, it is necessary to establish a unique concept of mitigation. Although earthquakes, for example, cannot be prevented or predicted, infrastructure can still be adequately strengthened, evacuation plans prepared, and seismic activities monitored. Similar actions can be taken to mitigate fires and floods as well. Moreover, to reduce potential damages, it is necessary to foster capacity building, cooperation among all involved stakeholders and actors, and education of the local community on possible natural and anthropogenic risks and procedures if one should occur. Concerning the latter, developing ways and means to address ongoing risks can also contribute to mitigation. If a situation arises, it is necessary to determine suitable actions and how to achieve them with respect to the protection and preservation principles of the world heritage sites. Thus, it is crucial to have knowledge-base networks and effective knowledge transfer.

In addition to anthropogenic risks, the impact of mass tourism, especially cruising, ought to be likewise considered. Intense and unregulated tourist flows are both an issue of protection and conservation of cultural heritage and an environmental problem. Moreover, the consequences of climate change, like droughts, are becoming increasingly visible. They pose a significant risk to the future protection, preservation, and valorization of the ‘Old City of Dubrovnik’. It will take time to integrate climate change adaptation measures to create an adequate level of resilience.

Finally, the above-mentioned aspects should be considered and included in the elaboration of the Preparedness and Risk Management Plan that was recognised as a prerequisite for future management of the WHP ‘Old City of Dubrovnik’. This document will be enacted within the implementation of the Management Plan for UNESCO WHP ‘Old City of Dubrovnik’. Such a process will be in line with the current cultural and natural heritage management and documents of heritage umbrella organisations such as UNESCO, ICOMOS, and ICCROM, while the primary methodological tool in elaborating the document should be a participatory approach. Consequently, a comprehensive Preparedness and Risk Management Plan will result from a holistic examination of the examined area, thereby protecting both natural and cultural heritage and saving lives.

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Partenariat Université-Entreprise pour la Protection du Patrimoine Vivant

Yvon Velot*

En matière de responsabilité sociétale des entreprises eu égard au changement climatique et au respect de la biodiversité, notre réflexion nous a conduits à imaginer une solution originale pour prendre notre part de cette responsabilité, alors que les activités de notre société de conseil n'y sont pas directement liées. C'est ainsi que, partant de notre expertise dans le développement de partenariats franco-chinois dans le domaine de l'enseignement supérieur et de notre implication dans la préservation et la valorisation du patrimoine culturel immatériel, nous avons fondé fin 2020, en partenariat avec l'Institut de Management des Arts de l'Université des Arts du Yunnan à Kunming (Chine), le *Centre international de recherche Lancang-Mékong sur le patrimoine vivant, l'art et la culture*. L'un de nos objectifs est de mutualiser notre expertise pour étudier les liens entre patrimoine vivant et changement climatique et sensibiliser les acteurs concernés et le grand public à cette problématique. À côté de projets très ambitieux qui ont vocation à s'étendre sur plusieurs années, d'autres projets plus modestes pourront être menés de front chaque année. L'approche du partenariat université-entreprise que nous proposons ici vise à ouvrir des pistes de réflexion autour d'une structure originale apte à engager des projets de recherche.

Mots-clés: patrimoine vivant, partenariat, tourisme culturel, université

University-Business Partnership for the Protection of Living Heritage

In terms of corporate social responsibility concerning climate change and respect for biodiversity, our reflection led us to imagine an original solution to take our share of this responsibility, while the activities of our consulting company are not directly linked to it. Thus, starting from our expertise in the development of Franco-Chinese partnerships in the field of higher education and our involvement in the preservation and enhancement of intangible cultural heritage, we founded at the end of 2020, in partnership with the Institute of Arts Management of Yunnan Arts University in Kunming (China), the *Lancang-Mekong International Research Centre on Living Heritage, Art and Culture*. One of our goals is to pool our expertise to study the links between living heritage and climate change and raise awareness of this issue among stakeholders and the general public. In addition to ambitious projects intended to extend over several years, more modest projects can be carried out at the same time each year. The approach of the university-company partnership that we propose here aims to open up ways of reflection around an original structure capable of initiating research projects.

Keywords: living heritage, partnership, cultural tourism, university

Asociación Universidad-Empresa para la Protección del Patrimonio Vivo

En términos de responsabilidad social corporativa con respecto al cambio climático y respeto a la biodiversidad, nuestra reflexión nos llevó a imaginar una solución original para asumir nuestra parte de esta responsabilidad, a pesar de que las actividades de nuestra empresa de consultoría no están directamente vinculadas a ella. Por lo tanto, a partir de nuestra experiencia en el desarrollo de la asociación franco-china en el campo de la educación superior y nuestra participación en la preservación y mejora del patrimonio cultural inmaterial, fundamos a fines de 2020, en asociación con el Instituto de Gestión de las Artes de la Universidad de las Artes de Yunnan, el Centro Internacional de Investigación Lancang-Mekong sobre el Patrimonio vivo, Arte y Cultura. Nuestro objetivo es compartir nuestra experiencia para estudiar los vínculos entre el patrimonio vivo y el cambio climático y crear conciencia sobre este tema entre las partes interesadas y el público en general. Además de los proyectos muy ambiciosos que se pretenden extender a lo largo de varios años, otros proyectos más modestos se pueden llevar a cabo al mismo tiempo cada año. El enfoque de la asociación universidad-empresa que aquí proponemos pretende abrir vías de reflexión en torno a una estructura original capaz de iniciar proyectos de investigación.

Palabras clave: patrimonio vivo, patronazgos, turismo cultural, universidad

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Introduction

Aujourd'hui toutes les couches de la société sont impactées par le changement climatique, mais elles ne le sont pas toutes avec la même intensité, ni avec la même sensibilité. Il en va de même des entreprises et de leur responsabilité sociétale eu égard au changement climatique et au respect de la biodiversité. Cette problématique nous a conduits à imaginer une solution originale pour prendre notre part de cette responsabilité, alors que les activités de notre société de conseil n'y sont pas directement liées. C'est ainsi que, partant de notre expertise dans le développement de partenariats franco-chinois dans le domaine de l'enseignement supérieur et de notre implication dans la préservation et la valorisation du patrimoine culturel immatériel, nous avons fondé fin 2020, en partenariat avec l'Institut de Management des Arts de l'Université des Arts du Yunnan, le *Centre international de recherche Lancang-Mékong sur le patrimoine vivant, l'art et la culture*.

Un Centre de Recherche International

Ce centre de recherche sur le patrimoine vivant, l'art et la culture se veut international tout d'abord par ses membres fondateurs qui sont français et chinois. Mais il l'est également parce qu'il a vocation à s'intéresser non seulement à la Chine où le Mékong, sous le nom de Lancang, prend sa source, mais aussi aux pays du sud-est asiatique bordés ou traversés par ce fleuve, à savoir le Cambodge, le Laos, le Myanmar, la Thaïlande et le Vietnam. L'appellation Lancang-Mékong fait de plus référence au réseau dit « Lancang-Mekong Cooperation » (www.lmcchina.org) par lequel ces six pays s'engagent à travailler ensemble pour une meilleure gestion des ressources en eau et un meilleur développement durable de la région, ainsi que sur des sujets tels que la médecine traditionnelle, thématiques qui sont directement liées au changement climatique et à son impact sur la biodiversité. Enfin, ce centre de recherche a aussi une vocation internationale en ce qu'il vise à se développer dans l'avenir à travers des partenariats avec des institutions locales et étrangères pour renforcer son expertise sur la préservation et la valorisation du patrimoine vivant et le développement d'un tourisme culturel et patrimonial durable et écologique.

Un Partenariat Université-Entreprise

Le *Centre international de recherche Lancang-Mékong sur le patrimoine vivant, l'art et la culture*, en tant que fondé sur un partenariat université-entreprise, entend favoriser en priorité les travaux de recherche sur l'impact du changement climatique sur le patrimoine vivant et son environnement proche. Il constitue une plateforme originale pour sensibiliser davantage les protagonistes du patrimoine vivant, les étudiants, leurs professeurs et les populations concernées, mais aussi les autorités locales et le grand public, à l'influence du changement climatique sur la protection et l'évolution du patrimoine vivant et du patrimoine naturel auquel il est lié et dont il est souvent dépendant en tant qu'il s'inspire ou se nourrit de sa biodiversité. Cette action de sensibilisation peut se traduire de multiples façons à travers des travaux de recherche, des actions concrètes de protection et de valorisation du patrimoine vivant, des publications, ainsi que l'organisation de conférences et de colloques locaux et internationaux, d'expositions, de reportages, de festivals... L'intérêt d'un centre de recherche sur le patrimoine vivant, l'art et la culture, conjoint entre une société de conseil dont l'un des champs d'expertise est le patrimoine culturel sous toutes ses formes, et une université d'art qui dispose d'un vaste panel de ressources humaines aux talents multiples, réside dans la mutualisation des talents, par laquelle ce centre de recherche est en mesure de porter des projets de recherche ambitieux pour limiter l'impact du changement climatique sur le patrimoine vivant et accompagner les acteurs de ce patrimoine vivant dans l'évolution

de leurs pratiques en conformité avec la nécessaire préservation de ce patrimoine et son adaptation au changement par l'intégration éventuelle de nouvelles techniques.

Actions Passées ou en Cours

Comme le *Centre international de recherche Lancang-Mékong sur le patrimoine vivant, l'art et la culture* a été fondé fin 2020, il n'est pas encore en mesure de présenter un bilan riche de multiples actions, d'autant qu'il subit aussi l'impact de la crise sanitaire actuelle sur les échanges académiques internationaux. Quelques événements déjà réalisés et projets en cours peuvent toutefois apporter un certain éclairage sur le potentiel d'un tel centre de recherche.

Un premier cycle de conférences entre décembre 2020 et juin 2021 a permis de sensibiliser les étudiants et professeurs de l'Université des Arts du Yunnan à des sujets comme la relation entre protection du patrimoine vivant et protection de la nature ou bien encore la diffusion de l'art moderne dans les territoires ruraux et sa possible interaction avec la nature dans le cadre de parcours d'exposition dans des forêts ou des jardins botaniques.

Par ailleurs, à l'occasion de la COP 15 sur la biodiversité programmée à Kunming en octobre 2021 et en avril-mai 2022, nous avons conçu une exposition sur l'histoire des botanistes français en Chine. Un tel projet fait appel à de multiples compétences, historiques d'une part pour rédiger des notices sur les botanistes les plus remarquables ayant herborisé dans les provinces chinoises entre le 18^e siècle et le 20^e siècle, artistiques d'autre part, pour concevoir les supports tant imprimés que numériques de l'exposition. Cette partie « conception » constitue un excellent moyen de sensibilisation des professeurs et étudiants de l'Université des Arts du Yunnan à l'évolution de la biodiversité. Quant à la partie « exposition » à proprement parler, elle vise à sensibiliser le grand public tant en Chine qu'en France, où cette exposition devrait circuler sous son format physique initial, ainsi qu'en format numérique pendant au moins deux ans. Dans le cas particulier de cette exposition, il est intéressant de noter que l'on peut regarder le patrimoine vivant sous deux aspects différents. Le premier de ces aspects est celui du patrimoine immatériel constitué par les collections de plantes et les écrits des botanistes à leur sujet, qui est vivant en ce qu'il est encore utilisé aujourd'hui par les chercheurs en botanique. Le second aspect est celui du patrimoine naturel « bien vivant » constitué par la flore et par la faune de toutes les espèces végétales et animales vivant sur notre planète.

Ambitions et Objectifs

Afin d'atteindre des objectifs ambitieux visant à consolider son expertise, le *Centre international de recherche Lancang-Mékong sur le patrimoine vivant, l'art et la culture* est une structure apte à rechercher des financements auprès d'organismes et de fondations publics ou privés sous la forme de subventions ou de candidature à des appels à projets. Ainsi en parallèle à des actions à faible coût, des opérations de plus grande ampleur pourront être entreprises. Mais il n'en demeure pas moins que les premières ressources de notre centre de recherche sont ses ressources humaines et que sans elles, quel que soit le montant des fonds dont notre centre de recherche pourrait disposer, aucun projet ne pourrait être mené à bien.

Parmi les objectifs ambitieux que ce centre de recherche s'est fixés figure celui de la labellisation du patrimoine vivant chinois, en s'inspirant du label français EPV ou « Entreprise du patrimoine vivant » qui n'a pas vraiment d'équivalent en Chine. Mais en complément des

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critères standards de labellisation des entreprises du patrimoine vivant en France, nous pensons qu'il conviendrait de définir des critères supplémentaires à respecter liés au respect de l'environnement et de la biodiversité. Même si ce projet dépasse largement le périmètre de compétences de notre centre de recherche, nous ambitionnons d'en être en quelque sorte l'incubateur auprès des autorités chinoises compétentes.

Souvent au plus près de la nature et par conséquent plus sensibles aux effets du changement climatique et à l'appauvrissement de la biodiversité, les minorités ethniques constituent aussi un champ de recherche particulièrement riche du point de vue du patrimoine vivant. Or comme le Yunnan est la province qui compte le plus de minorités ethniques en Chine, notre centre de recherche entend non seulement contribuer à la promotion du patrimoine vivant de ces minorités ethniques, mais aussi participer à des projets visant à faire l'inventaire des connaissances sur leur patrimoine culturel immatériel, avec un intérêt particulier pour leurs savoirs ancestraux en relation avec la nature, en matière d'ethnobotanique ou de pharmacopée et médecine traditionnelles, si possible en partenariat avec des instituts de recherche spécialisés en la matière en Chine et à l'étranger. De tels partenariats pourront aussi être utiles pour étendre nos recherches aux minorités ethniques des pays du sud-est asiatique.

En matière de tourisme, le Yunnan est la province chinoise qui attire le plus de touristes locaux et étrangers. La richesse de son patrimoine culturel et de son patrimoine naturel contribue grandement à sa réputation et à son attractivité qui sont amplement méritées. Mais pour éviter les excès du tourisme de masse dans l'avenir, il convient de développer davantage de circuits touristiques aptes à promouvoir la visite de plus de sites relativement peu connus voire quasiment inconnus du grand public. La réflexion qu'entend mener sur ce sujet notre centre de recherche porte sur les moyens de promouvoir un écotourisme culturel et patrimonial en harmonie avec les richesses de la biodiversité du Yunnan, considéré comme le « paradis de la biodiversité » en Chine, et dans le respect des traditions ancestrales des minorités ethniques. Ce projet vise notamment à mieux valoriser l'artisanat d'art traditionnel par une meilleure promotion de ses produits, mais aussi par une incitation à la créativité qui pourrait s'appuyer utilement sur les compétences de l'Institut de Design de l'Université des Arts du Yunnan pour élaborer de nouveaux produits. Si nous atteignons ces objectifs dans les zones les plus reculées et les moins favorisées de la province, nous sommes convaincus que la promotion du patrimoine vivant contribuera à y réduire la pauvreté et nous formons l'espoir que notre centre de recherche puisse servir cette cause.

Ces projets et objectifs peuvent paraître très ambitieux, mais un centre de recherche doit avoir le courage de ses ambitions, surtout face à l'urgence de trouver des solutions pour atténuer le changement climatique.

Conclusion

Les liens entre patrimoine vivant et changement climatique sont multiples et si l'approche que nous proposons ici n'apporte pas de solution miracle, elle vise à ouvrir des pistes de réflexion autour d'une structure originale apte à s'engager dans la recherche sur cette problématique.

La responsabilité sociétale des entreprises eu égard au changement climatique et au respect de la biodiversité est indéniable. En établissant, sur la base d'un partenariat entreprise-université, le *Centre international de recherche Lancang-Mékong sur le patrimoine vivant, l'art*

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et la culture, notre société de conseil ainsi que son université partenaire s'engagent à mettre leur expertise au service de ce projet, dans la limite de leurs compétences et ressources tant humaines que matérielles. A côté de projets très ambitieux qui ont vocation à s'étendre sur plusieurs années, d'autres projets plus modestes et plus nombreux pourront être menés de front chaque année, sous diverses formes comme des missions de terrain, des conférences, des expositions ou bien encore des publications d'articles ou de livres.

Mais en matière de sensibilisation au changement climatique, ainsi qu'au patrimoine vivant et à leurs liens directs et indirects, la première responsabilité qui incombe à l'Université des Arts du Yunnan et à notre société de conseil est celle d'intégrer cette sensibilisation à la formation des étudiants. Ainsi, déjà impliqués aujourd'hui, ils le seront plus encore demain dans le cadre de leurs activités professionnelles, où ils pourront prendre leur part de responsabilité dans la préservation de notre patrimoine culturel et de notre patrimoine naturel.

Un dernier point, et non des moindres, que nous voulons signaler ici réside dans l'intérêt pour une petite société qui, contrairement aux grandes entreprises, n'a pas les moyens de créer sa propre fondation ou son propre fonds de dotation, de s'associer avec un établissement d'enseignement supérieur. En effet, grâce au partenariat université-entreprise, notre société de conseil peut engager davantage sa responsabilité sociale en affichant des objectifs ambitieux face au changement climatique qu'elle ne serait aucunement en mesure de viser avec ses moyens propres tant humains que matériels, d'autant que la réalisation de ces objectifs entend aussi s'appuyer sur des partenariats internationaux.



Photo 1. Inauguration du Centre international de recherche Lancang-Mékong sur le patrimoine vivant, l'art et la culture entre Kunming SinoMekong Co. Ltd et Yunnan Arts University (Kunming, 27/12/2020) © Yvon Velot

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Photo 2. Visite d'une délégation de Yunnan Chuxiong Academy of Yi Culture au Centre des Archives diplomatiques (La Courneuve, 15.01.2020) © Yvon Velot



Photo 3. Visite d'une délégation de Yunnan Chuxiong Academy of Yi Culture à la Bibliothèque universitaire des langues et civilisations (BULAC) (Paris, 16.01.2020) © Yvon Velot

Les Pratiques Culturelles dans les Paysages Ruraux Comme Exemples de Conservation des Écosystèmes au Burkina Faso

Bély Hermann Abdoul-Karim Niangao*

L'importance de la préservation de l'environnement physique dans la lutte contre les variations et le changement climatiques n'est plus à prouver. On reconnaît que l'homme est un être de culture qui a soumis la nature et l'environnement autour de lui à un processus brutal et accéléré de transformation et dont il reçoit comme par un effet de boomerang les conséquences de ses propres turpitudes. Mais la culture, surtout dans sa dimension immatérielle, impose pour son expression et sa pratique quelques exigences à l'homme, l'obligeant ainsi à un respect vis-à-vis de son environnement et de l'univers. C'est en cela que la relation entre pratiques culturelles, notamment culturelles, et préservation de l'environnement nous paraît une union nécessaire qui peut contribuer à une meilleure protection des écosystèmes, pour un meilleur équilibre de l'environnement. A l'occasion de cette présentation, nous montrerons qu'à travers les pratiques culturelles dans certains lieux sacrés, des communautés avaient mis en place un système endogène qui visait une protection indirecte des ressources de la nature. Comment ces pratiques culturelles agissent sur l'environnement et vice-versa ? Comment se manifestent ces interactions dans un contexte de plus en plus menacé ? Nous illustrerons notre propos avec des exemples.

Mots-clés: paysages ruraux, patrimoine vivant, pratiques culturelles, écosystèmes, Burkina Faso

Worship Practices in Rural Landscapes as Examples of Ecosystem Conservation in Burkina Faso

The importance of preserving the physical environment in combating climate variation and change is no longer to be proved. We recognise that man is a cultural being who has subjugated nature and the environment around him to a brutal and accelerated process of transformation, from which he receives, as if by a boomerang effect, the consequences of his own turpitudes. However, culture, especially in its intangible dimension, imposes some requirements on humans for its expression and practice, thus forcing them to respect their environment and the universe. This is where the relationship between cultural practices, in particular worship and preservation of the environment, is a necessary union that can contribute to better protection of ecosystems for a better environmental balance. On the occasion of this presentation, we will show that through worship practices in certain sacred places, communities have set up an endogenous system that aims to protect natural resources indirectly. How do these worship practices affect the environment and vice versa? We will illustrate our point with examples.

Keywords: rural landscapes, living heritage, worship practices, ecosystems, Burkina Faso

Prácticas de Adoración en Paisajes Rurales como Ejemplos de Conservación de Ecosistemas en Burkina Faso

La importancia de preservar el medio ambiente físico para combatir la variación y el cambio climático está probada. Reconocemos que el hombre es un ser cultural que ha subyugado la naturaleza y el entorno que lo rodea a un brutal y acelerado proceso de transformación y del que recibe, como por efecto boomerang, las consecuencias de sus propias villanías. Pero la cultura, especialmente en su dimensión intangible, impone al hombre unos requisitos para su expresión y práctica, lo que le obliga a respetar su entorno y el universo. Aquí es donde la relación entre prácticas culturales, en particular, el culto y la preservación del medio ambiente nos parece una unión necesaria que puede contribuir a una mejor protección de los ecosistemas, para un mejor equilibrio ambiental. Con motivo de esta presentación, mostraremos que a través de las prácticas de culto en ciertos lugares sagrados, las comunidades habían establecido un sistema endógeno que tenía como objetivo la protección indirecta de los recursos naturales. ¿Cómo afectan estas prácticas de adoración al medio ambiente y viceversa? Ilustraremos nuestro punto de vista con algunos ejemplos.

Palabras clave: paisajes. raros, patrimonio vivo, prácticas culturales, ecosistemas, Burkina Faso

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Au Burkina Faso, l'inventaire du patrimoine culturel immatériel réalisé entre 2014 et 2017 a permis d'inventorier environ 1300 biens culturels immatériels répertoriés comme les plus représentatifs du patrimoine vivant des communautés. Ces manifestations culturelles immatérielles⁽¹⁾ recensées concernent toutes les catégories du patrimoine culturel immatériel telles qu'elles sont mentionnées dans la Convention de 2003 pour la sauvegarde du patrimoine culturel immatériel.

Pour la première fois et depuis la ratification de la Convention de 2003 par le Burkina Faso le 21 juillet 2006, la Direction générale du patrimoine culturel a proposé en 2020 une liste de 225 traditions vivantes, toutes catégories confondues, au classement sur la liste du patrimoine culturel national. Ce processus a cependant connu un ralentissement compte tenu des facteurs politiques consécutifs aux élections présidentielles de la même année. À côté de ses biens culturels purement immatériels, il existe des patrimoines qui combinent pratiques culturelles et gestion des espaces physiques. Notre propos va consister à montrer que dans ces lieux qui sont des paysages ruraux, les pratiques culturelles ne sont pas une négation de la protection de l'environnement. À côté des 225 biens culturels immatériels proposés au classement, on note que 94 biens du patrimoine culturel immobilier sont également proposés au classement. Parmi ces biens figurent des paysages ruraux, qui sont des sites recensés pour leur intérêt pittoresque, scientifique, historique ou sacré. Ce dernier point est celui qui sera mis en exergue au cours de notre discussion.

Ainsi, dans une première approche nous montrerons que certains éléments du patrimoine culturel immatériel proprement dit ne peuvent survivre à une dégradation incontrôlée de l'environnement, notamment des ressources naturelles. Ensuite, nous verrons que dans les paysages ruraux ou les sites historiques, les pratiques culturelles ont imposé un autre mode de gouvernance et d'exploitation des ressources respectueux des principes promus aujourd'hui pour la préservation des ressources de l'environnement, avec un effet indirect pour atténuer les impacts des changements climatiques. Enfin, au regard des exigences du monde moderne et face aux impératifs du développement comme la modernisation des moyens de production dans le monde rural, il existe de réelles menaces contre les pratiques culturelles, dont l'une des conséquences immédiates sera la destruction des écosystèmes.

Patrimoine Vivant et Écosystème

Certains éléments du patrimoine culturel immatériel sont fortement tributaires de l'écosystème, entendu au sens classique comme interaction entre plusieurs organismes vivants dans leur milieu. Lorsqu'on observe certaines traditions du patrimoine vivant au Burkina Faso inventoriées dans la catégorie « connaissances et savoir-faire liés à la nature et à l'univers », on note une forte interdépendance entre la pratique de ce patrimoine vivant et les ressources de la nature, les premiers ayant besoin des ingrédients du second pour s'exprimer.

Par exemple, dans la mise en œuvre de certains savoirs comme la maîtrise de la foudre, appelé « *soho-caho* » en langue *bwamu*⁽²⁾ ou « *san pèrin* » en langue *dioula*⁽³⁾, une technique que l'on rencontre dans la région des Hauts-Bassins, dans l'Ouest du Burkina Faso, les détenteurs utilisent les fruits du calebassier, une plante rampante connue pour sa production d'objets élémentaires de forme arrondie et qui servent de récipients, jadis utilisés comme ustensiles de

1. ich.unesco.org

2. Une des langues parlées au Burkina Faso

3. idem

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cuisine chez la ménagère. On rencontre également cette espèce en Amérique latine, connue sous le nom de *crescentia cujete*. Récolté à maturité, le fruit est coupé en deux puis vidé, soigneusement nettoyé et séché. Aujourd'hui, cette espèce végétale est en voie de disparition et dans la pratique, laalebasse est de plus en plus remplacée par des jarres en poterie et les ustensiles modernes.

Dans le traitement des maladies infantiles pratiqué également dans la même région, il est courant de voir l'association de plusieurs essences naturelles comme les feuilles, les racines et les écorces pour la préparation des potions médicamenteuses. Cette médecine est encore pratiquée et recherchée par plusieurs couches de la société moderne. C'est d'ailleurs ce qui explique le développement continu des marchés de produits traditionnels le long des rues des grandes villes.

Un autre exemple est celui du traitement de la drépanocytose appelé « *nakruui-tiiu* », pratiqué chez les *nunis*⁽⁴⁾ dans la partie méridionale du pays. Dans sa mise en œuvre, les forgerons qui en sont les dépositaires recherchent comme ingrédients des feuilles de la plante appelée « *welinwiga* »⁽⁵⁾ ou « *guiera senegalensis* », la reine-mère d'une termitière, des coquilles d'escargot, que l'on associe à d'autres matériaux. Ce mélange d'ingrédients, aussi étrange que l'on puisse en juger, est un bel exemple de l'importance des ressources des écosystèmes pour le développement et la pérennisation du patrimoine vivant et appelle donc la nécessité de conserver l'environnement.

À travers les descriptions présentées ci-dessus, on peut conclure que le caractère vivant du patrimoine culturel est fortement tributaire de la préservation des ressources environnementales. La conservation de la nature apparaît aussi comme l'un des défis pour la survie du patrimoine culturel et induit, dans les pays d'Afrique au sud du Sahara, une action concertée entre les services chargés de la protection du patrimoine et de l'environnement, ce qui n'est pas toujours le cas.

Les Pratiques Culturelles dans les Paysages Ruraux, un autre Exemple de Préservation de l'Environnement



Figure 1. Un aperçu du site sacré à Bonapio
 © Bély Hermann Abdoul-Karim Niangao

Conformément aux principes adoptés au cours de la 19^e Assemblée générale de l'ICOMOS concernant les paysages ruraux comme patrimoine, de nombreux espaces ruraux existent encore au Burkina Faso avec des significations culturelles qui leur sont attribuées par les communautés et transmises de générations en générations. Dans la plupart des cas, ce sont des mythes et légendes qui racontent l'épopée de l'ancêtre fondateur, l'histoire des conflits inter-familiaux, les origines de la communauté, etc.

4. Un des groupes ethnoculturels du Burkina Faso
 5. En langue mooré, langue d'expression des mossi, groupe ethnoculturel majoritaire du Burkina Faso qui occupe principalement le centre et le centre-nord du pays.

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Figure 2. Un des guides montrant une plante jadis utilisée pour la production de balai et en voie de disparition © Bély Hermann Abdoul-Karim Niangao

Dans la province du Ziro, située dans la partie méridionale du pays, plus proche du Ghana et peuplée par les *nunis*, les exemples sont légion. Dans le village de *Bonapio* situé dans la commune rurale de *Cassou*, les habitants s'identifient culturellement à un site situé au milieu d'une savane arbustive et constitué de formations géologiques de massifs rocailloux, réparties en cinq sites sur l'ensemble de l'espace du villageois.

Suivant les récits qui nous ont été rapportés par le conseil des sages du village, *Bonapio*, qui signifie littéralement « la pierre sur laquelle on a joué » ou tout

simplement « aire de jeu » est en réalité le nom éponyme qui a été donné au village. L'ancêtre du village aurait séjourné sur l'un des sites et aurait bénéficié de l'assistance et de la protection d'un félin avant de prendre possession de la terre devenue aujourd'hui le village de *Bonapio*.

Et depuis cette rencontre, ce site est devenu un des lieux majeurs de pratiques culturelles, dont la fréquentation est réglementée par les traditions. Par exemple, pour l'accès à certains lieux d'exercice des cultes, les droits sont partagés entre les groupes de familles et chaque famille ne peut accéder au domaine de l'autre. Cette distribution des pouvoirs permet à chaque famille de posséder une partie des sites, ce qui participe de la cohésion au sein du groupe de telle sorte que pour la célébration des rites, toutes les familles sont impliquées.

Ces pratiques culturelles sur les sites ont permis de conserver le milieu naturel des paysages et de préserver les écosystèmes. Par exemple, pour la fabrication des lits-couchettes pliables appelés communément nattes, il est courant d'utiliser les tiges de roseaux qui n'existent aujourd'hui que sur les sites de *Bonapio*. De même, on remarque sur ces sites la



Figures 3 & 4. Un aperçu de la nappe d'eau intarissable qui a longtemps servi de source d'eau douce © Bély Hermann Abdoul-Karim Niangao

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Figures 5 & 6. Selon les légendes, ces signes témoignent des passages d'éléphants qui ont marqué leurs empreintes sur le site. A gauche, les traces de leurs pattes et à droite des incisions faites avec leurs défenses
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présence de chauve-souris (qui se font de plus en plus rares aujourd'hui) et dont les déchets sont appréciés comme fertilisants pour les sols en agriculture. Sur le site, on peut également découvrir des traces de passage de pythons considérés comme des espèces sacrées qui habitent les sites et en font partie intégrante. Enfin, la chasse et l'agriculture sont interdites dans toute la zone, ce qui est une mesure de sauvegarde communautaire pour préserver l'intégrité du site.

Sur l'un des sites coule une nappe d'eau superficielle qui a servi pendant longtemps de source d'eau douce pour les habitants du village et est aujourd'hui abandonnée du fait de l'installation des dispositifs modernes de pompage d'eau. Non loin de là, une petite rivière sacrée coule en amont de la roche et comprend une zone d'activité délimitée accessible aux femmes pour le lavage des fruits du néré (*Parkia Biglobosa*), très prisés comme épices naturelles.

Ces sites, en plus d'être des réservoirs naturels de plantes comestibles et de ressources végétales renouvelables, peuvent être mis en tourisme et fournir des moyens supplémentaires de subsistance pour la communauté, sur la base des légendes entretenues tout au long de l'histoire. Et cela permettra d'accroître en outre les moyens de résilience des populations sur le long terme.

Un autre site chargé de valeurs intangibles se situe à *Oupon*, un autre village de la province du Ziro et où vivent également les *nunis*. Il s'agit d'un paysage constitué de plans d'eau (une rivière) et de ressources végétales, formant un lieu de culte où le respect des traditions se combine avec la conservation stricte des espèces animales du lieu. La pêche y est formellement interdite. Cette interdiction concerne spécifiquement les animaux aquatiques et des zones humides tels que les caïmans, les escargots, les tortues, les iguanes, etc. De l'autre côté de la rivière se dresse un baobab (*Adansonia digitata*) auprès duquel sont immolés des animaux (notamment des quadrupèdes domestiques) à l'occasion des rituels. Situé à l'entrée du village, ce site a également une dimension protectrice contre tout type d'intrusion malveillante. Les habitants devenus aujourd'hui pour la plupart, adeptes des religions modernes (christianisme et islam en particulier) pratiquent en réalité un syncrétisme religieux qui contribue à la survie du site et des pratiques culturelles immatérielles.

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A l'analyse, on s'aperçoit que les interdictions édictées sur le site ont pour finalité de protéger le site des pollutions et du braconnage. Les alentours du site sont des terres fertiles qui regorgent de multiples espèces végétales en voie de disparition et qui sont utilisées dans la pharmacopée ainsi que d'arbres aux fruits comestibles. La végétation est abondante et la coupe de bois interdite dans cette zone.



La particularité dans le village de *Oupon* réside dans le fait que des paysages sacrés entourent le village dans ses quatre points cardinaux. Au nord se situe la rivière sacrée. A l'est on trouve la case des fétiches sacrés, forces spirituelles de premier plan. Au sud, se situe la roche sacrée également lieu de pèlerinage. A l'ouest, se trouve une forêt sacrée peuplée d'arbres de petite taille, mais dense, où seule la pratique de l'agriculture y est prohibée. La cueillette et le ramassage de bois mort à des fins domestiques est tolérée. Cet endroit est réputé pour être un lieu où résident des forces spirituelles transcendantes qui répriment tous ceux qui n'observeraient pas les règles du vivre ensemble et qui se seraient rendus coupables d'actes immoraux, tels que la fornication avec la femme d'autrui, le vol, la violation du droit d'aînesse, etc.

Figures 7 & 8. A gauche la rivière sacrée de Oupon et à droite le baobab sacré formant ensemble un même de lieu de rituel © Bély Hermann Abdoul-Karim Niangao



Risques et Menaces sur le Patrimoine Vivant

Le faible niveau de vie constitue aujourd'hui la principale source des menaces qui pèsent sur le patrimoine vivant et la destruction des paysages ruraux. En effet, la dégradation de plus en plus accélérée de la qualité de vie des populations en milieu rural les expose aux tentatives de céder leurs terres aux sociétés immobilières, dont le nombre s'est accru ces cinq dernières années au Burkina Faso avec la complicité de l'État. Selon le quotidien d'informations burkinabè

Figure 9. Un aperçu du bosquet sacré de Oupon, situé à l'Ouest du village © Bély Hermann Abdoul-Karim Niangao

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Le Pays, il existerait près d'une centaine de sociétés immobilières au Burkina Faso. Ce chiffre est loin de refléter la réalité car dans la pratique il faut imaginer près de deux-cents sociétés, certaines opérant dans l'illégalité. Ces sociétés, sans encadrement des autorités publiques, sont de véritables prédateurs des terres et des écosystèmes, donc une arme redoutable contre la survie du patrimoine vivant.

La sauvegarde et la transmission du patrimoine vivant au Burkina Faso doivent donc s'accompagner d'actions majeures de lutte contre la pauvreté et de création d'emplois dans le monde rural. Si rien n'est fait, le bilan de la prochaine décennie risque d'être catastrophique pour le patrimoine et l'environnement.

En conclusion, il faut insister sur l'interconnexion qui existe entre le développement du patrimoine vivant et la préservation de l'environnement. Au Burkina Faso, la majorité des pratiques culturelles s'expriment en tirant profit des ressources des écosystèmes protégés par les traditions et les coutumes. Les exemples qui sont évoqués ici sont une illustration des interactions qui existent entre le patrimoine vivant et l'environnement et interpellent sur la nécessité d'envisager de réelles politiques publiques qui puissent permettre de « sauver » les deux domaines.



Figure 10. Entretien avec des représentants des communautés à Bonapio © Bély Hermann Abdoul-Karim Niangao

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English Parish Churches and Sustainability

Nigel Walter*

England's 16,000 parish churches represent an outstanding body of living heritage. Typically, they have experienced multiple episodes of change, which has both enabled them to survive and given them their outstanding character. Growing awareness of the climate crisis – and the Church of England's own recognition of this crisis – is leading to further change, including, for example, the upgrading of fabrics and the installation of photovoltaic panels, where appropriate. This paper describes two aspects of the Church's response, a 'Practical Path to Net Zero Carbon' document aimed at parish communities, and a set of Best Practice Guidance for architects and surveyors. Responding to the climate crisis will necessarily result in changes to these buildings. The paper argues that such change need not be seen as a threat, but rather anticipated as normal to the lives of living heritage. But in order for these changes to be successfully integrated, they must be made in continuity with the tradition that formed these buildings, being framed as a theological question, as a 'mark of mission'. Such change should strengthen the connections between people and heritage places, to the benefit of both.

Keywords: sustainability, living heritage, Church of England, change, tradition

Églises Paroissiales Anglaises et Durabilité

Les 16 000 églises paroissiales d'Angleterre représentent un patrimoine vivant exceptionnel. En règle générale, elles ont connu plusieurs épisodes de changement, ce qui leur a à la fois permis de survivre et leur a donné leur caractère hors du commun. La prise de conscience croissante de la crise climatique – et la reconnaissance de cette crise par l'Église d'Angleterre elle-même – conduit à d'autres changements, y compris, par exemple, la mise à niveau des matériaux et l'installation de panneaux photovoltaïques, s'il y a lieu. Cet article décrit deux aspects de la réponse de l'Église, un document « Chemin pratique vers un bilan carbone net » destiné aux communautés paroissiales, et un ensemble de conseils sur les meilleures pratiques pour les architectes et les géomètres. Répondre à la crise climatique entraînera nécessairement une modification de ces bâtiments. Le document soutient qu'un tel changement ne doit pas être considéré comme une menace, mais plutôt anticipée comme fait normal de la vie du patrimoine vivant. Mais pour que ces changements soient intégrés avec succès, ils doivent être réalisés dans la continuité de la tradition qui a formé ces bâtiments, formulés comme une question théologique, comme une « marque de la mission ». Un tel changement devrait renforcer les liens des personnes avec les lieux patrimoniaux, au profit des deux.

Mots-clés: durabilité, patrimoine vivant, Église d'Angleterre, changement, tradition

Iglesias Parroquiales Inglesas y Sostenibilidad

Las 16.000 parroquias de Inglaterra representan un patrimonio vivo excepcional. Por lo general, han experimentado múltiples episodios de cambio, lo que les ha permitido sobrevivir y les ha dado su carácter sobresaliente. La creciente conciencia sobre la crisis climática - y el propio reconocimiento de la Iglesia de Inglaterra de esta crisis - está dando lugar a más cambios que incluyen, por ejemplo, el acondicionamiento de materiales y la instalación de paneles fotovoltaicos, en su caso. Este artículo describe dos aspectos de la respuesta de la Iglesia, un documento "Camino práctico hacia el carbono neto cero" dirigido a las comunidades parroquiales, y un conjunto de guías de mejores prácticas para arquitectos y topógrafos. Responder a la crisis climática necesariamente resultará en cambios en estos edificios. El documento argumenta que tal cambio no necesita ser visto como una amenaza, sino más bien anticipada como normal a la vida del patrimonio vivo. Pero para que estos cambios se integren con éxito, deben realizarse en continuidad con la tradición que formó estos edificios, siendo enmarcado como una cuestión teológica, como una "marca de la misión". Dicho cambio debería fortalecer las conexiones de las personas con los lugares patrimoniales, en beneficio de ambos.

