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Forward Together: A Culture-Nature Journey Towards More Effective Conservation in a Changing World

November 13-14, 2018
The Presidio
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This symposium was convened to share insights on how understanding culture-nature interlinkages on many landscapes and waterscapes can shape more effective and sustainable conservation.

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Connecting Practice: Operationalizing Concepts and Strategies for Integrating Natural and Cultural Heritage in the World Heritage Convention

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Abstract

Recognizing that there can be adverse outcomes arising from the "divided" practices of natural and cultural heritage, ICOMOS and IUCN have jointly initiated *Connecting Practice* in order to learn about and develop new approaches to the recognition of the interconnected character of the natural and cultural values within heritage designation and management frameworks. This paper outlines the outcomes of Connecting Practice to date, and the discusses the aims of phase III (2018-2020), which focuses on the natural and cultural systems that can support the resilience of agricultural and biocultural landscapes.

Keywords: World Heritage, naturecultures, heritage conservation, resilience, cultural heritage, natural heritage

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Connecting Practice: operationalizing concepts and strategies for integrating natural and cultural heritage in the World Heritage Convention

Introducing Connecting Practice

Connecting Practice is a joint exploration by IUCN (International Union for the Conservation of Nature) and ICOMOS (International Council on Monuments and Sites) which aims to learn about and develop new approaches to the recognition of the interconnected character of the natural and cultural values within heritage designation and management frameworks. Highly significant landscapes and seascapes – including those inscribed in the World Heritage List – are the specific focus of Connecting Practice.[2] The project is also part of efforts by IUCN and ICOMOS to improve outcomes for conservation and recognition of cultural diversity through the implementation of new working methods and organizational cultures. This paper summarizes the learning from Connecting Practice and identifies current questions for exploration in Phase III of the project which has recently commenced.

Connecting Practice was launched in October 2013, and the first phase included field-based joint advisory activities and workshops to share and document learning. Field locations were selected because of their different World Heritage designations – a cultural property (Petroglyph Complexes of the Mongolian Altai), a cultural landscape (Konso Cultural Landscape, Ethiopia), and a natural property (Sian Ka'an, Mexico). The first phase confirmed that joint working methods are beneficial, and underlined the need for practical guidance on approaches to linking nature and culture in World Heritage processes (IUCN and ICOMOS, 2015; Buckley, Badman, and Larsen, 2014).

Connecting Practice is the first project that IUCN and ICOMOS have jointly managed, and forms part of current work to improve internal arrangements for their roles as Advisory Bodies to the

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[2] Connecting Practice has been supported by The Christensen Fund. Components of Phases 1, 2 and 3 have been made possible through the financial support of the governments of Germany, Switzerland, Finland, UAE and China. Site managers and national focal points have provided significant logistic and other support.

World Heritage Committee, particularly in relation to the evaluation of nominations to the World Heritage List.[3] A key achievement of the project was to begin to build shared approaches.

Phase II of Connecting Practice (2015-2017) focused on how a deeper understanding of the interconnected character of their natural, cultural and social values could help strengthen policy frameworks and management arrangements. Two case studies were used: the Hortobágy National Park – the Puszta (Hungary), and the Maloti-Drakensburg Park (South Africa/Lesotho) (IUCN and ICOMOS, 2017; Leitão et al., 2019). A fully integrated Resource Manual on World Heritage management that deals with both natural and cultural heritage is being developed through the "World Heritage Leadership" program and is a mid-term aspiration (ICCROM n.d.). Therefore, Connecting Practice worked at this early stage on re-developing the Enhancing Our Heritage (EOH) Toolkit (Hockings et al., 2008), which was revised to include cultural heritage values and issues. The new tools were tested by site managers in Finland and Switzerland. The revisions to the EOH toolkit are continuing and should provide guidance for site managers in relation to all the heritage values in their care.