Palabras clave: Sostenibilidad, patrimonio vivo, Iglesias de Inglaterra, cambio, tradición

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England has some 16,000 parish churches, which collectively form an outstanding body of living heritage. 78% are listed, and half are medieval – and of all the highest grade I listed buildings, fully 45% are churches and cathedrals. Through the parish system, all churches are 'owned' by their local community – by whoever happens to live in that parish, not just those who choose to be involved with the church – and are still in use for the purpose for which they were built. Moreover, while there are a few that stand unchanged from when they were first built, those are very much the exception; more typically, these buildings are the product of multiple episodes of change, often over many centuries, and at the hands of multiple designers and craftsmen. It is this ability to alter and adapt to changing needs through time that has enabled them to survive and now gives them their complex biographical character.

Demand for change in these multi-authored buildings continues. While permission to alter protected buildings (listed building consent) is generally granted as part of the secular planning system, six recognised denominations, including the Church of England, enjoy 'ecclesiastical exemption' from secular listed building control, precisely in recognition of living heritage status of these important buildings. Under this exemption, each denomination operates its own system for the granting listed building consent; in the case of the Church of England, which has by far the largest number of listed churches, this is known as the Faculty Jurisdiction (Mynors, 2016; Walter, 2020a, pp. 110–123). (Any external changes to churches still require planning approval in the normal way.) The faculty system is

administered at the diocesan level, with each diocese having a Diocesan Advisory Committee (DAC) of conservation professionals, heritage experts, and clergy who vet applications and provide a recommendation of approval or refusal to the ultimate decision-maker, the diocesan chancellor.



Figure 1. Photovoltaic panels on south aisle of Dunstable Priory © Diocese of St Albans and Dunstable PCC

Of late – and arguably rather too late – we have all become increasingly aware of the climate crisis and the urgent need to reduce our carbon footprint. In February 2020, the Church of England officially recognised this crisis and called on all parts of the Church – including the parishes – to plan towards the highly ambitious target of “net zero carbon” by 2030. If this is to be achieved, it will clearly require a change to many historic buildings – including, for example, the addition of air source heat pumps or photovoltaic panels (e.g., Figure 1), where appropriate. In response to the 2030 commitment, work has been ongoing to make revisions to the Faculty Jurisdiction system in order to reduce the

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barriers to church communities wishing to install sustainability measures and to make those measures that incur harm to the environment – such as replacing an oil-fired boiler like for like – more difficult (Humphreys, 2021). Furthermore, the Church of England's Church Buildings Council (CBC) has been busy developing a range of resources to aid progress towards the 2030 target; I will discuss two of these in this paper.

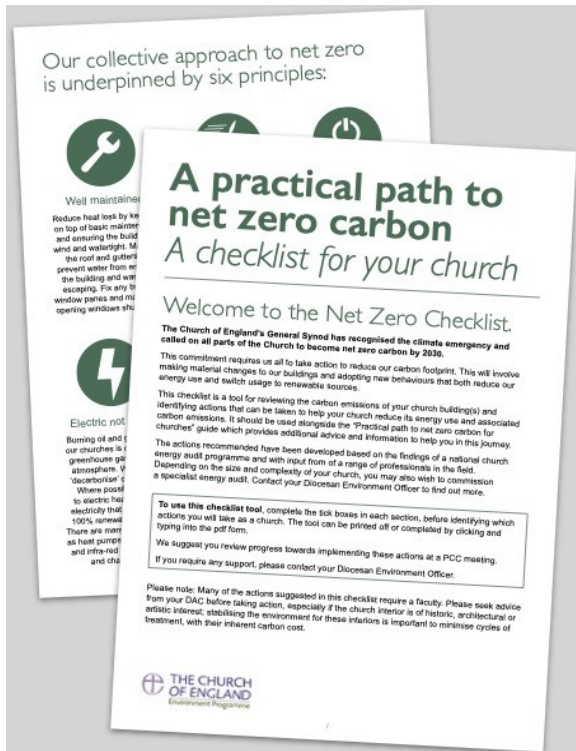


Figure 2. The Practical Path to Net Zero Carbon
© CBC

The Practical Path to Net Zero Carbon

The first of these resources is the 'Practical Path to Net Zero Carbon', a document created by Catherine Ross, the Church of England's Open and Sustainable Churches Officer (Church of England, 2021). Building on the findings of a church energy audit programme, this provides graded recommendations to help church communities reduce their energy use and associated carbon emissions.

The 'Practical Path' document packs a great deal into just two sides of A4. Importantly, the document starts by pointing out that many of the suggested items require faculty permission and constantly stresses the need to seek professional and DAC advice before making any changes. Some 50 suggested actions are graded into the following categories:

- **A. Where do we start?** – These are simple actions that nearly all churches can benefit from, whatever their intensity of use. They are relatively easy, have relatively fast payback, and include such simple things as basic maintenance of the building itself, fitting LED lamps, and switching to renewable energy sources.
- **B. Where do we go next?** – These actions are more aimed at churches with medium energy usage that are used more than once a week; perhaps half of the churches are encouraged to consider them. The actions typically cost more than in 'A' above, and/or require more time and thought; some require some specialist advice and/or installers. Examples include considering alterations such as insulation in existing roof voids, creating a draught lobby, and creating separately heatable smaller spaces, all where the building lends itself to these solutions.
- **C. Getting to zero** – These are bigger and more complex projects, which only busy churches with high energy use are likely to consider. While they offer substantial reductions in energy use, they also require substantial work and have both a longer payback and a greater carbon cost. These include further insulation of the fabric, new LED lighting systems, and installing photovoltaic panels, again where appropriate.

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- **D. "Only if..."** – These are actions undertaken at specific times (such as part of a reordering) or in very specific circumstances and typically require professional advice and DAC input. Examples include adding insulation during a reroofing project, changing the heat source, and installing electric vehicle charging points where there is parking on church land.
- **E. By exception** – Finally, the document does not stop at recommendations, but also lists a handful of frequently discussed actions that are typically not recommended because of the risk of irreversible harm to historic fabric, etc.

English parish churches come in all shapes and sizes and, crucially, vary significantly in intensity of use. This calls for quite different measures in different places, and the document succeeds in addressing a wide variety of such situations. The beauty of this graded structure is that it allows churches to start with the 'A' items and, over time to progress through the list, selecting only those actions that are appropriate to their particular building and situation. Clearly this short document can never hope to be the last word on sustainability in historic churches; rather, its role is to encourage churches to make a start, and then to provide a framework for ongoing discussion and the raising of ambition.

The 'Practical Path' is targeted specifically at parishes. Alongside the original two-page document, there is an expanded self-audit checklist version, and it is anticipated that church communities will begin to initiate discussions using that as a basis. Further, because it is user-friendly, the 'Practical Path' also offers an excellent tool for use by conservation professionals seeking to encourage their churches to engage with sustainability issues in a responsible manner, while avoiding harm to their historic buildings.

Best Practice Notes

A second resource, developed within the last year, is a set of Best Practice guidance specifically aimed at church architects and surveyors, which aims to capture and share sustainability best practices. This was developed jointly by the CBC and the committee of the Ecclesiastical Architects & Surveyors Association (EASA), a professional body founded in 1872 to promote good standards of design and repair for those working with church buildings across all denominations. This initiative flowed from a recognition that, since part of their role is to carry out the regular quinquennial (five-yearly) inspections each church is required to have, church architects and surveyors already have both knowledge of these buildings and a strategic relationship with their church communities. This makes them uniquely well-positioned to help parishes engage with sustainability issues and to advise on the practicalities of possible sustainability measures.



Figure 3. Best Practice Notes © CBC

Two Best Practice Notes have been developed under this initiative, one addressing project work and the other quinquennial inspections (EASA, 2021), in recognition that the two types of work are approached in quite different ways and typically raise distinct sets of issues. Both notes aim to embed sustainability as part of the professional's regular duties, rather than as a separate function or service. The approach taken is to provide a frame of reference for the professional, first to spot appropriate opportunities for sustainability improvements, and second to guide churches that have this ambition, but typically do not know where to start.

Project Works

Project works, of course, take a wide variety of forms, from significant reorderings and extensions through substantial programmes of repair. Such projects often present opportunities for improving sustainability, and the Project Works Best Practice Note offers a framework to ensure that such opportunities that do naturally arise are not missed. Beyond that, it aims to encourage proposals that are well thought through, to assist applicants in creating supporting documentation that is well argued and appropriately presented, and thus to improve the quality of applications passing through the permissions process.

To that end, the recommendation is that the case for any sustainability measures should be integrated into the Statement of Needs, one of the two key documents needed for any proposed change, rather than being presented as an additional separate document. (The other required document for all applications is the Statement of Significance, the purpose of which is to record what is important about the existing building and why (Church of England, 2020; Walter, 2015). It is recommended that the Statement of Needs makes explicit reference to the sustainability principles behind proposals, anchoring them in government and specific diocesan policy. Given the living heritage status of these church buildings, this rationale will naturally and necessarily include explicit theological justification. In the specific case of sustainability proposals, this will involve an articulation of the fifth 'mark of mission' – 'to strive to safeguard the integrity of creation and sustain and renew the life of the earth' (Anglican Communion, 2020) – as a 'public benefit' to be balanced against any 'harm' to the significance of the building.

The Project Works document starts with seven principles that apply to any project before considering others that would apply to specific types of project, such as roof replacement, solar panels, reorderings, etc. The renewal of heating systems is a classic area of intervention: changing from an oil or gas heat source to electricity, combined with moving to a 100% renewable supply, typically offers a very substantial carbon saving, and should be high on the agenda for any alteration project. The Note ends with recommendations on monitoring and data gathering to help inform design work and a selection of useful links and resources.

Quinquennial Inspections (QIs)

These inspections, carried out by a conservation professional every five years, look at the condition of the fabric and systems of the church, including the churchyard and any associated buildings, and result in an illustrated report with a prioritised list of maintenance actions and an indication of possible costs. Because of their regularity, QIs

present another key opportunity to support churches in reducing their carbon footprint, and one that applies to every church building, not just those planning project works. Again, the focus of the Note is on considering questions of sustainability during the normal course of the inspecting architect's or surveyor's duties, rather than presenting a further, potentially onerous layer of complexity.

Just as much as with project work, the 'Practical Path to Net Zero Carbon' document offers a valuable aid, and the Note recommends that this is sent to churches in advance of the survey visit, discussed on site, and included as an appendix in the report. The QI Note also provides two sections of recommended standard text for inclusion in the report: one to introduce sustainability issues for inclusion in the preamble and the other for a suggested 'Countdown to 2030' section to summarise the sustainability-related recommendations.

Change as Threat and Opportunity

The above examples of documentation entail an explicit acknowledgement that responding to the climate crisis will result in changes to England's historic parish churches. For those conservation professionals who focus primarily on material authenticity and its preservation, such change can only be seen as harmful to the significance of these buildings. However, I would argue that such change need not be seen as a threat. The significance of these buildings lies not only in their physical fabric, nor indeed only in their social and communal value, but in the nexus – literally the binding together – of those two, of people and place. Continuity of change (within tradition) is one of four forms of continuity that are characteristic of living heritage (Poulios, 2014, pp. 115–119; Wijesuriya, 2015). Precisely because these are living buildings, they can therefore be expected to change (Walter, 2020b).

The key issue in deciding whether change is destructive to or constructive of the heritage is the extent to which that change belongs within the continuity of the tradition that formed the building and of which it is a direct expression (Walter, 2020a, pp. 124–148); hence the importance, in the case of protected churches, of engaging with the theological culture undergirding them, as with the fifth 'mark of mission' discussed above. Constructive change of the sort described can be expected to strengthen the connections of people with their physical heritage – to the benefit of both – and this is a key determinant in the survival and flourishing of living heritage. But this is also of relevance beyond the confines of any one tradition, having the potential to place the Church in a position of cultural leadership, particularly with younger demographics, and with the promotion of intercultural dialogue. The key is that any implemented measures take their place within that living tradition, in this case, on the basis that care of creation is understood as a legitimate and essential part of the mission of the Church.

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Figuig, ou de l'Immatériel dans le Patrimoine Matériel

Abderrahim Kassou*

En tant qu'architecte intéressé par le patrimoine bâti depuis plusieurs années, il me semblait à l'occasion de ce symposium intéressant de porter un regard sur la dimension immatériel du patrimoine oasien, en prenant comme exemple l'oasis de Figuig, connue notamment pour ses ksours en terre ainsi que pour son système de canaux d'irrigation. Figuig fait d'ailleurs partie des sites sur la liste indicative du Maroc du patrimoine mondial. Lors de cette présentation, il est proposé de s'arrêter sur quelques dimensions transversales qui couvrent à la fois le patrimoine matériel et immatériel, et qui subissent une évolution forte du fait des changements climatiques dans la région. En effet, là comme ailleurs la question sociale est fondamentale pour saisir les enjeux liés au patrimoine. Alors que d'autres tissus historiques au Maroc souffrent d'une surdensification, à Figuig c'est plutôt une dédensification asséchante qui est constatée. En effet, la population globale, stable autour de 13 000 habitants depuis des décennies, régresse, avec en plus un déséquilibre entre population active et population inactive. L'attachement identitaire de ceux qui ont migré ne se traduit pas par un entretien ou une remise en état du bâti traditionnel, par la réfection de l'ancienne demeure familiale ou l'entretien de la parcelle agricole traditionnelle, mais plutôt dans la construction d'édifices neufs, tout en se prévalant de manière contradictoire d'un attachement profond au terroir. Lors de cette communication, il sera question de s'interroger sur les savoirs et savoir-faire liés à deux dimensions importantes du patrimoine de Figuig : la construction traditionnelle, et la gestion de l'eau. Ces deux éléments s'adosent sur des compétences communautaires importantes, éléments centraux du patrimoine immatériel local, et qui subissent de plein fouet les changements climatiques. Cette dimension immatérielle du patrimoine n'est pas suffisamment étudiée en tant que telle mais réduite au rôle des métiers traditionnels alors qu'elle représente beaucoup plus. Ainsi, à travers cet exercice, il sera question de montrer comment les savoir-faire liés à la gestion de l'eau, ainsi qu'à l'acte de bâtir, évoluent pour s'adapter, ouvrant de nouvelles pistes pour le patrimoine oasien, contrebalançant le patrimoine physique qui lui se dégrade.

Mots-clés: patrimoine oasis, ksour en terre, Figuig

Figuig, or the Intangible in the Tangible Heritage

As an architect interested in the built heritage for several years, it seemed to me during this interesting symposium to take a look at the intangible dimension of oasis heritage, taking as an example the oasis of Figuig known in particular for its earthen ksours, as well as for its irrigation flue system. Figuig is also one of the sites on Morocco's World Heritage Tentative List. During this presentation, it is proposed to focus on a few cross-cutting dimensions that cover both tangible and intangible heritage, which are undergoing a strong evolution due to climate change in the region. Indeed, here as elsewhere, the social question is fundamental to understanding the issues linked to heritage. While other historic fabrics in Morocco suffer from over-densification, in Figuig it is rather a drying de-densification that is observed. Indeed, the overall population, stable at around 13,000 inhabitants for decades, is declining, along with an imbalance between the working population and the inactive population. The attachment to identity of those who have migrated does not translate into the maintenance or restoration of traditional buildings by repairing the old family home or the maintenance of the traditional agricultural plot, but rather in the construction of new buildings while availing itself in a contradictory way of a deep attachment to the land. During this communication, it will be a question of questioning the knowledge and know-how linked to two important dimensions of Figuig's heritage: traditional construction and water management. These two elements are based on important community competencies, which are central elements of the local intangible heritage, and are severely affected by climate change. This intangible dimension of heritage needs to be sufficiently studied as such, not reduced to the role of traditional trades when it represents much more than that. Through this exercise, it will be necessary to demonstrate how water management expertise and building practices evolve to adapt, thereby opening up new avenues for oasis heritage and mitigating the deteriorating physical heritage.

Keywords: oasis heritage, earthen ksour, Figuig

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A. Kassou

« Figuig, ou de l'Immatériel dans le Patrimoine Matériel »

Figuig, o lo Intangible en el Patrimonio Tangible

Como arquitecto interesado en el patrimonio construido desde hace varios años, durante este simposio me pareció interesante echar un vistazo a la dimensión intangible del patrimonio de los oasis, tomando como ejemplo el oasis de Figuig, conocido en particular por sus ksours de tierra, así como por su sistema de canales de riego. Figuig es también uno de los sitios en la Lista Indicativa del Patrimonio Mundial de Marruecos. En esta presentación, se propone centrarse en algunas dimensiones transversales que abarcan tanto el patrimonio material como el inmaterial, y que están experimentando una fuerte evolución debido al cambio climático en la región. De hecho, tanto aquí como en otros lugares, la cuestión social es fundamental para comprender las cuestiones vinculadas al patrimonio. Mientras que otros tejidos históricos en Marruecos sufren de sobredensificación, en Figuig se observa más bien una desdensificación por desecación. De hecho, la población general, estable alrededor de 13.000 habitantes durante décadas, está disminuyendo, además de un desequilibrio entre la población activa y la inactiva. El apego de identidad de quienes han migrado no se traduce en un el mantenimiento o la restauración de edificios tradicionales mediante la reparación de la antigua casa familiar, o el mantenimiento de la parcela agrícola tradicional, sino en la construcción de nuevos edificios, aprovechando de forma contradictoria un profundo apego a la tierra. En esta comunicación, se tratará de cuestionar los conocimientos y el saber hacer vinculados a dos dimensiones importantes del patrimonio de Figuig: la construcción tradicional y la gestión del agua. Estos dos elementos se basan en importantes competencias comunitarias, elementos centrales del patrimonio inmaterial local y que se ven gravemente afectados por el cambio climático. Esta dimensión inmaterial del patrimonio no está suficientemente estudiada como tal, sino que se ve reducida al papel de los oficios tradicionales cuando representa mucho más que eso. Así, a través de este ejercicio, será cuestión de mostrar cómo el *know-how* relacionado con la gestión del agua, así como el acto de construir, evoluciona para adaptarse, abriendo nuevas vías para el patrimonio de los oasis que compensan el deterioro del patrimonio físico.

Palabras clave: patrimonio oasis, ksour de tierra, Figuig

El Paisaje Chinampero de la Ciudad de México ante el Cambio Climático

Fernando Roberto Chiapa Sánchez*

Esta participación pretende exponer de manera general algunos de los efectos del cambio climático en las chinampas de la Ciudad de México, bien inscrito en la Lista del Patrimonio Mundial de la UNESCO en 1987, en conjunto con el Centro Histórico de la Ciudad de México. Las chinampas, al ser islotes de cultivo rodeados por canales necesariamente navegables, dependen del equilibrio entre el nivel de agua de la red canalera y las condiciones de las superficies de cultivo. En este sentido, la pérdida (parcial o total) de los canales, vinculada a las alteraciones relacionadas con la cantidad y calidad de agua, constituyen elementos de crucial importancia para la conservación del paisaje chinampero. Uno de los principales efectos del cambio climático se refiere a las implicaciones que genera el aumento de la temperatura en la dinámica hidrológica, fundamentalmente en la disminución gradual de los niveles de agua de la red de canales, componente imprescindible para la producción y distribución de cultivos. Otro efecto es el relacionado con los eventos meteorológicos extremos como las inundaciones periódicas que cubren anualmente cientos de chinampas, situación que origina la pérdida de una cantidad importante de cultivos de hortalizas y flores, impactando directamente en la economía de los agricultores locales.

Palabras clave: paisaje chinampero, cambio climático, deterioro medioambiental y estrategias de conservación

Mexico City's Chinampas Landscape in the Face of Climate Change

This paper seeks to present some of the effects of climate change in the chinampas of Mexico City, which were inscribed on the UNESCO World Heritage List in 1987 in conjunction with the Historic Centre of Mexico City. Depending on the equilibrium between the water level of the canal network and the conditions of the cultivation surfaces, the chinampas are cultivated islands surrounded by navigable channels. In this regard, the loss (partial or total) of the channels, as a result of alterations in the quantity and quality of water, is crucial to the conservation of the chinampas system. One of the most significant effects of climate change is the impact of the rise in temperature on the hydrological dynamics of the chinampero system, resulting primarily in the gradual decline of water levels in the canal network, a crucial component for crop distribution. Extreme meteorological events, such as periodic floods that annually cover hundreds of chinampas, result in the loss of a substantial quantity of vegetable and flower crops, which has a direct economic impact on local farmers.

Keywords: chinampas landscape, climate change, environmental deterioration, conservation strategies

Le Paysage des Chinampas de Mexico Face au Changement Climatique

Cet article vise à présenter de manière générale certains des effets du changement climatique dans les chinampas de Mexico, bien inscrit sur la Liste du patrimoine mondial de l'UNESCO en 1987, conjointement au Centre historique de Mexico. Les chinampas, îlots cultivés entourés de canaux nécessairement navigables, dépendent de l'équilibre entre le niveau d'eau du réseau de canaux et les conditions des surfaces de culture. En ce sens, la perte (partielle ou totale) des canaux, liée aux altérations de la quantité et la qualité de l'eau, constitue un facteur d'importance cruciale pour la conservation du système des chinampas. L'un des principaux effets du changement climatique vient de l'augmentation de la température dans la dynamique hydrologique du système des chinampas, dont le résultat fondamental est une baisse progressive des niveaux d'eau du réseau de canaux, lesquels forment une composante essentielle à la production et à la distribution des cultures. Un autre effet est la survenue d'événements météorologiques extrêmes comme les inondations périodiques qui couvrent chaque année des centaines de chinampas, entraînant la perte d'une quantité importante de cultures maraîchères et florales, avec un impact économique direct sur les agriculteurs locaux.

Mots-clés: paysage de chinampas, changement climatique, détérioration de l'environnement, stratégies de conservation

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Antecedentes

Las chinampas de la Ciudad de México, bien inscrito en la Lista del Patrimonio Mundial de la UNESCO en 1987, conjuntamente con el Centro Histórico de la Ciudad de México, constituyen el relicto más antiguo del sistema hidrológico de la Cuenca de México, particularmente de la Subcuenca Xochimilco-Chalco (Imagen 1).

El sistema de chinampas se ubica al sur de la Ciudad de México, ocupa una superficie de 2215 ha, 3500 chinampas activas aproximadamente, distribuidas en dos alcaldías y en cinco poblados tradicionales: Xochimilco, San Gregorio Atlapulco, San Luis Tlaxialtemalco, en la Alcaldía Xochimilco y; San Pedro Tláhuac y San Andrés Mixquic, en la Alcaldía Tláhuac (González Pozo, 2016).

La chinampa es un sistema de cultivo de hortalizas y flores conformado por porciones de tierra ancladas al fondo del lago a partir de árboles denominados *ahuejotes* (*salix bonplandiana*) y rodeadas por canales navegables, *acalotes* y *apantles* que van de los 2.5 a los 6 metros de ancho. Por sus condiciones ambientales es considerado uno de los agroecosistemas tradicionales de cultivo de mayor productividad a nivel mundial. Dependiendo del tipo de cultivo es posible obtener de 3 a 4 cosechas anualmente. (Imágenes 2-3)

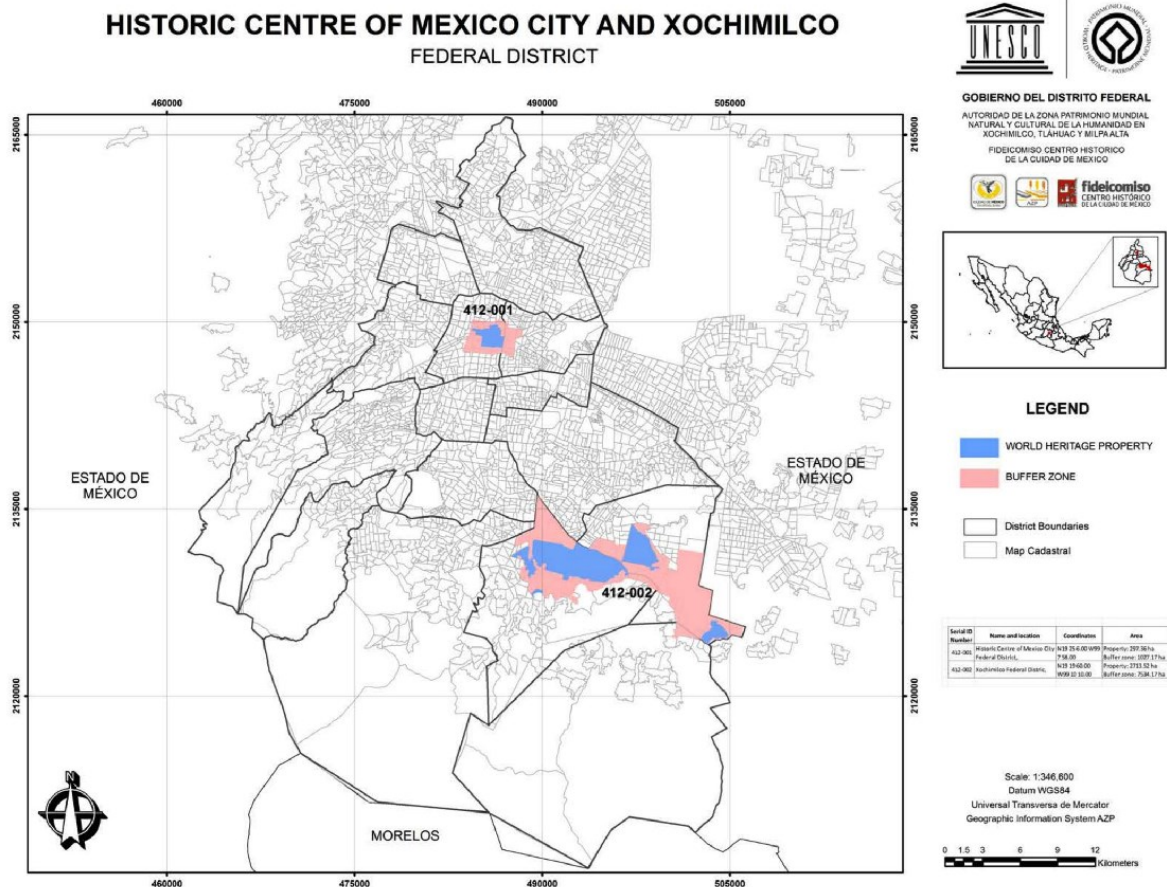


Imagen 1. Centro Histórico de la Ciudad de México y Paisaje Chinampero de Xochimilco y Tláhuac, Expediente de inscripción en la Lista del Patrimonio Mundial, UNESCO © whc.unesco.org/fr/list/412

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Imagen 2. Representación de las chinampas de México-Tenochtitlan © Fragmento de Mural, Museo Nacional de Antropología, Ciudad de México

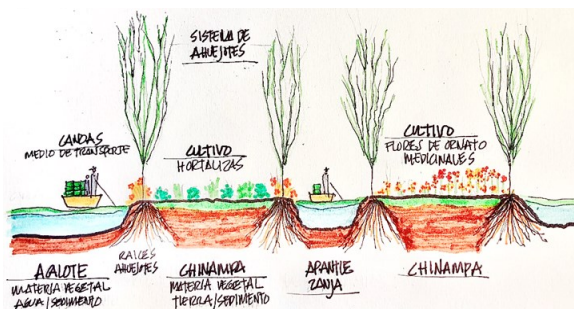


Imagen 3. Corte transversal de un conjunto de chinampas. San Gregorio Atlapulco, Xochimilco, CDMX. F. Chiapa, 2013 © P. Armillas y W. Sanders, 1957



Imagen 4. Vista aérea de las chinampas © Secretaría del Medio Ambiente, GDF, 2005

Vale decir que debido a los atributos relacionados con la alta productividad agrícola y su valor universal excepcional, fundamentado en la transmisión del *saber hacer* tradicional, el Sistema Agrícola Chinampero de la Ciudad de México, fue reconocido por la Organización de las Naciones Unidas para la Alimentación y la Agricultura (FAO) en 2017, como Sitio Importante del Patrimonio Agrícola Mundial (SIPAM).

Como antecedente, destacan alteraciones de carácter acumulativo que han impactado de manera irreversible, principalmente durante el siglo XX, en los valores de autenticidad e integridad del sistema chinampero, tales como: la extracción desmedida de los recursos hídricos de la Subcuenca Xochimilco-Chalco y en consecuencia la extinción de una cantidad importante de manantiales y ojos de agua; los hundimientos diferenciales y agrietamientos profundos a causa de la extracción de agua y de los eventos sísmicos y; recientemente, la invasión de chinampas a causa del crecimiento urbano irregular.

Efectos del Cambio Climático en el Sistema Chinampero

Los efectos del cambio climático que han incidido en el sistema chinampero durante las últimas tres décadas, principalmente se refieren a los cuatro fenómenos siguientes: la disminución del nivel de agua de la red de canales; los eventos meteorológicos extremos como inundaciones y períodos de sequía; el impacto en el desarrollo de las actividades agrícolas; y la proliferación de flora y fauna invasiva.

1. Disminución del nivel de agua de la red de canales.

A manera de antecedente, cabe destacar que de acuerdo a sus características la red de canales está conformada por tres tipos de cauces:

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- *Canales o acequias*, de acuerdo a sus dimensiones van de los 6 a los 20 metros de ancho. Son de fundamental importancia para la distribución y comercialización de los cultivos en el ámbito regional.
- *Acalotes*, son cauces que contribuyen a la conectividad entre sectores o parajes; facilitan las condiciones de movilidad de insumos, equipo y herramientas para el desarrollo de las tareas de cultivo. Sus dimensiones oscilan entre los 4 y 6 metros de ancho.
- *Apantles*, son considerados los cauces de servicio entre chinampas. Sus dimensiones van de 1.5 a 4 metros de ancho. Su condición de navegabilidad constituye un aspecto imprescindible para actividades del proceso de cultivo tales, como el riego y la obtención de lodo del fondo de los cauces para elaborar camas de cultivo denominadas almácigos.



Imagen 5. Disminución del nivel de agua de la red de canales, Canal Nacional, San Gregorio Atlapulco
© F. Chiapa, 2019

De acuerdo al artículo publicado el 31 de julio de 2020, en la edición para América del diario español El País, la temperatura en la Ciudad de México ha aumentado entre 1,8 y 2,6 grados en los últimos 15 años (Maldonado, 2020). En este sentido, fenómenos recientes como las olas de calor extendidas causantes de la evaporación acelerada de agua, aunado a la filtración por los agrietamientos profundos, son las principales causas de la pérdida gradual del nivel de agua de la red de canales, situación que contribuye al abandono, a veces definitivo, de un número significativo de chinampas anualmente (Imagen 5).

2. Eventos meteorológicos extremos: inundaciones y sequías.

Otro aspecto que altera, cada vez con mayor frecuencia la dinámica del sistema chinampero, se refiere a las repercusiones de las inundaciones y períodos de sequía extendidos en todo tipo de cultivo.

Como destaca Francisco de la Maza no hay que olvidar que la Ciudad de México, por haberse fundado en una isla rodeada de lagos con diferentes niveles, siempre estuvo en peligro de inundaciones. Ocho fueron las inundaciones más graves, la más terrible de su historia en 1629, cuando el centro de la ciudad permaneció inundado cinco años (De la Maza, 1968).

En relación a las inundaciones que actualmente afectan al sistema chinampero a causa del cambio climático vale decir que, aunque cada zona presenta particularidades relacionadas con su situación geográfica y los hundimientos diferenciales, la mayoría se concentran en los sectores más bajos ubicados hacia el norte de las zonas chinamperas, principalmente de Xochimilco, San Gregorio Atlapulco y San Luis Tlaxialtemalco.

Cabe mencionar que a consecuencia de estas inundaciones, por lo menos en dos periodos del año se pierden miles de metros cuadrados de cultivo de hortalizas y flores, condición que impacta de manera determinante en la economía de las familias chinamperas. (Imagen 6)

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Imagen 6. Eventos meteorológicos extremos: chinampas inundadas, San Gregorio Atlapulco © F. Chiapa, 2020

Con respecto a los períodos de sequía, son las zonas más altas las que padecen los efectos de mayor adversidad. Si consideramos que el sistema chinampero históricamente ha dependido del equilibrio del régimen pluviométrico, en donde los periodos de lluvia contribuyen a solventar los tiempos de secas, fácilmente se entiende que las alteraciones por falta del recurso hídrico impactan de manera irreversible en el funcionamiento del sistema, dejando cientos de chinampas y canales sin agua durante periodos extendidos. (Imagen 7)



Imagen 7. Efectos de un periodo de sequía en los cultivos de hortalizas, San Gregorio Atlapulco © F. Chiapa, 2020

Michael Kimmelman, en un artículo publicado en febrero de 2017 en el diario *The New York Times*, titulado *Ciudad de México, al borde de una crisis por el agua*, apunta que las altas temperaturas y la sequía no sólo implican una mayor evaporación, sino además una mayor demanda de agua. Esta situación hace más urgente el conseguir agua desde zonas de reserva que se encuentran a cientos de kilómetros de la ciudad, lo que supone costos y esfuerzos mayores (Kimmelman, 2017).

3. Impacto en el desarrollo de las actividades agrícolas.

El incremento exponencial de concentración de gases de efecto invernadero es una de las principales causas del cambio climático, principalmente en las ciudades con altos índices de crecimiento urbano, concentración industrial y dinámicas de consumo desmedido de combustibles fósiles (IPCC, 2021). En este sentido, aunque los efectos dependen de la circunstancia de cada región, el sistema chinampero reviste un gran reto -por no decir un milagro- en relación a la garantía de su conservación, sobre todo por el potencial que refiere en el ámbito de la seguridad alimentaria.

Desde la segunda mitad del siglo XX, principalmente a partir de la década de los setenta, las alcaldías Xochimilco, Tláhuac y Milpa Alta, ubicadas al sur de la ciudad y con la mayor parte de su territorio considerado zona de reserva ambiental o destinada al uso agropecuario, fueron zonas que albergaron a una gran cantidad de habitantes provenientes de otros sectores, en su mayoría de carácter urbano.

Este fenómeno, aunado a la alta demanda de agua de los nuevos asentamientos -irregulares- impactó, y continúa impactando, de manera crucial en el futuro de las actividades de cultivo en las chinampas y su relación con otras zonas tales como las terrazas agrícolas, ubicadas en la zona cerril de la región (Toledo, 2018).

En consecuencia, el aumento de la demanda de agua destinado a los usos de suelo de carácter urbano, de manera gradual, va en detrimento de los requerimientos hídricos del sistema chinampero en su conjunto: cauces, superficies de cultivo y, en consecuencia, ambientes propicios para el desarrollo de especies de flora y fauna endémicas.

Otro de los aspectos que repercuten en la dinámica de las chinampas, se refiere a las condiciones y alternativas de adaptación que los chinamperos tendrán que adoptar. Desde esta perspectiva, fundamentada en su creatividad, será mejor la elección para la rotación de los cultivos.

Por otra parte, en el ámbito socio-cultural, las prácticas desmedidas de consumo de bienes industriales son aliadas de las nuevas “costumbres” urbanas, mismas que de manera exponencial continúan ganando la batalla a las actividades de carácter rural. Al parecer, el sistema chinampero continúa ocupando un lugar secundario en las políticas relacionadas al combate contra el cambio climático.

4. Proliferación de flora y fauna invasiva.

De acuerdo a estudios recientes, los desajustes ecológicos representan un efecto del cambio climático. La introducción y proliferación de especies de flora y fauna exótica en el sistema chinampero constituye un claro ejemplo (Toledo, 2018).

En relación a la flora, la presencia de plagas como el muérdago encuentran condiciones propicias debido al aumento de la temperatura. Esta especie degrada la estabilidad de los árboles (ahuejotes) que constituyen la estructura portante de la chinampa hasta acabar con sus raíces. La dispersión de esta especie durante las últimas tres décadas ha sido la principal causa de la disminución de la masa arbórea del sistema chinampero (González Pozo, 2016).

El lirio acuático, especie introducida durante la década de los sesenta, también produce efectos adversos, particularmente en el desarrollo de actividades básicas relacionadas con la distribución y comercialización de cultivos, a pesar de que su aprovechamiento como composta/abono orgánico aún es menospreciado por algunos chinamperos al llamarle “basura”. Esto se traduce en la obstrucción de canales, acalotes y apantles, además de zonas de carga y descarga en embarcaderos de carácter local, situación que altera la dinámica de movilidad en el sistema chinampero. (Imágenes 8-9)

En materia de fauna, la tilapia es una especie que en condiciones de temperatura adecuada prolifera fácilmente. En este sentido, uno de los aspectos más significativos que promueven

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Imagen 8. Pérdida de masa arbórea a causa de la proliferación de plagas, San Gregorio Atlapulco
© F. Chiapa, 2020



Imagen 9. Proliferación de flora invasiva en embarcaderos locales, San Gregorio Atlapulco
© F. Chiapa, 2021

su reproducción es el referente a su modo de anidación, ya que son las raíces de los árboles y bordes de las chinampas los componentes del sistema más afectados. Estos nidos producen oquedades en los bordes que pronto se convierten en causa de colapso y caída de árboles. Durante los últimos años es notable la cantidad de bordes y árboles colapsados como resultado de este fenómeno. No obstante, las iniciativas llevadas a cabo recientemente por parte de instituciones educativas y gubernamentales, fundamentadas en la cooperación interdisciplinaria, han contribuido a la mitigación de esta problemática.

Algunas Alternativas en Materia de Restauración y Conservación del Sistema Chinampero

Por lo anterior, el sistema chinampero de la Ciudad de México, bien inscrito en la Lista del Patrimonio Mundial de la UNESCO y reconocido por la FAO como Sistema Importante del Patrimonio Agrícola Mundial, representa uno de los sitios de valor natural y cultural con mayores riesgos y amenazas, inmerso en una de las ciudades capitales más pobladas del mundo.

Esta condición ha sido la razón por la cual, a partir del 2005, se inició un trabajo arduo para la catalogación, diagnóstico y monitoreo del estado de conservación del sistema chinampero, desarrollado por un grupo de investigadores de diferentes disciplinas, adscritos a la Universidad Autónoma Metropolitana, Unidad Xochimilco.

Con base en estas primeras acciones de conservación, en 2016 se presentó a las autoridades del Gobierno de la Ciudad de México, a través de la Autoridad de la Zona Patrimonio Mundial en Xochimilco, Tláhuac y Milpa Alta, una versión preliminar del Plan de Manejo del Sistema Chinampero. El objetivo general era la conservación y restauración de los atributos de autenticidad e integridad de los componentes del sistema chinampero, fundamentado en tres líneas estratégicas y diversas acciones a corto, medio y largo plazo.

En relación a las líneas estratégicas se destaca, en primer lugar, la restauración del sistema hídrico considerando el restablecimiento e integración de plantas de agua; la incorporación de sistemas de inyección, captación y aprovechamiento de agua pluvial y; el diseño de un sistema de control de niveles de agua a partir de la construcción de esclusas fundamentado en el conocimiento tradicional.

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Imagen 10. La gente que cultiva las chinampas, San Gregorio Atlapulco © F. Chiapa, 2022



Imagen 11. Los cultivos que se producen en las chinampas y terrazas agrícolas, San Gregorio Atlapulco © F. Chiapa, 2022

Como segunda estrategia se propone la restauración de la red de canales a partir de la limpieza de cauces obstruidos, la rehidratación de secos y el mantenimiento de los navegables, además de la rehabilitación de los embarcaderos de carácter local.

Finalmente, con respecto a la tercera estrategia, se recomienda la restauración del suelo chinampero, considerando acciones como la reintegración de la masa arbórea; la consolidación de los bordes de chinampas alterados y; el mejoramiento de suelos deteriorados a causa de la erosión.

Es evidente que el diseño y puesta en marcha de un plan de manejo de esta envergadura requiere de la colaboración conjunta de la diversidad de actores que intervienen en la dinámica del sistema chinampero, pero principalmente de los protagonistas del lugar: la gente que continúa cultivando las chinampas. (Imágenes 10-11)

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Cultural Routes as an Instrument for Resilience

Carmen Daly Schelbert, Cecilia Calderón Puente*

In 2021, we can assure that the climate crisis and the consequences of the pandemic have accelerated the deterioration of some World Heritage Sites. Cultural Itineraries have been especially affected; they occupy a large territory, and it isn't easy to monitor them entirely and comprehensively. Cultural Routes represent the interactive, dynamic, and evolutionary processes of human relations on a global scale. Their territorial transcendence has allowed cultural links between peoples, countries, regions, and continents. The exchange of ideas, goods, and beliefs over the centuries has generated important physical and territorial cohesion. Although they are currently in a situation of vulnerability, they can also offer information and knowledge to contribute to Climate Change RESILIENCE. The universal scope of Cultural Itineraries allows us to articulate cohesive responses and can become a fundamental asset for climate action. We will present a set of strategies and actions to deal with uncertainty and lack of information in the face of the changes occurring on our planet. It is a proposal to the Vice-President of the Americas for the Triennial Plan of the Scientific Committee of Cultural Itineraries. We will implement three projects: Training, Introduction to Risk Management, and Case Studies, where we will analyse some examples of "Traditional Ecological Knowledge".

Keywords: cultural routes, education, traditional ecological knowledge, sustainability

Les Itinéraires Culturels comme Instrument de Résilience

En 2021, nous pouvons affirmer que la crise climatique et les conséquences de la pandémie ont accéléré la détérioration de certains sites du patrimoine mondial. Les itinéraires culturels ont été particulièrement touchés ; ils occupent un vaste territoire, et il n'est pas facile de les surveiller dans leur entier et leur ensemble. Les itinéraires culturels représentent les processus interactifs, dynamiques et évolutifs des relations humaines à l'échelle mondiale. En transcendant les territoires, ils ont permis des liens culturels entre les peuples, les pays, les régions et les continents. L'échange d'idées, de biens et de croyances au fil des siècles a généré une importante cohésion physique et territoriale. Bien qu'ils soient actuellement en situation de vulnérabilité, ils peuvent également offrir des informations et des connaissances pour contribuer à la RÉSILIENCE au changement climatique. La portée universelle des itinéraires culturels nous permet d'articuler des réponses cohérentes et peut devenir un atout fondamental pour l'action climatique. Nous présenterons un ensemble de stratégies et d'actions pour faire face à l'incertitude et au manque d'information face aux changements qui se produisent sur notre planète. Il s'agit d'une proposition à la Vice-présidence des Amériques pour le Plan triennal du Comité scientifique des itinéraires culturels. Nous mettrons en œuvre trois projets : formation, introduction à la gestion des risques, et études de cas, où nous analyserons quelques exemples de « savoirs écologiques traditionnels ».

Mots-clés: itinéraires culturels, éducation, savoirs écologiques traditionnels, durabilité

Itinerarios Culturales como Instrumento para la Resiliencia

En el 2021 podemos asegurar que la crisis climática y las consecuencias de la pandemia han acelerado el deterioro de algunos Sitios Patrimonio de la Humanidad. Los Itinerarios Culturales han sido especialmente afectados, dado que ocupan un amplio territorio y es muy difícil monitorearlos de manera completa e integral. Los Itinerarios Culturales representan los procesos interactivos, dinámicos, y evolutivos de las relaciones humanas a escala global. Su transcendencia territorial ha permitido la vinculación cultural entre pueblos, países, regiones y continentes. El intercambio de ideas, mercancías y creencias a través de los siglos ha generado una importante cohesión física y territorial. Si bien en este momento están en situación de vulnerabilidad, también pueden ofrecer información y conocimiento para contribuir con la RESILIENCIA ante el Cambio Climático. El alcance universal de los Itinerarios Culturales nos permite articular respuestas cohesionadas que pueden convertirse en un activo fundamental para la acción climática. Presentaremos un conjunto de estrategias y acciones orientadas a lidiar con la incertidumbre y la falta de información frente a los cambios que están ocurriendo en nuestro planeta. Esta es la propuesta de la Vicepresidencia de América para el Plan Trienal del Comité Científico de Itinerarios Culturales. Aplicaremos 3 proyectos: formación, Introducción a la Gestión de riesgos, y el estudio de casos donde analizaremos algunos ejemplos del "Conocimientos ecológico tradicional".

Palabras clave: rutas culturales, educación, conocimiento ecológico tradicional, sostenibilidad

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Cultural Routes in the 21st Century

Cultural routes are made up of roads and the service infrastructure necessary to carry out their function, as well as cities and towns. Cultural routes comprise not only the physical communication routes that facilitate the flow but also the cultural goods and the material and immaterial values associated with their specific purpose and historical functionality, of which historical roads, serial and transnational goods covering vast territories are studied today. "Cultural Routes represent interactive, dynamic, and evolving processes of intercultural human relations that reflect the rich diversity of different peoples' contributions to cultural heritage." (ICOMOS, 2008, p. 1)



Image 1. Gods of America. Salisbury Art Centre, Salisbury, 2007 © Antonio Briceño

They are the result of cultural dynamics generated over time and that, at the time, were intentionally designed and used by people to perform a specific and well-defined function; over time, they shaped a new cultural expression. Consequently, they reveal the heritage content of a concrete phenomenon of human mobility and exchange that is very specific and unique, and which is extremely topical today due to the rapidity of globalisation. In this way, they promoted "... a multiple and reciprocal fertilization, in space and time, of the cultures concerned that is manifested in both their tangible and intangible heritage." (ICOMOS, 2008, p. 2)

As elements that define them, there are the intangible ones, which are witnesses of communication and dialogue processes between individuals that have an impact on

their routes and the tangible ones, related to their function, such as: "(...) posts, customs, places of storage, rest and provisioning, hospitals, markets, ports, defensive constructions, bridges, means of communication and transport, industrial, mining or other establishments, such as those linked to production and trade, reflecting the technical, scientific and social applications and advances of their different periods, urban centres, cultural landscapes, sacred places, places of worship and devotion, ..." (ICOMOS, 2008, p. 2)

Shared value as a whole:

- The concept of cultural routes constitutes a whole of value greater than the sum of the elements that make it up and that gives it its meaning.
- Within its global identity, the value of its parts lies in their common, plural and participatory interest.
- Its transcendence of scale allows a cultural link between peoples, countries, regions and continents.
- This amplitude is important from the territorial point of view and from the point of view of the integral treatment of the diverse heritage elements it includes, but, at the same time, the diversity of cultures it entails constitutes an alternative to the processes of cultural homogenization. (ICOMOS, 2008, p. 2)

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Cultural routes are also an expression of culture that combines and interweaves diverse customs and ways of life. Moreover, this concept is becoming a reality that follows humans through time and space. The more communication opportunities there are, the more new cultural traits emerge.

Post-Pandemic Society: Lessons and Opportunities

At the end of 2021, we began to assess some of the legacies of the "Global Crisis", a product of the COVID-19 pandemic. The entire planet was affected in one way or another, including the economy, energy, transportation, tourism, health, agriculture, food, and both large and small businesses. This paper presents a summary of some of the opportunities and lessons learnt from this crisis.

First, confirmation that humanity resides on a single planet and is part of "one interconnected system." Recent events confirm what most of us already know: if we wish to advance as a society, we must work in coordination and in a single direction.

Humanity has rediscovered the importance of nature and green spaces in our lives, and as a result, many families are moving to houses with gardens or returning to the countryside.

With the use of digital technologies, the need for communication resulted in a new set of options. We can observe the rapid acceleration of the digitization of society, particularly in the realms of government, economy, and social relations. This process involves risks and opportunities that each of us must analyse and evaluate.

Due to the time constraints of the advanced international transportation system, there is a reevaluation of local products. This situation is strengthening the new local and regional economies.

To conclude, we copy a paragraph from the ICOMOS Resolution on Climate Emergency, ratified in 2020:

Recognition of the current COVID-19 pandemic and the suffering it has caused has accelerated the response to climate change, but it has also revealed some essential lessons. The need to pay attention to science, for the consequences of a breakdown between humans and nature, the importance of focusing on the needs of the most vulnerable, and the fact that rapid and far-reaching social and economic change is possible when society wants it. (ICOMOS, 2020, p. 2)

From Climate Change to Climate Action

It is essential to review these two concepts and consolidate the differences between them. The disease is not the same as the solution. Unfortunately, only the condition is mentioned in the media, generating uncertainty, fear, and mistrust.

We, therefore, copy verbatim the concept of 'Climate Change' defined by the IPCC in its glossary of the Special Report on the Impacts of the Global Warming published in 2018.

It is the variation in the state of the climate identifiable in variations in the mean value and the variability of its properties, persisting over long periods, usually decades or longer periods. (IPCC, 2018)

The IPCC Special Report on the Impacts of the Global Warming demonstrates with figures and data that the changes and adverse climate events are due to an extraordinary

accumulation of greenhouse gases in the atmosphere. Therefore, they call on the international community to implement urgent measures. In the report, they mention the importance of taking simultaneous measures against poverty and social exclusion.

The term 'Climate Action' that we incorporate in our context is Goal 13 in the UN Sustainable Development Goals:

"The objective is to prepare ourselves to face the impacts of climate change, lay the foundations for an emission-neutral economy, and accompany the most vulnerable groups in the transition process. Involving all administrations and all actors of civil society and the academic and scientific world."

To conclude, we copy verbatim the paragraph where ICOMOS passed a resolution of 'Climate Emergency' approved at the 2020 Assembly:

"DECLARES a Climate and Ecological Emergency and calls on other culture and heritage organizations to do the same, and commits to redouble ICOMOS' efforts to realize the immense potential of cultural heritage to enable inclusive, transformative, and just climate action, including through increasing the ambition and capacity of communities to act, supporting climate adaptation and resilience, contributing to mitigation interventions to reduce greenhouse gas emissions, and addressing loss and damage from climate impacts."

CIIC: Proposed Triannual Plan: Vice-Presidency of the Americas

This programme was drafted at the beginning of 2021, incorporating some themes of the Climate Action for Cultural Itineraries, Historical Routes, and Serial and Transboundary Assets. It is based on the implementation of three projects to be executed in three years.

The rest of the Scientific Committee was proposed to be discussed and implemented in all the Vice Presidencies.

In line with the recommendations of the Resolution of the "ICOMOS Declaration of Climate Emergency" in 2020, we propose the implementation of the following projects that effectively contribute to climate action.

The project is based on three main themes: training, Introduction to risk management and analysis, and study of "Traditional Ecological Knowledge".

1. Training and professional updating on heritage and climate action issues.
2. Identification of risks and threats to which the Itineraries, Serial Assets, and Historic Routes on the World Heritage List may be subject to and determination of management indicators.
3. Research and promote valuable examples of traditional ecological knowledge in itineraries, roads, and serial properties sections.

Project 1: Conduct "Online" training and professional updating activities for ISC CIIC members, stakeholders, and related parties

Suggested topics:

1. Basic knowledge of climate change.
2. Approximation to risk management in cultural heritage.
3. Deepening on the document "The Future of Our Pasts" of the CCHWG of ICOMOS.

Project 2: Approach to the concepts of risk management that may affect the Itineraries, Serial Assets, and Historic Routes on the World Heritage List

Risk management is a highly specialised subject that cannot be treated lightly, as is well known. At this stage, we will approximate the concepts and develop a preliminary understanding of the function of management indicators.

During the COVID-19 pandemic, we were unable to evaluate and compare the conditions of the pathways and their components due to the lack of indicators. Therefore, it is appropriate to conduct a general evaluation of the risk assessment indicators.

Consequently, this project includes two activities: first, an introduction to the subject of risk management and then a definition of the possible indicators, and second, designing and implementing a user-friendly INSTRUMENT for registering "Extreme Weather Events" by region that could affect corridors of roads and routes.

As we are redesigning our website, we have proposed making it accessible to all users on our website.

Project 3: "Traditional Ecological Knowledge" and its contribution to resilience in climate action

Throughout human history, many cultures have developed extensive capacities for adaptation and survival in hostile environments. In the literature, it is mentioned as "Traditional Ecological Knowledge" or "Indigenous Knowledge." (ICOMOS CCHWG, 2019)

The following sections will present some examples that demonstrate how "traditional ecological knowledge" of some of the cultural routes on the World Heritage List provides important references for resilience in climate action.

3.1. The Inca Road Qhapac Ñan Peru: Ritual of community conservation of the Quehue Bridge (Ambito, 2021)

The bridge is located on the mighty Apurimac River at an altitude of 3,700 metres above sea level and is 28 metres long. It is the only one that survives, thanks to the work of the four Quechua communities.



Image 2. Community restoration of the Inca bridge, Quehue. The bridge was constructed originally by the Empire 500 years ago. © Ambito, 2021

The Q'eswachaka hanging bridge dates back to the Inca Empire in Peru. It is a bridge built with vegetable fibres; consequently, its maintenance must be constant, and a completely new one is created once a year.

The work involves 1,000 men and women: the men assemble the structure suspended in the air, and the women weave and interweave the ropes on dry land; this process can take up to three days.

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Image 3. "Bridge of the Inca empire in Peru fell due to lack of maintenance because of the pandemic" © Ambito, 2021



Image 4. Zigzag bends and right angles were used in order to slow down the water velocity © Luis León Pizarro. Travelers Peru - Huaral: Facebook Group 30.01.2012

Traditionally, the renovation of the pedestrian bridge occurs every year between May and June. Still, the mandatory confinement due to the coronavirus pandemic in March 2020 prevented the work, which caused its deterioration and collapsed on 23 March, 2020.

In June 2021, the community gathered and rebuilt as it had traditionally done for several millennia.

This example contributes to resilience in climate action because it shows us how community commitment, community participation, community empowerment, and the transmission of ancestral techniques can overcome all difficulties over several centuries.

3.2. Pre-Inca and Inca-Peru Culture:

Construction of terraces, canalization systems, and water control in the mountains

The "*planting of water*" is an ancestral community practice that consists of the care of the headwaters of the rivers and the cleaning of ditches coordinated under a ritual in which the whole community participates.

The pre-Incas of Lima did it with excellent results, and the inhabitants of Tupicocha still practise it in Huarochiri, Lima.

There are countless testimonies of great works, such as terraces and irrigation canals, including hydraulic designs for flood control and water velocity control to prevent flooding.

This example contributes to resilience in climate action because it demonstrates with sophisticated examples the water management systems in the mountains of a pre-Hispanic society that did not know the wheel and did not have specialised tools.

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Image 5. Hydraulic canal systems allowed the irrigation of crops, an example of which are the canals of Cumbemayo in Cajamarca © Cultura 10.org



Image 6. “The terraces of Moray (Peru) XV and XVI © conlacabezaenlatierra, 2012

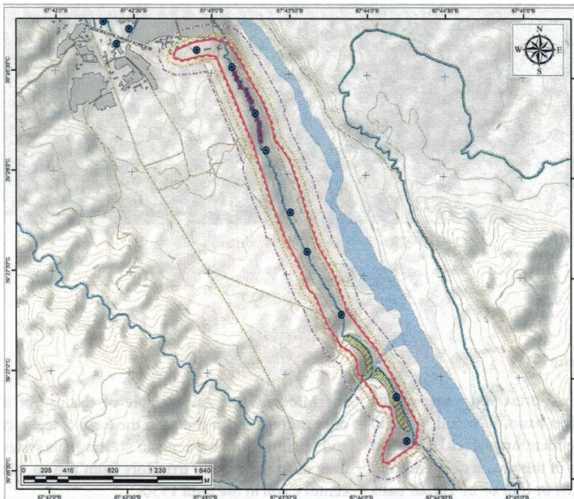


Image 7. Example of a water management system: Silk Road: Taksankoriz irrigation system, Tajikistan © Declaratory Dossier, 2021, p. 233

3.3. Silk Road: Taksankoriz Water Management System in Tajikistan

The system of irrigation and water supply was excavated in the stone for 40 km; the Karafhan River supplies its water. This irrigation system is located 12 kilometres from the city of Penjiket, was constructed in the 8th century, and was in operation until the 1930s.

This example contributes to resilience in climate action because it demonstrates the intelligent interaction between humans and their environment. A sophisticated water management system in hostile environments such as deserts and steppes in Central Asia.



Image 8. Chihuahua Aqueduct, Camino Real Tierra Adentro, México © Cecilia Calderón-Puente

3.4. Camino Real Tierra Adentro, México

It is a 2,600 kilometres route from Mexico City to Valle de Allende in Chihuahua, in the north of the country. This route had 55 components between service infrastructures and civil, religious, and military buildings. A special mention should be made of the extraordinary development of the region resulting from the exploitation of the Silver Mines.

This example contributes to resilience in climate action because it demonstrates how, over the centuries, human beings have managed to maintain and manage a hostile territory such as the XX desert and promote its development.

This is an *example of Resilience in Climate Action* because it demonstrates how traditional technologies used for water management in hostile environments still work and are effective in the 21st century.

Conclusion

Cultural routes are developed in large territories through which ideas, goods, technologies, and religions, among others, have passed.

They are not built or designed; they are shaped in time; they are lived and inherited, and in the 21st century, where climate action is paramount, they represent an opportunity for understanding between nations as well as an instrument of resilience.

In the examples of resilience located in the cultural routes sections, we can observe how ancient cultures developed innovative technologies in adverse environments. In the examples provided, we can observe a technology that was created millennia ago and is still in use today. Our ancestors utilised primitive instruments to survive in hostile environments, including deserts, steppes, mountains, and forests. We can learn a great deal from the applied technologies: water management, landslides, and floods; earthen or stone architecture. The most valuable skill to acquire is the ability to collaborate for the benefit of the community.

Heritage professionals, academics, educators, and civil society have a central role and an imperative responsibility in disseminating and preserving our ancestors' legacy and safeguarding the future.

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El Urbanismo y la Arquitectura Tradicional de la Región de Azuero en Panamá: Un Ejemplo de Sostenibilidad y Patrimonio Vivo

Silvia Arroyo Duarte*

Este trabajo tiene el objetivo de rescatar y dar a conocer los valores de la arquitectura y el urbanismo tradicional de la región de Azuero. Un patrimonio cultural tan particular que incluye aspectos tangibles e intangibles y puede considerarse como un paisaje cultural vivo. Se explicará que el urbanismo y la arquitectura tradicional surgen de un cúmulo de influencias que lo sustentan como un ejemplo de sostenibilidad y patrimonio vivo. Se explicará la manera en que pueden contribuir al cumplimiento de los Objetivos del Desarrollo Sostenible y cómo conservan una función social activa, razón por la cual es necesaria su conservación.

Palabras clave: sostenibilidad, tradicional, urbanismo, arquitectura

Traditional Urbanism and Architecture of the Azuero Region in Panama: An Example of Sustainability and Living Heritage

This work has the objective of preserving and disseminating the values of the traditional urbanism and architecture of the Azuero Region. Cultural heritage is so particular that it includes tangible and intangible aspects and can be considered a living cultural landscape. It will be explained that urbanism and traditional architecture arise from a cluster of influences that sustain them as examples of sustainability and living heritage. It will explain how they can contribute to achieving the Sustainable Development Goals and how they maintain an active social function, which is why their conservation is necessary.

Keywords: sustainability, traditional, urbanism, architecture

Urbanisme et Architecture Traditionnels de la Région d'Azuero au Panama: Un Exemple de Durabilité et de Patrimoine Vivant

Ce travail a pour objectif de préserver et de diffuser les valeurs de l'urbanisme et de l'architecture traditionnels de la région d'Azuero. Un patrimoine culturel si particulier qu'il comprend des aspects matériels et immatériels et peut être considéré comme un paysage culturel vivant. Il sera expliqué que l'urbanisme et l'architecture traditionnels découlent d'un ensemble d'influences qui les soutiennent en tant qu'exemple de durabilité et de patrimoine vivant. Il sera décrit comment ils peuvent contribuer à la réalisation des Objectifs de Développement Durable et comment ils maintiennent une fonction sociale active, raison pour laquelle leur conservation est nécessaire.

Mots-clés: durabilité, tradition, urbanisme, architecture



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“El Urbanismo y la Arquitectura Tradicional de la Región de Azuero en Panamá:
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Este trabajo surge como parte de una investigación sobre el urbanismo y la arquitectura tradicional de Panamá, que busca resaltar y dar a conocer sus valores a través de un estudio actualizado. El trabajo realizado incluye, por un lado, una investigación documental -tanto gráfica como escrita- en la que se investigó buscando información en los documentos de la Biblioteca Nacional, del Sistema de Bibliotecas de la Universidad de Panamá (principalmente las tesis), los archivos españoles a través del sistema PARES (Portal de Archivos Españoles) y demás información digital. Por otro lado, el proyecto también incluyó investigación en campo. Se realizaron visitas a la región de Azuero con la intención de observar el trabajo y entrevistar a los actores o personas relacionadas con el tema. Especialmente los maestros de obra y sus ayudantes, que son los que preservan la tradición intangible de la arquitectura tradicional.

De la misma manera, este trabajo está sustentado en el documento “*El futuro de nuestros pasados*” publicado por el Consejo Internacional de Monumentos y Sitios (ICOMOS por sus siglas en inglés) en 2019. Este documento tiene el objetivo de incrementar la participación del patrimonio cultural en el cambio climático. El ICOMOS recomienda aprovechar diversos sistemas de conocimiento (tradicionales, originarios, espirituales y de investigación), que presentan herramientas para la respuesta climática y brindan una guía para la adaptación y resiliencia. Por ejemplo, promover el uso de patrones de asentamiento tradicionales e históricos como los que se presentan en este artículo, el urbanismo y la arquitectura tradicional de la región de Azuero (ICOMOS CCHWG, 2019).

Esta investigación también se justifica en la publicación “*Heritage and the sustainable development goals: policy guidance for heritage and development actors*”, de 2021. Este documento menciona que la conservación del patrimonio va más allá de heredar al futuro lo que se valora, incluye el reforzar los recursos patrimoniales para apoyar el desarrollo de un mundo más sostenible. Esto se apoya en los Objetivos del Desarrollo Sostenible, específicamente el 11.4 que dice que se deben “*Redoblar los esfuerzos para proteger y salvaguardar el patrimonio cultural y natural del mundo*” (ICOMOS SDGWG, 2021).

A través de este trabajo, se presentarán el urbanismo y la arquitectura tradicional de la región de Azuero como un ejemplo de sostenibilidad y patrimonio vivo. Se explicará la manera en que pueden contribuir al cumplimiento de los Objetivos del Desarrollo Sostenible y cómo conservan una función social activa, razón por la cual es necesaria su conservación.

Urbanismo Tradicional de la Región de Azuero en Panamá

El istmo de Panamá hasta el día de hoy actúa como puente o “*corredor comunicador*” que ayuda en la dispersión de gentes, agricultura y tecnología desde hace más de 11,000 años (Cooke y Sánchez, 2004, p. 48). Al llegar los europeos a Panamá, entre 1501 y 1503, la colonización y conquista los lleva al oeste del istmo, hacia la región de Azuero (formada hoy en día por las provincias de Herrera, Los Santos y parte de Veraguas). Ubicada en las tierras bajas del Pacífico americano, era el lugar perfecto para instalarse: desembocaduras de ríos, terrenos para cultivar y suficiente comida. Recursos que aprovecharon los asentamientos indígenas, sobre los cuales se establecieron los españoles (Mora Saucedo, 1995, pp. 5-15).

Los asentamientos de los españoles empezaron como caseríos o grupos de casas dispersas y aisladas unas de otras, construidas con materiales perecederos, rodeadas de árboles y

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Panamá:
75,420 km²
4,160,607 inhabitants



Figura 1. Mapa del istmo de Panamá, señalada la región de Azuero © iStock

ubicadas cerca de algún camino. Los españoles fueron adaptando estos asentamientos al urbanismo colonial y hoy en día los conocemos como “*pueblos*”, que representan la forma típica del “*centro rural*” (Mora Saucedo, 1995, pp. 5-15; Tejeira Davis, 2007, pp. 116-117). Estos pueblos presentan ciertas características como: una plaza central, calles ordenadas - que no necesariamente forman una cuadrícula-, diseño acorde a los vientos, y las casas cuentan con amplios portales para resguardarse de la lluvia y el sol. Estos reemplazan a las arcadas o pórticos que se observan en algunas ciudades coloniales (Arias Peña y Martínez Arroyo, 1981, pp. 204-206).



Figura 2. Mapa de la región de Azuero y sus pueblos © Instituto Geográfico Tommy Guardia

Por consiguiente, en esta región se desarrolló lo que se puede describir como urbanismo tradicional, una rama del urbanismo colonial (Arroyo Duarte, 2021) que, en el caso de Panamá, se caracteriza por encontrarse en asentamientos del interior del país que no compitieron con las principales ciudades del istmo (Tejeira Davis, 2007, pp. 116-117). Se deriva del modelo colonial que menciona Jorge Hardoy (1978, pp. 83-118): sencillo, práctico y rápido de construir, sin necesidad de técnicos. Una descripción de La Villa de los Santos de 1736 nos da una idea de la imagen del urbanismo tradicional:

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La villa de los Santos, población de españoles está bien poblada y situada de casas, todas de teja; compónese de dos calles bien largas y otra que sale a la plaza, tira como hacia la costa del mar; habrá en toda la dicha población hasta doscientas casas, y en todo el vecindario, cincuenta familias de españoles, todo lo demás, gente de color de toda especie, porque hay mestizos, cuarterones, mulatos, zambos y negros; es mucho gentío que hay repartido en toda aquella Jurisdicción. (Rubio de Auñón, 1736)



Figura 3. Vista de la plaza de Parita, Herrera -región de Azuero- © Silvia Arroyo

Entre los pueblos de la región de Azuero, destaca Parita, en la provincia de Herrera. Tejeira Davis (2007, p. 388) describe muy bien sus valores: *“el sitio azuerense que más conserva su arquitectura tradicional es Parita, fundada a mediados del siglo XVI. Su iglesia colonial y plaza rodeada de casas con portales conforman un conjunto único en el país”*. Señala que su plaza es única en Panamá, conserva su carácter de espacio vacío sin pavimentar, además y mantiene su entorno: *“casas históricas: largas, chatas y construidas sobre altos basamentos de albañilería...”*

Arquitectura Tradicional de la Región de Azuero

Ya se mencionó que los pueblos de esta zona mantienen un urbanismo característico cuyo probable origen es la mezcla de los asentamientos indígenas con las instrucciones traídas de España por los conquistadores que adaptaron al territorio. En la arquitectura ocurre algo similar, y esta se puede describir como tradicional (o vernácula), porque responde a ciertas características: la comunidad produce su propio hábitat, responde a una unidad familiar y a su forma de vida, también utiliza materiales naturales, como la tierra y la madera (ICOMOS, 1999).



Figura 4. Vista del portal de una casa de quincha en Las Palmas, Los Santos -región de Azuero- © Silvia Arroyo

La arquitectura tradicional de la región de Azuero es un cúmulo de muchísimas influencias. Utiliza la tecnología constructiva de quincha, *“un sistema para construir paredes a partir de una estructura de cañas o reglillas de madera colocadas horizontalmente sobre un armazón y repelladas con barro en ambas caras”* (Tejeira Davis, 2007, p. 117). La tierra o el barro son un material de construcción que

se utiliza desde tiempos antiguos, existen innumerables ejemplos de este tipo de construcción (McHenry, 1996, pp. 1-6; Mora, 1995, pp. 63-65). La técnica de quincha utiliza la tierra, material apropiado de la vivienda indígena. También se utilizan las cañas y bejucos,

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y se adopta la tradición indígena de cortarlos en luna menguante (Hervás Herrera y González Quiel, 2020, pp. 298-305).

La arquitectura tradicional también presenta influencias de la arquitectura colonial, tanto en su tipología religiosa como doméstica. A su vez, las viviendas tradicionales se derivan de la española, que tiene su origen en las domus romanas y casas islámicas (viviendas



Figura 5. Vista del armazón o estructura de una casa de quincha, y Francisco "Chico" Vergara trabajando la casa de quincha de Orlando Barcasnegras en El Sesteadero, Los Santos -región de Azuero- © Silvia Arroyo



Figura 6. Junta de embarre de la casa de quincha de Orlando Barcasnegras en El Sesteadero, Los Santos -región de Azuero- © Silvia Arroyo

andalusíes). En cuanto a sus espacios, tienen en común que son "*pensadas desde dentro*", "*introvertidas*" o "*cerradas hacia afuera*" (Silva, 2001, pp. 876-880; Pérez Ordoñez, 2008, p. 15).

Además, la estructura de madera que soporta la construcción y su cubierta es similar a las de las iglesias coloniales. Este tipo de armadura o estructura se le conoce como de par e hilera (o parhílera). Está compuesta por pares, que forman la pendiente de la cubierta, apoyados en su parte inferior en las soleras, siendo su remate superior en la hilera. Su inclinación es muy fuerte, entre unos 38 y 45°. Se considera de influencia islámica o mudéjar. Para la construcción de esta estructura se utilizan las medidas coloniales como la lumbre (equivalente a cinco varas o 4,21 metros) o la vara (equivalente a 0,8358 metros), así como medidas estándar para los intercolumnios o espacios entre pilares o columnas (especialmente en los portales). Por consiguiente, se mantienen tanto los nombres de las piezas como las medidas desde la época colonial (Tejeira Davis, 2007, p. 117; Arroyo Duarte, 2021).

El proceso de construcción de la casa de quincha inicia "*cuadrando la casa*" o construyendo el armazón o estructura de madera. Luego se "*enjaula*" la estructura con las cañas o reglillas. Finalmente, la estructura se "*embarra*" en un proceso

cooperativo conocido como la junta de embarre en el que participa toda la comunidad. Este proceso incluye aspectos tangibles e intangibles. Los aspectos tangibles, representados por la utilización del paisaje y las técnicas constructivas. Los aspectos intangibles, representados por las tradiciones y el conocimiento tradicional, que van desde el saber hacer o "*savoir-faire*", la música, los bailes, la comida, los vestidos, entre otras cosas. Este proceso ha sido explicado a través de la colaboración con algunos de los principales actores de la región: maestros constructores como Francisco "Chico" Vergara, Euribiades

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“*Chombo*” Sánchez y Bruno Herrera. También ayudaron Orlando Barcasnegras, comunicador y emprendedor, y Marta Kimmell, empresaria y miembro de la Cámara de Turismo de Los Santos y la Asociación Panameña de Ejecutivos de Empresas de Los Santos.

Conclusiones: el urbanismo y la arquitectura tradicional de la región de Azuero en Panamá como ejemplo de sostenibilidad y patrimonio vivo

La definición de patrimonio adaptada del Gobierno de Québec (2006) explica que este está “*compuesto por sitios, paisajes, tradiciones y conocimiento, refleja la identidad y valores de una sociedad y los transmite de generación a generación; la conservación de este patrimonio fomenta la sostenibilidad del desarrollo*” (ICOMOS SDGWG, 2021, pp. 120-128). Esta definición se acopla a las características del urbanismo y la arquitectura tradicional de la región de Azuero en Panamá. Este constituye un patrimonio cultural tan particular, incluye aspectos tangibles e intangibles, que puede considerarse como un paisaje cultural



Figura 7. Euribiades “Chombo” Sánchez explicando la cubierta de una casa de quincha en Santo Domingo, Los Santos -región de Azuero- © Silvia Arroyo

vivo. Representa la “*obra conjunta del hombre y la naturaleza*”, que además ha evolucionado orgánicamente y conserva una función social activa, estrechamente vinculada al modo de vida tradicional (UNESCO, 2008, p. 96).

El urbanismo y la arquitectura tradicional de la región de Azuero moviliza las “5 Ps” a través de las cuales se pueden lograr los Objetivos del Desarrollo Sostenible (ICOMOS SDGWG, 2021, p. 18).

Transmite conocimientos y recursos de técnicas tradicionales a través de un enfoque centrado en las **Personas**. Estas técnicas están arraigadas al territorio, al paisaje cultural, al medio ambiente y la sostenibilidad y son adaptables y

resilientes (**Planeta**). El urbanismo y la arquitectura tradicional reúnen gran cantidad de recursos culturales y naturales, por medio de los cuales las comunidades pueden alcanzar la **Prosperidad**. A largo plazo y a través de una correcta guía, los “*pueblos*” de la región de Azuero pueden alcanzar la **Paz** y la **Participación colectiva o alianzas**.

A su vez, podemos relacionar al urbanismo y la arquitectura de la región de Azuero con varios de los Objetivos del Desarrollo Sostenible: ODS 1 Pobreza; ODS 3 Salud y bienestar; ODS 8 Trabajo decente y crecimiento económico; ODS 10 Reducción de desigualdades; ODS 11 Ciudades y comunidades sostenibles; ODS 15 Vida de ecosistemas terrestres y ODS 17 Alianzas para lograr los objetivos. Esto se puede demostrar porque:

- Se ponen de manifiesto conocimientos tradicionales que sirven tanto para la planificación, adaptación y resiliencia, valorando las prácticas de las comunidades locales [ODS 1, 3 y 11] (ICOMOS SDGWG, 2021, Pp. 20-21, 32-33, 76-77). El urbanismo y la arquitectura tradicional de la región de Azuero sirvió de modelo

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urbano y arquitectónico en el período de pandemia, gracias a los portales, a los espacios amplios, ventilados y a los materiales que permiten respirar y no impactan al medio ambiente. La provincia de Los Santos, que forma parte de la región de Azuero y mantiene (principalmente las medidas o dimensiones de) su urbanismo y arquitectura tradicional, se ha mantenido como la tercera provincia con la menor cantidad de casos de COVID-19, solo después de (sus influencias) las comarcas indígenas (Arroyo Duarte, 2021).

- Se puede aprovechar el potencial y los recursos de este patrimonio para mejorar las identidades y el sentido de pertenencia de las comunidades locales, generando oportunidades laborales y medios de vida sostenibles, estimulando el diálogo entre diferentes grupos y alentando la inclusión social de los más vulnerables [ODS 1, 8, 10, 11] (ICOMOS SDGWG, 2021, pp. 20-21, 60-61, 70-71, 76-77). La región de Azuero tiene el potencial para ser protegida de manera integral como un paisaje vivo, a través del cual se puede desarrollar una ruta cultural. Alrededor de esta se pueden crear gran cantidad de actividades beneficiosas para la economía y el turismo de la región.
- Siendo un paisaje cultural que constituye un patrimonio vivo, la región de Azuero conecta de cerca la cultura, la naturaleza y las comunidades, presentando un concepto holístico de patrimonio [ODS 15] (ICOMOS SDGWG, 2021, pp. 100-101). El patrimonio de la región incluye no solo la arquitectura y el urbanismo, alrededor de estos están tradiciones como el vestido, la comida, los bailes, las festividades, etc.
- La región de Azuero es el territorio propicio para desarrollar capacitación y procesos participativos que sensibilicen y eduquen sobre este patrimonio [ODS 17] (ICOMOS SDGWG, 2021, pp. 112-113). Resulta viable diseñar un proyecto de capacitación sobre las tecnologías constructivas de quincha que ayude a conservar este patrimonio.
- Representa un ambiente propicio para promover alianzas a todos los niveles y desarrollar todo tipo de colaboraciones interdisciplinarias, intergeneracionales e intersectoriales [ODS 17] (ICOMOS SDGWG, 2021, pp. 112-113). El proyecto de capacitación puede reunir a los diversos actores para que formen alianzas para proteger este paisaje cultural vivo.
- Este trabajo sienta las bases para el desarrollo de un proyecto que conserve este patrimonio y que esté enmarcado en los Objetivos del Desarrollo Sostenible. Además, que incluya las recomendaciones para un posible marco legal a nivel nacional que proteja la región de Azuero como un paisaje tradicional.

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Propuesta Metodológica para la Preservación del Patrimonio Vivo; Caso: Distrito Minero Pachuca y Real del Monte, Hidalgo México

Maria Elena Sanchez Roldan*

El primer paso para la preservación del Patrimonio Industrial en el Distrito Minero de Pachuca y Real del Monte, Hidalgo, México; es el conocimiento y aprecio que su población tiene de él; incluyendo investigadores, gobierno, inversionistas, empresarios y la sociedad en su conjunto. Por ello, es especialmente importante que los individuos a preservar -Inmuebles, Espacios Naturales, Árboles, etc.- estén reconocidos, preferiblemente catalogados de forma integral y referidos en Unidades Formales de Paisaje y Patrimonio, donde es posible detectar las amenazas a las que se enfrentan con el inminente cambio climático. Los efectos físicos que los deterioran se suman a la poco desarrollada legislación para su protección y salvaguarda, que es necesario fortalecer, concretamente en los ámbitos de su cuidado y mantenimiento, así como de su rehabilitación y restauración en el caso de haber sufrido ya daños; con el fin de garantizar su conservación en el tiempo. Las recomendaciones para la preservación deben traducirse en acciones a corto plazo para obtener resultados significativos. Sin embargo, para que esto suceda, las organizaciones especializadas y civiles deben ser los promotores incansables que aseguren la realización permanente de las acciones necesarias. La metodología permite el análisis de propuestas de reactivación económica que a la vez facilite a emprendedores e inversionistas contar con los incentivos para lograrlo, sin perder de vista el objetivo mayor, que es la preservación del patrimonio vivo.