Since all heritage properties demonstrate a distinctive array of values, is it essential to develop management approaches that recognize and protect a place's overall significance and overcome potential shortcomings that certain designations or listing processes might generate. While using the term 'property' (from the World Heritage system), or place, IUCN and ICOMOS are seeking to develop and apply constructs that work at a **landscape scale**, recognizing that there are wider associations that give a place its meaning. There are critical issues of geography and scale that apply to the work of Connecting Practice. Case studies in phases I and II showed that while the World Heritage inscription process emphasized certain values, all properties have a range of other values and attributes. Recognizing these and incorporating them into management frameworks are often critical to achieving effective and just conservation outcomes.

Phase III of Connecting Practice

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[3] Much of this work has been done in collaboration with the UNESCO World Heritage Centre and ICCROM.

The third phase of Connecting Practice was initiated in 2018 and aims to implement the lessons learned into practical interventions and new mechanisms for World Heritage properties that have been specifically recognized for their agricultural and biocultural practices. Continuing cultural landscapes and protected landscapes (including landscapes for agriculture, but also fishing and shellfish gathering) will be explored to better understand how to support and sustain traditional management practices within the processes of the World Heritage Convention. This phase also includes cooperation with the FAO (Food and Agriculture Organization of the United Nations) and their program on 'Globally Important Agricultural Heritage Systems' (GIAHS). Four landscapes/seascapes have been selected - two of which are recognized as both World Heritage cultural landscapes and GIAHS sites, and two of which are World Heritage properties which focus on non-agricultural biocultural practices. The project partners will engage directly with local management authorities to identify the cultural and natural values, understand traditional management frameworks, research the dynamic evolution of biocultural practices, and consider levels of acceptable change. The results of the case studies will be reviewed at two jointly convened workshops, and a survey will be launched to understand site managers' perspectives.

The work undertaken in this phase is expected to assist in developing improved frameworks and strategies for a wide range of World Heritage sites, fill gaps in the World Heritage List (where 'living' cultural landscapes are relatively under-represented), and contribute to global heritage dialogues throughout professional networks.

Working Methods for Connecting Practice
The western construction of ideas of nature and culture that have been a shaping force in heritage practices are clearly embodied in the separate articles in the World Heritage Convention (see Articles 1 and 2). The difficulties arising from this duality in World Heritage have attracted critical comment for decades. However, an east-west binary is overly simplistic, given that traditional knowledge thrives throughout the world, including in western contexts. There is also a substantial body of multi-disciplinary academic and professional literature on these constructions, and the means to move beyond them (see Brown, Mitchell, and Beresford, 2005; Brockwell, O'Connor, and Byrne, 2013; Hill et al., 2013; Hølleland, Skrede, and Holmgaard,

2017). While this literature is of obvious interest, and there is ongoing work for ICOMOS and IUCN to raise awareness within their own constituencies, Connecting Practice is based on the premise that simply observing and critically appraising this situation is not a sufficiently 'value adding' activity.

From the beginning, Connecting Practice has adopted an **experiential learning** approach – 'learning by doing' – and collaborative field visits have been central. In the field, teams comprising IUCN and ICOMOS members work with local and international partners, with a **focus on practice**. The group of field locations – and their site managers, practitioners and communities – now form part of a continuing "**community of practice**" and innovation. Each phase has also included interludes for **reflection**, sharing of experiences, and capturing the learning achieved through the fieldwork.

Connecting Practice has allowed IUCN and ICOMOS and their partners to explore these issues within the context of the implementation of the World Heritage Convention. World Heritage provides an ideal platform for working together, and there are obvious benefits to improving our shared practices within this arena. However, the outcomes are considered to be applicable throughout the world's **protected landscapes, seascapes and areas**.

The landscapes that are the focus of Phase III are conventionally labelled "organically evolved – continuing" cultural landscapes (according to the World Heritage Convention's Operational Guidelines), and are also often Category V Protected Areas (Protected Landscapes and Seascapes) within IUCN's classification scheme for Protected Areas (see Brown, Mitchell and Beresford, 2005; Brown and Kothari, 2011; Finke, 2013; ICOMOS-IFLA ISCCL, n.d.).

In the World Heritage system, these are potentially inspiring components of the heritage of humanity, providing an opportunity to address gaps in the World Heritage List, and improving the ability of World Heritage to reflect the diversity of the world's cultural heritage. At the same time, these are challenging properties to nominate, evaluate and manage, raising questions about what "conservation" and "managing change" means in these contexts.

Finally, Connecting Practice has engaged with partners to identify **existing toolkits** that can be adjusted or retrofitted to embrace biocultural diversity, particularly in relation to the crafting and implementation of management systems.

Connecting Practice Keywords

The first two phases of Connecting Practice have contributed to an emerging conceptual framework that can be practically applied across diverse places and landscapes/seascapes. These concepts are not new, but the effort to work jointly to operationalize them has facilitated new understandings.

Taking a keywords approach immediately invokes recognition of two seemingly contradictory issues. The first is that our work in the first two phases has uncovered instances where natural and cultural heritage practitioners use the same words/terms, but understand them in different ways. This suggests that work to clarify what we mean can be beneficial, and part of the process of converging practices.

The second – and more confronting - issue is that working in English[4] fixes the dialogue within the available western vocabulary about **naturecultures**,[5] with an inevitable failure to recognize the linguistic diversity that is entangled with the world's biological and cultural diversities (Maffi 2014). Many local languages and dialects offer better words to describe the entanglement of values and practices – and it is possible that these could offer a different and more diverse lexicon in the future.[6] It is also the case that some of the current words used in heritage discourses (including nature and culture) simply do not exist or translate into words in other

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[4] In the World Heritage system, English and French are the working languages.

[5] "Naturecultures" is a shorthand that allows us to avoid phrases such as "nature and culture", which underscore the divide.

[6] The ICCROM-IUCN World Heritage Leadership program (ICCROM n.d.), has been collecting words and their meanings from different languages that express the holistic concept more effectively than our English/French-dominated terms. For instance: Ipji (Korean), Fuudo (Japan), and Konohiki (Hawaiian).

languages. This is a major limitation to an enriching debate, and militates against a respect for linguistic diversity.

With these caveats in mind, Connecting Practice has developed an evolving glossary of words that are useful in progressing this work. The foundations of this glossary are provided by relevant international organizations and/or academic texts. However, part of the learning achieved in the program is to consider their modification - to make them more explicitly applicable to a holistic vision of heritage **values**.

In the World Heritage context, the definition of **Outstanding Universal Value** (OUV) was not provided by the Convention's text, and there were various expert meetings organized in the 1990s to assist in the formulation of the definition now found in the Operational Guidelines. Through this work, the (intangible) values of the property are conveyed by **attributes** which can be "physical qualities or fabric but can also be processes associated with a property that impact on physical qualities, such as natural or agricultural processes, social arrangements or cultural practices that have shaped distinctive landscapes" (UNESCO et al., 2011: 59). Identification of the attributes which convey the Outstanding Universal Value of a property is essential as part of its inscription on the World Heritage List, as these are managed and monitored to ensure that the OUV is maintained over time. An understanding of attributes is therefore a necessary part of understanding of the significance of place, including its tangible and intangible dimensions, and its social and economic contexts.

The term "**biocultural diversity**" has been a focus of Connecting Practice through all three phases. Like all the terms in the Connecting Practice Glossary, there are a number of definitions, each emphasizing different aspects. An example of the breadth of this concept is provided by the Ramsar Convention:

> Bio-Cultural diversity refers to the continuing co-evolution and adaptation between biological and cultural diversities. It also involves the diversities of place and reflects people's ways of living with nature. This co-evolution has generated local ecological

knowledge and practices across generations that allow societies across the world to manage their resources sustainably while also maintaining cultural identity and social structures (Ramsar Convention Bio-Cultural Diversity Thematic Group, n.d.).