Palabras clave: metodología, preservación, patrimonio

Methodological Proposal for the Preservation of Living Heritage; Case: Pachuca and Real del Monte Mining District, Hidalgo, Mexico

The first step for the preservation of the Industrial Heritage in the Mining District of Pachuca and Real del Monte, Hidalgo, Mexico, is the knowledge and appreciation of its population, including researchers, the government, investors, entrepreneurs, and society as a whole. Therefore, it is especially important that the entities to be preserved—properties, natural areas, trees, etc.—be recognised, preferably comprehensively catalogued, and referred to in formal Landscape and Heritage Units, where it is possible to detect the threats they face with the imminent climate change. The physical effects that deteriorate them add to the poorly developed legislation for their protection and safeguarding, which needs to be strengthened, specifically in the areas of their care and maintenance, as well as their rehabilitation and restoration in the case of having already suffered damage, in order to guarantee their conservation over time. Recommendations for preservation must be translated into short-term actions in order to achieve significant results. However, for this to happen, specialised and civil organisations must be the tireless promoters to ensure that the necessary actions are carried out on a permanent basis. The methodology allows for the analysis of proposals for economic reactivation that, at the same time, provide entrepreneurs and investors with the incentives to achieve this without losing sight of the main objective, which is the preservation of the living heritage.

Keywords: methodology, preservation, heritage

Proposition Méthodologique pour la Préservation du Patrimoine Vivant ; Cas : District Minier de Pachuca et Real de Monte, Hidalgo, Mexique

La première étape pour la préservation du patrimoine industriel dans le district minier de Pachuca et Real de Monte, Hidalgo, Mexique, est la connaissance et l'appréciation qu'en a sa population, dont les chercheurs, le gouvernement, les investisseurs, les entrepreneurs et la société dans son ensemble. Pour cette raison, il est particulièrement important que les entités à préserver - Propriétés, Espaces Naturels, Arbres, etc. - soient reconnues, cataloguées intégralement de préférence, et référencées formellement comme unités paysagères et patrimoniales, d'où l'on puisse détecter les menaces qui pèsent sur elles en raison du changement climatique imminent. Les effets physiques qui les détériorent s'ajoutent au trop faible développement de la législation de protection et sauvegarde, laquelle doit être renforcée, notamment dans les domaines du soin et de l'entretien, ainsi que de la réhabilitation et la restauration dans les cas où ont déjà été subis des dommages, afin de garantir leur conservation dans le temps. Les recommandations de préservation doivent être traduites en actions à court terme pour obtenir des résultats significatifs. Cependant, pour que cela se produise, les organisations spécialisées et civiles doivent être les promoteurs infatigables assurant la réalisation permanente des actions nécessaires. La méthodologie permet l'analyse de propositions de réactivation économique, lesquelles fournissent en même temps aux entrepreneurs et aux investisseurs les incitations à y parvenir, sans perdre de vue l'objectif principal qui est la préservation du patrimoine vivant.

Mots-clés: méthodologie, préservation, patrimoine

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Antecedentes

La región para el caso de estudio es el Distrito Minero de Pachuca y Real del Monte, en el estado de Hidalgo, en México. En esta región, los municipios mencionados están unidos desde sus entrañas por las vetas de mineral, que se entretajan en ambos poblados. De primera mano fueron poco explotados por los nativos lugareños; sin embargo, con la llegada de los españoles al territorio de Mesoamérica en el año de 1521, los colonizadores realizaron recorridos orientados a la búsqueda de los beneficios rentables del lugar, en los que encontraron los yacimientos argentíferos que comenzaron a explotarse a partir de 1552 por los españoles; al cabo de los años, este territorio enfrentó graves problemas a causa de la forma de realizar las excavaciones de túneles y tiros para la extracción del mineral que incluyeron la deforestación de la zona y el poco cuidado del entorno natural, lo que influyó en que con las lluvias se inundaran sus ductos, impidiendo la posibilidad de acceder y continuar trabajando en su extracción. Según Viornery (2006, p. 78) estos

hechos generaron que el 3er Conde de Regla, Manuel Romero de Terreros en 1823 escribiera cartas a Inglaterra para buscar apoyo, lo que permitió que en Cornwall, Inglaterra, se conociera acerca de esta problemática con la minería, lo que hizo posible que llegaran ingleses con su maquinaria de vapor en 1824 al territorio de Pachuca y Real del Monte; en ese tiempo a ellos les costó mucho trabajo poder llegar, pues debieron realizar un recorrido desde el puerto de Veracruz, cruzando a través de las montañas de la sierra madre oriental para poder llegar al lugar, instalar sus máquinas para lograr bombear el agua de los túneles y tiros y hacer posible volver a trabajar las minas.



Figura 1. Plano Minero del Distrito de Pachuca levantado por el Ingeniero de Minas Manuel Espinosa bajo la dirección del Ingeniero Ramón Almaraz, 1864 © Clave 1239-OYB-7246-B (1) en la Mapoteca Manuel Orozco y Berra



Figura 2. Plano Minero del Distrito del Mineral del Monte levantado por el Ingeniero de Minas Manuel Espinosa bajo la dirección del Ingeniero Ramón Almaraz, 1864 © Clave 1239-OYB-7246-C (1) en la Mapoteca Manuel Orozco y Berra

Cabe destacar que para los ingleses, el concepto de su relación con la naturaleza y el cuidado del lugar que iban a habitar fue muy importante, una prueba de ello es que en el pueblo de Real del Monte queda aún el Panteón Inglés, que desde 1852 fue el lugar donde ellos enterraron a sus muertos; este panteón está en una empinada colina que desde entonces contaba con gran cantidad de cedros, entre los árboles yacen sus tumbas orientadas hacia Inglaterra, en este lugar también se encuentran espacios para la reflexión entre acacias, camelias, abelias, romero y lavanda (Galsworthy Estavillo *et al.*, 2013, p. 25); este paisaje tan semejante al territorio inglés como la

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Figura 3. Imágenes de inundaciones en la ciudad de Pachuca 1949 © Fuente: Fototeca Nacional y Cronista de Hidalgo

ciudad de Redruth, -de donde provino la receta del paste que ya también se hizo tradición en Real del Monte como alimento relacionado con la actividad minera- habla acerca de su relación directa con el entorno y con el cuidado que tuvieron al respecto, cabe destacar que la zona de Real del Monte no fue tan deforestada como la zona de las montañas más hacia el sur poniente, hacia Pachuca.

De acuerdo con Menes-Llaguno (2014), en el siglo XIX en Pachuca se realizaron diferentes estudios por la Comisión Científica en 1864; con la intención de resolver problemáticas que eran ocasionadas por las lluvias y las consecuentes inundaciones que llegaban a afectar las tierras de Tizayuca, Zumpango y llegaban hasta la ciudad de México provenientes de la Sierra de Pachuca; de estos estudios los ingenieros mineros Ramón Almaraz y Manuel Espinoza registraron en diversos planos, los

múltiples túneles mineros, la ubicación de las instalaciones de las compañías mineras y la producción de minerales entre otros datos; (Figuras 1-2), también el médico naturalista Manuel María Villada registró en el mismo informe, la biodiversidad del lugar, que incluye una cantidad de especies de herbolaria, utilizadas por los nativos para curar diversos síntomas y así atenderse de las enfermedades comunes de su tiempo.

Posteriormente se continuaron realizando estudios en la zona, específicamente en 1891 el ingeniero José C. Haro después de realizar su investigación, recomendó la reforestación de las montañas plantando árboles y céspedes para ayudar a contener los lodos que bajaban de las montañas, procurando encauzar las vertientes de agua al Río de las Avenidas y así mitigar los daños provocados por las lluvias (Lorenzo-Monterrubio, 1995, p.140). Desafortunadamente esas recomendaciones no fueron atendidas, y a lo largo del tiempo se han sufrido en Pachuca los avatares de las lluvias, a veces torrenciales con sus consecuentes inundaciones.

Cambio Climático

Los efectos del cambio climático que se fueron gestando desde que el hombre modificó su forma de producir bienes de consumo con la Revolución Industrial a finales del siglo XVIII, lo cual fue en incremento durante el siglo XIX hasta que en la década de los años 70 del siglo XX, se puso de manifiesto a nivel internacional la crisis que se avecinaba por la generación de los gases de efecto invernadero [GEI] y el consecuente “calentamiento global” que desde entonces ha alertado a los organismos internacionales a marcar esta problemática y realizar compromisos entre las naciones para mejorar la condición mundial (Jimeno Bula, 2019, p. 34). La zona de estudio sin duda a formado parte de este proceso, durante el siglo XIX, para la actividad de bombeo de agua en las minas, según Rodríguez-Sánchez (2019, p. 32) se consumía una tonelada diaria de leña, para hacer funcionar el

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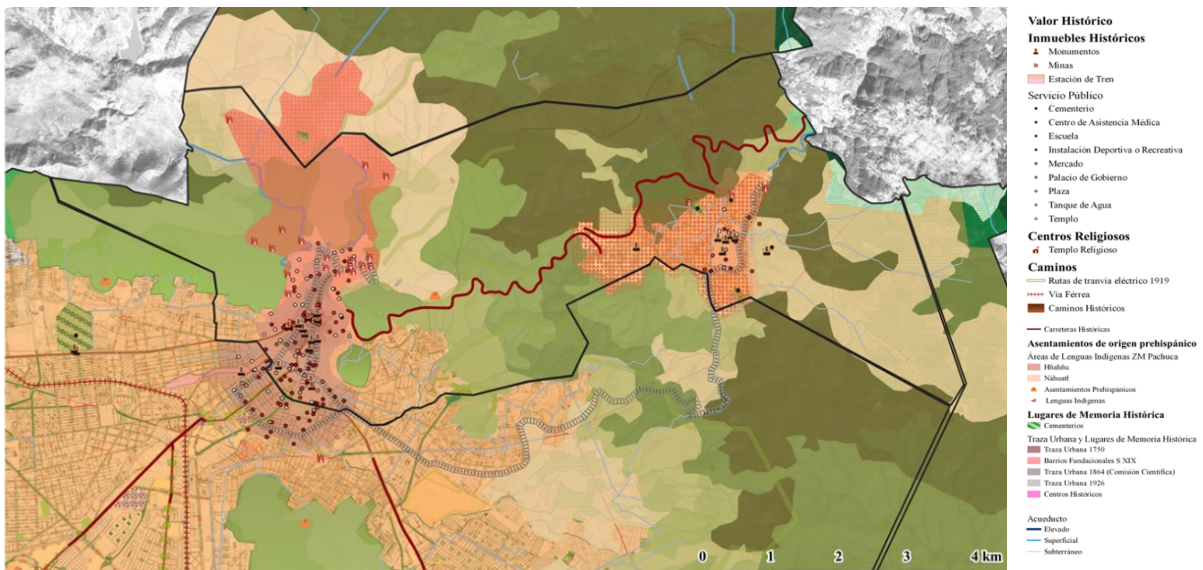


Figura 4. Distrito Minero Pachuca & Real del Monte, con ubicación de individuos a preservar, Inmuebles, caminos y espacios naturales © M. E. Sanchez Roldan, 2019

mecanismo a base de vapor de los denominados "chacuacos" que son las chimeneas construidas en las instalaciones de casa de máquinas en cada mina, que forman parte del paisaje minero, que es nuestro patrimonio cultural en la región. Durante el siglo XX y XXI se han ido modificando las temperaturas promedio en la ciudad de Pachuca, según la agencia de clima Weather spark (2021); de un rango de -2° a 18°C a finales del siglo XX; este se ha modificado con el tiempo y actualmente oscila entre 4° y 24°C teniendo picos aislados que van de -1° a 32°C , es posible contar con una variación de clima en el mismo día que incluye temperaturas bajas en las primeras horas del día, calor al medio día (28°C) y lluvias por la tarde y noche; estas variantes son muestra de los efectos del cambio climático en la ciudad.

En relación con este patrimonio industrial, existen en diferentes puntos del Distrito Minero, diversas instalaciones que se encuentran clasificadas y documentadas, sin embargo,



Figura 5. Mina Camelia, Barrio Fundacional de Camelia construida en 1901 © M. E. Sanchez Roldan, 2021

algunas de ellas que no tienen ocupación en la actividad minera actual, han sufrido el deterioro del paso del tiempo, incendios, lluvias y se encuentran en condiciones de ruinas arqueológicas; como es el caso de las minas Camelia, la Corteza y Minerva. Se supone que son propiedad privada, sin embargo, no hay ningún indicio de posible ocupación, utilidad, o que cuenten con algún plan de conservación para evitar su continuo deterioro, debido a que forman parte de la evidencia testimonial de la actividad argéntifera de la ciudad.

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Figura 6. Mina la Corteza, tuvo una máquina de vapor Cornish para desaguar los túneles mineros durante el S. XIX © M. E. Sanchez Roldan, 2021



Figura 7. Mina Minerva, Mineral de la Reforma s. XX © M. E. Sanchez Roldan, 2021

Propuesta

Por lo cual la presente propuesta consiste en la realización de las siguientes acciones:

i. Difusión para dar a conocer a la población en su conjunto, la condición actual de las instalaciones que aún existen de la actividad minera primigenia y sus ubicaciones, así como información histórica de fuentes confiables, pues se ha detectado en los últimos años, a través de las páginas en las redes sociales como:

<https://www.facebook.com/rescatalamaestranza;>

<https://www.facebook.com/PachucaCentroHistorico;>

[https://www.facebook.com/photo/?](https://www.facebook.com/photo/?fbid=3177849512277295&set=pcb.3177852068943706)

[fbid=3177849512277295&set=pcb.3177852068943706.](https://www.facebook.com/photo/?fbid=3177849512277295&set=pcb.3177852068943706)

[https://www.facebook.com/photo/?](https://www.facebook.com/photo/?fbid=3175310209197892&set=pcb.3175311449197768)

[fbid=3175310209197892&set=pcb.3175311449197768,](https://www.facebook.com/photo/?fbid=3175310209197892&set=pcb.3175311449197768)

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Que diferentes grupos de la sociedad -asociaciones civiles, académicos, investigadores y público general- manifiestan interés por las instalaciones mineras y sus espacios para ser utilizados en beneficio de la población y en consecuencia para ser partícipes de la preservación del patrimonio industrial minero.

ii. Búsqueda de acuerdos fehacientes entre los propietarios actuales de estos inmuebles con registro en el catastro público, autoridades competentes, estatales y municipales y la sociedad interesada, para promover proyectos para su rehabilitación y de espacio público, con respeto -e inclusión y cuidado de la naturaleza- con fines culturales que sean factibles de ser realizados en corto o mediano plazo para la salvaguarda y preservación de dichos inmuebles y evitar su total deterioro por la condición de olvido que presentan.

iii. Participación colegiada e incluyente que garantice proyectos que apoyen tanto la preservación de los bienes inmuebles mineros ya reconocidos y catalogados, como la mejora de la condición natural del terreno que les rodea. Dando preferencia a especies endémicas que coadyuven en el mejoramiento de las condiciones climáticas de la región.

iv. Invitación a integrar grupos de trabajo colaborativo con supervisión monitoreada por los grupos comprometidos y los organismos calificados internacionalmente como los comités conformados en TICCHI y el ICOMOS que garanticen la salvaguarda de la integridad histórica y los valores de paisaje reconocidos en los lugares citados, a través de la elaboración de un plan de manejo que garantice su cuidado y mantenimiento.

v. Reactivación de la economía pues estos proyectos permitirían la promoción de servicios y productos relativos a la cultura, el arte y la artesanía local, con un plan de manejo que garantice el respeto al inmueble y el entorno natural recuperado.

Se pretende que las acciones propuestas logren el cometido de mantener vivos y con un propósito -mejorar la calidad de vida- de los espacios que aún existen de este patrimonio industrial minero, para la difusión correcta de esta actividad primaria que dio origen a la ciudad de Pachuca y a la Comarca Minera; que aún hoy continúa produciendo mineral argentífero, su explotación está en manos privadas; pero los espacios antiguos, que ya no forman parte de la actividad actual deberían ser rescatados y preservados como parte de nuestro Patrimonio Industrial Minero para las siguientes generaciones.

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KNOWLEDGE CAFÉS

“Panorama Nature-Culture: Sharing Successful Approaches
for the Management and Governance of Heritage Places”

Moderator: Maya Ishizawa

Contact: Nicole Franceschini [nicole.franceschini.work@gmail.com]

“Living Vernacular Built Heritage and Climate Change”

Moderator: Hossam Mahdy

Contact: Hossam Mahdy [hossammahdy1960@yahoo.co.uk]

“Climate Change Driving Heritage to the Abyss:
Reflections on the State of Cultural and Natural Assets in Central America”

Moderator: Ana E. Hasemann

Contact: Gloria Lara-Pinto [larapinto2003@yahoo.com]

Knowledge Café

Panorama Nature-Culture: Sharing Successful Approaches for the Management and Governance of Heritage Places

Convenors: Maureen Thibault (ICOMOS International Secretariat), Tim Badman (IUCN), Eugene Jo (ICCROM), Maya Ishizawa (World Heritage Leadership), Nicole Franceschini (World Heritage Leadership)

This Knowledge Café aims to present the work of the Nature-Culture Thematic Community of PANORAMA Solutions for a Healthy Planet and discuss the importance of experience sharing and peer-learning. PANORAMA is an online-based platform that aims to document and promote examples of inspiring, replicable solutions across a range of different conservation topics, enabling cross-sectoral learning. The Nature-Culture Thematic Community is a joint initiative by ICOMOS, IUCN, and ICCROM that focuses on showcasing case studies where the interlinkages between nature conservation and the safeguarding of cultural heritage are crucial for the effective management and sustainable development of heritage places. It presents place-based and people-centred approaches, highlighting the relationship between natural and cultural diversity and strengthening heritage networks and communities of practise by providing a source of exchange between World Heritage properties, heritage places, institutions, and practitioners.

This knowledge café will gather the focal points from ICOMOS and its working groups, the ICCROM and IUCN World Heritage Leadership Programme, and PANORAMA authors, called solution providers, who will talk about their case studies from diverse institutional and professional perspectives.

Knowledge Café Method

The Knowledge Café is convened by the three partners involved in the creation and coordination of the PANORAMA Nature-Culture Thematic Community - ICOMOS, IUCN, and ICCROM. As recommended by the organisers, the Knowledge Café will involve several speaker-provocateurs who will collectively set the scene and inspire the 15 participants through concise 3-minute talks. Participants will then take part in the session by discussing specific key points and questions around a given set of questions.

The Knowledge Café will operate in English.

The convener will invite participants to represent various ICOMOS ISCs and WGs. Among these, invites will be sent to:

- Representative from the ICOMOS Advisory Committee
- Representative of the Rural Landscapes WG
- Representative of the ICOMOS OCD-RBA WG
- Representative of the ICOMOS SDGs Working Group
- Representative of the ICOMOS Climate Change Working Group
- Representative of the ICOMOS ISCCL
- Representative of the ICOMOS ICAHM





Knowledge Café
“Panorama Nature-Culture: Sharing Successful Approaches
for the Management and Governance of Heritage Places”

Programme of the Knowledge Café

Moderator: Maya Ishizawa

Rapporteur: Nicole Franceschini

Introduction to the Knowledge Café [5 minutes]

Member of the ICOMOS Board

Speaker-provocateurs [3 minutes of talks, in total 15 minutes]

The discussion will focus on the importance of sharing successful experiences and case studies, thinking about how the PANORAMA Nature-Culture Thematic Community can be used to mainstream success.

- Maureen Thibault, ICOMOS Secretariat
- Eugene Jo, ICCROM
- Steve Brown, convener of the Nature-Culture Dialogue of ICOMOS ISCCCL
- 1 Solution provider from the PANORAMA Nature-Culture Thematic Community
- Tim Badman, Director of the IUCN World Heritage Programme

Questions by participants [5 minutes]

Moderated dialogue [30 minutes]

Wrap up and future steps [5 minutes]

Anticipated Outcomes

- Discuss the importance of experience sharing and peer learning in heritage.
- Introduce the PANORAMA Nature-Culture Thematic Community and discuss how PANORAMA can support ICOMOS in sharing successful experiences, projects, and approaches implemented at heritage places.

Knowledge Café

Living Vernacular Built Heritage and Climate Change

Moderator: Hossam Mahdy

Rapporteur: Ivan Enev

Provocateurs: Gisle Jakhelin, Hamdy El Setouhi, Ege Yıldırım, Kat Vlahos, Naima Benkari, Shao Yong

Discussants: Ahmed Fouzan, Amanda Rivera, Berenice Aguilar, Cheima Azil, Hala Aslan, Samir Abdulac, Süheyla Koç, Wesley Brian Wilson

The vernacular built heritage is a living heritage that connects people with their environment and manifests their traditional wisdom in adapting to climatic and other environmental conditions. Traditional communities understood and observed sustainability well before the notion was highlighted and the term was coined in recent times.

Heritage conservation and sustainable development professionals could learn lessons on sustainability and mitigating the impact of climate change from vernacular heritage. On the other hand, professionals could assist local communities in sustaining a livelihood for the future and mitigating climate change by introducing innovative methods and tools that enhance the efficiency of the age-old vernacular built environment.

Programme of the Knowledge Café

The duration of the knowledge cafe is one hour.

The participants are all CIAV members. Five CIAV members will open the discussions with a very short 3-minute presentation each, and ten more CIAV members will join the discussion.

The presentations and discussions will address the following issues:

- Understanding the vernacular built heritage as an expression and manifestation of interconnections between people, nature, culture, and sustainable heritage;
- Lessons on sustainability and mitigating climate change that are learned from the vernacular built heritage;
- Methodologies for the sustainable conservation and management of vernacular heritage with a focus on the role of the local communities in mitigating the impact of climate change; and
- Case studies of vernacular built heritage with a focus on examples, strategies, methodologies, and approaches – both traditional and innovative - for sustaining the living heritage and mitigating climate change.



Knowledge Café

Climate Change Driving Heritage to the Abyss: Reflections on the State of Cultural and Natural Assets in Central America

Convenor: ICOMOS Honduras

Ana E. Hasemann, Gloria Lara Pinto, Carmen Julia Fajardo, Silvia González, Gloria Grimaldi, Fernando Díaz, Daniela Navarrete, Eva Martínez, Javier Mejuto

How can we raise awareness of the critical situation in which cultural heritage—tangible and intangible—finds itself before the pandemic? How can we improve the collective approaches necessary to confront such crises in the future? At the beginning of the discussion of the impacts of climate change on cultural heritage, public institutions focused their attention on built heritage, which several decades later has matured into a focus on its significance and its interconnections with nature and place. The challenges are significant and diverse: the lack of adequate budgets for the implementation of nation-state agendas with political support; the complex relationship between tourism and heritage; the worrisome increase in public-private partnerships at the expense of local communities and state-level institutionality, governance, and scientific knowledge; the contradictions between development initiatives and sustainability. Nonetheless, today, as always, the active and resolute participation of an informed citizenry is decisively critical; it can and does make a difference.

Knowledge Café Method

Each participant will be provided with a set of predetermined discussion questions to suggest and guide the content, tone, and intent of a collective critical reflection. This Knowledge Café will be structured to include two provocateurs among the participants and a moderator to manage the discussion. The moderator will simultaneously fulfil the role of the rapporteur, who will present a brief review of the discussion and the cross-cutting themes. This activity will be in Spanish.

This Knowledge Café is an interdisciplinary activity that will include the participation of ten professionals with applied and fieldwork experience in Honduras and Central America. The anticipated participants are all members of ICOMOS Honduras. They include:

- Anthropologist Ana E. Hasemann, M.A. (moderator-rapporteur)
- Anthropologist Gloria Lara Pinto, PhD. (participant- provocateur)
- Archaeologist Carmen Julia Fajardo, M.A. (participant-provocateur)
- Anthropologist Silvia González, M.A. (participant)
- Architect Gloria Grimaldi, M.A. (participant)
- Architect Fernando Díaz, PhD. (participant)
- Historian Daniela Navarrete, PhD. (participant)
- Archaeologist Eva Martínez, PhD. (participant)
- Archaeologist Javier Mejuto, PhD. (participant)



Purpose and Anticipated Outcomes

According to Paul Crutzen (2000), we have been living in a new period, what he calls the Anthropocene, during which the worldwide impact of human activity on terrestrial and aquatic ecosystems is more evident than ever. In a short time, throughout the span of the last 10,000 years, the crisis that humanity has provoked now leads to its most significant challenge: global warming and anthropogenic climate change. In this context of rapid changes, accelerated by the actual climate and ecological crises, it seems a pressing matter to identify and critically discuss what have been the effects of this crisis on our heritage, on the connections between local populations and their heritage, to recognise and reflect upon the diverse expressions of tangible and intangible heritage – focusing on and referring to long-term processes, the *longue durée* (Braudel, 2007), and the inescapable interconnections between nature and culture.

Having this in mind, some of the topics we expect to be discussed in this Knowledge Café concern:

- How can scientific research on natural and cultural heritage sites and assets contribute to ways to address the impacts of climate change on communities, ecosystems, and non-human organisms?
- What have been some local-regional responses to mitigation response and disaster preparedness at heritage sites? And how can these become the basis for environmental management and resilience for rural and urban communities at large? (vice versa)
- What changes and trends are occurring in policies related to natural resources and climate change? And how are these policies including or affecting natural and cultural heritage sites and assets?
- How can natural and cultural assets (including, but not exclusive to, assets with heritage status) serve as tools for environmental resilience?

Among the purposes and outcomes of this Knowledge Café are: (1) to engage in an issue of current relevance worldwide with a focused lens on Central America; (2) to make ICOMOS Honduras more active and visible in the events proposed by ICOMOS International; (3) to make activities such as this one accessible to a Spanish-speaking public interested in the topic, particularly students from the diverse higher-education institutions where the participants are faculty; (4) to drive conversations about heritage to emphasise nature-culture intersections; (5) to emphasise climate change from a perspective focused on processes, context, and history, inspired by the concept of *longue durée*.

WORKSHOPS

“Heritage Education and Capacity Building for Climate Action”

Moderators: Deniz Ikiz Kaya, Irene Curulli, Paloma Guzman

Contact: Deniz Ikiz Kaya [d.ikiz.kaya@tue.nl]

“Polycentric and Participatory Governance in Cultural Tourism for
Community Resilience”

Moderator: Ananya Bhattacharya

Contact: Ananya Bhattacharya [ananya@banglanatak.com]

“Communities Address Climate Change in Mountainous Regions”

Moderator: Kai Weise

Contact: Kai Weise [kai.weise@yahoo.com]

“Workshop on Living Heritage and Climate Change”

Moderator: Mauro García Santa Cruz

Contact: Mauro García Santa Cruz [mgarciasc@gmail.com]

“The City of Knowledge-Wisdom.
Promoting Resilient Laboratories in World Heritage Sites”

Moderator: Graciela A. Mota Botell

Contact: Graciela A. Mota Botell [gmotab@gmail.com]

Workshop

Heritage Education and Capacity Building for Climate Action

Convenors: Deniz Ikiz Kaya, Irene Curulli, Paloma Guzman

The joint efforts of multilateral heritage institutions, i.e. ICOMOS, IUCN, ICCROM, and UNESCO, support the role of cultural heritage in sustainable development and climate action. Such efforts create an opportunity to foster enhanced, strategic, and sustained approaches supporting transformational change. Enabling local and national stakeholders to build knowledge and technical capacities is fundamental to mitigating risks and adapting living cultural heritage to climate change. Only recently have there been initiatives for national and regional educational and training programmes to support capacity building on climate action, such as the e-CREHA Erasmus+ project (education for Climate Resilient European Heritage Architecture) or ICOMOS Argentina's Climate Change and Risks for Cultural Heritage course. These individual efforts have been ad hoc, project-based, or short-termed, and fragmented. This workshop session aims to bring together heritage professionals, relevant international, national, and supranational bodies, scholars, initiatives, and funding entities working towards heritage education and capacity building for climate change mitigation and adaptation. This session intends to establish a network of capacity builders and educators to share experiences and knowledge, as well as to identify gaps and needs in education and training for heritage practitioners to respond to the climate emergency. The session will also foster regional and international cooperation, increase synergies and collaboration among existing bodies and activities, share tools and methodologies, and collect best practices and lessons learned. In this way, the session will help establish partnerships and create a road map for an integrated and responsive capacity-building system through climate heritage education, public awareness, participation, and access to information.

Purpose of the Workshop

Articles 11, 12, and 13 of the Paris Agreement highlight the importance of capacity building in the transition towards a low-emission pathway and coping with the impacts of climate change. While the role that cultural heritage plays in this transition for climate action has been newly recognised in national and supranational policy-making, there still needs to be a gap between policy, practice, and local capacity building for heritage-oriented climate change mitigation and adaptation. There is thus an increasing need and demand for network building and knowledge sharing on this topic.

This workshop targets varied actors involved in heritage education and capacity building for climate action, aiming to create dialogue, communication, and networking and to foster the sharing of knowledge, experiences, and practices, as well as innovative methods and tools in the spirit of collaboration. It intends to bring together a broad range of actors involved in heritage education and capacity-building, including heritage professionals, administrators, policy-makers, experts, academia, institutions, and non-governmental organisations. Given different local circumstances and priorities, the existing education, training, and capacity-building efforts have so far been fragmented, project-oriented, and work-in-progress, constantly evolving to address the emerging needs and challenges of local and regional contexts. This workshop will highlight the importance of effective and inclusive partnerships,



coherent policies and strategies, and coordinated actions among these actors, as well as cross-cutting issues, innovation in proposed approaches and methodologies, and an iterative and dynamic process of mutual learning.

Workshop Structure and Content

The workshop will be conducted online in English. The workshop will begin with a short introduction of the topic, the state-of-the-art in existing heritage education and training activities fostering climate action, and the workshop structure. Then, the participants will join one of the three breakout rooms focusing on the following three themes: knowledge topics/skills, partnerships, and methods/tools. In the breakout rooms, the participants will discuss these themes further in depth, concentrating on the questions articulated below. At the end of the breakout sessions, the participants will gather again in the main discussion room to share the outputs and exchange experiences and knowledge.

The breakout discussion will focus on the following themes and questions:

Breakout Room 1: Theme – Knowledge Topics and Skills

Moderator/rapporteur: Irene Curulli

Both cultural heritage and climate change themes are interdisciplinary in nature. Thus, a variety of multidisciplinary topics derived from environmental sciences, engineering, humanities, and social sciences fall under the thematic focus and content of the climate change-focused heritage education and training activities, which include: measuring and assessing climate change impacts and vulnerabilities; dealing with heritage damage and loss associated with these impacts; climate heritage mitigation strategies and planning; heritage conservation and adaptation; resilience building; climate heritage policy, governance, and action; and raising awareness and strengthening capacity to bolster climate action through cultural heritage.

The discussion within this breakout session can concentrate on the following questions:

- What are the knowledge areas and cross-cutting issues that are and/or should be covered in the heritage education and training activities for climate action?
- What skills are required to put this knowledge into the right context?
- Are the needs of recipients addressed when education and training programmes are project-specific and/or output-driven?

Breakout Room 2: Theme – Partnerships

Moderator/rapporteur: Paloma Guzman

Building alliances and fostering partnerships among a wide variety of actors involving governments, academia, international organisations, non-governmental agencies, the private sector, local communities, and policy-makers are highly important in capacity building. Climate-focused heritage education and training activities for climate action require an inclusive, collaborative, and interdisciplinary approach that brings together different disciplines, priorities, and perspectives.

The following questions can be discussed during this breakout session:

- Which actors are currently involved in climate-focused heritage education, training, and capacity building, and what roles do they play?
- How diverse and inclusive are the existing education and capacity-building programmes and activities?
- How can more participatory, representative, and inclusive means of capacity-building be enhanced and ensured to mainstream human rights, indigenous voices, and gender and youth perspectives?
- What are the challenges/barriers to interdisciplinary and multifaceted collaboration, and how to cope with them?

Breakout Room 3: Theme – Methods and Tools

Moderator/rapporteur: Deniz Ikiz Kaya

Ranging from awareness-raising to educational programmes, there is a broad array of approaches, methodologies, and tools employed by different actors in capacity building that are tailored to the needs of different audiences. Innovation and digitalization play a vital role in these activities as they foster and scale up capacity-building efforts.

The following questions will be addressed in this breakout session:

What are the existing learning approaches, methods, and tools used in education and capacity-building activities on climate change mitigation and adaptation of cultural heritage?

How can innovation and digitalization be further implemented to foster and scale up heritage education and capacity-building efforts?

Which financing instruments can be employed to support such activities?

How can online communication platforms and social media be harnessed to broaden the outreach of these education and training activities?

Anticipated Outputs

This workshop will contribute to fostering and scaling up local, national, and supranational heritage education, training, and capacity building for climate action through the assessment of the state-of-the-art, identification of gaps and needs, and sharing of experiences and good practices, knowledge, methods, and tools among heritage professionals, educators, and policy-makers. It intends to provide the workshop participants with knowledge and instruments to transfer the lessons learned and methods and tools discussed at the workshop into their local and regional contexts and efforts. In addition, this workshop will also contribute to fostering regional and international cooperation, establishing partnerships, and increasing synergies and collaboration among existing bodies and activities.

Workshop

Polycentric and Participatory Governance in Cultural Tourism for Community Resilience

Convenors: Ananya Bhattacharya, Cecilie Smith-Christensen, Sofia Fonseca, Shem Wambugu Maingi, Celia Martínez Yáñez, Rouran Zhang

ICOMOS calls for people-centred approaches to cultural heritage, considering cultural, environmental, and socio-economic concerns when local, national, and international heritage policies and practices are developed ([Resolution 20GA/19](#)). In order to address challenges in safeguarding and conserving cultural heritage in the face of climate change, there is a need to build adaptive capacity and resilience within communities anticipating future disruptions.

The workshop will consider how community and stakeholder inclusion in the governance of cultural heritage and tourism could strengthen resilience and adaptive capacities. In contrast to centralised governance, where stakeholder involvement may be limited, polycentric or decentralised governance implies more radical inclusion. As a central aspect of a commons-oriented approach to managing shared resources, it sets out a complex form of governance with multiple centres of semi-autonomous decision-makers in cooperative and competitive relationships, resorting to conflict resolution mechanisms when necessary.

The heritage domain can offer many examples of participatory and polycentric governance set out through customary practices and living traditions, as well as more contemporary and innovative approaches. Deliberate designs for self-organisation, such as charters, help bring diversity into shared purpose and values as peers align and groups self-constitute in efforts to deal with challenges.

Gouvernance Polycentrique et Participative dans le Tourisme Culturel pour la Résilience des Communautés

L'ICOMOS appelle à des approches du patrimoine culturel centrées sur les personnes, en tenant compte des préoccupations culturelles, environnementales et socio-économiques lors de l'élaboration de politiques et de pratiques patrimoniales locales, nationales et internationales ([Résolution 20GA/19](#)). Pour relever les défis de la sauvegarde et de la conservation du patrimoine culturel face au changement climatique, il est nécessaire de renforcer les capacités d'adaptation et la résilience au sein des communautés en anticipant les perturbations futures.

L'atelier examinera comment l'inclusion des collectivités locales, des populations et des parties prenantes dans la gouvernance du patrimoine culturel et du tourisme pourrait renforcer la résilience et les capacités d'adaptation.

Contrairement à la gouvernance centralisée, où l'implication des parties prenantes peut être limitée, la gouvernance polycentrique ou décentralisée implique une implication plus radicale.



En tant qu'aspect central d'une approche de la gestion des ressources partagées orientée vers les intérêts communs, il définit une forme complexe de gouvernance avec de multiples centres de décideurs semi-autonomes, dans des relations coopératives et compétitives, recourant à des mécanismes de résolution de conflits lorsque cela est nécessaire.

Le domaine du patrimoine peut offrir de nombreux exemples de gouvernance participative et polycentrique déclinée à travers des pratiques coutumières et des traditions vivantes, ainsi que des approches plus contemporaines et innovantes. Les chartes contribuent à apporter de la diversité aux valeurs et objectifs partagés à mesure que les groupes s'auto-construisent dans leurs efforts pour relever des défis complexes.

Gobernanza Policéntrica y Participativa en el Turismo Cultural para la Resiliencia de las Comunidades

ICOMOS promueve enfoques patrimoniales centrados en las personas afrontando las implicaciones culturales, ambientales y socioeconómicas de las políticas y prácticas patrimoniales a nivel local, nacional e internacional ([Resolución 20GA/19](#)). El desafío de salvaguardar el patrimonio cultural frente al cambio climático incluye la necesidad de adaptación y resiliencia de las comunidades anticipando interrupciones futuras.

El taller considerará cómo la inclusión de las comunidades y los actores clave en la gobernanza del patrimonio cultural y el turismo podría fortalecer la resiliencia y capacidad de adaptación. Frente a la gobernanza centralizada, donde la participación es limitada, la gobernanza policéntrica o descentralizada implica una inclusión más radical. Como clave de un enfoque de gestión de recursos de propiedad común, establece formas más complejas de gobernanza con múltiples focos de actores semiautónomos que mantienen relaciones cooperativas y competitivas y recurren a la resolución de conflictos cuando es necesario.

El ámbito patrimonial ofrece tanto ejemplos de gobernanza participativa y policéntrica mediante prácticas consuetudinarias y tradiciones vivas, como enfoques contemporáneos e innovadores. Diseños específicos para la autoorganización, tales como las cartas, ayudan a diversificar los valores y objetivos compartidos a medida que los pares se alinean y los grupos se autoconstituyen para enfrentar desafíos complejos.

Workshop Method

Language - English
Moderator - Ananya Bhattacharya
Duration - 1.5 hours
Breakout rooms - None

The workshop focuses explicitly on the potentials and challenges of participatory and polycentric (decentralised and/or distributed) governance in cultural tourism for community resilience, with specific attention to the draft ICOMOS International Cultural Heritage Tourism Charter 2021: Reinforcing cultural heritage protection and community resilience through responsible and sustainable tourism management.

Workshop
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Established and emerging practices and methodologies set out through customs and living traditions or enabled through human-centric technology and innovative networks embedded in cultural practices worldwide will be presented. Questions posted by the presenters will bring forward a discussion on how the heritage domain can enhance adaptive and transformative capacities and contribute towards a new development paradigm. The ensuing discourse will analyse implications for public governance, democratic participation, and decision-making for sustainable and responsible tourism.

Ananya Bhattacharya, co-founder of www.banglanatak.com in India and specialising in culture and development, will be the moderator of the workshop. Annaya will introduce the workshop purpose and briefly explain the underlying concepts of polycentric governance as a commons-oriented approach and how it differs from hierarchical and centralised governance by providing a broader spectre of community members and stakeholders a say and role in the stewardship of shared resources and the future of their communities (10 minutes).