Connecting Practice continues to focus on bringing an operational understanding of biocultural diversity to heritage management. This requires questioning about the co-evolution of what we call nature and culture, and recognition of the entanglement of diversities - natural, cultural, linguistic and spiritual (Loh and Harmon, 2005; Maffi, 2014). Biocultural diversity requires approaches that reconcile the tangible and intangible dimensions of cultural heritage, highlighting the centrality of traditional knowledge systems. While continuing to focus on the potential interaction between the biological and cultural diversities of areas, places and landscapes, it is also essential to recognize that there are critical links with geological/ geomorphological characteristics and processes. In this way 'biocultural diversity' can sometimes overlook the underpinning physical aspects. In Connecting Practice, biocultural diversity and biocultural processes are understood to fully embrace all of the geodiversity, biodiversity and cultural diversity that creates significance. Similarly, taking people-centered and **rights-based approaches** does not obscure the importance of the landforms, natural resources and ecosystem services in the diversity of culture and quality of life for people (see Larsen, 2018).

The opportunity to work in collaboration with FAO's GIAHS Program and other partners will allow a focus on operationalizing concepts of resilience in the landscapes of food production, including agriculture, pastoralism, fishing and hunting. This breadth is not consistently recognized in concepts of **agrobiodiversity**; however, the GIAHS program recognizes and seeks to enhance awareness of the genetic resources that support food production through harvested crops, fish and animal species – as well as non-harvested species that support related ecosystems and food production (such as insects, pollinators and soil biota) (FAO n.d.). Given the large numbers of people that depend on small-scale farming worldwide, particularly in developing contexts, the links with the UN Sustainable Development Goals, including the goals of **food security**, are important.

There are obvious merits in ensuring alignment between FAO's GIAHS program and the World Heritage system. However, the working relationships, shared conceptual frameworks, and integrated management arrangements have not been strongly established. Phase III of Connecting Practice aims to operationalize this synergy, and identify both improvements and areas of potential tension.

A keyword to be explored in depth is **resilience**, which is used across a wide range of issues and disciplines, especially in psychology, counselling and personal development. The term has grown dramatically in its usage in the 21st century (Google Ngram, n.d.). In the context of cultural and protected landscapes, the concept of resilience has been derived largely from ecology, nature conservation, and disaster risk reduction.

Resilience is about cultivating the capacity to sustain development in the face of expected and surprising change and diverse pathways of development and potential thresholds between them. The evolution of resilience thinking is coupled to social-ecological systems and a truly intertwined human-environment planet (Folke 2016, 1).

The operationalization of "resilience" within cultural heritage remains vague. Writing from the perspective of environmental humanities, Vardy and Smith (2017, 175) remark that resilience has:

> "… rapidly become the most used and abused term in contemporary policy and decision making…. it incorporates multiplicities of difference into a single and apparently incontrovertible consensus. Who could possibly disagree with making social, economic, and ecological 'systems' more resilient in the face of our current environmental problems, especially global climate change? Surely resilience and the ability to 'adapt' to adversity by 'bouncing back' are in everyone's interest".

In its common English usage, resilience is understood to mean "the capacity to recover quickly from difficulties; toughness; and/or the ability of a substance or object to spring back into shape;

elasticity". (Google Dictionary, n.d.). The breadth of the application of this word can be seen in Google's list of synonyms: "flexibility, pliability, suppleness, plasticity, elasticity, springiness, spring, give; durability, ability to last, strength, sturdiness, toughness; strength of character, strength, toughness, hardiness, adaptability; buoyancy; flexibility, ability to bounce back". The list of antonyms is shorter and possibly more immediately useful: "rigidity, fragility, vulnerability, weakness".

In the context of the work of Connecting Practice, use of "resilience" will benefit from more specific articulation. Resilience is likely to be supported or weakened by multiple factors, and can apply differently across the identified values and attributes.

The literature reviewed for Phase III of Connecting Practice has tended to focus on the resilience of ecosystems, the resilience of human communities, the resilience of foodways, or the resilience of the urban and peri-urban systems where so much of the world's population will live in the 21st century. In practical applications of resilience to natural and cultural heritage, ideas of "bouncing back" and returning to an earlier static state are often not feasible, or even desirable goals. This is particularly evident when applying resilience to disaster risk reduction strategies and post-disaster responses.

The focus on resilience invokes consideration of ideas of **vulnerability** (essentially the inverse of resilience). Analysis of vulnerability is important in identifying priorities for allocation of resources in order to strengthen resilience in ways which are efficient. Sustainability strategies have supported the development of vulnerability assessment methods that can be adapted to the needs of Connecting Practice.

Operationalizing the Concepts – 6 Key Questions for Phase III
Connecting Practice situates its learning in sites and practices, with an emphasis on collaboration across natural and cultural heritage organizations and partners. It is therefore central to explore what these concepts mean in specific places, and how they add value to their long-term care,

including the empowerment of local communities, Indigenous peoples, diaspora communities and site managers.

Questions have been developed to stimulate conversations and thinking in all components of Phase III, including the framing of the survey.

1. **Describing biocultural diversity:** The first set of questions aims to develop abilities for describing the natural and cultural aspects of each heritage place, its geography and its associations. These also situate the selected case study site/place within its wider landscape setting.

2. **Localizing Landscape Understanding:** The second set of questions explores ways in which the recognition and management of each landscape can be effectively localized while meeting World Heritage requirements. These seek to capture the ways in which local people and site managers talk about the qualities of the landscape, including local words, phrases and stories that encapsulate the inter-relatedness of natural and cultural aspects.

3. **Values/Biocultural approach:** The third set of questions explores the specific natural and cultural values of each landscape, and whether it makes any difference to "see" and apply a biocultural approach to its long-term conservation and management.

4. **Traditional Knowledge/Practices:** The fourth set of questions focusses on the traditional management practices that sustain the values of the landscape. It allows consideration of the degree to which these are functioning and supported by the formal systems of governance and management. The economic sustainability of the traditional agricultural, fishing and hunting practices are particularly important.

5. **Agricultural biodiversity/biocultural practices:** The fifth group of questions focuses on the thematic orientation for Phase III of Connecting Practice, and asks how the biocultural diversity of the agriculture, fishing or hunting traditions of the landscape/seascape relates to the heritage values of this landscape. In some cases, multiple heritage designations are in place, and their different requirements and viewpoints need to be evaluated (Schaaf and Clamote Rodriguez, 2016).

6. **Resilience:** The final set of questions aims to assist the project to better define and operationalize resilience by looking at its meaning in specific contexts, and considering the

strengths and vulnerabilities of the natural and cultural systems (Plieninger and Beiling, 2012). Indicators of the resilience of the landscape that take into account social, cultural, physical and ecological factors are also sought (van Oudenhoven, Mijatovic, and Eyzaguirre, 2011). A key challenge is to appreciate how continuing cultural practices be supported without "freezing" the landscape and restricting the self-determination of communities in light of changing climates, markets and opportunities.

Next Steps

This paper outlines work-in-progress for Phase III of Connecting Practice which will begin with the first field visit to the World Heritage site of Al Ain in the United Arab Emirates (November 2018). It will continue to develop in response to the work, allowing deeper consideration of the issues for particular contexts, and resilience factors in relation to specific challenges.

The journey of Connecting Practice started modestly, and aimed to learn to work together, understand the world view from each of the other sides of the "divide", and to reflect on how more connected practices could become commonplace. Phase III finds the program with an ever-expanding network of active participants, emerging and modified tools, and the promise of improved outcomes, especially for the many people that directly care for their heritage.

References

Brockwell, Sally, Sue O'Connor and Denis Byrne. eds. 2013. *Transcending the Culture-Nature Divide in Cultural Heritage. Views from the Asia-Pacific Region.* Canberra: ANU ePress.

Brown, Jessica, Nora Mitchell and Michael Beresford. eds. 2005. *The Protected Landscape Approach. Linking Nature, Culture and Community.* Gland: IUCN.

Brown, Jessica and Ashish Kothari. 2011. "Traditional Agricultural Landscapes and Community Conserved Areas: an overview." *Management of Environmental Quality* 22 (2): 139-153.

Buckley, Kristal, Tim Badman and Peter Bille Larsen. 2014. "Crossing Boundaries: exploring biocultural concepts and practices in the World Heritage system." Paper presented to the 18th ICOMOS General Assembly Scientific Symposium, Florence.