Dr. Celia Martínez Yáñez, a Tenured Professor at the Art History Department of the University of Granada, will present how the ICOMOS International Cultural Heritage Tourism Charter introduces these concepts in its principles promoting responsible cultural heritage tourism management and a new paradigm for climate action and adaptation. These are the conditions and challenges for tourism to become a key source of heritage preservation, awareness and enjoyment of social and community wellbeing and resilience (7 minutes).

The workshop will continue with four presentations and discussion (15 minutes each) reiterating the objectives and principles outlined in the charter on reinforcing participatory and/or polycentric governance in the stewardship of cultural and natural heritage commons used in tourism for advancement of the SDG targets, climate action, and adaptation.

Cecilie Smith-Christensen, expert advisor to the UNESCO World Heritage Sustainable Tourism Programme, founder of World Heritage Catalysis (www.whcatalysis.org), and Ph.D. researcher at the University of Cumbria, UK, will present on "Enhancing Resilience and Adaptive Capacity through Visitor Management". Climate change is expected to increasingly disrupt tourism and tourism-dependent communities. People and communities living in and around World Heritage Sites need enhanced resilience and adaptive capacity. How can World Heritage be relevant and site management contribute? She will share how the UNESCO World Heritage Visitor Management Assessment and Strategy Tool (VMASST), through an anticipatory, open, and inclusive visitor management strategy development process, can contribute to a distributed, collaborative, and adaptive governance approach.

Dr. Shem Wambugu Maingi, a lecturer from Kenyatta University, will share "Models of Governance in Kenya: Tourism, Climate Change and Communities Resilience." Governing tourism, heritage, and ecosystem services in Kenya has traversed different phases in a journey towards sustainable tourism development and community resilience. He will discuss the methodological approach of polycentric and participatory governance of tourism resources in the Kenyan context that promotes community resilience towards climate change.

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Dr. Rouran Zhang, associate professor from Shenzhen University and vice president of ICOMOS ICTC, will speak on "Indigenous Views on Climate Changes and the Value of Cultural Landscape: Case Study on Cultural Landscape of Honghe Hani Rice Terraces". He will explore indigenous people's perceptions of the culture-nature integrated values of Hani Rice Terraces and their views on tourism development. It also explores how traditional management methods can be most effectively supported and maintained within the framework of the World Heritage Program from the perspectives of indigenous people and how the approach contributes to climate change resilience.

Sofia Fonseca, Portuguese archaeologist and founder of 'Teiduma, Consultancy on Heritage and Culture' (www.teiduma.com), will explore "How Traditional Community Knowledge and Practices can Help Tackle Climate Change: The Case for the Mediterranean Diet in Reducing Food Waste, on the Tourism Food Industry in the Algarve (Portugal)". In 2011, the UN Food and Agriculture Organization (FAO) estimated that one-third of all the food produced in the world, the equivalent of 1.3 billion tonnes, was going to waste, and the estimate increased to 2.5 billion tonnes in 2021, implying 40% of the total food produced in the world. The environmental, social, and economic impact of these numbers is appalling. If we consider that food is culture, how can we, through culture, help to tackle food waste? Sofia will discuss a practical approach to enhance climate mitigation by using a polycentric approach to implement the principles of the Mediterranean Diet to tackle food waste. She will share insight into the tourism food industry in the Algarve and the different actors, actions, and strategies that can be implemented to reduce food waste.

The discussions will aim at understanding the aforementioned concepts, how they differ, how they are currently applied, and how they could be applied in the future, aiming for inclusive heritage governance and improved adaptive capacity. Participants will explore possible practical implications for current and future stakeholders in cultural tourism.

In the concluding discussion, the moderator will invite participants to ask questions and finally summarise the observations (13 minutes).

The workshop will be in English, and there will not be any breakout rooms. Emerging Professionals Working Group members will participate as rapporteurs and session managers.

The anticipated output of the workshop for the e-publication of the full proceedings of the 2021 Symposium will include reflections on how community and stakeholder inclusion in the governance of cultural heritage and tourism, with a specific consideration of polycentric governance, could strengthen resilience and adaptive capacities in the face of climate change.

Workshop Paper

Polycentric and Participatory Governance in Cultural Tourism for Community Resilience

Celia Martínez Yáñez, Cecilie Smith-Christensen, Shem Maingi, Sofia Fonseca, Rouran Zhang, Ananya Bhattacharya

ICOMOS calls for people-centred approaches to cultural heritage, considering cultural, environmental, and socio-economic concerns when local, national, and international heritage policies and practices are developed (ICOMOS, 2020). The workshop, organised on November 10, 2021, as part of the 2021 ICOMOS Scientific Symposium, considered how communities and stakeholders could strengthen resilience and adaptive capacities through inclusive governance of cultural heritage and tourism. In contrast to hierarchical and centralised governance, where stakeholder involvement in decision-making processes may be limited, polycentric or decentralised governance implies a more radical inclusion. As a central aspect of a commons-oriented approach to the management of shared resources (Ostrom, 1999; Ostrom, 2010, 2014), it sets out a complex form of governance with multiple centres of semi-autonomous decision-makers in cooperative and competitive relationships, resorting to conflict resolution mechanisms when necessary. The heritage domain can offer many examples of participatory and polycentric governance set out through customary practices and living traditions, as well as more contemporary and innovative approaches. Deliberate designs for self-organisation, such as charters, help bring diversity into shared purpose and values as peers align and groups self-constitute in efforts to deal with the challenges. To demonstrate this, the *ICOMOS International Charter for Cultural Heritage Tourism: Reinforcing Cultural Heritage Protection and Community Resilience through Responsible and Sustainable Tourism Management* adopted by ICOMOS General Assembly (GA) in 2022 was referenced throughout the workshop and in this paper.

The workshop on "Polycentric and participatory governance in cultural tourism for community resilience" specifically focused on potentials and challenges to participatory and polycentric (decentralised and/or distributed) governance in cultural tourism for community resilience, with specific attention to the *ICOMOS International Charter for Cultural Heritage Tourism 2022*. In the workshop convened and moderated by Ananya Bhattacharya, Director, www.banglanatak.com, Dr. Celia Martínez Yáñez, Tenured Professor at the Art History Department of the University of Granada, Spain, presented the 2022 ICOMOS International Cultural Heritage Tourism Charter. Dr. Shem Wambugu Maingi, Lecturer from Kenyatta University, Dr. Rouran Zhang, Associate Professor from Shenzhen University, Sofia Fonseca, Portuguese archaeologist and founder of "Teiduma, Consultancy on Heritage, Culture and Sustainability" (www.teiduma.com), and Cecilie Smith-Christensen, expert advisor to the UNESCO World Heritage Sustainable Tourism Programme and founder of World Heritage Catalysis (www.whcatalysis.org) shared examples reiterating the objectives and principles outlined in the Charter addressing opportunities and challenges to public governance, democratic participation and decision making where heritage and tourism are concerned.

Defining heritage commons as a starting point for focus, the Preamble of the ICOMOS International Charter for Cultural Heritage Tourism considers cultural and natural heritage

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Available in the ICOMOS Open Archive at <https://openarchive.icomos.org/id/eprint/2937>

as common resources whose responsible, ethical, equitable, inclusive, and fair governance and enjoyment are shared rights and responsibilities, including and especially within the tourism domain.

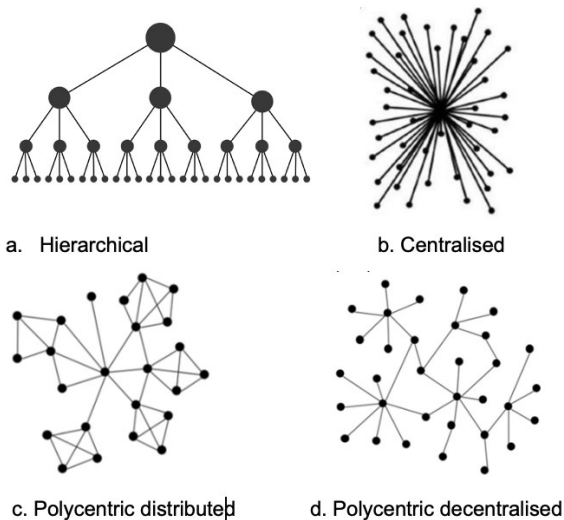


Figure 1. Forms of governance © Cecilie Smith-Christensen

In contrast to hierarchical and centralised governance, where stakeholder involvement in decision-making processes may be limited, polycentric or decentralised governance implies a more radical inclusion (Figure 1). Polycentric, distributed, or decentralised governance implies a complex form of governance with multiple centres of semi-autonomous decision-makers in cooperative and competitive relationships, resorting to conflict resolution mechanisms when necessary (Ostrom, 1999, 2010, 2014). It relies on inclusive, collaborative, flexible, and learning-based approaches for adaptive destination co-management. Such a governance process may generate self-organisation and cross-sector linkages among stakeholders, which are critical in situations like those

experienced during the COVID-19 pandemic and the uncertainties posed by climate change. The multiple actors in polycentric governance are not necessarily related to each other. They may include a diversity of actors guided by and engaging with national and state laws and international recommendations, among other mechanisms supporting public participation processes (Bollier and Helfrich, 2019; Gould, 2017; Morrison, 2017).

The presentations covered established as well as emerging practices and methodologies set out through customs and living traditions or enabled through human-centric technology and innovative networks embedded in cultural practices around the world. They specifically addressed how the heritage domain could enhance adaptive and transformative capacities through the governance of shared resources and contribute towards a development paradigm supporting and not depleting heritage commons.

2022 ICOMOS International Charter for Cultural Heritage Tourism: Reinforcing Cultural Heritage Protection and Community Resilience through Responsible and Sustainable Tourism Management

In 2017, the ICOMOS ICTC decided to review the ICOMOS International Cultural Tourism Charter 1999 to update it to reflect the changes in tourism and heritage doctrines over the last 20 years, confront the impact of mass tourism on heritage and communities, and address their related rights issues. In 2020, upon ICOMOS declaring a Climate Emergency and the outbreak of the COVID-19 pandemic disrupting global tourism, a reorientation of the document to strengthen the focus on cultural heritage conservation and community resilience was considered necessary. In doing so, the new Charter calls out the fundamental unsustainability of perpetual economic growth-based development and argues the importance of participatory governance for approaches applying cultural heritage in the reorientation towards a new regenerative and people-centred development paradigm.

Workshop Paper

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The Charter is set out against seven principles (Table 1) supporting cultural heritage protection and stewardship through participatory governance. Principle 1 aims to place cultural heritage protection and conservation at the centre of responsible cultural tourism planning and management and defines well-managed cultural heritage tourism as a type of tourism that enables communities to participate while maintaining their social cohesion and cultural practices. It also claims a fair, equitable, and accountable allocation of tourist revenues; Principle 2 recognises the need for broad-based stakeholder involvement in the use of planning instruments and the development of management plans based on carrying capacity and limits on acceptable change approaches and indicators; and Principle 3 stresses the need to enhance public awareness and visitor experience through sensitive interpretation and presentation of cultural heritage reflecting scientific research and the diversity of community perspectives.

Principles 4, 5, and 6 focus on the participatory governance of heritage commons based on rights- and people-centred approaches to cultural heritage (ICOMOS, 2017) and the “free, prior and informed consent” of communities (UN, 2007). Accordingly, these principles aim to *increase the ability of communities to foresee and reduce risks and to make informed decisions concerning cultural heritage management and tourist use of resources to minimise the negative societal and economic impacts of disruption or intensification of use* (Principle 6). Climate change adaptation and resilience are specifically dealt with in Principle 7. This principle states that all cultural tourism stakeholders must take action to mitigate, reduce, and manage climate impacts, as this is a shared responsibility. It also stresses the importance of traditional practices and knowledge to confront this global threat. By addressing these aspects, the Charter allows for new perspectives and collaborative efforts to lead towards a new, more resilient, sustainable development path where cultural heritage is protected for its continued relevance.

The following presentations exemplify participatory and polycentric governance in practice and how the Charter may be helpful.

Table 1. ICOMOS International Charter for Cultural Heritage Tourism 2022 principles

Principle 1:	Place cultural heritage protection and conservation at the centre of responsible cultural tourism planning and management;
Principle 2:	Manage tourism at cultural heritage places through management plans informed by monitoring, carrying capacity and other planning instruments;
Principle 3:	Enhance public awareness and visitor experience through sensitive interpretation and presentation of cultural heritage;
Principle 4:	Recognize and reinforce the rights of communities, Indigenous Peoples and traditional owners by including access and engagement in participatory governance of the cultural and natural heritage commons used in tourism;
Principle 5:	Raise awareness and reinforce cooperation for cultural heritage conservation among all stakeholders involved in tourism;
Principle 6:	Increase the resilience of communities and cultural heritage through capacity development, risk assessment, strategic planning and adaptive management;
Principle 7:	Integrate climate action and sustainability measures in the management of cultural tourism and cultural heritage.

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Case Study on the Cultural Landscape of Honghe Hani Rice Terraces (China)

Dr. Rouran Zhang shared how polycentric practices in the cultural heritage domain can be viewed explicitly in the governance of shared resources such as water management. On June 22, 2013, the World Heritage Committee inscribed the Cultural Landscape of Honghe Hani Rice Terraces (HRT) on the UNESCO World Heritage List. HRT is a cultural landscape with the most representative and concentrated rice terraces as the core, including the water source forests, irrigation systems, ethnic villages, and other elements on which they depend. It is a unique traditional rice culture with wide distribution, far-reaching influence, and permanent vitality under special geographical and natural conditions (UNESCO, 2013).

The HRT use of water resources is typical of the adaptability of traditional local methods called “forest-village-terrace-water system” to climate change. It represents a form of traditional polycentric/participatory governance. Compare this with two other terrace-related World Heritage sites in Asia: the Subak System in Bali, which is irrigated by a volcanic lake, and the Rice Terraces of the Philippine Cordilleras, which are located in a tropical region with abundant precipitation, both of which focus on drainage rather than irrigation. At the same time, the population density of these two terraces is much smaller than that of the HRT. Therefore, the difference in water resources and population density brings about differences in habitat, and the “forest-village-terrace-water system” of the HRT has achieved the ultimate exploitation of local nature and intensive agricultural practices compared to its resource-rich counterparts. The traditional water management system and folklore of the Hani villages demonstrated by it are instructive for local heritage in the face of global climate change.

However, the government's approach to the governance of the HRT needs to consider local residents' suggestions to ensure sustainable development. A total of 86 heritage site stakeholders were interviewed for the survey from November 3-10, 2019, and the interviews were all in the form of semi-structured interviews. A total of 70% of respondents felt that one of the significant problems was the loss of the agricultural population or the disappearance of traditional culture.



Figure 2. Honghe Hani Rice Terraces © Rouran Zhang

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The ICOMOS International Charter for Cultural Heritage Tourism 2022, which sets out to enhance community resilience in the face of climate change, is important for national and local governments in the governance of rural heritage sites. As guided by the new Cultural Tourism Charter in HRT, for example, governments at all levels should publish and implement heritage conservation and management plans through the promulgation of specific protection regulations and norms. Local governments should respect the positioning and use of heritage by the inhabitants of heritage sites so that the spontaneous traditions and habits of the population become conscious of practising heritage conservation. Local governments should also focus on the “living” feature of heritage sites and community participation and address the problems of labour drainage and terraced field desolation through appropriate compensation for farmers. At the same time, in collaboration with a broad spectrum of stakeholders, there is a need to prepare reasonable development plans to promote healthy ecological development through cultural tourism.

Reducing Food Waste in Tourism in Algarve (Portugal)

Sofia Fonseca explained how food security is an essential aspect of resilience. In 2021, 40% of the total food produced in the world ended up wasted (WWF-UK, no date). Causes of food waste include unsustainable production and consumption practices in developed countries; inefficient production and preservation practices, lack of infrastructure in developing countries; and disconnection with nature and the food production process in both cases. But there is more to food waste than wasted food. There are economic, social, and environmental aspects to be considered. The ICOMOS International Charter for Cultural Heritage Tourism 2022, in Principle 7, indicates that all cultural tourism stakeholders must take action to mitigate, reduce, and manage climate impacts. Culturally sustainable and responsible tourism can be a force for good in transforming customers’ behaviour to more nutritious and safe diets with a lower environmental footprint by adopting and implementing the principles of the Mediterranean Diet.



Figure 3. Separating the waste to be identified and weighed, in *Tertúlia Algarvia* © Sofia Fonseca

After the ICTC workshop, and through a polycentric approach, a project has been proposed by the civil society regarding the tourism food industry in the Algarve: “NO ALgarbage- zero waste in tourism”. The partners are *Teiduma, Consultancy on Heritage, Culture and Sustainability; Tertúlia Algarvia*, in Faro, a restaurant and cultural association dedicated to the Algarve and the Mediterranean diet and culture; *Faro Story Spot- a cidade e a Ria*, a visitation centre dedicated to the city of Faro; *Cafézique* a restaurant with a creative cuisine, in Loulé; and *Mercearia Bio*, an organic supermarket

and restaurant in Lagos. The proposal was presented to the ACCIONAD-ODS call for micro-projects by local actors in the implementation of sustainable socio-environmental practices that contribute to the achievement of SDG goals 11, 12, and 13. “NO ALgarbage- zero waste in tourism” was selected and is being implemented with the financial support of ACCIONAD-ODS, which is co-financed by EP-Interreg V Espanha-Portugal (POCTEP). By bringing

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together these different actors and through different stages that include 1) Identifying and measuring food waste; 2) Strategies to prevent waste; 3) Food waste management; 4) Measuring the results; and 5) Follow-up and monitoring, we are looking forward to establishing guidelines to be adopted by the tourism industry in the Algarve to reduce food waste and our ecological footprint while saving money and natural resources. The project results were presented in a workshop in Faro in June 2022 (www.noalgarbage.com).

Case Study of Tourism, Climate Change, Community Resilience, and Models of Governance in Kenya: Case of Lake Turkana National Parks in Kenya

Dr. Shem Wambugu Maingi described how heritage tourism destinations in Kenya are currently facing numerous challenges in adapting their governance approaches to withstand crises such as the COVID-19 pandemic, climate change, social instabilities, economic crises and terrorism threats. The climate crisis presents unique challenges such as the trade-off between infrastructure development, heritage conservation, securing lives, human rights, and livelihood preservation. In order to tackle the threats of climate change and build local resilience systems to these threats, there is a need to establish a suitable and equitable balance between the environmental, economic, and socio-cultural aspects of heritage tourism development. The Lake Turkana National Parks are one of the most significant Archaeological and Cultural heritage sites in Kenya and are listed among the sites in grave danger. The region, which was inscribed as a heritage site in 1997, has one of the longest living histories on earth. Fossil deposits at Koobi Fora (Sibilo National Park) have contributed to the understanding of human ancestry, and the Lake is known to be the Cradle of Mankind. Studies show that the wetland ecosystems, traditional livelihoods and living heritage of the cradle of mankind are threatened by the infrastructure, climate change, irrigation, droughts, and dam developments along the Omo River, which is the main tributary to Lake Turkana (Avery and Tebbs, 2018; Junqueira *et al.*, 2021). Climate change is posing risks to the rights to life, health, food, and water of the people of Turkana. Despite the efforts by the Kenya Government to implement the Management Plan for 2018-2028,



Figure 4. Lake Turkana South Island © Courtesy of Wikimedia Commons

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there was a continued lack of coordinated response from state parties in Kenya and Ethiopia on the current status of the Gilgel Gibe III dam (UNESCO, 2019). The 2016 Policy on Devolved System of Governance in Kenya led to the decentralisation of the governance functions, which has expanded the capacity of the county to mainstream climate adaptation strategies for vulnerable populations within their development agenda. Polycentric governance through stakeholder collaboration has enabled the mapping, development, preservation, and conservation of Turkana's rich natural, cultural, and colonial heritage. It has also provided greater opportunities for engaging the local communities and local stakeholders, such as the Friends of Lake Turkana and Turkana Hotels and Restaurants Association, in fostering social, economic, and environmental justice in the Lake Turkana basin.

Enhancing World Heritage Stewardship and Community Resilience through Tourism and Visitor Management

In the face of climate change, communities hosting World Heritage Sites and attracting visitors need to be prepared for disruptions that require the community to adapt to new circumstances quickly. The prospect of more frequent fluctuations in visitor numbers, possibly even a collapse in the tourism sector, calls for proactive and adaptive management approaches that seek to build community resilience through the stewardship of shared resources. Cecilie Smith-Christensen shared the UNESCO World Heritage Visitor Management Assessment & Strategy Tool (VMAST) that is available through the UNESCO World Heritage Sustainable Tourism Programme and Toolkit (<https://whc.unesco.org/en/vmast/?p=123456>). VMAST is a self-assessment and strategy development tool developed to assist World Heritage site management authorities in their efforts to manage tourism for the

protection of heritage values while localising the UNSDGs. Set across four overarching goals (governance; environmental-, socio-cultural- and environmental sustainability), including 40 strategic objectives and more than 200 target indicators, VMAST is helpful in identifying and engaging community stakeholders in issues of shared concern. As a strategy development tool, VMAST can support the development of new strategies and/or the update of existing plans supporting participatory governance through adaptive and proactive co-management.

However, collaborative and adaptive visitor management may not be enough to strengthen community resilience and adaptability to severe disruptions. This is why World Heritage Catalysis (<https://www.whcatalysis.org>), set up as ‘an emerging commons-oriented community of practice’, in addition to supporting the use of VMAST, also explores how other tools and technologies including web-3

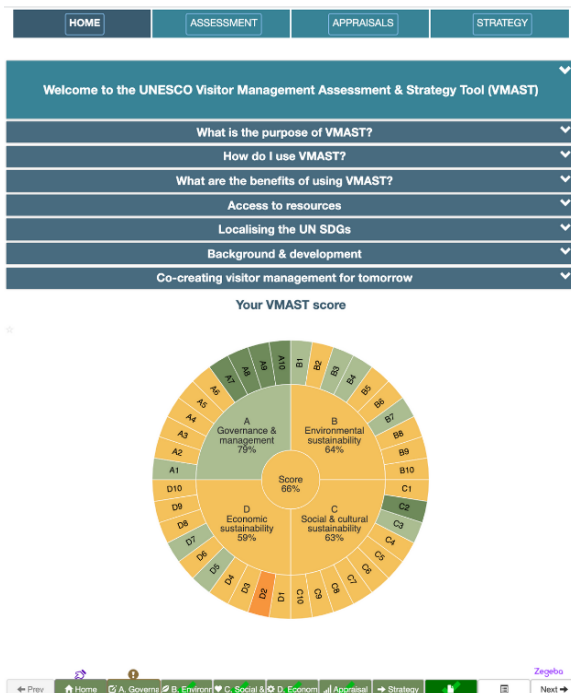


Figure 5. The UNESCO Visitor Management Assessment & Strategy Tool (VMAST)
© www.vmast.net

technology⁽¹⁾ applied through the WHOA (World heritage Autonomous Organisation) and mutual credit systems⁽²⁾ applied through WHETS (World Heritage Exchange Trading System) could further support and incentivize inclusive stakeholder collaboration in the identification and realisation of alternative, regenerative development pathways.

Conclusion

The examples have demonstrated that stewardship through shared ownership and participatory governance of cultural and natural heritage commons enables the reorientation of practice through new perspectives and collaborative efforts. Participatory governance extends beyond facilitating the involvement of local stakeholders. Tourism planning, development, and management pertaining to natural and cultural heritage commons should involve comprehensive participation, gender equality, and the fundamental recognition of indigenous and common law and rights ingrained in communities and living cultures. The ICOMOS International Charter for Cultural Heritage Tourism 2022, which addresses cultural and natural heritage as commons and the unsustainability of the paradigm of perpetual economic growth, helps uncover blind spots in current practices with principles that aim to bring diversity into a shared purpose, which may lead to new and more resilient pathways for sustainable development.

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1. <https://en.wikipedia.org/wiki/Web3>

2. https://en.wikipedia.org/wiki/Mutual_credit

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Workshop

Communities Address Climate Change in Mountainous Regions

Convenors: Kai Weise, Anie Joshi, Khalid El Harrouni, Tara Sharma, Matiyas B Fantaye, Zahra Hussain, David Okelo

The mountainous areas are particularly prone to climate change. The communities in such areas are usually marginalised, and in many cases, their culture and way of life are threatened. The workshop will explore means of identifying and addressing the needs of such communities through a comparative analysis of cases in Asia and Africa.

The points of discussion and the anticipated outcome of the workshop will be:

1. What are the three main concerns for protecting the heritage of communities in mountainous regions?
2. How are the communities in mountainous regions protecting their heritage, or how have they been unable to?
3. What needs to be done globally to support mountainous communities in order to protect their heritage?

The overall workshop will be moderated in English, however, discussions in certain breakout groups will be in French.

12:00 – 12:10	Introduction to impact of climate change on mountainous regions TBD or Kai Weise
12:10 – 12:55	Breakout groups 15 minutes to discuss each of the questions above
Group 1	Case of Nepal (Anie Joshi) and Case of Morocco (Khalid El Harrouni) [in French]
Group 2	Case of India (Tara Sharma) and Case of Ethiopia (Matiyas B Fantaye) [in English]
Group 3	Case of Pakistan (Zahra Hussain) and Case of Kenya (David Okelo) [in English]
12:55 – 13:15	Summary of each group Each group gets 5 minutes to present summary – a sentence of two to each of the three questions.
12:55 – 13:00	Summary of outcome Group 1
13:00 – 13:05	Summary of outcome Group 2
13:10 – 13:15	Summary of outcome Group 3
13:15 – 13:25	General discussions / suggestions / final points
13:25 – 13:30	Closing remarks and way forward



Workshop

Workshop on Living Heritage and Climate Change

Convenors: Mauro García Santa Cruz, Jimena García Santa Cruz, Guillermo R. García, Pedro Delheye, Gabriela Santibañez

Since the middle of the 20th century, changes in the atmosphere and ocean have been observed due to increased concentrations of greenhouse gases. Climate-related risks depend on the magnitude and pace of warming, geographical location, levels of development and vulnerability, and the adaptation and mitigation options implemented. Mitigating climate change requires reducing GHG emissions and implementing adaptation measures. In this sense, strategies related to protecting, restoring, and conserving heritage can contribute to the objectives proposed in the Paris Agreement and the 2030 Agenda. The experience we share aims to set a precedent for commitment to training and practice in the face of the impacts of climate change. They enable the identification of risks to cultural heritage, considering risks of natural origin, anthropic origin, or those associated with climate change. Through the analysis of cases and the exchange of experiences in Latin America and the Caribbean, both in Spanish and Portuguese, the Workshop aims to formulate measures based on heritage to reduce risks through the implementation of climate change adaptation and mitigation strategies in our region.

Taller sobre Patrimonio Vivo y Cambio Climático

Desde mediados del siglo XX se observan cambios en la atmósfera y el océano debido al aumento de las concentraciones de GEI. Los riesgos relacionados con el clima dependen de la magnitud y el ritmo del calentamiento, la ubicación geográfica y los niveles de desarrollo y vulnerabilidad, así como de las opciones de adaptación y mitigación que se implementen. Para mitigar el cambio climático es necesario reducir las emisiones de GEI e implementar medidas de adaptación. En ese sentido, existen estrategias relacionadas con la protección, restauración y conservación del patrimonio que pueden contribuir con los objetivos propuestos en el Acuerdo de París y en la Agenda 2030. La experiencia que compartimos pretende sentar un precedente de compromiso en la formación y práctica frente a los impactos del cambio climático, haciendo posible la determinación de riesgos para el patrimonio cultural que tomen en consideración los riesgos de origen natural, antrópico o asociados al cambio climático. A través del análisis de casos y el intercambio de experiencias en América Latina y el Caribe, tanto en idioma español como portugués, el objetivo del taller es formular medidas basadas en el patrimonio que busquen reducir los riesgos a partir de la implementación de estrategias de adaptación y mitigación frente al cambio climático en nuestra región.

Metodología del Taller

El Taller sobre Patrimonio Vivo y Cambio Climático se realizará de forma virtual en idioma español y portugués. Consistirá en una introducción al escenario actual que plantea la emergencia climática y ecológica, la presentación de estrategias de adaptación y mitigación, un análisis de casos y el intercambio de experiencias en América Latina y el Caribe. El objetivo del taller es que los participantes puedan formular medidas basadas en



el patrimonio que busquen reducir los riesgos a partir de la implementación de estrategias de adaptación y mitigación frente al cambio climático en nuestra región. El taller pretende sentar un precedente de compromiso en la formación y práctica regional frente a los impactos del cambio climático. A partir de un trabajo colaborativo, se espera que los participantes puedan identificar los riesgos de origen natural, antrópico o asociados al cambio climático a los que se encuentra expuesto su patrimonio. Al mismo tiempo, se espera que propongan estrategias de adaptación y mitigación que permitan reducir la magnitud de los riesgos identificados.

Fundamentación

El Sexto Informe de Evaluación del Grupo Intergubernamental de Expertos sobre el Cambio Climático indica que, debido a la influencia humana, se han producido cambios rápidos y generalizados en la atmósfera, el océano, la criosfera y la biosfera. La temperatura global de la superficie seguirá aumentando hasta al menos mediados de siglo XXI en todos los escenarios de emisiones considerados. El calentamiento global de 1,5°C y 2°C se superará durante el siglo XXI a menos que se produzcan reducciones profundas en el dióxido de carbono (CO₂) y otras emisiones de gases de efecto invernadero en las próximas décadas. Muchos cambios en el sistema climático se incrementan en relación directa con el aumento del calentamiento global. Estos cambios incluyen aumentos en la frecuencia e intensidad de las temperaturas extremas, olas de calor marinas y fuertes precipitaciones, sequías agrícolas y ecológicas en algunas regiones y la proporción de ciclones tropicales intensos, así como reducciones en el hielo marino del Ártico, la capa de nieve y el permahielo. Desde una perspectiva de las ciencias físicas, limitar el calentamiento global inducido por el hombre a un nivel específico requiere limitar las emisiones acumuladas de CO₂, alcanzando al menos cero emisiones netas de CO₂, junto con fuertes reducciones en otras emisiones de gases de efecto invernadero (IPCC, 2021).

En julio de 2019, el ICOMOS publicó el informe "El Futuro de Nuestros Pasados: Participación del Patrimonio Cultural en la Acción Climática", con el propósito de aumentar el compromiso del patrimonio cultural en la acción climática. El informe analiza las intersecciones entre patrimonio cultural, cambio climático y desarrollo sostenible, correlaciona las competencias del patrimonio con las prioridades de acción climática, estudia medidas de adaptación y mitigación, analiza pérdidas y daños generados por el cambio climático. El informe concluye que un mejor entendimiento en la forma en que el cambio climático afecta al patrimonio cultural aumentaría la efectividad de las acciones de adaptación necesarias y permitiría generar herramientas de resiliencia para las comunidades (ICOMOS, 2019).

En diciembre de 2020, durante el quinto aniversario del Acuerdo Climático de París, la 20a Asamblea General del ICOMOS aprobó la Declaración de Emergencia Climática y Ecológica. La declaración reconoció que el mundo no está cumpliendo los objetivos de París y que ya se están sintiendo los impactos adversos sobre el patrimonio cultural. Exige una acción colectiva urgente para salvaguardar el patrimonio del cambio climático a través de un enfoque de precaución que siga vías para limitar el calentamiento global a 1,5°C. La declaración también reconoce el inmenso potencial del patrimonio cultural para permitir una acción climática inclusiva, transformadora y justa. Pide a la comunidad que trabaje para aprovechar este potencial y salvaguardar el patrimonio de los impactos climáticos adversos, lograr un desarrollo sostenible resiliente al clima y reconocer la equidad y la justicia como dimensiones fundamentales de la acción climática (ICOMOS, 2020).

Antecedentes

Este taller sobre Patrimonio Vivo y Cambio Climático tiene como antecedente las experiencias realizadas en el marco de las ediciones 2020 y 2021 del Curso virtual sobre Cambio climático y evaluación de riesgos para el patrimonio cultural. Estos cursos virtuales se realizaron a partir del trabajo colaborativo de ICOMOS Argentina, la Iniciativa Patrimonio y Cambio Climático y la Fundación Ciudad de La Plata. Contaron con la participación de profesores de ICOMOS Argentina y profesores invitados de ICOMOS Japón, Irlanda, Estados Unidos, México y Nueva Zelanda. Participaron de estos cursos virtuales profesionales que residen en Alemania, Argentina, Australia, Barbados, Bolivia, Brasil, Canadá, Chile, Colombia, Costa Rica, Estados Unidos, Filipinas, Grecia, Honduras, Inglaterra, Irlanda, México, Perú, Portugal, Suecia y Turquía (FOPS, 2020a, 2020b, 2020c; García Santa Cruz *et al.*, 2021).

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Workshop

The City of Knowledge-Wisdom. Promoting Resilient Laboratories in World Heritage Sites

Convenors: Graciela A. Mota Botello, Olimpia Niglio, Angela Rojas, Francisco Vélez Pliego

The workshop “The City of Knowledge-Wisdom. Promoting Resilient Laboratories in World Heritage Sites” aims to analyse the strategic role that universities, unions, professional and collegiate organisations must play as public promoters of better resilient and innovative practices in heritage sites. The core elements of these platforms of knowledge, research, and ludic lazy time producers reinforce the *genius loci* of the place, as well as the understanding of the scope and redress mechanisms that must contribute to addressing the challenges of climate change, sustainability, and community development as an effect of combined and multiplied situated learnings as a hole kit of knowledge-wisdom sub-routes model that can be reproduced as a management net of heritage places in different properties and regions.

The main issues of this knowledge are that cities, where many research projects are realised every day, allow us to understand the value of the “genius loci” and its cultural components: community development, climatic challenges, people-centred approaches to cultural heritage, interdisciplinary dialogue, and combined knowledge. However, the management of the local cultural heritage needs a more robust dialogue between the academy and the community because cultural heritage is not an elite product but is the result of the community’s actions. The same community has cultural heritage. Therefore, “The City of Knowledge-Wisdom” exists because there is a local community and a local cultural heritage, and now we must reflect on this local value.

The main goal of the “City of Knowledge-Wisdom” is the local cultural heritage, which strengthens people’s bonds with places, culture, and nature. “The City of Knowledge-Wisdom” as living in sustainable styles in heritage sites strengthens the connection of people with places, increases the culture and nature sense of “genius loci”, derived from innovative research connected with specific challenges of conservation, as well as the recovery of representations, collective memory, expressions, knowledge, and skills that continue with changes over time centred on people’s rights and duties approaches. Stimulating interdisciplinary dialogues and combining traditional and innovative knowledge.

All this derives from the search for innovation connected to specific conservation challenges and the recovery of representations, collective memory, expressions, knowledge, and skills, which are important to know to pass them on to future generations. This is crucial in a historical era where changes are very fast.

Cultural heritage is not an elite’s product but the result of the actions of the community. We must remember that managing sustainable cultural heritage requires going deep with and joining the people as part of a stronger relationship of intergenerational dialogues and actions between the academy and local communities. The community plays an important role because it represents the root of heritage, and the orientation of the local people is

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Workshop
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useful in promoting sustainable local management processes. Without the local community narratives, we cannot know and appreciate the collective memory, the history, or the local needs, and above all, nobody has the right to be able to manage a local heritage, excluding those who generated and inherited it.

The dialogue between the academy and the local community will be an important opportunity to re-establish a correct and synergistic balance for the sustainability of the local cultural heritage and its transmission to future generations.

“The City of Knowledge-Wisdom” represents an exceptional way to improve both trends oriented into a sustainable local management process that let assist authorities to empower citizens and some other stakeholders and let them recover their own collective memory as a sort of warranty in a new schema of governance linked with citizen practices contributing to a sustainably synergise between cultural heritage conservation and management with the diverse cultural, environmental, and socio-economic concerns of people and communities, as a complementary promoter and in the same time, producer of data, knowledge, and criteria monitored to advance in the development of own values and livelihoods in a dignified, responsible, and sustainable manner to well-being and build resilience.

The root of knowledge is the local people, and “The City of Knowledge-Wisdom” results from this important intercultural and “intersocial” dialogue.

The main languages of the workshop are English and Spanish. It is important to generate a correct dialogue between colleagues from different continents.

The session will last 1 hour and 30 minutes.

Workshop Paper

City of Knowledge-Wisdom: Handling Sustainable Routes for Heritage Safeguard

Graciela A. Mota Botello

The City of Knowledge-Wisdom (CKW) developed an intelligent social model system that can be reproduced exponentially in historic public urban spaces looking to empower sustainable communities. Supported by schemas of doing by learning and learning by doing actions, it lets people enrich and translate their own experience and living sense of the heritage place. This model also contributes to a good support network for active community groups and the development of tools that bridge scales through global, national, and local heritage policies and strategies partnered with universities. With management plans and monitoring changes such as key indicators requested by UNESCO for enlisting World Heritage Sites, this living participation system with the people, for the people, and by the people stimulates the impact assessment, joining synergies with the community and stakeholder involvement. Defining guidelines, principles, and basic criteria to identify spaces, collective meanings, memories, and social practices - historical and contemporary - linking to creating and transmitting academic, professional, and trade knowledge, as well as promoting a regional, national, and international interpretative appreciation associated with:

1. The foundation and development of educational institutions;
2. The preservation of collections and documentary archives and collections of scientific, technological, and artistic nature, among others;
3. The identification of the spaces in which productive economic practices and technological innovations were introduced and disseminated in the work processes;
4. The identification of spaces for the creation of cultural expressions in the historical transformations of regions and cities;
5. The identification of the experiences and policy instruments of action for the recognition and safeguarding of these assets;
6. The establishment of the principles and criteria for the correct use of these properties as resources for the development of broad and durable international cooperation, promoting respect for their authenticity and integrity, adequate conservation, and their historical significance;
7. How could the sub-routes of our knowledge and wisdom be conceived, looking for a continental, global framework.

Sustainable culture is handled with integrated management of heritage areas into the cultural landscape, townscape, and urban heritage. It is closely shared with patrimonial territories, the social construction of the habitat, and the social production of public space programmes.

The consolidation of world heritage sites as the premise for devising a higher education management model is coupled with administrators of heritage historical spaces advocating for their authenticity and integrity. We integrate an interdisciplinary model capable of analysing and elucidating the dynamic effects and interdependencies of economic, social, environmental, and physical space elements, as well as cultural and value-based elements. Promoting that old university settlements reinforce the privileged *forum* of alliances and

recognition to multiply the sense of “itineraries of culture”-“learning”-and-“knowledge” that strengthens the bond of "Heritage"-“Culture”-“University” and favour’s negotiation co-management between owners, stakeholders, partners, custodians, and heritage practitioners—developing a non-violent tool kit for a participative decision-making process, including civility, collective memory, and human rights skills.