Food and Agriculture Organization of the United Nations (FAO) n.d. "Globally Important Agricultural Heritage Systems (GIAHS)." Accessed 30 November 2018. http://www.fao.org/giahs/en/

Finke, Gunnar 2013. "Linking Landscapes: exploring the relationships between World Heritage cultural landscapes and IUCN protected areas." *IUCN World Heritage Study*, no. 11. Gland: IUCN.

Folke, Carl. 2016. "Resilience." *Framing Concepts in Environmental Science*. Oxford Online Encyclopedia. Oxford University Press. DOI: 10.1093/acrefore/9780199389414.013.8
Google Online Dictionary. n.d. "Resilience." Accessed 30 November 2018.

Hill, Rosemary, Leanne C. Cullen-Unsworth, Leah D. Talbot and Susan McIntyre-Tamwoy. 2011. "Empowering Indigenous Peoples' Biocultural Diversity Through World Heritage Cultural Landscapes: a case study from the Australian humid tropical forests." *International Journal of Heritage Studies* 17 (6): 571–591.

Hockings, Marc, Robyn James, Sue Stolton, Nigel Dudley, Vinod Mathur, John Makombo, Jose Courrau and Jeffrey Parrish. 2008. *Enhancing our Heritage Toolkit*: *assessing management effectiveness of natural World Heritage sites*. World Heritage Papers 23. Paris: UNESCO.

Hølleland, Herdis, Joar Skrede and Sanne Bech Holmgaard. 2017. "Cultural Heritage and Ecosystem Services: a literature review." *Conservation and Management of Archaeological Sites* 19 (3): 210–237.

ICOMOS-IFLA International Scientific Committee on Cultural Landscapes (ICOMOS-IFLA ISCC). n.d. "World Rural Landscapes." Accessed 30 November 2018. http://www.worldrurallandscapes.org/

ICCROM. n.d. "World Heritage Leadership." Accessed 30 November 2018. http://www.iccrom.org/section/world-heritage-leadership

IUCN and ICOMOS. 2015. *Connecting Practice Project*. *Final Report*. *[Phase 1]* Gland and Paris. Accessed 30 November 2018. https://www.iucn.org/downloads/connecting_practice_report_iucn_icomos_.pdf

IUCN and ICOMOS. 2017. *Connecting Practice Phase II*. *Final Report*. Gland and Paris. Accessed 30 November 2018. https://www.icomos.org/en/home-wh/33670-connecting-practice-phase-ii-report-available-2

Larsen, Peter Bille. 2018. "Introduction. World Heritage and Human Rights in the Asia-Pacific and Global Arena." In *World Heritage and Human Rights: lessons from the Asia-Pacific and global arena,* edited by Peter Bille Larsen, 1-26. London: Routledge Earthscan.

Leitaõ, Leticia and Tim Badman. 2015. "Opportunities for Integration of Cultural and Natural Heritage Perspectives under the World Heritage Convention: towards connected practice." In *Conserving Cultural Landscapes: challenges and new directions,* edited by Ken Taylor, Archer St Clair and Nora J. Mitchell, 75-90. New York: Routledge.

Leitaõ, Leticia, Leanna Wigboldus, Gwenaëlle Bourdin, Tim Badman, Zsuzsa Tolnay, and Oscar Mthimkhulu 2019. "Connecting Practice: defining new methods and strategies to further integrate natural and cultural heritage under the World Heritage Convention." In *Cultural and Spiritual Significance of Nature in Protected Areas: governance, management and policy,* edited by Bas Verschuuren and Steve Brown, 151-163. London: Routledge Earthscan.

Loh, Jonathan and David Harmon. 2005. "A Global Index of Biocultural Diversity." *Ecological Indicators* 5 (3): 231–241.

Maffi, Luisa. 2014. "Biocultural Diversity: the true web of life." *Biocultural Diversity Toolkit: an introduction to biocultural diversity,* edited by In Luisa Maffi and O. Dilts, 6-16. Salt Spring Island, Canada: Terralingua.