This model supported conflict resolution procedures and building capacities derived from managing sustainable and resilient programmes with a focus on nonviolent negotiations, and it reinforced the manner in which decision-making joined with local communities is the urban planning smart strategy challenge. The model also allows communities to participate in their own collaborative problem-solving process as a daily assessment of best practise.

The CKW promotes multiple synergies of training in non-scholar spaces. It reinforces how leisure time enriches diversity in sustainable practices as the focal point that lets people get involved as an influence on productive creativity and complexity cognition. It is increasing a dynamic safeguard interpretation of its own historic meaning.

Designing jointly “*learning by doing and doing by learning*” spaces settled in 10 discovered sub-routes of situated learning for diversity and empowering people in a constructive social schema is our point.

By driving culture and knowledge forums and symbolising social development, there is an increase in the role of daily life styles in sustainable safeguard practices facilitate leisure, better practices in managing urban infrastructure, cultural tourism, and the economy.

- A. Derived from the impact of knowledge innovation and the meaning of sustainable culture that lets construct bridges towards the enrichment of new building collective capacities. One side of our Itinerary is the initiative to involve young professionals and researchers.
- B. Reinforcing the historical content of two main living cities: The renaissance spirit in the city of Alcalá and the reconstructing historical city in the Megalopolis of Mexico City, joined with the sense of XXI University, knowledge, culture, arts, and innovation. This CKW involves the standpoint management criteria of two of the six Universities recognised by UNESCO: the Universidad Nacional Autónoma de México and the Universidad de Alcalá de Henares in Spain.

Working together for the holistic value of the place and enriching its own *genius loci* through an involving community process in a people-centred approach.

The way our world heritage historic city can transform its own context with an open mind or without even writing a book by representing the difference of a living world heritage site that gets involved in its own management of the future urban historic cultural landscape as a part of this new knowledge and cultural, social constructive synergy of cooperation, smart solutions, creativity, productive interchanges, technological innovation, and artistic challenges, all of them as the standing point of this *genius loci* dialogues.

Because the appropriation of heritage by communities around the globe reaffirms the notion that heritage is a shared resource, it was instrumental in the movement towards community empowerment. Allow people to engage with their own creative resources as a form of collective memory reconstruction, thereby enriching all types of self-attributes.



Figure 1. Antecedents between Occidental and Mesoamerican Knowledge development in the same historic world heritage place © Graciela A. Mota Botello

Our primary objective is to protect and primarily enrich our constructive future values as the initial step that enables us to increase the manner in which this CTW reinforces them, promoting its own diversity as a creative and productive sustainable process as a Wisdom living world, not only knowledge, learning, or creativity, with multiple sub-routes to discover and produce its own living heritage approach to urban city world resources.

This sort of appropriation of its own heritage qualities, intangible and/or tangible, is not only a living tour of the world heritage scenery but a smart and creative experience of public, private, and social management that lets inhabitants, users, hosts, visitors, or tourists contribute all of them in the same recovery model.

All of them, in a sustainable development schema, entail strategic opportunities for recovery and reconstruction as an axis of guidelines for habitability, heritage recovery, infrastructure, enjoyment, and dialogue for better public spaces with significantly improved public uses and collective practises. A peculiar component of a holistic cultural economy schema that is utilised by the majority should be attractive and dynamic.

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Workshop Paper

Towards A Humanist Education. To Know Cultural Heritage to Redesign the Future

Olimpia Niglio

What is meant today by Cultural Heritage? There are many laws dictated by different countries and many conventions, treaties, declarations, recommendations, and many international documents generated mainly by or within the framework of UNESCO activities, which help us understand this definition; however, the route is much more complex than we can imagine because this concept has a close relationship with local cultures, and it is not possible to generalise the definition for the five continents. In fact, for a long time, only Monuments and Art have been considered “Heritage” in capital letters. However, the material results of monuments and works of art are the product of human creativity, which is undoubtedly the first heritage we must recognise, revalue, analyse, and put at the centre of our research route. This creativity is a peculiar feature of childhood, in the natural, carefree, and spontaneous way children observe the world and analyse what surrounds them, from the involvement of their community within their daily landscape. It is precisely this creativity that constitutes the main cultural heritage, and it is essential to start over to identify the correct definition of each cultural heritage. Within this concept of creativity, many elements find their roots in ancestral traditions that we cannot and should not forget or belittle.

For this reason, the concept of Cultural Heritage is much broader than what is generally understood by these words. Understanding cultural heritage means approaching the knowledge and valuation of communities, their history, traditions, and then each nation’s symbolic, territorial, ancestral, landscape, and cultural heritage. Thus, the new way of conceiving and interpreting Cultural Heritage encompasses the social sectors because it is from there that the process of creativity begins. From the communities, we must start researching our heritage. Moreover, one of the ways in which creativity clearly manifests itself is in how human intervention affects natural elements, modifying the territory according to its worldviews and then generating different landscapes, which are the result of the concreteness of cultural diversity.

In the last few decades, the concept of Cultural Heritage has evolved from approaches focused mainly on individual enjoyment. It highlights the need to open a new reflection on the current concept of Heritage, which is much broader and more complex than the literature developed in this field until now. In the contemporary dimension, the concept of Cultural Heritage has something different from the sum of objects of different natures. It has another dimension whose main value is social: the ability to express different cultural identities and have a significant practical, educational, and economic function (Cambil Hernández and Tudela Sancho, 2017). In a world undergoing profound changes, advances in science and technology have changed human sensitivity to history, nature, and social relationships in recent years. Cultural Heritage education and the subject of culture itself have been isolated and, in many cases, have not been considered essential or relevant within the training and development processes of the individual and society. It is remarkable to illustrate what has been stated here, to appreciate that something so sensitively present in the daily life of the person, of the child, as is his immediate environment, his landscape of every day, is ignored, and this despite the benefits

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or psycho-emotional impacts that generate them. Undoubtedly, the theme of the COVID-19 pandemic has stopped the world, but it has also allowed communities to reflect on the important values of life. Thus, in a historical phase of great complexity, where capitalist priorities strongly questioned ethical values and human relationships, there was a need to put the person and his creativity back at the centre. Surely the fragility that all countries have expressed in the cultural and educational sectors has enabled fundamental reflections to be developed to give a “new centrality” to the role of culture, in the sustainable development of humanity. Indeed, without Culture, it becomes incredibly difficult to develop forward-looking perspectives capable of proposing and consolidating shared and participatory policies that are no longer guided by increasing individualization.

Analysing the realities of the different countries of the world, from the Far East to the Far West, we feel the need to activate a new “humanism”, and that is why it is necessary for Culture to participate in its entirety in all the planning and projection of the new, of the innovation on which it is essential to focus from now on. However, to do all this, it is necessary to start with the younger generation and then plant seeds to obtain good fruit and a good harvest in the near future, with children and young people today being the key pieces to generating real change. Therefore, we must be able to design educational programmes that can build a better world, an educational environment in which children feel not only as mere deposits of knowledge but take on a creative role, being the architects of their own educational processes and understanding the social collective as a primary source of knowledge in the cultural and heritage field.

In the current context that humanity lived in 2020, there have been positions open to actual change where humanity has the opportunity to adjust factors of life that were not working in the best way in sync with nature, living beings, and humanity itself. In order to bring about real change, it is crucial to understand who is responsible for making way for it to consolidate and who will be the people who will live the change and forge this new path. A fundamental change is born in youth and children. Today's young people will be in charge of leading the cities and nations of tomorrow. They must understand that the true pillars of life are capable of consolidating a sustainable future and facing hidden difficulties in the future.

Based on these premises, in July 2020, the international pedagogical method “*Reconnecting with your culture*” was started. The method was promoted by the EdA Esemipi di Architettura International Research Centre in collaboration with the Forum University and UNESCO Heritage. This pedagogical method targeted students between the ages of 5 and 17 at elementary and high schools worldwide. Children, assisted by their teachers, are invited to take an exploratory journey within the cultural heritage of their community, city, and country to draw on and share their own knowledge and experience in contact with historical, artistic, and cultural heritage. The international project aims to analyse the different cultural approaches and methods of analysis prepared in the different communities around the world in order to create a network and allow the exchange of experiences and initiatives. This project is also intended to apply a new educational method to introduce schools, colleges, and universities to studying history and cultural heritage, two fundamental themes for achieving an ethically better world. The project is based on the UN-issued 2030 Agenda, a programme to generate sustainable development. For this initiative, a particular emphasis is placed on Sustainable Development Goal point number 4 on

“Quality Education”, supplemented by the principles of inclusion and equity (UN, no date). This item of the 2030 Agenda aims to achieve important and equitable quality education, promoting the opportunity for lifelong learning for all. That is why the project “Reconnecting with your Culture” aims at all school students worldwide and aims to generate personalised activities requiring special support.

The cultural element must go hand in hand with inclusive and equitable education quality. It should be recognised that culture, within the pillars of human life, must always be present as an essential element from which a future is projected where tolerance, utility, and respect, among others, are key pieces for proper growth as humanity. For this proposal, it is necessary to understand the culture accompanied by the Heritage as the unique and unwavering root that allows for a coherent development between the past, the present, and the future.

The proposed methodology is based on drawing as a tool of learning and a universal language capable of overcoming any cultural or language barrier. A further quality of the drawing to be considered in this proposal is that it is an inter-disciplinary instrument capable of generating connections and unions between various disciplines, or in the case of participants, the school's subjects. Young students can thus be given the opportunity to comprehend that the concept of heritage is not limited to architecture and art; with faculty support, they can develop their own definition of heritage that enables them to identify heritage values within the interdisciplinary educational content they receive.

The international project *Reconnecting with Your Culture* pursues its central value as the construction of a universal network that facilitates or promotes the exchange of experiences worldwide in the field of education methodology, specifically about cultural heritage, which also serves as a thermometer to measure the forms of attention and the development of this topic in multiple countries.

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Workshop Paper (Attachment No. 1)

The University Forum: A New Frontier for ICOMOS

Leonardo Barci

The UNIVERSITY FORUM derived from an idea launched by Gustavo Araoz at the FUKUOKA Advisory Meeting in October 2015, and it would aim to gather universities and other affinity cultural institutions that would collaborate in accomplishing the mission of ICOMOS. It would constitute a flexible operational forum that would address a “seriously weakening gap” in ICOMOS composition, namely the absence of the fourth sector of the international heritage community: the universities and academic institutions. At that time, it was also proposed to establish a Steering Committee composed of Prof. Bertocci (University of Florence), Prof. Conti (Universidad de la Plata), and Prof. Szmygin (Lublin Technical University), and the names of 29 representatives of universities from all regions of the world were appointed to be invited as members of the initiative. (Board 2015/10 2-1 Ver. 14/10/2015)

In February 2016, before the first Board meeting, a document on the Background of the ICOMOS International Forum of Universities was presented, stating that the ad hoc group proposed by the President should prepare recommendations at the next Advisory Committee meeting in Istanbul, with the proposal of the formal establishment of the University Forum at the General Assembly in New Delhi, 2017. The document also reported that the Steering Committee had sent a letter to the members of the ad hoc group and that the responses received would be presented at the next Board Meeting in March. (Board 2016/03 7-1 Ver. 27/02/2016)

Following that, the “Report on the ICOMOS Universities Forum Initiative” prepared by Alfredo Conti, then Vice President of ICOMOS, in October 2016, summarised the process of establishing the FORUM up to that moment and compiled the responses received from the ad hoc members to the following questions:

1. What topics do you consider priorities to be discussed by groups of scholars? What do you consider important from the point of view of universities?
2. How could we work to foster cooperation among universities and between them and ICOMOS? (ADCOM 2016/10 9-1-B. Ver. 07/10/2016)

In January 2017, another document presented an exciting proposal for a Road Map for Developing the ICOMOS Universities Forum Initiative, identifying four stages: preliminary preparations; identification of those willing to participate; identifying possible topics of discussion, as well as defining the UNIVERSITY FORUM procedure and intent; and the preparation of a set of recommendations to the ICOMOS Board for the establishment of the FORUM. (Board 2017/03 7-1 Ver. 28/01/2017)

In June 2017, Professor Cornelius Holtorf (Linnaeus University, Sweden) and Professor Rodney Harrison (University College London) prepared a document named “Proposal for Activities of the ICOMOS University Forum 2018-2020”, in which they linked the initiative to the ongoing Heritage Futures research programme. In their document, they stressed that the UNIVERSITY FORUM manifested the interest of ICOMOS in “academicizing” its work and also attracting young professionals “in a process of rejuvenating its membership and body of experts”. Later, they proposed organising two workshops on Heritage Futures in

2018 and 2019, which would be held either at ICOMOS in Paris or at the UCL in London, where their programme was administratively based.

Examining these documents carefully, although several papers were produced over the last three years, the final concept and framework for the Forum were never conclusively decided on, and the Forum never fully launched. In this respect, the only tangible event linked to the UNIVERSITY FORUM was the workshop, “*A Contemporary Provocation: Reconstruction as Tools of Future-making*” organised by Toshiyuki Kono and sponsored by Kyushu University (Japan) in 2017.

Reviewing the Road Map for Developing the ICOMOS Universities Forum Initiative

One of the main challenges that ICOMOS faced at the beginning of the 21st century was to redefine heritage as a field, a discipline, a profession, or even as “a mode of post-disciplinary teaching and research”, as described by Tim Winter. As an Advisory Body of the World Heritage Committee for the implementation of the World Heritage Convention of UNESCO as well as an international advocacy group, ICOMOS has to face this new status of heritage in a globalised world, prospecting the theoretical, methodological, and practical consequences of this critical shift. And for this purpose, an initiative like the UNIVERSITY FORUM, which aims to strengthen the relationship between ICOMOS and universities/research centres in the field of heritage with joint programmes, publications, and events, among other strategies, is more than adequate.

Considering the difficulties posed by this initiative, which involves other stakeholders with their interests and timing, we propose to adopt a double strategy: on one side, work on the final concept and framework for the Forum; and simultaneously review the proposed Road Map, so that we could achieve some tangible goals in a foreseeable time. These two tasks should be pursued simultaneously, and the reviewed Road Map for developing the ICOMOS Universities Forum Initiative would have four stages:

Stage 1 – Preliminary preparations

In this stage, we should establish the leadership component, appoint a Steering Group, and prepare the working process.

Stage 2 – Creation of an ICOMOS University Forum Directory

In this stage, we should identify, globally, key universities with programmes directly or indirectly related to heritage. At the end of this stage, we would launch an ICOMOS Universities Forum Directory on the ICOMOS website.

Stage 3 – Identifying topics of discussion / Working with existing initiatives

In this stage, we should identify topics that we could use to challenge universities to partner with our working groups, NCs, and ISCs to come up with research projects (reconstruction, climate change, sustainability, etc.) and provide training with ICOMOS. Internally, we should work in close contact with the Emerging Professionals Initiative.

Stage 4 – Preparing a set of recommendations to the ICOMOS Board for the establishment of the University Forum

With regard to the identification of cross-cutting themes that could serve as catalysts for the UNIVERSITY FORUM initiative, we highlight the proposal of Ciudad del Saber, which has been developed by Prof. Graciela Mota at the Autonomous University of Mexico.

POSTER PRESENTATIONS

Norma Elizabeth Levrاند, María Valeria Berros

“Innovative Legal Strategies to Protect Wetlands and Their Living Heritage in Argentina”

Ivan Anthony S. Henares, Jose Gabriel Mejia, Jonathon Day

“Indigenous Communities, Wetlands, and Climate Change: Sustainable Cultural Tourism and Management at the Agusan Marsh”

Leanna Wigboldus

“The Contributions of Biocultural Practices and Traditional Knowledge to Continuing Landscapes: A Holistic Approach to Sustainability and Management of World Heritage Sites”

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“Disaster Mitigation in Southeast Asia: Sustainability of Indonesian Wooden Culture Towards Damage Risk Reduction”

Jeremy Brett, Shelby Hebert

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John Brown

“Uncovering the layers of Te Wānanga”

Passent Nossair

“Oasis of Hope”

Alishah Ali

“Heritage Management of Residential Built Heritage of Shahjahanabad, Delhi, India: A Study of the Transformation of the Urban Heritage Landscape”



Introduction



Miro Board

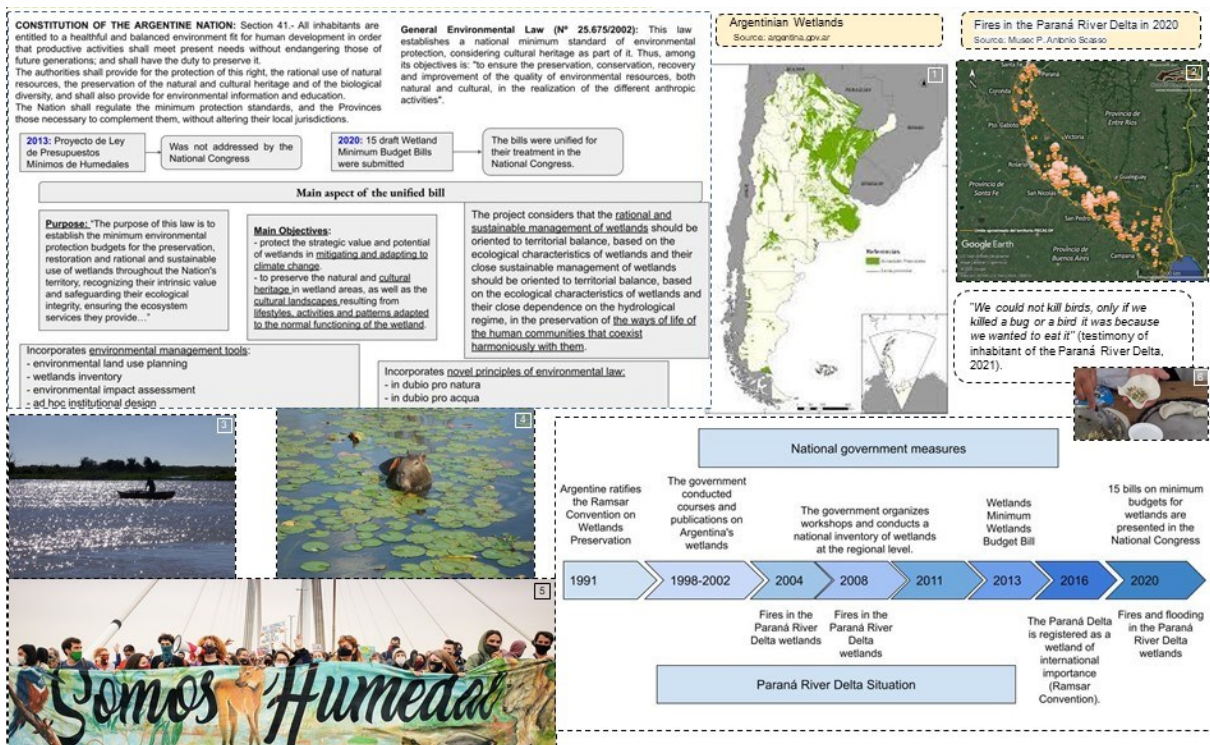
Innovative Legal Strategies to Protect Wetlands and Their Living Heritage in Argentina

Norma Elizabeth Levrاند*, María Valeria Berros

Argentina is a country rich in biological diversity and contains six wetland regions, many of which have significant cultural value associated with religious, historical, and archaeological aspects. The Plata Basin, for example, is shared with four countries (Bolivia, Brazil, Paraguay, and Uruguay), and more than 80% of the Argentine population is settled there. In its extension, there are World Heritage sites and elements of living heritage interconnected with the wetland's territory.

Although Argentina has legal norms for environmental protection, such as the National Constitution of 1994 and the so-called General Law of the Environment of 2002, and ratified the Convention Relative to Wetlands of International Importance, especially Habitat for Aquatic Birds, in 1991, there are no specific provisions for the protection of wetlands at the internal level. However, for some years, a group of mobilised organisations and citizens have been promoting the need to approve a national law on minimum standards for Wetlands Protection that determines a typical floor of preservation that the provinces can supplement. In 2020, 15 draft proposals were presented, and the interrelationship between wetlands and society is considered in most of them. The COVID-19 pandemic, the strong impact of a series of uncontrolled fires of great magnitude in the Paraná Delta, which is part of the Plata Basin, and the lower water levels of the Paraná River, whose causes are debated between natural ones and those enforced by human infrastructure works (such as hydroelectric dams).

In this poster, we show the lines of continuity in the draft proposals presented between climate change, protection of the environment, and protection of cultural heritage around a particular ecosystem, such as wetlands.



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Image credits: (1) Kandus, P., Minotti, P. and Malvárez, A. I. (2008) 'Distribution of wetlands in Argentina estimated from soil charts', *Acta Scientiarum*, 30(4), pp. 403-409. (2) P. Antonio Scasso (2020) Seguimiento de focos de calor en el territorio PIECAS Delta del Paraná. (3) Norma Levrاند, 2019. (4) Valeria Berros, 2018. (5) Guillermo Turin Bootello, 2021. (6) Norma Levrاند, 2020.

Indigenous Communities, Wetlands, and Climate Change: Sustainable Cultural Tourism and Management at the Agusan Marsh

Ivan Anthony S. Henares*, Jose Gabriel Mejia, Jonathon Day

The Agusan Marsh in Agusan del Sur is the largest inland wetland in the Philippines. Agusan is one of the few cultural landscapes with great potential to be the frontier of community-based wetlands and indigenous tourism, allowing people to appreciate and understand the synergy between wetlands and people.

Climate change and prolonged droughts have continuously altered the marsh. The COVID-19 pandemic added further strain as the demand for palm oil and rice significantly increased during the pandemic. Peatlands are drained, burned, and converted into agricultural lands. Timber-poachers are taking advantage of the lockdowns and travel restrictions to cut down endangered and endemic trees. The situation has also made monitoring more complex and even dangerous. An environmental officer was murdered by timber-poachers in November 2020.

Given the close relationship between nature and people, it is crucial to comprehend the full extent of how climate change and the COVID-19 pandemic have affected the community, grassroots, and governmental organisations dedicated to the conservation and protection of Agusan Marsh. At the same time, the indigenous ecotourism programme can support sustainable and just economic recovery in an area such as the Agusan Marsh with high biodiversity and cultural heritage resources.


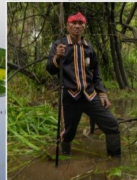

Indigenous Communities, Wetlands, and Climate Change: Sustainable Cultural Tourism and Management at the Agusan Marsh

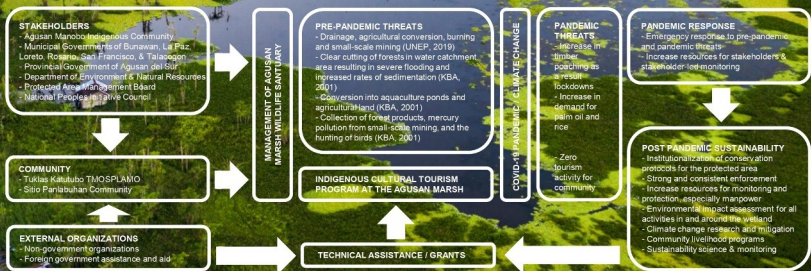
The Agusan Marsh in Agusan del Sur is the largest and least disturbed inland wetland in the Philippines (ACB, 2018). Agusan is one of the few cultural landscapes that has great potential to be the frontier of community-based wetlands and indigenous tourism for people to appreciate and understand the synergy between wetlands and people better.

Climate change and prolonged droughts have continuously altered the marsh. The COVID-19 pandemic added further strain as the demand for palm oil and rice have significantly increased during the pandemic. Peatlands are drained, burned, and converted into agricultural lands. Timber-poachers are taking advantage of the lockdowns and travel restrictions to cut down endangered and endemic trees. The situation has also made monitoring more difficult and even dangerous. An environmental officer was murdered by timber-poachers in November 2020.

Given the strong intersectionality between nature and people, it is important to understand the full extent of how the community, and grassroots and government organizations dedicated to the conservation and protection of Agusan Marsh have been impacted by climate change, as well as COVID-19. At the same time, the indigenous ecotourism program can support sustainable and just economic recovery in an area such as the Agusan Marsh with high biodiversity and cultural heritage resources.

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    S[STAKEHOLDERS] --> M[MANAGEMENT OF AGUSAN MARSH WILDLIFE SANCTUARY]
    C[COMMUNITY] --> M
    E[EXTERNAL ORGANIZATIONS] --> M
    M --> P[PRE-PANDEMIC THREATS]
    M --> I[INDIGENOUS CULTURAL TOURISM PROGRAM AT THE AGUSAN MARSH]
    M --> T[TECHNICAL ASSISTANCE / GRANTS]
    P --> C[COVID-19 PANDEMIC / CLIMATE CHANGE]
    I --> C
    T --> C
    C --> R[RECOVERY]
    R --> P[POST-PANDEMIC SUSTAINABILITY]
    
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STAKEHOLDERS

- Agusan Manobo Indigenous Community
- Municipal Government of Butuan, La Paz, Loreto, Rosales, San Francisco, & Talacogon
- Provincial Government of Agusan del Sur
- Department of Environment & Natural Resources
- Protected Area Management Board
- National Program Executive Council

COMMUNITY

- Tuklas Kallubog TMO/SPLAWO
- Sitio Panabuhay Community

EXTERNAL ORGANIZATIONS

- Non-government organizations
- Foreign government assistance and aid

MANAGEMENT OF AGUSAN MARSH WILDLIFE SANCTUARY

PRE-PANDEMIC THREATS

- Drainage, agricultural conversion, burning and small-scale mining (UNEP, 2019)
- Clear cutting of forests in water catchment area resulting in severe flooding and increased rates of sedimentation (KBA, 2001)
- Sedimentation into aquaculture ponds and agriculture (Hart, 2001)
- Collection of forest products, mercury pollution from small-scale mining, and the hunting of birds (KBA, 2001)

INDIGENOUS CULTURAL TOURISM PROGRAM AT THE AGUSAN MARSH

COVID-19 PANDEMIC / CLIMATE CHANGE

PANDEMIC THREATS

- Lockdowns
- Increase in demand for palm oil and rice
- Zero tourism activity for community

PANDEMIC RESPONSE

- Emergency response to pre-pandemic and pandemic threats
- Increase resources for stakeholders & stakeholder monitoring

POST-PANDEMIC SUSTAINABILITY

- Institutions and conservation protocols for the protected area
- Strong and consistent enforcement
- Increase resources for monitoring and protection, especially manpower
- Environmental impact assessment for all activities in and around the wetland
- Climate change research and mitigation
- Community resilience programs
- Sustainability science & monitoring

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Photos by: Jose Gabriel Mejia

The authors acknowledge the valuable contributions of the Agusan Manobo community of Sitio Panabuhay, Loreto, Agusan del Sur.

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Image credits: Jose Gabriel Mejia

The Contributions of Biocultural Practices and Traditional Knowledge to Continuing Landscapes: A Holistic Approach to Sustainability and Management of World Heritage Sites

Leanna Wigboldus*

This poster considers and analyses the integration of biocultural practices and traditional knowledge at select World Heritage continuing cultural landscapes and how these can contribute to landscape continuity and sustainability. The interconnectedness and relationships of natural, cultural, and social values will be explored concerning conservation practices and dynamic management structures at various case study sites. As agricultural and pastoral landscapes are crucial to food security and sustainability, the past, present, and future interconnections between people and their landscapes are essential for consideration. The knowledge and practices associated with these landscapes contribute to future understandings and adaptations that support continuity and resilience, particularly concerning climate change.

Based on literature analysis, case studies, and stakeholder interviews, select agro-pastoral sites provide examples of successful local and traditional strategies for agro-pastoral landscape management. The case study in the English Lake District provides an example of an area where living heritage practices and the resulting landscape have been sustained through generations of ongoing agro-pastoral management. Additional case studies in the Agricultural Landscape of Southern Öland and the Hortobágy National Park – the Puszta offer further examples of adaptations and living heritage approaches that can contribute to sustainable practices to meet the future challenges of climate change. The results of this study will provide a framework for agro-pastoral landscape analysis, which can be used to consider how traditional approaches towards site management can be implemented at other World Heritage Sites on a larger scale.

Main Question: What elements and practices are required for a landscape to be successful as a continuing landscape?

The integration of biocultural practices and traditional knowledge at continuing cultural landscapes can contribute to landscape continuity and sustainability, especially at agricultural and pastoral landscapes. This project examines three agro-pastoral World Heritage sites to illustrate the intrinsic interconnectedness of cultural, natural and social values.








Fig. 1. The English Lake District (UK)

Fig. 2. The Agricultural Landscape of Southern Öland

Fig. 3. Hortobágy National Park – the Puszta

This 'Continuity Framework' is a result of literature and document analysis, field visits, and stakeholder surveys and interviews at the three selected case study sites.

Continuing Cultural Values and Practices relating to the Landscape	• Social values, cultural identity, intangible values, religious use, etc.
Continuing Traditional Knowledge	• Retention of old knowledge, acquiring new knowledge, changes/adaptations
Continuing Education and Knowledge Transmission	• Traditional and Institutional education programs
Biocultural and Landscape Heritage	• Continuing agricultural practices, continuing land-use, biological resilience, monitoring and protection requirements, etc.
Customary Laws and Social Institutions	• Local laws, Traditional land and resource use, traditional land systems, recognition of local stakeholders, etc.
Institutional/Governmental Support Systems	• Type of support systems available, regional/local/national systems, stakeholder frameworks, NGOs, government systems, etc.
Management Plans	• Availability, content and inclusions
Tourism Impacts	• Tourism practices, framework for sustainable tourism, resources available, etc.

Better understanding and analysis of local and traditional site practices and knowledges can help identify various successful management elements and sustainable practices, as illustrated by these sites.

The *English Lake District* is an area where living heritage practices have shaped, and been shaped by, the landscape over generations of ongoing agro-pastoral management.

The *Agricultural Landscape of Southern Öland* and the *Hortobágy National Park – the Puszta* provide various examples of adaptations and living heritage approaches from agricultural and pastoral perspectives.

Development of a framework to classify significant elements for use in management can assist sites on a global scale to address common issues and challenges such as climate change, food security, biocultural diversity, community resilience and landscape continuity.

Elements for further analysis:

Language and Place Names

Geographic Limitations

History of the Site

Local Identity

Image sources: (Wigboldus 2020); (Jörgen Tannerstedt, Hakai Magazine, 2015); (UNESCO World Heritage List, László Lisztes, n.d)

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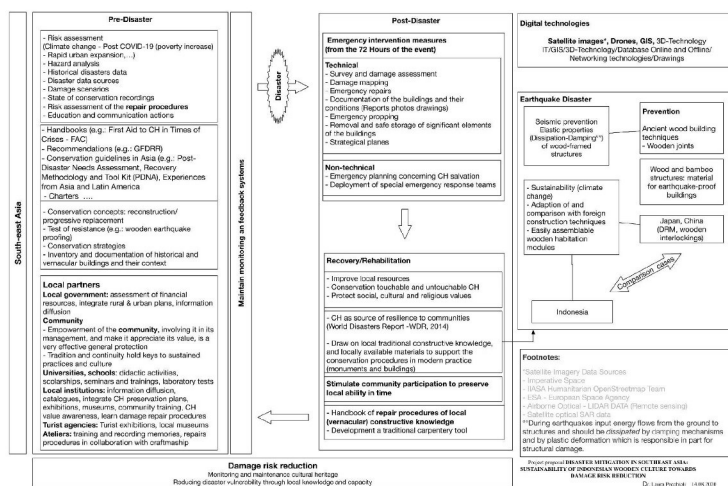
Image credits: (1) Wigboldus, 2020. (2) Jörgen Tannerstedt, Hakai Magazine, 2015. (3) UNESCO World Heritage List, László Lisztes.

Disaster Mitigation in Southeast Asia: Sustainability of Indonesian Wooden Culture Towards Damage Risk Reduction

Laura Pecchioli*

The experiences from the previous disaster should help revise existing risk management systems and foresee measures for a long-term sustainable recovery process, considering that communities can have different perceptions of the risk. Starting with existing resilience plans, risk governance should be integrated with Disaster Risk Reduction (DRR) strategies. In this context, heritage plays a crucial role in fostering resilience by reducing vulnerabilities and providing precious assets for an affected region's sustainable social and economic development during its recovery phase by attracting investment, creating employment, or providing renewable natural resources.

Developing countries are those most vulnerable to and compromised by natural disasters; therefore, development cooperation has become a primary application of disaster risk management. The content of this poster focuses on different topics in Indonesia for disaster mitigation connected to climate change: the central role of communities, vernacular building construction evaluation, recovery - sustainability, and building resilience. Over the past twenty years, Indonesia has made global headlines due to devastating natural disasters. The coastal areas are particularly vulnerable to climate change impacts and require urgent monitoring. Furthermore, some vulnerabilities may be specific to some monuments and housing due to the materials used in their construction or architectural design. Significant case studies can teach about seismic vulnerability, timber mechanical properties, and the vernacular building tradition's structural performances for repair-strengthening methods.



Source images: Dr. Yulianto P. Prihatmaji (prihatmaji@uii.ac.id)



The local communities must intervene as leaders in designing, moulding and executing sustainable strategies.

This entails investing more in human resources, especially within local populations.

(COM Bruxelles, 2001)

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Image credits: Dr. Yulianto P. Prihatmaji, Universitas Islam Indonesia (prihatmaji@uii.ac.id). DRM Scheme: Dr. Laura Pecchioli.

Live to Build A Better World: Science Fiction as a Tool for Finding Hope and Enduring Connection in the Face of Climate Change

Jeremy Brett*, Shelby Hebert

A living part of our shared cultural heritage lies in literature, which is a monument to human creativity, imagination, and curiosity about the world in which we live. As natural storytellers, human beings have always shared narratives to raise consciousness, stir consciences, seek answers, and inspire hope. The last, hope, is more important than ever as we stand in the face of the existential threat of anthropogenic climate change. We know objectively that the decades to come will require major shifts in how we interact with our natural, built, and historical environments. And we also know objectively that we have the scientific and technological capacities to solve or alleviate many of these crises.

But human beings are subjective creatures, and our emotions often outrun our rational minds. For many of us, the climate crisis is so overwhelming and all-encompassing that we despair of imagining a positive outcome and consider doom the inevitable outcome. In psychological circumstances such as these, it is easy to lose hope and give up. But fiction – in this case, science fiction – has the capacity to inspire optimism, determination, resilience, and enduring human connection among ourselves. Without these factors, we cannot hope to succeed in a concerted effort to protect our various environments. At Texas A&M University, we have instituted an exhibit that explores the imaginative range of the science fiction genre in describing the human reaction to drastic environmental change. Although many of the stories therein are ones of despair, savagery, and dystopia, we sought to balance those stories with ones we need right now: Stories of hope, rebirth over destruction, and scientific achievement over disaster. In this presentation, we use our exhibit as a case study of how fiction serves as a helpful tool in staving off existential despair and turning people's imaginations and intellects towards solving the vast problems of climate change.

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Uncovering the Layers of Te Wānanga

John Brown*

The name Te Wānanga was provided by mana Whenua as part of the design partnership between Auckland Council, Auckland Transport, and Mana Whenua. It conveys aspirations for a place for residents and visitors of all ages to come together, enjoy, share, and learn. In the words of Mana Whenua: “It’s a place of learning, bringing together elements like Para Kore (resource optimisation), raranga (weaving), and whakairo (carving). It is also a learning place for sea ecology”. The space takes its organic shape from the sandstone headlands of the Waitemata Harbour. Native pōhutukawa trees, including rongoa (medicine) species and harakeke (flax), establish links to the urban ngahere (forest). Lines of kūtai (mussels) provide habitat and food for sea life and improve water quality, a living example of the importance we place on caring for the mauri (essence) and mana (standing / respect) of the harbour, Te Waitemata.

The design includes artist work from Reuben Kirkwood (Ngai Tai ki Tāmaki), who has engraved a unique expression of Te Wairere into the timber handrails in a contemporary rendering of a traditional manaia form. Tessa Harris (Ngai Tai ki Tāmaki) has woven the handrails with natural fibre in a design unique to Te Wānanga. The binding design is an expression of toki (adze) and reflects waka, which were traditionally crafted by toki. Both artists worked with Isthmus, who designed Te Wānanga in partnership with Mana Whenua.

Heritage New Zealand designated the harbour area as a historic heritage area of national importance. It contains a number of historical heritage buildings that needed to be integrated into the design and protected during construction activities. In particular, a WWI Memorial Beacon erected in 1915 has returned to a central position in Quay Street, next to Te Wānanga, and the old stone seawall and stairway have been seismically upgraded – the 100-year-old tidal gauge may be used as part of the Auckland ‘King Tides Project’ where local communities are encouraged to capture tidal range measurement data to monitor climate change.

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Oasis of Hope

Passent Nossair*

The environment and climate change have an intertwined correlation. Climate change and the challenges we are facing due to it usually put us in a state of desperateness and struggle, and we are looking for solutions with an immediate positive impact. We tend to look for and import solutions from all over the globe, although they're right in front of us; solutions come from within! Hope springs up at the sight of an oasis amid dry, rough sand dunes or when guided by twinkling stars in a dark night sky. Full of hope and supported by guidance, I shall be exhibiting three initiatives from Egypt that show the impact of heritage preservation and how it could score more than one target at a time, sometimes without having it set from the beginning.

The poster examines three vivid examples of collaborative efforts between the initiators and their fellow partners. The first was initiated by an individual founder who had an idea but without any proof of its validity until he explored with a rural community the wide range of possibilities, and the clear proofs of an idea evolved into a theory. Such a unique, sustainable approach withstood the winds of social, environmental, and economic change. The second initiative is orchestrated by a participatory conservation initiative that aims to establish modalities for citizen participation in heritage conservation. Along with various stakeholders, it has turned a direct threat into a valuable resource, saving heritage and helping the environment. And finally, in the third example, rural community members have taken the lead and approached an investor and an execution company to facilitate their comeback to their origins. They were changing the sad face of desertion to a broad smile of opportunities, resurrecting their lost traditional homes, reconnecting with their roots, tapping into their art of living, and making a living by saving the environment.

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Heritage Management of Residential Built Heritage of Shahjahanabad, Delhi, India: A Study of the Transformation of the Urban Heritage Landscape

Alishah Ali*

Culture serves as a powerful tool for managing historic urban cities and fostering human development. Shahjahanabad (Old Delhi) in India is a 16th-century living heritage city adorned with tangible antiques of remarkable aesthetics, embodying their cultural value through the intangible heritage traditions practiced by local communities. Among the most endangered heritage structures are the mansions of Old Delhi. The significance of these mansions lies in their utilization of space, design elements, and response to climatic conditions, providing valuable insights into the processes of urbanization, history, and culture in Delhi.