Plieninger, Tobias and Claudia Beiling. 2012. *Resilience and the Cultural Landscape: understanding and managing change in human-shaped environments.* Cambridge University Press.

Ramsar Convention n.d. "Bio-Cultural Diversity." Accessed 30 November 2018. https://www.ramsar.org/activities/bio-cultural-diversity

Schaaf, Thomas and Diana Clamote Rodrigues. 2016. *Managing MIDAS: Harmonising the Management of Multi-Internationally Designated Areas.* Gland: IUCN.

UNESCO, ICCROM, ICOMOS and IUCN 2011. *World Heritage Resource Manual: Preparing World Heritage Nominations (2nd edition).* Paris: UNESCO.

Van Oudenhoven, Frederik J.W., Dunja Mijatovic, and Pablo B. Eyzaguirre. 2011. "Social-Ecological Indicators of Resilience in Agrarian and Natural Landscapes." *Management of Environmental Quality* 22 (2): 154-173.

Vardy, Mark and Mick Smith. 2017. "Resilience." *Environmental Humanities* 9 (1): 175–179

Biographical Notes

Kristal Buckley is a Lecturer in Cultural Heritage at Deakin University in Melbourne, Australia. She has qualifications in archaeology, anthropology and public policy, and has worked in private practice, government and community organisations. Her work has a focus on evolving forms of global heritage practices, with a particular interest in nature/cultures. She is a PhD candidate at the University of Melbourne, working on the topic of international heritage institutions. Ms Buckley served as an international Vice-President of ICOMOS from 2005-2014 and was made an Honorary Member of ICOMOS in 2014. She was a member of the ICOMOS delegation to the World Heritage Committee from 2007-2014, and now works as a World Heritage Advisor for ICOMOS.

Gwenaëlle Bourdin is the Director of ICOMOS's World Heritage Evaluation Unit. She joined the ICOMOS International Secretariat in 1998, after graduating in history and management of French and European cultural heritage at Paris Sorbonne University. She also holds a degree in economics from the same University. Her current work involves coordination of the assessment process of new cultural and mixed nominations for Word Heritage Listing. She was contributor to the Resource manual on Preparing World Heritage nominations. She has been involved into the IUCN/ICOMOS Connecting Practice project since the beginning, with a lead role starting in 2015.

Maureen Pelletier Thibault started at the ICOMOS International Secretariat in 2016 as a Communications and Projects Assistant. She studied political science and art history at Wellesley College near Boston and earned a master's degree in the history of architecture from the Sorbonne. She coordinates ICOMOS' participation in Connecting Practice and in other initiatives, on themes such as quality standards and the impact of climate change on cultural heritage. She also manages social media for ICOMOS.

Leanna Wigboldus is a Canadian young professional currently working on contract for the ICOMOS International Secretariat. After completing her honours undergraduate degree from University of Guelph in Canada, she completed her Masters in World Heritage Management and Conservation in December 2016 from University College Dublin (UCD) in Ireland and is currently enrolled in a PhD program at UCD in the same field. Leanna previously worked with

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Luisa De Marco, architect and PhD in conservation of architectural monuments and landscape, has been working at the Italian Ministry of Cultural Properties, Activities and Tourism since 2000, where she had responsibilities on World Heritage Properties in the Liguria Region and cultural landscapes. She is currently appointed Resident Twinning Adviser in a EU-funded Twinning Project on Cultural Heritage between Italy and the Republic of Moldova (2017-2019). She has been acting as ICOMOS World Heritage Adviser since 2009, further developing her interests in the interlinkages between natural and cultural processes.

Tim Badman is the Director of IUCN's World Heritage Programme, and has been senior IUCN spokesperson on World Heritage since 2007. He speaks for IUCN on all matters concerning the World Heritage Convention, including IUCN's work on monitoring all listed natural sites and evaluating new proposals for World Heritage Listing, and IUCN's contribution to links in the World Heritage Convention between nature and culture. He is co-director of the joint ICCROM-IUCN programme on World Heritage Leadership, and co-manages the Connecting Practice programme of IUCN and ICOMOS.