This poster focuses on examining the transformation of the Urban Historic Landscape of Old Delhi, the living heritage city. The research primarily evaluates the developments that have emerged and posed threats to the Cultural Landscape of Old Delhi, particularly the unsustainable urbanization that has exacerbated the effects of climate change. The poster aims to comprehend the shortcomings of past government development plans and the attitudes of stakeholders towards these heritage properties. Additionally, it explores the tangible and intangible cultural practices, their historical significance, and the current state of heritage in the study area. The poster endeavours to formulate strategies for heritage management in the region and promote sustainable development through community participation.

It is important to note the architectural and design features of Delhi Havelis. The circulation of air, basements, Roshandaans (ventilation windows), and thick walls were carefully constructed to suit the local climatic conditions. Wells were often found within the havelis, and some even featured a water body in the courtyard, showcasing the thoughtful integration of water elements in the design. These features exemplify the well-planned nature of Old Delhi, harmonizing architecture with the climatic conditions of the region. Although alterations have taken place in the urban landscape of Old Delhi, the essence of its Urban Heritage continues to thrive. It stands as a testament to the well-planned city that was designed to adapt to the climatic conditions of the region.

Culture is the most powerful tool for the management of Urban Historic cities and of human development. Shahjahanabad (Old Delhi), India is a 16th-century living heritage city and is dotted with tangible antiques of marvelous aesthetics procuring their cultural value from the intangible heritage traditions practiced by the local communities.. The virtues of mansions in terms of use of space, elements of design, and response to climate are vital sources to trace the process of urbanization, history, and culture of Delhi. Overall, this poster aims to shed light on the transformation of the Urban Historic Landscape of Shahjahanabad, emphasizing the need for sustainable heritage management practices and community involvement to protect the unique cultural heritage of Old Delhi. The architectural and design elements of the havelis, along with the enduring spirit of the Urban Heritage, serve as a reminder of the city's rich history and its ability to adapt to its climatic conditions.



Map: Heart of India
Shahjahanabad, Delhi

Below: Architectural features of a Haveli



Question: What are the issues to be addressed for sustainable development of Shahjahanabad and Heritage Management of Haveli (traditional Mansions) fabric for action towards Climate Change?

ISSUES AND THREATS

- Builder Mafia
- Development pressure leading to unsustainable development
- Degrading quality of life
- Water Crisis
- Property disputes
- Commercial use of Property



Need Analysis



Community Oriented policies

Policies to be drafted observing the needs of the inhabiting community and ground realities

Reviving traditional economy

A creative economy supporting local handicrafts and art practices will deter Unsustainable Urbanisation

Heritage Awareness and Self Identity

How do we make Cultural Mindfulness relevant to laypeople? Community-run Cultural Hubs can be a fruitful experiment



"The interest of their fairest cities depends, not the isolated richness of places, But the cherished and exquisite decoration of even the smallest tenements of their proud period"
- John Ruskin, *Lamp of the Memory*

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Closing Remarks

Deirdre McDermott

Scientific Symposium Co-ordinator
AdCom Officer and OCD-RBA Member

The work presented is the culmination of our ambitious two-day programme of three knowledge cafes, four workshops, three parallel paper sessions with eleven presentations, and nine posters. As you know, we have tried to facilitate everyone across the different time zones so that everyone could participate at times within their normal waking hours. It has been challenging, and no doubt some people have had to stay up late or get up early. But we have tried. And I hope you found it has been worth it!

It has indeed been a huge collaboration of both organisers and contributors – and even the interactive audiences. Without the lead of a host National Committee, AdCom tasked me to act as ACO co-ordinator and asked the OCD-RBA WG to lead the co-ordinating committee, comprising the Intangible Heritage ISC, the Indigenous Heritage WG – all very pertinent to the topic already identified; and others, not least the AAVs (Assisting AdCom Volunteers) and the EPWG (Emerging Professionals), who have been immense in their support in so many ways.

I reflect with pleasure that the enforced online format has enabled us to turn adversity into opportunity and to do our small bit in reducing the carbon footprint of the event while achieving great inclusiveness.

It has facilitated the involvement of so many members, across the globe, who do not usually get the opportunity to join the face-to-face annual ADCOM meetings. So many voices that were not heard. The scientific symposium has been an important element traditionally held in conjunction with the annual meetings to maximise attendance. It is ironic that in this first online symposium, we have had more participants, from many more NCs and ISCs, WGs, and regions, than ever before enabled in face-to-face formats. So many voices were heard, making important contributions, acknowledging and demonstrating the need to listen to, learn from, and to work with our indigenous colleagues, who have so much to teach us about values and resilience. So much good, smart and innovative work, exactly on topic, was shared.

We have attempted here to finalise the presentations, already provided in draft format, so that these can be e-published, capturing the many fine contributions made over the two days of the symposium. We have not received paper presentations for every session, so where these remain outstanding, they are represented by their initial abstracts and by the embedded video link to the actual recording of the session.

Our thanks once more to Paulette Wallace, OCD-RBAWG Comms Team leader, who has worked closely on the detailed logistics with Jessica Khan from the Secretariat, planning everything meticulously, including the session logistics and technology, for instance, so that when we were sent to breakout rooms, we actually returned when intended and didn't get assigned to the ether!

All that remains now is to thank you all again and wish you buenas noches, bonne nuit, good night, and óíche mhaith. Slán agus beanacht libh.

Remarques Finales

Deirdre McDermott

Coordinatrice du symposium scientifique
Membre de l'AdCom et de l'OCD-RBA

Le travail présenté est le point culminant de notre ambitieux programme de deux jours comprenant trois cafés de la connaissance, quatre ateliers, trois sessions d'articles parallèles et neuf affiches. Comme vous le savez, nous avons essayé de faciliter la participation de chacun à travers les différents fuseaux horaires, afin que tous puissent participer à des moments situés dans leurs heures normales de réveil. Cela n'a pas été facile et il ne fait aucun doute que certaines personnes ont dû se coucher tard ou se lever tôt. Mais nous avons essayé. Et j'espère que vous trouverez que cela en valait la peine !

Il s'agit en effet d'une énorme collaboration, tant de la part des organisateurs que des contributeurs - et même des publics interactifs. En l'absence d'un comité national hôte, l'AdCom m'a chargée d'agir en tant que coordinatrice de l'ACO et a demandé au groupe de travail OCD-RBA de diriger le comité de coordination, comprenant le comité de suivi du patrimoine immatériel, le groupe de travail sur le patrimoine indigène - tous très pertinents pour le sujet déjà identifié ; et d'autres, notamment les AAV (Volontaires assistant l'AdCom) et le groupe de travail sur les professionnels émergents, qui ont été d'un soutien immense à bien des égards.

Je constate avec plaisir que le format en ligne imposé nous a permis de transformer l'adversité en opportunité et d'apporter notre petite contribution à la réduction de l'empreinte carbone de l'événement, tout en faisant preuve d'une grande inclusivité.

Il a facilité l'implication de nombreux membres, à travers le monde, qui n'ont généralement pas l'occasion de participer en personne aux réunions annuelles de l'ADCOM. Autant de voix qui, souvent, ne sont pas entendues. Le symposium scientifique est un élément important qui se tient traditionnellement en même temps que les réunions annuelles afin de maximiser la participation. Il est ironique de constater que pour ce premier symposium en ligne, nous avons eu plus de participants, provenant d'un très grand nombre de CN et de CSI, de groupes de travail et de régions, que jamais auparavant dans des formats en présentiel. Tant de voix se sont fait entendre, apportant d'importantes contributions, reconnaissant et démontrant la nécessité d'écouter et d'apprendre de nos collègues autochtones, qui ont tant à nous apprendre sur les valeurs et la résilience ; tant de travaux de qualité, intelligents et innovants, exactement à propos, ont été partagés.

Nous avons tenté ici de finaliser les présentations, déjà fournies sous forme de projet, afin qu'elles puissent être publiées en ligne et qu'elles reflètent les nombreuses et excellentes contributions apportées au cours des deux jours du symposium. Nous n'avons pas reçu de présentations papier pour toutes les sessions, aussi lorsque celles-ci restent en suspens, elles sont représentées par leurs résumés initiaux et par le lien vidéo incorporé vers l'enregistrement réel de la session.

Nous remercions une fois de plus Paulette Wallace, chef de l'équipe de communication de l'OCD-RBAWG, qui a travaillé en étroite collaboration avec Jessica Khan du Secrétariat sur la logistique détaillée, planifiant tout méticuleusement, y compris la logistique et la technologie des sessions, par exemple, de sorte que lorsque nous avons été envoyés dans des salles de réunion, nous sommes effectivement rentrés à l'heure prévue et ne nous sommes pas retrouvés dans les limbes !

Il ne me reste plus qu'à vous remercier encore une fois et à vous souhaiter buenas noches, bonne nuit, good night et oíche mhaith. Slán agus beanacht libh.

Discurso de Clausura

Deirdre McDermott

Coordinadora del Simposio Científico
Oficial del AdCom y Miembro del OCD-RBA

Los trabajos presentados son la culminación de nuestro ambicioso programa de dos días de tres cafés del conocimiento, cuatro talleres, tres sesiones de ponencias paralelas y nueve pósters. Como saben, hemos intentado facilitar la participación de todos los participantes en los distintos husos horarios, de modo que todos pudieran participar en horarios dentro de sus horas normales de vigilia. Ha sido un reto y, sin duda, algunos han tenido que trasnochar o madrugar. Pero lo hemos intentado. Y espero que haya merecido la pena.

Ha sido una enorme colaboración, tanto de los organizadores como de los colaboradores, e incluso del público interactivo. Sin el liderazgo de un Comité Nacional anfitrión, el AdCom me encomendó la tarea de actuar como coordinadora de la OAC y pidió al GT OCD-RBA que dirigiera el Comité de coordinación, compuesto por el ISC de Patrimonio Inmaterial, el GT de Patrimonio Indígena - todos muy pertinentes para el tema ya identificado; y otros, sin olvidar a los AAV (Voluntarios Asistentes del AdCom) y al EPWG (Profesionales Emergentes), que han prestado un inmenso apoyo de muchas maneras.

Reflexiono con satisfacción sobre el hecho de que el forzoso formato en línea nos ha permitido convertir la adversidad en oportunidad y aportar nuestro granito de arena a la reducción de la huella de carbono del evento, al tiempo que hemos logrado una gran inclusividad.

Ha facilitado la participación de muchos miembros de todo el mundo que normalmente no tienen la oportunidad de asistir a las reuniones anuales presenciales de ADCOM. Tantas voces que a menudo no se escuchan. El simposio científico ha sido un elemento importante que tradicionalmente se ha celebrado junto con las reuniones anuales para maximizar la asistencia. Resulta irónico que en este primer simposio en línea hayamos contado con más participantes, procedentes de muchos más CNs e ISCs, GTs y regiones, que nunca antes en formatos presenciales. Se escucharon muchas voces, que hicieron importantes contribuciones, reconociendo y demostrando la necesidad de escuchar y aprender de nuestros colegas indígenas, que tienen tanto que enseñarnos sobre valores y resiliencia, y de trabajar con ellos.

Hemos intentado finalizar aquí las presentaciones, ya proporcionadas en formato borrador, para que puedan publicarse electrónicamente, recogiendo las numerosas y excelentes contribuciones realizadas durante los dos días del simposio. No hemos recibido las ponencias de todas las sesiones, por lo que, en los casos en que quedan pendientes, aparecen representadas por sus resúmenes iniciales y por el enlace de vídeo incrustado a la grabación real de la sesión.

Nuestro agradecimiento una vez más a Paulette Wallace, jefa del equipo de comunicaciones del OCD-RBAWG, que ha colaborado estrechamente con Jessica Khan de la Secretaría planificándolo todo meticulosamente, incluida la logística y la tecnología de las sesiones, por ejemplo, para que cuando nos enviaran a las salas de descanso, volviéramos cuando estaba previsto y no nos asignasen al éter.

Ahora sólo me queda darles las gracias de nuevo y desearles buenas noches, bonne nuit, good night y oíche mhaith. Slán agus beanacht libh.

Symposium Program

9 November 2021 Tuesday

10:00-10:10	Opening Announcements & Introduction	Deirdre McDermott, Bente Mathisen
10:10-10:40	Keynote Address Living Heritage	Ananya Bhattacharya
	Keynote Address Climate Change & Cultural Heritage	Will Megarry
	Introduction to the Poster Hall	Stacy Vallis
Session 1	Knowledge Café	
11:30-13:00	PANORAMA Nature-Culture: Sharing Successful Approaches for the Management and Governance of Heritage Places	Eugene Jo, Maya Ishizawa, Nicole Franceschini, Tim Badman, Maureen Thibault
Session 1A	Paper Presentations	
11:30-13:00	Impact of Climate Change on Sustainable Underground Living Heritage	Koorosh Attarian, Linda Shetabi, Behnaz Safar Ali Najar
	The Role of Natural and Mixed Cultural-Natural Heritage in Increasing the Resilience of Socio-Ecological Systems to Climate Change Impacts	Athanasios Votsis, Irina Pavlova, Milla Mikkola, Fabrice Renaud
	Approach to the Preparedness and Risk Management for the UNESCO World Heritage Property 'Old city of Dubrovnik'	Ivana KaturiĆ, Mario Gregar, Katarina Lukić
	University-Business Partnership for the Protection of Living Heritage	Yvon Velot
Session 2	Knowledge Café	
13:15-14:45	Living Vernacular Built Heritage and Climate Change	Hossam Mahdy, Gisle Jakhelin, Hamdy El Setouhi, Ege Yildirim, Kat Vlahos, Naïma Benkari, Shao Yong, Ahmed Fouzan, Amanda Rivera, Berenice Aguilar, Cheima Azil, Hala Aslan, Samir Abdulac, Suheyla Koc, Wesley Brian Wilson
Session 2A	Paper Presentations	
13:15-14:45	Worship Practices in Forests and Sacred Landscapes as a Means of Nature Conservation in Burkina Faso	Bély Hermann Abdoul-Karim Niangao
	English Parish Churches and Sustainability	Nigel Walter
	Restructuring the Delta for the New Climate	Karl Kupka
	Figui, or the Intangible in the Tangible Heritage	Abderrahim Kassou
22:00-22:10	Opening Announcements & Introduction	Deirdre McDermott, Bente Mathisen
22:10-22:40	Keynote Address Living Heritage	Ananya Bhattacharya
22:40-23:10	Keynote Address Climate Change & Cultural Heritage	Will Megarry
23:10-23:25	Introduction to the Poster Hall	Stacy Vallis
Session 3	Knowledge Café	
23:30-01:00	Climate Change Driving Heritage to the Abyss: Reflections on the State of Cultural and Natural Assets in Central America	Ana E. Hasemann, Gloria Lara Pinto, Carmen Julia Fajardo, Silvia González, Gloria Grimaldi, Fernando Díaz, Daniela Navarrete, Eva Martínez, Javier Mejuto
Session 3A	Paper Presentations	
23:30-01:00	Mexico City's Chinampas Landscape in the Face of Climate Change	Fernando Roberto Chiapa Sánchez
	Cultural Routes as an Instrument of Resilience	Carmen Daly Schelbert, Cecilia Calderón Puente
	Traditional Urbanism and Architecture of the Azuero Region in Panama: An Example of Sustainability and Living Heritage	Silvia Arroyo Duarte
	Methodological Proposal for the Preservation of Living Heritage. Case Study: Pachuca & Real del Monte Mining District, Hidalgo, Mexico	Maria Elena Sanchez Roldan

* All meeting times are indicated in Central European Time (CET).

Symposium Program

10 November 2021 Wednesday

10:00-10:15	Opening: News around the World	Working Groups: Rights-Based Approaches & Emerging Professionals
Session 4	Workshop	
10:15-11:45	Heritage Education and Capacity Building for Climate Action	Deniz Ikiz Kaya, Irene Curulli, Paloma Guzman
Session 5	Workshop	
12:00-13:30	Polycentric and Participatory Governance in Cultural Tourism for Community Resilience	Ananya Bhattacharya, Cecilie Smith-Christensen, Sofia Fonseca, Shem Wambugu Maingi, Celia Martínez Yáñez, Rouran Zhang
Session 5A	Workshop	
12:00-13:30	Communities Address Climate Change in Mountainous Regions	Kai Weise, Anie Joshi
22:00-22:15	Opening: News around the World	Working Groups: Rights-Based Approaches & Emerging Professionals
Session 6	Workshop	
22:15-23:45	Workshop on Living Heritage and Climate Change	Mauro García Santa Cruz, Jimena García Santa Cruz, Guillermo R. García, Pedro Delheye, Gabriela Santibañez
Session 7	Workshop	
00:00-01:30	The City of Knowledge – Wisdom: Promoting Resilient Laboratories in World Heritage Sites	Graciela A. Mota Botello, Angela Rojas, Olimpia Niglio, Francisco Vélez Pliego

* All meeting times are indicated in Central European Time (CET).

Program [ENG]



Le Programme [FR]



Book of Abstracts



Poster Hall [MIRO]



Symposium Outline

Living heritage provides people with their sense of identity and is continuously regenerating in response to their environment. But we live in a time of rapid environmental change accelerated by the current climate crisis. Our responses to this crisis have the potential to strengthen our living heritage or destroy it. With this in mind we invite you to explore the following questions:

- How is the climate emergency changing living heritage in your region?
- How may living heritage, the connection of people with places, culture and nature, contribute to address the challenges of climate change, sustainability and community development?
- Can regional and local responses to risks posed by that climate change to livelihoods and cultural heritage, become assets for climate actions and resilience?
- In our heritage practice can we develop responses to climate change impacts that strengthen the connections of people with heritage places; contributing to well-being and building resilience.
- What shifts in local, national, and international heritage policies and practice are in progress or are needed to activate heritage as a tool in developing effective responses to the climate emergency.

In this United Nations Decade of Action for Sustainable Development, ICOMOS embraces a two-pronged approach to climate change that both responds to the risks that climate change poses to culture and cultural heritage and also champions heritage in all its forms, as a source of resilience and an asset to climate action.

Living Heritage includes human practices, representations, expressions, knowledge, skills, that continue with changes over time. The values of such living cultural expressions are related to identity, memory and remembrance, belief and symbolism, nature and the environment. Such intangible heritage is enacted, renewed, and transmitted within communities, in response to their environment, their interaction with nature, and their history.

ICOMOS Resolution 20GA/19 on People-Centred Approaches promotes people-centred approaches, the connections of people with heritage and places; intercultural dialogue and understanding, sustainability and well-being when addressing local, national, and international heritage policies and practice.

ICOMOS is committed to honour heritage communities and individuals' rights, taking into consideration past and future generations, acknowledge their role in developing and implementing resilience strategies in a rapidly changing and unstable world, and assist authorities to empower citizens to maintain and develop their values and livelihoods in a dignified, responsible, and sustainable manner.

ICOMOS works to sustainably synergise cultural heritage conservation and management with the diverse cultural, environmental, and socio-economic concerns of people and communities, through building partnerships with relevant sectors, such as social and health services; peace-building and conflict resolution; cultural and creative industries; nature and biodiversity conservation; tourism; urban and territorial planning and development; and infrastructure and energy provision.

Symposium Outline

This is the first of the series of annual scientific symposia that are part of the *Triennial Scientific Plan (TSP) 2021-24 Climate Change Reboot* focusing proposed ICOMOS meetings and Scientific Symposia on how climate change impacts on specific heritage places and issues.

In the 2021 Scientific Symposium you are asked to look at how these inter-related considerations play out in the context of living heritage amidst climate change, including how they affect the heritage communities as well as understanding, assessing and managing of places directly or tangibly associated with living traditions, ideas, beliefs, and/or artistic and literary works.

The Symposium will occur during the 2021 United Nations Climate Conference, (COP26) underscoring linkages between Living Heritage and the need for urgent actions to respond to the global climate emergency. It will also reinforce the ICOMOS 20th General Assembly resolution 20GA/15 on Climate and Ecological Emergency, which calls on all relevant actors to seek to safeguard all types of heritage from adverse climate impacts, implement risk-informed disaster responses, deliver climate resilient sustainable development; and recognise equity and justice as fundamental dimensions of climate action.

The goal is to broaden the discussion beyond impacts of climate hazards, to include changes in how people valorise and celebrate Living Heritage for climate resilience, adaptation and greenhouse gas mitigation. Local perspectives and experiences are sought to showcase a diversity of approaches, expressions and approaches that drive climate action.

The 2021 ICOMOS Scientific Symposium on the theme of **Living Heritage** will address the following ICOMOS Documents:

- Triennial Scientific Plan (TSP) 2021-24 Climate Change Reboot GA20/13
- ICOMOS People Centred Approaches Resolution GA20/19
- ICOMOS Buenos Aires Declaration on Human Rights 2018
- ICOMOS Climate and Ecological Emergency Resolution GA20/15
- ICOMOS Future of Our Pasts
- The research commissioned for the Indigenous Heritage WG
- Heritage and the Sustainable Development Goals: Policy Guidance for Heritage and Development Actors
- UN Special Report on Report on climate change, culture and cultural rights
- Mālama Honua – to care for our island Earth. A Statement of Commitments from the Nature-Culture Journey Participants at the IUCN World Conservation 2016.
- Yatra aur Tammanah: Our purposeful Journey

The symposium will investigate, explore and reflect on the ways in which these guiding documents can be implemented in the regional and/or global work of acknowledging, mitigating and adapting to the climate emergency.

Symposium Themes

1. **INTERCONNECTIONS.** Exploration of the interconnected relationship between people, place, heritage and sustainability. This could include conservation practices and innovative strategies that respects and preserves this dynamic relationship in view of the current climate emergency;
2. **EXAMPLES.** Case studies that benchmark and share strategies for the integration of inter-connected values in evaluation, management, and revitalisation of living heritage;
3. **COMMUNITIES.** Studies that consider the roles and actions of communities, groups and individuals, and their experience of sustaining their living heritage both as a means of mitigating climate change but also in response to climate change, through their livelihoods, conservation and development policies, good governance and application of useful tools;
4. **METHODOLOGIES.** Successful methods and tools for the identification, documentation and interpretation of living heritage in its fullest sense, that develop and support appropriate policies at all administrative levels, and to raise awareness among all actors on its value;
5. **PARTNERSHIPS.** Collaborative work of ICOMOS, ICCROM and IUCN, and other national and international organisations which identify ways of bringing forward broader actions on behalf of the global wealth of living heritage – with a focus on People-Centred Approaches;
6. **SUSTAINABILITY.** Transformative practices that tackle sustainable development issues of living heritage and supports inclusive social development and environmental resilience for urban and rural communities.

Plan du Symposium Scientifique

Le patrimoine vivant confère aux personnes leur sens de l'identité et se régénère continuellement en fonction de leur environnement. Mais nous vivons à une époque de changements environnementaux rapides, accélérés par la crise climatique actuelle. Nos réponses à cette crise ont le potentiel de renforcer notre patrimoine vivant ou de le détruire. C'est dans cet esprit que nous vous invitons à explorer les questions suivantes:

- Comment l'urgence climatique modifie-t-elle le patrimoine vivant dans votre région ?
- Comment peut le patrimoine vivant, ainsi que le lien entre les personnes et les lieux, la culture et la nature, contribuer à relever les défis du changement climatique, de la durabilité et du développement communautaire ?
- Les réponses régionales et locales aux risques que ce changement climatique fait peser sur les moyens de subsistance et le patrimoine culturel peuvent-elles devenir des atouts pour les actions climatiques et la résilience ?
- Pouvons-nous développer des réponses aux impacts du changement climatique dans nos pratiques patrimoniales qui renforcent les liens entre les personnes et les lieux patrimoniaux, contribuant ainsi au bien-être et à la résilience ?

Quels changements dans les politiques et pratiques locales, nationales et internationales en ce qui concerne le patrimoine sont en cours ou sont nécessaires pour activer le patrimoine en tant qu'outil dans le développement de réponses efficaces à l'urgence climatique.

Dans le cadre de la Décennie d'action des Nations Unies pour le développement durable, l'ICOMOS adopte une double approche du changement climatique qui répond aux risques que le changement climatique porte sur la culture et le patrimoine culturel et qui défend également le patrimoine sous toutes ses formes, en tant que source de résilience et atout pour l'action climatique.

Le patrimoine vivant comprend les pratiques, les représentations, les expressions, les connaissances et les compétences humaines, qui se développent avec le temps. Les valeurs de ces expressions culturelles vivantes sont liées à l'identité, la mémoire et le souvenir, les croyances et le symbolisme, la nature et l'environnement. Ce patrimoine immatériel est mis en œuvre, renouvelé et transmis au sein des communautés, en réponse à leur environnement, à leur interaction avec la nature et à leur histoire.

La résolution 20GA/19 de l'ICOMOS sur les approches centrées sur les personnes favorise les approches centrées sur les personnes, les liens entre les personnes et le patrimoine et les lieux, le dialogue et la compréhension interculturels, la durabilité et le bien-être lorsqu'il s'agit de politiques et de pratiques locales, nationales et internationales en matière de patrimoine.

L'ICOMOS s'engage à honorer les droits des communautés patrimoniales et des individus, en tenant compte des générations passées et futures, à reconnaître leur rôle dans le développement et la mise en œuvre de stratégies de résilience dans un monde instable et en mutation rapide, et à aider les autorités à donner aux citoyens les moyens de maintenir et de développer leurs valeurs et leurs moyens de subsistance d'une manière digne, responsable et durable.

L'ICOMOS cherche à créer une synergie durable entre la conservation et la gestion du patrimoine culturel et les diverses préoccupations culturelles, environnementales et socio-économiques des personnes et des communautés, en établissant des partenariats avec les

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secteurs concernés, tels que les services sociaux et de santé, la consolidation de la paix et la résolution des conflits, les industries culturelles et créatives, la conservation de la nature et de la biodiversité, le tourisme, la planification et le développement urbain et territorial, ainsi que la fourniture d'infrastructures et d'énergie.

Il s'agit du premier de la série de symposiums scientifiques annuels qui font partie du Plan scientifique triennal (PST) 2021-24 Réamorçage du changement climatique axant les réunions et les symposiums scientifiques proposés par l'ICOMOS sur l'impact du changement climatique sur des lieux et des questions patrimoniales spécifiques.

Dans le cadre du symposium scientifique 2021, il vous est demandé d'examiner comment ces considérations interdépendantes s'inscrivent dans le contexte du patrimoine vivant face au changement climatique, et notamment comment elles affectent les communautés du patrimoine ainsi que la compréhension, l'évaluation et la gestion des lieux directement ou concrètement associés à des traditions, des idées, des croyances et/ou des œuvres artistiques et littéraires vivantes.

Le symposium aura lieu pendant la Conférence des Nations Unies sur le climat de 2021 (COP26), soulignant les liens entre le patrimoine vivant et le besoin d'actions urgentes pour répondre à l'urgence climatique mondiale. Il renforcera également la résolution 20GA/15 de la 20e Assemblée générale de l'ICOMOS sur l'urgence climatique et écologique, qui appelle tous les acteurs concernés à chercher à sauvegarder tous les types de patrimoine des impacts climatiques négatifs, à mettre en œuvre des réponses aux catastrophes basées sur les risques, à fournir un développement durable résistant au climat et à reconnaître l'équité et la justice comme des dimensions fondamentales de l'action climatique.

L'objectif est d'élargir la discussion au-delà des impacts des risques climatiques, pour inclure les changements dans la façon dont les gens valorisent et célèbrent le patrimoine vivant pour la résilience climatique, l'adaptation et l'atténuation des gaz à effet de serre. Les perspectives et les expériences locales sont recherchées afin de présenter une diversité d'approches, d'expressions et de démarches qui favorisent l'action climatique.

Le symposium scientifique 2021 de l'ICOMOS sur le thème du patrimoine vivant abordera les documents suivants de l'ICOMOS:

- Triennial Scientific Plan (TSP) 2021-24 Climate Change Reboot GA20/13
- ICOMOS People Centred Approaches Resolution GA20/19
- ICOMOS Buenos Aires Declaration on Human Rights 2018
- ICOMOS Climate and Ecological Emergency Resolution GA20/15
- ICOMOS Future of Our Pasts
- The research commissioned for the Indigenous Heritage WG
- Heritage and the Sustainable Development Goals: Policy Guidance for Heritage and Development Actors
- UN Special Report on Report on climate change, culture and cultural rights
- Mālama Honua – to care for our island Earth. A Statement of Commitments from the Nature-Culture Journey Participants at the IUCN World Conservation 2016.
- Yatra aur Tammanah: Our purposeful Journey

Le symposium examinera, explorera et réfléchira aux moyens de mettre en œuvre ces documents d'orientation dans le cadre du travail mondial de reconnaissance, d'atténuation et d'adaptation à l'urgence climatique.

Thèmes

1. Exploration de la relation interconnectée entre les personnes, le lieu, le patrimoine et la durabilité. Cela pourrait inclure des pratiques de conservation et des stratégies innovantes qui respectent et préservent cette relation dynamique compte tenu de l'urgence climatique actuelle;
2. Des études de cas qui permettent de comparer et de partager les stratégies d'intégration des valeurs interconnectées dans l'évaluation, la gestion et la revitalisation du patrimoine vivant;
3. Des études qui prennent en compte les rôles et les actions des communautés, des groupes et des individus, ainsi que leur expérience de la préservation de leur patrimoine vivant, à la fois comme moyen d'atténuer le changement climatique mais aussi en réponse au changement climatique, par le biais de leurs moyens de subsistance, de leurs politiques de conservation et de développement, de la bonne gouvernance et de l'application d'outils utiles;
4. Des méthodes et des outils efficaces pour l'identification, la documentation et l'interprétation du patrimoine vivant dans son sens le plus large, qui développent et soutiennent des politiques appropriées à tous les niveaux administratifs, et pour sensibiliser tous les acteurs à sa valeur;
5. Le travail de collaboration de l'ICOMOS, de l'ICCROM et de l'UICN, ainsi que d'autres organisations nationales et internationales qui identifient les moyens d'entreprendre des actions plus larges au nom de la richesse globale du patrimoine vivant - en mettant l'accent sur les approches centrées sur les personnes;
6. Des pratiques transformatrices qui abordent les questions de développement durable du patrimoine vivant et soutiennent le développement social inclusif et la résilience environnementale des communautés urbaines et rurales.

Esquema del Simposio Científico

El Patrimonio vivo proporciona a las personas su sentido de identidad y se está regenerando continuamente en respuesta al entorno. Sin embargo, vivimos en un tiempo de rápidos cambios en el entorno, acelerados por la actual crisis climática. Nuestras respuestas a esta crisis tienen el potencial tanto para reforzar nuestro patrimonio vivo como para destruirlo. Con esto en la mente, te invitamos a explorar las siguientes preguntas:

- ¿Cómo está cambiando la emergencia climática al patrimonio vivo en tu región?
- ¿Cómo puede el patrimonio vivo, la conexión de personas con sitios, cultura y naturaleza, contribuir a enfocar los desafíos del cambio climático, sostenibilidad y desarrollo de las comunidades?
- ¿Pueden las respuestas regionales y locales a los riesgos que planea el cambio climático a las vidas y al patrimonio cultural, convertirse en bazas para acciones climáticas y resiliencia?
- En nuestra práctica en conservación del patrimonio, podemos desarrollar respuestas a los impactos del cambio climático que refuercen las conexiones de las personas con el patrimonio; contribuyendo al bienestar y a reforzar la resiliencia.
- ¿Qué cambios se están produciendo, o son necesarios, en políticas relacionadas con el patrimonio, a nivel local, regional, nacional o internacional, para activar al patrimonio como herramienta a la hora de desarrollar respuestas efectivas a la emergencia climática?

En esta Década de Acción para el desarrollo Sostenible de Naciones Unidas, ICOMOS abraza un doble enfoque al cambio climático que responde tanto a los riesgos que plantea el cambio climático a la cultura y al patrimonio, así como defiende el patrimonio en todas sus formas y manifestaciones, como una fuente de resiliencia y un activo para la acción climática.

El Patrimonio Vivo incluye actividades humanas, representaciones, expresiones, conocimiento, habilidades, que continúa con cambios a lo largo del tiempo. Los valores de semejantes expresiones de cultura viva, están relacionadas con identidad, memoria y conmemoración, creencia y simbolismo, naturaleza y entorno. Semejante patrimonio intangible es promulgado, renovado y transmitido entre las comunidades, en respuesta a su entorno, su interacción con la naturaleza y su historia.

La resolución 20GA/19 de ICOMOS, en Enfoques Centrados en Personas, las conexiones de personas con patrimonio y sitios; diálogo intercultural y entendimiento, sostenibilidad y bienestar al enfocar políticas patrimoniales y práctica local, nacional e internacional.

ICOMOS está comprometida a honrar los derechos de las comunidades del patrimonio e individuales, teniendo en consideración a las generaciones pasadas y futuras, a reconocer su papel en desarrollar e implementar estrategias para la resiliencia en un mundo en cambio rápido e inestable, y asistir a las autoridades a empoderar a los ciudadanos para mantener y desarrollar sus valores y sustento de manera dignificada responsable y sostenible.

ICOMOS trabaja para crear sinergias de manera sostenible entre la conservación y gestión del patrimonio con las diversas preocupaciones culturales, medioambientales y socioeconómicas de las personas y las comunidades, a través de construir alianzas con sectores relevantes, tales como los servicios sociales y de salud; construcción de la paz y

Esquema del Simposio Científico

resolución de conflictos; industrial culturales y creativas; conservación natural y de la biodiversidad; turismo; desarrollo y planificación urbana y territorial; infraestructuras y suministro de energía.

Este es el primer Simposio Científico de la serie correspondiente al Plan Científico Trienal (PCT) 2021-24 reinicio Cambio Climático enfocado en las reuniones propuestas de ICOMOS y Simposios Científicos enfocados en cómo afecta el cambio climático a los sitios patrimoniales.

Para el Simposio Científico de 2021, te pedimos que veas de qué manera estas consideraciones interrelacionadas juegan en el contexto del patrimonio vivo y el cambio climático incluyendo cómo afectan a las comunidades del patrimonio, así como a comprender, asesorar y gestionar sitios directamente o tangiblemente asociados con tradiciones vivas, ideas, creencias, y/o trabajos artísticos y literarios.

El Simposio se desarrollará al mismo tiempo que la Conferencia sobre Cambio Climático de Naciones Unidas (COP26) subrayando las relaciones entre el Patrimonio Vivo y la necesidad de acciones urgentes para responder a la emergencia climática global. También reforzará la resolución de la Asamblea General de ICOMOS 20GA/15, acerca de la Emergencia Climática y Ecológica, que llama a todos los actores relevantes a buscar salvaguarda de todos los tipos de patrimonio, desde impactos adversos del clima, implementación de respuestas a desastres, entregar desarrollo sostenible resiliente al clima; y reconocer equidad y justicia como dimensiones fundamentales de la acción climática.

El objetivo consiste en ampliar el debate más allá del impacto de desastres climáticos, para incluir cambios en cómo las personas valorizan y celebran el Patrimonio Vivo para la resiliencia climática, y para la mitigación del efecto invernadero. Se buscan perspectivas y experiencias locales para mostrar una diversidad de enfoques, y expresiones que conducen la acción climática.

El Simposio Científico 2021 con el tema Patrimonio Vivo, se centrará en los siguientes Documentos de ICOMOS:

- Triennial Scientific Plan (TSP) 2021-24 Climate Change Reboot GA20/13
- ICOMOS People Centred Approaches Resolution GA20/19
- ICOMOS Buenos Aires Declaration on Human Rights 2018
- ICOMOS Climate and Ecological Emergency Resolution GA20/15
- ICOMOS Future of Our Past
- The research commissioned for the Indigenous Heritage WG
- Heritage and the Sustainable Development Goals: Policy Guidance for Heritage and Development Actors
- UN Special Report on Report on climate change, culture and cultural rights
- Mālama Honua – to care for our island Earth. A Statement of Commitments from the Nature-Culture Journey Participants at the IUCN World Conservation 2016.
- Yatra aur Tammanah: Our purposeful Journey

En el simposio, se investigará, explorará y reflexionará acerca de las maneras en las que dichos documentos guía pueden ser implementados en el trabajo global de reconocer, mitigar y adaptarse a la emergencia climática.

Themes

1. **INTERCONEXIONES.** Exploración de la relación interconectada entre personas, sitio, patrimonio y sostenibilidad. Esto debería incluir prácticas de conservación y estrategias innovativas que respeten y preserven esta relación dinámica a la vista de la actual emergencia climática;
2. **EJEMPLOS.** Casos que sirvan para marcar y compartir estrategias para la integración de valores interconectados en evaluación, gestión, y revitalización del patrimonio vivo;
3. **COMUNIDADES.** Estudios que consideren los roles y acciones de las comunidades, grupos e individuales, y su experiencia en sostener su patrimonio vivo tanto para mitigar el cambio climático, como en respuesta al cambio climático, a través de sus medios de vida, políticas de conservación y desarrollo, buena gobernanza y aplicación de herramientas de utilidad;
4. **METODOLOGÍAS.** Métodos y herramientas de éxito para la identificación, documentación e implementación de patrimonio vivo en su sentido más amplio, que desarrollen y apoyen políticas apropiadas en todos los niveles administrativos, y para concienciar a todos los actores acerca de su valor;
5. **ALIANZAS.** Trabajo colaborativo de ICOMOS, ICCROM e IUCN, así como otras organizaciones que identifican maneras de proponer acciones más amplias en nombre de la riqueza global del patrimonio vivo – con un énfasis en Enfoques Centrados en las Personas;
6. **SOSTENIBILIDAD.** Prácticas transformativas que abordan cuestiones relativas al desarrollo sostenible y resiliencia mediambiental para comunidades rurales y urbanas.

An Overview of the 2021 Scientific Symposium

Yasemin Sarıkaya Levent

The International Council on Monuments and Sites (ICOMOS) was founded in 1965 by conservation and preservation professionals at the 2nd International Congress of Architects and Technicians of Historic Monuments. It is an international non-governmental organisation comprised of individuals and institutions actively concerned with the protection and conservation of cultural heritage. ICOMOS promotes the application of theoretical, methodological, and scientific knowledge to cultural heritage conservation. ICOMOS is governed at both the national and international levels by its members: 104 national committees, 30 international scientific committees, six thematic working groups, over 10,000 individual members, and 250 institutional members in 151 countries (by December 2020). The Advisory Committee is comprised of the presidents of the national and international scientific committees and the focal points of the working groups. It develops and directs the organisation's work through the Triennial Scientific Plan. Since 2015, the Advisory Committee's work has been directed by a board of six elected officers, headed by a president and vice president.

ICOMOS has focused on advancing and promoting the conservation of our cultural heritage in accordance with its primary objectives since its establishment in 1965. One of these goals is to serve as a forum for professional dialogue and exchange between conservation specialists from around the world. Scientific symposia are the primary venues for inter-disciplinary interaction among the members.

Every three years, ICOMOS conducts annual meetings of the Advisory Council (AdCom) and a triennial general assembly. In conjunction with those events, scientific symposia are hosted. Due to the COVID-19 pandemic, the 2020 AdCom meeting was held online, and the scientific symposium was cancelled. The Advisory Committee appointed the OCDIRBA WG to head the organisation of the first online scientific symposium of ICOMOS, which was conducted on November 9 and 10, 2021.

The theme for the 2021 Scientific Symposium was "Living Heritage and Climate Change". Several subthemes were devised to examine how individuals value and celebrate living heritage for climate resilience, adaptation, and greenhouse gas mitigation. Local and heritage community perspectives and experiences were solicited in order to emphasise and illustrate the diversity of approaches, strategies, and programmes that drive climate action.

In response to the symposium call, which was issued in English, French, Spanish, and Arabic, sixty-six authors from different countries submitted thirty-four abstracts that contributed to the distinct subthemes (Tables 1-3 and Figure 1).

Table 1. Number of submissions by type

Type of Submissions	Number of Submissions
Paper Presentation	21
Poster Presentation	6
Workshop	4
Knowledge Café	3
Total	34

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Table 2. Submissions by subthemes

** One submission can mention more than one subtheme*

Subtheme	Interconnections	Examples	Communities	Methodologies	Partnerships	Sustainability	Undefined
Times Mentioned	14	3	6	4	4	9	4

Table 3. Geographic distribution of authors

** Some submissions have multiple authors*

Continent	Africa	N. America	S. America	Asia	Australia	Europe
Number	4	14	7	9	3	29



Figure 1. Geographical distribution of authors

The Organising Committee assigned nine peer reviewers to each submission for consideration, and reviewers scored submissions out of a possible ten points. The average score for all submissions was 6.8, with the lowest score being 4.00 and the highest score being 10 (Figure 2).

Out of a total of thirty-four submissions, reviewers accepted twenty-four submissions directly and ten submissions with minor revisions. Four of the submissions for paper presentations were approved as posters, and one was accepted as a workshop session (Table 4). Subsequently, three paper presentations and two poster presentations were withdrawn.

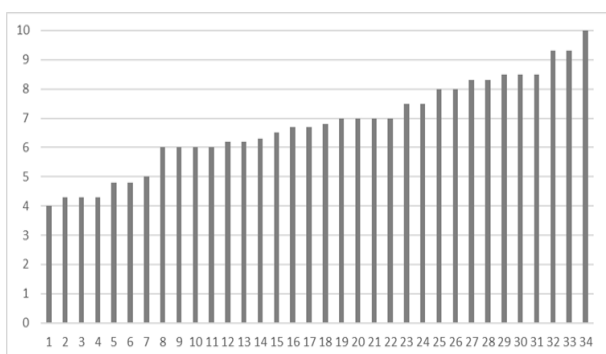


Figure 2. Review scores of all submissions

The 2021 Scientific Symposium consisted ultimately of seven parallel sessions (Table 5). The Symposium was divided into morning and evening sessions on both days so that members from around the world could attend during their regular waking and working hours (Figure 3). The keynote addresses were repeated in the morning and evening sessions. Seven workshops and knowledge cafés that were moderated by ICOMOS Emerging Professionals included presentations and

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Table 4. The results of the review process

Type of Submission	Accepted	Accepted with revision	Accepted as poster	Accepted as poster with revision	Accepted as workshop with revision
Paper Presentation	11	5	2	2	1
Poster Presentation	4	2			
Workshop	4				
Knowledge Café	3				

debates facilitated by worldwide members. In addition, eleven papers were presented in three parallel sessions organised around six subthemes, and an interactive online poster session with nine posters was accessible in an online "poster hall" on the MIRO platform throughout the Symposium. The video recordings of the various sessions were included in the Book of Abstracts for initial dissemination, pending the compilation of the complete proceedings.

The Symposium reflected the multilingual and multicultural character of ICOMOS with English, Spanish, and French workshop sessions and paper presentations. The Symposium was attended by forty-two ICOMOS members representing twenty-eight national committees (Figure 4). In addition, members of ICCROM and IUCN participated and contributed as co-authors to the Symposium.

The 2021 Scientific Symposium was ICOMOS's first online scientific symposium. The Symposium was organised by utilising online platforms: ZOOM for the presentation of papers, workshops, and knowledge cafés, and MIRO for the poster hall. The MIRO platform provided interactive spaces where participants could freely debate, propose, and reflect on ideas, regardless of time or location.

Table 5. Organisation of the sessions

* All meeting times are indicated in Central European Time (CET).

	Tuesday - November 9, 2021			Wednesday – November 10, 2021		
	11:30-13:30	13:15-14:45	23:30-01:00	10:15-11:45	12:00-13:30	22:15-23:45
Session 1	Knowledge Café (Eng.)					
Session 1A	Paper Pres. (Eng.&Fr.)					
Session 2	Knowledge Café (Eng.)					
Session 2A	Paper Pres. (Eng.&Fr.)					
Session 3	Knowledge Café (Esp.)					
Session 3A	Paper Pres. (Eng.&Esp.)					
Session 4	Workshop (Eng.)					
Session 5	Workshop (Eng.)					
Session 5A	Workshop (Eng.&Fr.)					
Session 6	Workshop (Esp.)					
Session 7	Workshop (Eng.&Esp.)					

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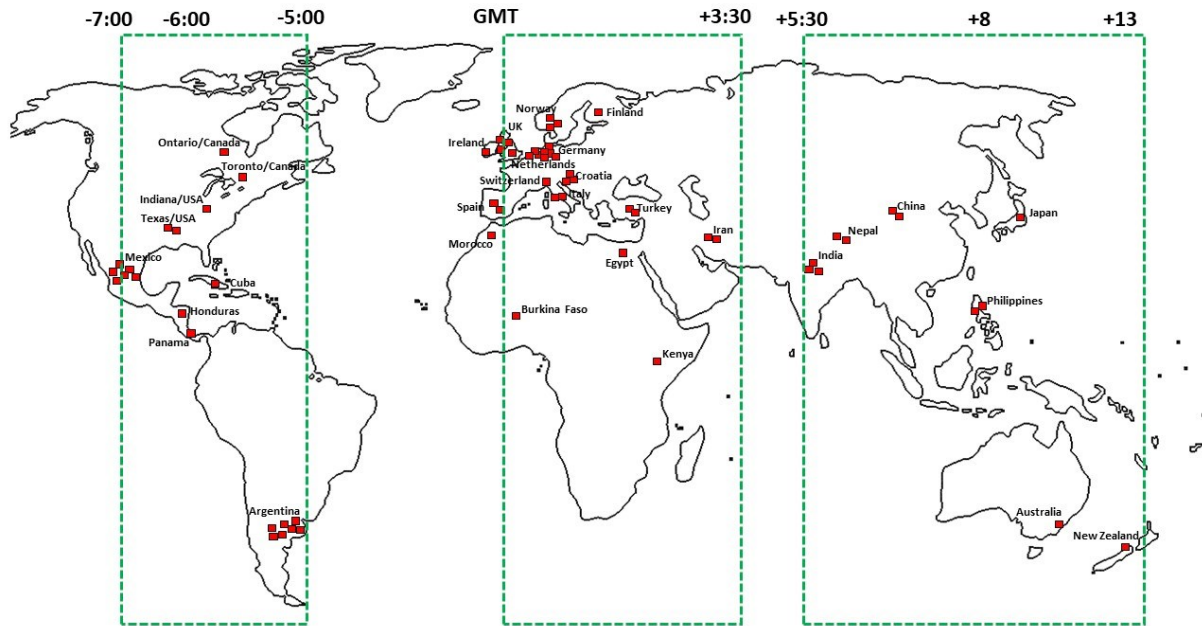


Figure 3. Time zones considering the geographical distribution of authors



Figure 4. ICOMOS National Committees represented by members in the Symposium

Note: All tables and images are own elaboration based on the data obtained from official submissions for the Scientific Symposium 2021.

Base world map © 2009, www.outline-world-map.com

Symposium Participants*

Keynote Speakers—in appearance

Bente Mathisen
bente@icomos.no

Bente Mathisen is a Norwegian chartered architect MNAL who works as a cultural heritage advisor at Statsbygg, Norway's Public Construction Department, Culture and Ministry Affairs. She has been the director and deputy director for the Heritage Management Office of the World Heritage (WH) City of Bergen Norway, Director for the Management Office of Cidade Velha Republic of Cape Verde, and executive partner at the Architect Group CUBUS, Bergen, Norway. She is a board member of Foundation Bryggen, World Heritage Site. She has been a Board member of ICOMOS Norway and is currently the focal point of the Our Common Dignity Initiative - Rights-Based Approaches working group.

Ananya Bhattacharya
ananya@banglanatak.com

Ananya Bhattacharya is a social entrepreneur with 30+ years of global work experience. Ananya Bhattacharya is co-founder and director of [banglanatak dot com](http://banglanatak.com), a social enterprise working for inclusive and sustainable development using culture based approaches since 2000. Ananya Bhattacharya specialises in culture, gender and sustainability and she has worked with diverse communities for safeguarding ICH, development of creative enterprise and cultural tourism. Her papers and articles have been published in journals, books and conference proceedings. A recent contribution is in Routledge Research in Architectural Conservation and Historic Preservation: Heritage Conservation in Postcolonial India, Approaches and Challenges. Ananya actively works for developing global and regional CSO networks working on culture and development. She is a Bureau member of the ICOMOS International Scientific Committee on Cultural Tourism (ICTC) and a member of the ISC on ICH (ICICH), SDG Working Group and Climate Action Working Group.

William P. Megarry
W.Megarry@qub.ac.uk

Will Megarry is an archaeologist, geographical information systems (GIS), and heritage management specialist with over 15 years of commercial and academic experience and a particular interest in the application and transferability of geospatial technologies to archaeology and cultural heritage site management and protection – in which he has published widely. He has worked at World Heritage Sites and other cultural heritage sites around the world, including Petra, Machu Picchu, and the Brú na Bóinne. He is a member of ICOMOS Ireland and an Expert Member of ICOMOS-ICAHM.

Symposium Participants—in (surname) alphabetical order

Alishah Ali
artlishah12@gmail.com

Alishah Ali is currently a Ph.D. candidate at IIT Delhi, where she is researching the scope of Digital Humanities and Heritage with a focus on Shahjahanabad, Old Delhi. She serves as the Creative Director (Programmes & Culture) at Kathika Cultural Centre, a unique Museum-Cultural Centre housed in two 19th-century mansions in Old Delhi, India promoting adaptive reuse of Urban Heritage. Previously, she worked as an Assistant Curator for two years at the Partition Museum, in Delhi. She holds a Bachelor's degree in History and has pursued postgraduate studies in Conservation, Museum Studies, and Heritage Management. Alishah's interest in Arts and Administration and advocacy for culture being accessible for everyone led her to pursue training in South Asia Festivals Management from Edinburgh Napier University. Alishah's passion for conservation led her to receive specialized training in the Conservation of Cultural Property from the National Research Laboratory for Conservation of Cultural Property (NRLC) in Lucknow. Her dedication to academic pursuits and research has been recognized through two grants: an undergraduate research grant from the University of Delhi in the field of Culture and History, and a Community Arts scholarship awarded by the Sahitya Kala Parishad, Government of Delhi.

* Symposium participants where bios have been submitted. This list is not exhaustive.

Symposium Participants (continued)

Silvia Arroyo Duarte
silvia.arroyo@up.ac.pa

Bachelor's degree in Structural Architecture, Universidad de Santa María La Antigua. Master's degree in Restoration of Architectural Monuments, Universidad Politécnica de Catalunya (UPC). Masters in World Heritage at Work at Politecnico di Torino (PoliTo), Università di Torino (UniTo), UNESCO and ILO. Awarded a scholarship from Secretaría Nacional de Ciencia, Tecnología e Innovación (SENACYT) to complete her Ph.D. in Architecture, Building, Urbanism and Landscape, Universidad Politécnica de València (UPV). At present, member of ICOMOS Panama (currently president), professor and researcher of Faculty of Architecture at Universidad de Panama and researcher for the National Research System or Sistema Nacional de Investigación (SNI) from SENACYT.

Koorosh Attarian
attarian@jsu.ac.ir

Faculty member of Architecture department, Jundi-Shapur University of Technology from 2015
 Vice-Chancellor of Jundi-Shapur Research Center, 2017
 Dean of International Collaboration Office, Jundi Shapur University of Technology, 2016-now
 Candidate of Jundi-Shapur University of Technology in Iranian National Commission for UNESCO.
 Member of Qualification Committee for Faculty Improvement of Architecture and Urban Planning School, 2016-now.
 Director of Scientific Committee of the 1st Congress on Gundi-Shapur 2017
 Director of Scientific Committee of the 2nd Congress on Gundi-Shapur 2019

María Valeria Berros
vberros@fcjs.unl.edu.ar

Lawyer and Doctor in Law from the Universidad Nacional del Litoral (UNL). Adjunct Researcher at the Consejo de Investigaciones Científicas y Técnicas. Former Fellow of the Rachel Carson Centre for Environment and Society at the University of Munich (Germany). Expert of the Harmony with Nature Initiative of the United Nations. Member of the IUCN Commission on Environmental Law. Professor at the Faculty of Law and Social Sciences of the UNL and at the UCSF. Professor of the Master on Civil Liability at the UNL and of the Master in Environmental Law and Protection of Cultural Heritage at the UNL, co-titled with the University of Limoges. Visiting Professor/ Researcher of the University of Buenos Aires, the Université de Limoges, the Université de Paris and the Université de Nantes (France), the University of Piemonte Oriental (Italy), the Federal University of Santa Catarina (Brazil) and the University of the Republic (Uruguay). Director of the Research Project "Meulen II. Deepening of juridical contributions on the ecological problem in Latin American key" of the UNL. Principal Investigator of the research group in the Universidad Nacional del Litoral in the context of the project Speak4Nature: Interdisciplinary approaches on ecological justice (Horizon Europe - Research and innovation programme MSCA Staff Exchanges, grant agreement No. 101086202). Consultant on various environmental law issues for the Ministry of Environment and Sustainable Development of the Nation, Province of Santa Fe, Municipality of Santa Fe.

Jeremy Brett
jwbrett@library.tamu.edu

Jeremy Brett, C.A. is an Associate Professor at Cushing Memorial Library & Archives, Texas A&M University, where he is both Processing Archivist and the Curator of the Science Fiction & Fantasy Research Collection. He has also worked at the University of Iowa, the University of Wisconsin-Milwaukee, the National Archives and Records Administration-Pacific Region, and the Wisconsin Historical Society. He received both his MLS and an MA in History from the University of Maryland – College Park in 1999. His professional interests include science fiction, fan studies, and the intersection of libraries and social justice.

John Brown
info@planheritage.co.nz

A graduate of University of Newcastle-upon-Tyne and post-graduate of University College London, with over 26 years' experience as a heritage specialist and archaeologist. I formed Plan.Heritage Limited in 2015 with my wife Adina Brown, having previously worked for Auckland Council, Arup, English Heritage, Gifford (Ramboll), the Museum of London and Pre-Construct Archaeology Ltd. Internationally experienced, I specialise in environmental impact assessments for heritage places and heritage-led regeneration, historic character and archaeological assessments and conservation planning.

Symposium Participants (continued)

<p>Cecilia Calderón-Puente</p>	<p>President of the CIIC of ICOMOS, she has thirty-five years of professional experience, and a PhD in Architecture. CEO of Cali Consultores and CIGEPAC – Center for Research and Management in Cultural Heritage. Professor in the University of Chihuahua researching into the historical territorial occupation applied to the new planning. She has more than fifty lectures in Mexico and in América, Europe, Africa and Asia, and more than thirty publications. She has specialized in studies related to the Camino Real in the area of the Septentrion Novohispano.</p>
<p>Fernando Roberto Chiapa Sánchez fernando_chiapa@yahoo.com.mx</p>	<p>Architect, master and PhD candidate in the field of conservation and restoration of cultural landscapes, Universidad Autónoma Metropolitana-Xochimilco, Mexico City. Professor-researcher at the National School of Conservation, Restoration and Museography, INAH; Secretary of Academic Development of the Mexican National Committee of ICOMOS.</p>
<p>Irene Curulli irenecurulli@gmail.com</p>	<p>Irene Curulli is a practicing Architect and Landscape Architect with a Post-Master Degree from the Berlage Institute Amsterdam (The Netherlands) and a Ph.D. from the University of Naples Federico II (Italy). As an Assistant Professor in Architectural Design at Eindhoven University of Technology her research and teaching focus on the revitalization of industrial heritage landscapes, particularly water-related ones and the climate change. She is the author of three books and several articles on this subject. Irene has been involved in numerous national and European research projects and has coordinated the Erasmus+KA2 project e-CREHA (education for Climate Resilient European Heritage Architecture) an EU- funded program for innovation in education and training. She is member of ICOMOS Nederland and ICOMOS IFLA/ISCCL.</p>
<p>Carmen Daly-Schelbert cdalyschelbert@gmail.com</p>	<p>Master Restoration of Monuments of Architecture and Civil Engineering. Consultant with twenty-five years of experience. She is expert member of Cultural Routes CIIC, representative in the Working Group on Climate Change and Heritage. She has many lectures in Europe, Africa and Asia, and published numerous articles, especially on Cultural Routes. Her research interests include approaches to conservation and management of the Cocoa Route, the Education for vulnerable groups in Climate Change, and Conservation strategies for 20th Century architecture in South America.</p>
<p>Jonathon Day gjday@purdue.edu</p>	<p>Dr. Jonathon Day is an Associate Professor in Purdue University's School of Hospitality and Tourism Management. In addition to over 45 academic articles and chapters, he is the author of "Introduction to Sustainable Tourism and Responsible Travel" and co-author of "The Tourism System 8th Edition". Dr. Day's research interests focus on sustainable tourism and responsible travel.</p>
<p>Pedro Delheye pedrodelheye@yahoo.com.ar</p>	<p>Architect (FAU UNLP). Master in Cultural Management, University of Barcelona. President of the Argentine Committee of ICOMOS. Director of Cultural Heritage of the Province of Buenos Aires. Director of the Graduate Program in Cultural Management UNLP. Professor at the Argentine Catholic University (UCA), National University of La Plata (UNLP), University of Buenos Aires (UBA).</p>
<p>Khalid El Harrouni khalid.elharrouni@icomos.org</p>	<p>Full professor of civil engineering and computational mechanics. Deputy Director of Research at the Ecole Nationale d'Architecture, Rabat, Morocco. Editor in Chief of <i>African and Mediterranean Journal of Architecture and Urbanism</i> (AMJAU)</p> <p>Expert member of the International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage (ICOMOS-ISCARSAH) and Vice president of the International Scientific Committee on Energy and Sustainability (ICOMOS ISCES).</p> <p>More than 35 years of research and professional experience in civil engineering, urban planning, buildings energy efficiency, advanced computational techniques, and heritage architecture.</p> <p>ORCID: https://orcid.org/0000-0002-3391-6889</p>

Symposium Participants (continued)

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Ms. Fonseca is an archaeologist specialized in Egyptology and Cultural Heritage. She is a Member of the EAA Community on Integrating the Management of Archaeological Heritage and Tourism, and the Climate Heritage Network, where she is working on how traditional food systems can be part of tackling food waste. Sofia is the Founder of Teiduma, Consultancy on Heritage and Culture and the Coordinator of the ONLAAH platform and podcast on African Archaeology and Heritage.

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Nicole has a BA in Cultural Heritage with a major in Archaeology and a MA in World Heritage Studies. She is currently pursuing her PhD in World Heritage Studies at BTU Cottbus-Senftenberg. Nicole is a lecturer in heritage management at BTU Cottbus-Senftenberg and she works for the ICCROM-IUCN World Heritage Leadership Programme. She is a board member of ICOMOS ICAHM.

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Paloma Guzman holds a Ph.D. from the Eindhoven Technical University in the Netherlands, a master's degree in world heritage studies, and a bachelor's in architecture. Her research focuses on integrating cultural heritage in sustainable development, particularly urban contexts. She explores landscape-based conservation approaches to bridge interdisciplinary gaps to foster the resilience character of cultural heritage in sustainability agendas, including climate change. Her current research targets the role of cultural heritage as a transformative agent for climate responses.

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Shelby Hebert is a Library Associate working with the map collections at Texas A&M University Libraries. She is interested in exploring the intersection of libraries and social justice movements and the ability of libraries to lift from the margins. She has a B.A. in Women and Gender Studies from Arizona State University and will graduate with her M.S. in Library and Information Science from San José State University in December 2021.

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Dr. Ivan Henares is an Assistant Professor at the University of the Philippines, Asian Institute of Tourism, and Secretary General of the ICOMOS International Cultural Tourism Committee. A heritage conservation policy and cultural tourism researcher who has led both government committees and NGOs on built heritage conservation, he has worked with the Agusan Manobo community of Sitio Panlabuhan at the Agusan Marsh Wildlife Sanctuary since 2010 to create a sustainable cultural tourism program, an alternative and sustainable source of livelihood for neglected but culturally significant stakeholders in tourism.

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Zahra Hussain is an architect with PhD in Cultural Geography. She leads the organisation Laajverd in Pakistan. She has extensive experience mapping heritage landscapes with local communities through the fragile heritage framework; a tool for documenting at-risk heritages (tangible and intangible) in the Hindu Kush Himalaya mountain region. She has written the book "Mountain Architecture Guidelines for Sustainable Tourism Development" and drafted building bye-laws and codes for the protection of the built environment in Kalash Valley, KPK in north western region in Pakistan.

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Maya Ishizawa is a heritage specialist focused on the management of cultural landscapes and the study of nature-culture interactions in heritage places. Trained as an architect in Lima, Peru, she received a Master of Media and Governance from Keio University, Japan, and a Ph.D. in Heritage Studies at BTU Cottbus-Senftenberg, Germany. Currently, she works for the ICCROM-IUCN World Heritage Leadership Programme, and serves as scientific coordinator of the ICOMOS/IFLA ISCL.

Symposium Participants (continued)

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Eugene holds an MA in Cultural Heritage Studies, a BA in Korean History and is currently completing her PhD in World Heritage Studies at Konkuk University. Eugene is the Programme Coordinator for the joint IUCN/ ICCROM World Heritage Leadership Programme. Prior to her current position she was the World Heritage Focal Point for the Republic of Korea for nine years at the Cultural Heritage Administration, and has held staff and consultancy positions to various Korean entities.

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Anie Joshi is a practicing conservation architect with a Post-master degree DSA “*Architecture et Patrimoine*”, a specialization degree in Heritage and Conservation from ENSA-Paris Belleville. She has been working in the cultural heritage sector including research, documentation and restoration of the monuments and sites in Nepal and the region with various national and international organizations. Since 2018, she has been interacting with the community of Upper Dolpo for safeguarding its heritage and cultural landscape.

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Abderrahim Kassou, architect and urban planner graduate DPLG of the School of Architecture of Paris la Villette, and also holds a degree in Anthropology from the University of Paris VIII Saint Denis and a DEA in Geography and Urban Planning François Rabelais University of Tours. Practicing architecture as a freelancer for nearly 20 years, he is the author of several projects for the rehabilitation of historical monuments, cultural facilities and urban development, among others. Alongside his practice as an architect, Mr. Kassou is a member of ICOMOS Morocco, a member of the SBH committee, and former president of the Casamemoire association, former member of the National Human Rights Council, and active in of several associations including the Moroccan Forum of Alternatives and Architecture & Development. Mr. Kassou is also a teacher at the School of Architecture in Casablanca.

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Dr Deniz Ikiz Kaya is Assistant Professor in Heritage and Sustainability, and an Irene Curie Fellow at Department of the Built Environment in Eindhoven University of Technology (TU/e), the Netherlands. Trained as an architect, she holds a M.Sc. degree in Historic Conservation and a PhD degree in Architecture awarded by the Oxford Brookes University, UK. Her areas of expertise include heritage management, adaptive reuse and urban transformation, resilience building, sustainable development, and smart citizen engagement in participatory co-creation processes. She has been involved in a number of national (i.e. NWA Consortia – Postwar Heritage) and European research and innovation action projects (i.e. CLIC H2020 project – Circular Models Leveraging Investments in Cultural Heritage, e-CREHA Erasmus+ KA2 project – education for Climate Resilient European Heritage Architecture). She is also an active member of ICOMOS Turkey, and functions in the ICOMOS EPWG (Emerging Professional Working Group) and ICOMOS CIVVIH groups.

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Lara-Pinto, Gloria, Ph.D. in Cultural Anthropology from the University of Hamburg, Germany (1980); she holds a position as Full Professor at the Social Sciences Department of the Universidad Pedagógica Nacional Francisco Morazán since 1984. She is the author of several books, as well as numerous articles on ethnohistory, archaeology, modern indigenous people, protection and management of cultural heritage, cultural tourism, human rights, among others. Dr. Lara-Pinto is a founding member of ICOMOS Honduras and its current president.

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Symposium Participants (continued)

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Hossam Mahdy is an Egyptian and British conservation architect with a PhD from Glasgow University, MSc from Raymond Lemaire International Centre for Conservation, KU Leuven, and BSc from Ain Shams University. He is an ICOMOS-UK member and the president of ICOMOS International Scientific Committee on Vernacular Architecture (CIAV). Research, teaching and training are significant aspects of his work with a focus on vernacular built heritage, World Heritage, and cultural heritage in the Arab region.

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Shem Wambugu Maingi, Ph.D. is a lecturer and researcher in Tourism Management at the Department of Hospitality and Tourism Management at Kenyatta University in Kenya. Dr. Shem Maingi has widely published in Scopus-indexed journals and books internationally. He is an Associate editor for the International Journal of Tourism Cities, Emerald Publishing. He has edited books on the future and resilience of tourism, such as *Tourism Destination Management in a Post-Pandemic Context: Global Issues and Destination Management Solutions* and *Tourism through troubled times: Challenges and Opportunities of the Tourism Industry in 21st Century* (Emerald Group Publishing, UK) as well as *Management of Tourism Ecosystem Services in a Post Pandemic Context: Global Perspectives* (Routledge, UK). Shem also jointly developed an international policy brief entitled, *Rebuilding tourism post pandemic – Policy recommendations from global case studies* published by Emerald Open Research (UK). He is an expert member of IUCN-WCPA TAPAS Specialist Group, IUCN Rewilding Working Group, ICOMOS International Cultural Tourism Committee (ICTC), and Ecotourism Kenya (EK).

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Dr. Celia Martínez is Tenured Professor of the Art History Department at the University of Granada and of the Master of Architecture and Historic Heritage (Andalusian Institute of Historical Heritage & Council of the Alhambra and Generalife). Director of *erph*, a scientific journal on cultural heritage. Vice-President of ICOMOS ICTC, coordinating the Draft ICOMOS Cultural Tourism Charter 2021. Member of ICOMOS Spain Board. Author of numerous projects and papers concerning cultural heritage and the World Heritage Convention.

Jose Gabriel Mejia

Gab Mejia is a Filipino conservation photographer and environmental storyteller. A National Geographic Explorer, covering stories on nature, wildlife, the climate crisis, and indigenous people, he was named one of Forbes 30 Under 30 Asia 2021 for the Arts. He is a 2019 Jackson Wild Media Lab Fellow and co-founder and Communications and Outreach lead of Youth Engaged in Wetlands, the global youth network advocating for the conservation of wetlands and natural-climate solutions. Mejia is currently pursuing a civil engineering degree at the University of the Philippines.

Milla Mikkola

Milla Mikkola works as a designer in Ramboll Finland in the Sustainable Urban Development department. She is a geographer in the field of regional planning and politics (University of Oulu). In her diverse work Mikkola is specialized on climate resilient city planning and spatial data analysis. She also has worked with nature-based solutions, tourism, and social vulnerability. Before Ramboll Mikkola worked at the Finnish Meteorological Institute where her research focused on sustainable planning paradigms, local climate zones and nature-based solutions in the context of heritage.

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Graciela A. MOTA. Philosopher, social psychologist and interdisciplinary cognitive expert in studies of future, and planning foresight focused on participative management and strategic capacities building. Past President of ICOMOS Mexico (2015-18) and active member since 2004. Is an ICICH-ICOMOS and HRBA-WG member. Full time university researcher she coordinates and is Chief editor of the Multidisciplinary electronic scientific research journal on "Heritage: Cultural Economy and Peace Education" of the National Autonomous University of Mexico (UNAM).
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 Researcher at Jundi-Shapur Research Center
 Visiting Lecturer, Shahid Chamran University of Ahvaz: Ahwaz, Khuzestan, IR, 2017 to 2019
 Behnaz Safar Ali Najar currently works at the Department of Architecture, Jundi-Shapur University of Technology. Behnaz does research in Vernacular Architecture, Traditional Architecture, Heritage Preservation, and Conservation.

Bély Hermann Abdoul-Karim Niangao
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Bély Hermann Abdoul-Karim NIANGAO is Heritage Curator. He was Director of exhibitions and mediation at the National Museum of Burkina Faso. He is the current Director of Conservation and Promotion of Cultural Heritage at the Ministry of Culture. Doctoral student at Perpignan VIA Domitia University and Senghor University in Alexandria in Egypt, Mr. Bély Hermann carries out his research in the field of cultural heritage law. He is the President of ICOMOS-Burkina Faso and is a member of the ICLAFI Scientific Committee. He is also the author of several publications in the field of heritage and museology, including an article to appear soon in the next issue of the Revue Museum International.

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Olimpia NIGLIO, architect. She is a professor in Comparative History of Architecture at Hosei University (Tokyo); Research Fellow at Kyoto University Graduate School of Human and Environmental Studies, Japan; Vice President ICOMOS PRERICO and ACLA, Asian Cultural Landscape Association. In 2020, she has founded the international project "Reconnecting with your culture".
 Prof. Niglio holds: Ph.D. (University of Naples-Federico II), Executive Master at Business School Rome, and Post-Doc. (MIUR).
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Passent Nossair, World Craft Council WCC- Africa Vice President, studied at the Faculty of Fine Arts in Cairo, and exhibited her work in several art exhibitions. Worked as a Handicrafts Business Development Consultant and Designer since 2004. With wide experience of multicultural models in handicrafts development, conducted study tours in Egypt, Morocco, Italy, India, China, Zambia and Uzbekistan. Headed the Handicrafts unit in many projects under the umbrella of the Egyptian Ministry of Trade and Industry, and the Agakhan Development Network. Worked as an advisor and designer on an Inter-Cultural Handicraft UNHCR project developed to help refugees from Syria and Africa.

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 Certificate in Palaeoanthropology, Harvard University/ National Museums of Kenya.
 He is currently Lecturer of Heritage Studies at the Department of History, Archaeology and Political Studies of Kenya University. He has also taught as an adjunct Lecturer at the University of Nairobi, Chuka University and the University of Embu. His current areas of research include Cultural Tourism and Heritage Studies.

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Irina Pavlova is Project Officer and Associate Programme Specialist at UNESCO's Division of Ecological and Earth Sciences. She holds a PhD in Geography (University of Paris 1 Pantheon-Sorbonne) and a MSc in Physical Geography (Moscow State University). Irina is a specialist in environmental sciences, natural hazards and climate change. Her scientific background is based on the experience at the Russian Academy of Sciences (Moscow, Russia) and the National Centre for Scientific Research (CNRS, France). Since 2014 she has been involved in activities of the Geohazard Risk Reduction team at Natural Sciences Sector at UNESCO HQ. Her current activities cover the following main topics: Ecosystem-services for disaster risk reduction; Science and technology for disaster risk reduction; Landslides risk reduction; Resilience of UNESCO designated sites.

Symposium Participants (continued)

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After graduating from the University of Florence in Architecture, Laura Pecchioli has specialized in restoring monuments and technologies for conserving archaeological sites. In addition, she has participated in various interdisciplinary research projects in archaeological building research and archaeological excavations with international multidisciplinary teams. After completing her European Ph.D. in Technology and Management in Cultural Heritage, Pecchioli has been a lecturer and researcher in heritage conservation-restoration (Florence, Berlin, and Rome). She has also been an external lecturer in Archaeoseismology at Humboldt University and, recently, at TU Wien.

Pecchioli has co-edited different scientific journals and is a member of several European project committees (European Science Foundation). Her current research interests include archaeoseismology, post-disaster recovery, urban and infrastructure resilience, climate change, armed conflicts, damage assessment, and risk management.

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Fabrice Renaud is Head of the School of Interdisciplinary Studies, as well as being a Professor in Environmental Risk/Community Resilience at the University of Glasgow's School of Interdisciplinary Studies, Dumfries. Before joining the University of Glasgow, Prof. Renaud worked for 13 years at the United Nations University Institute for Environment and Human Security (UNU-EHS). Prof. Renaud's research focuses on the analysis of vulnerability and risks social and ecological systems face with respect to natural hazards. He is particularly interested in the role nature-based solutions can play to reduce these risks. His research is principally in coastal areas and deltas in particular, in Europe, South and Southeast Asia.

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Tara Sharma is a cultural heritage specialist with over twenty years experience in working with communities of the trans Himalayan region of Ladakh for the conservation of cultural heritage. In 2018, she founded the non profit organization Jungwa Foundation which has been engaging with pastoral nomadic communities in Eastern Ladakh to safeguard ICH and develop sustainable livelihoods based on traditional cultural and ecological knowledge. Tara has previously worked as a consultant with UNESCO, ICCROM, ICOMOS, AKTC, WMF, INTACH and NIRLAC.

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Originally from Pachuca de Soto, Hidalgo. Architect, by the ITESM Campus Querétaro; Master in Educational Technology, by the Virtual University System of the UAEH; Doctoral stay at the Landscape Laboratory of the Federal University of Pernambuco in the city of Recife, state of Pernambuco, Brazil. As of July 20, 2022, obtained PhD degree in Design Planning and Conservation of landscapes and gardens at the Universidad Autónoma Metropolitana, Azcapotzalco unit with the dissertation titled as "The Metropolitan Landscape of Pachuca De Soto, Hidalgo, Mexico. Its Revaluation and Postage in Value through the Analysis of Its Formal Units of Landscape and Heritage".

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Symposium Participants (continued)

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Linda Shetabi is a heritage consultant and PhD Candidate in Urban Studies (University of Glasgow, School of Social and Political Sciences), examining Scottish heritage conservation policy within the context of the UN 2030 Agenda and environmental sustainability. Alongside teaching, she serves on the ICOMOS SDGs Working Group Task Team for Priority Action 1. Previously, Linda was the Academic and Research Coordinator for Architectural Conservation Programmes at the University of Hong Kong where she led the implementation of Heritage Inventory and Management System for Hong Kong and Yangon. Throughout the years, Linda has served on a variety of boards as an advocate for heritage and community rights, negotiating mutually agreeable solutions between developers, government institutions and homeowners.

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Ms. Smith-Christensen is founding director of World Heritage Catalysis (<https://www.whcatalysis.org>), PhD researcher at University of Cumbria, UK, ICOMOS Norway Board member, member of ICTC and ICOMOS SDGs WG. In her work and research, she focuses on how new and innovative technologies can support transformative visitor management for heritage protection and community resilience. The emerging theory of change including ScSy presentations is available here <https://www.whcatalysis.org/toc>

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Kai Weise has been working as a planner and architect in the Himalayan Region for the past three decades. He has facilitated the establishment of management systems for World Heritage properties in Nepal, Uzbekistan, Myanmar, and India. After the 2015 Gorkha Earthquake and the 2016 Chauk Earthquake, he was responsible for coordinating culture sector response and rehabilitation for the respective governments. Kai Weise, President of ICOMOS Nepal, has been regularly lecturing and contributing papers international.

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Leanna Wigboldus is a Canadian emerging professional currently enrolled in a PhD of World Heritage at University College Dublin (UCD). After completing her honours undergraduate degree from University of Guelph (Canada), she completed her Masters in World Heritage Management and Conservation in 2016, and her Environmental Sustainability Certificate in 2018 from UCD. Leanna worked with Heritage Malta on the Hal Saflieni Hypogeum management plan, and with ICOMOS on the Connecting Practice Project since January 2017.

Symposium Participants (continued)

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Yvon Velot is a French engineer graduated from Arts et Métiers Institute of Technology (ENSAM). Based in Kunming since 1998, he is the founder and general manager of the consulting firm Kunming SinoMekong Co. Yvon Velot is France's foreign trade advisor and representative in Kunming of the France-China Chamber of Commerce and Industry. He is also a member of the Society of Geography, ICOMOS and TICCIH, as well as Honorary President of the Yunnan-Vietnam Railway Research Association. He is also a visiting professor at Yunnan Arts University, co-founder with the Institute of Arts Management of Yunnan Arts University of the Lancang-Mekong International Research Centre on Living Cultural Heritage, Art and Culture and co-founder with the Institute of Architecture and Urbanism of Kunming University of Science and Technology of the Lancang-Mekong International Research Centre for the Protection of the Architectural Heritage.

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Rouran Zhang is a research associate in the McDonald Institute for Archaeological Research, University of Cambridge, UK and an associate professor in School of Architecture and Urban Planning of Shenzhen University, China. He is the Vice President of ICOMOS International Cultural Tourism Scientific Committee. He holds a PhD in Interdisciplinary Cross-Cultural Research from the Centre of Heritage and Museum Studies, Australian National University. He is the author of *Chinese Heritage Sites and Their Audiences: the Power of the Past* (2020), published by Routledge.



ICOMOS, the International Council on Monuments and Sites, is a global non-governmental organisation associated with UNESCO. Its mission is to promote the conservation, protection, use and enhancement of all cultural heritage. It participates in the development of doctrine and the evolution and distribution of ideas, and conducts advocacy.

Its creation in 1965 is the logical outcome of initial conversations between architects, historians and international experts that began in the early twentieth century and that materialized in the adoption of the Venice Charter in 1964.

ICOMOS works for the conservation and protection of cultural heritage both tangible and intangible. It is the only global non-government organisation of this kind, which is dedicated to promoting the application of theory, methodology, and scientific techniques to the conservation of cultural heritage.

ICOMOS is a network of experts that benefits from the interdisciplinary exchange of its members, among which are architects, historians, archaeologists, art historians, geographers, anthropologists, engineers and town planners.

Through its work at international and national level, numerous studies, conferences, symposia, exchanges and discussions led by its National Committees and International Scientific Committees, ICOMOS has gradually built the philosophical and doctrinal framework of heritage on an international level.

For more information and practice: www.icomos.org