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'Humans, with their cultural diversity, are an integral component of ecosystems.' 1

1. Introduction

FROM the beginning of human life on Earth, as with all other elements of the animal domain, there has always been a direct dependence of people on the natural environment. In ancient times, that dependence was immediate and localized, but with increasing sophistication, the ability to travel and migrate, and vast increases in human populations, that dependence has become regional and subsequently global. However, that dependence has also become less direct, especially in larger urban settlements and with increasing separation of rural foodproducing areas from where people live. Equally, the effect of human activity on both a global and local community basis has become devastating, resulting in the existential crises of the combined effects of rapid climate change, air and water pollution, land degradation, and increasingly extreme losses of biological diversity. With these thoughts in mind, this chapter explores the many legal and policy links between cultural heritage and the natural environment. For the purposes of the chapter, the natural heritage is generally equated with those aspects of the natural environment of particular value from the point of view of humanity but also in terms of intrinsic worth of those environmental elements. The natural heritage can also be characterized as a subset of cultural heritage in the sense that identifying a particular element of the natural environment as part of the heritage is the result of a broadening of human (p. 319) cultural values through a process of acculturation.² The division of heritage into natural and cultural components is often artificial in any case.³ The clear and often close links between biological and cultural diversity⁴ mean that separating them can be out of the question.⁵ These links are encapsulated in the term 'biocultural diversity', which covers biological, cultural, and linguistic diversity. This was expressed from an ethnobiological viewpoint in the Declaration of Belém⁶ as the 'inextricable link between cultural and biological diversity'. As Lowenthal puts it: 'Increasingly, the heritages of culture and nature came to be viewed as interconnected, indeed, indivisible. If they are twins, they are Siamese twins, separated only at the risk of the demise of both. $^{\prime 7}$ Other heritage analysts urge 'the need to continue developing approaches and analytical frameworks that transcend the culture-nature dichotomy'.8

The chapter thus demonstrates that, from both a legal as well as a policy perspective, the protection of cultural heritage and the conservation of the natural environment are not easily placed into discrete silos. While some countries have had national legislation for centuries on the protection of many types of cultural heritage, the legal concept of the natural heritage has developed more recently. Natural heritage began to be particularly recognized by international and national legal mechanisms from the 1960s with development of the concept of World Heritage, which was subsequently embraced in the provisions of the World Heritage Convention. Lixinski points out that '[T]he World Heritage Convention (WHC) creates a very close relationship by having categories of "natural" and "cultural" heritage, a connection that goes back to the original drafting of the treaty, and helps elucidate a lot of the relationship between nature and culture in international heritage law.' 12

(p. 320) Heritage law now clearly encompasses the two realms of the cultural and the natural. Each of them can be further divided into tangible and intangible heritage, ¹³ but even that division is artificial, as they are so often intertwined that they are indistinguishable. The processes of decision-making that determine whether or not a particular tangible and intangible element is classified as part of the heritage, and whether, in turn, that element is classified as cultural, natural, or a mixture of both, also raises consideration of the political and human rights aspects of heritage, ¹⁴ as well as the construction of cultural identity. ¹⁵ As recognised by Lixinski, referring to the UNESCO Universal Declaration on Cultural Diversity: 'Human rights are also considered as guarantors of cultural diversity.' ¹⁶ Further, even if the item is not specifically regarded as part of the cultural or natural heritage, it can often be valued and protected by broader mechanisms embodied in human rights law, environmental law, and natural resources and property law, particularly in terms of instrumental uses of the item.¹⁷

The chapter examines some of the history of the legal and policy links that bind together the protection of cultural heritage and the conservation of the environment, as well as those that link culture and cultural heritage with the concept of sustainable development. The various declarations arising out of global initiatives are canvassed, and are followed by analysis of the range of international instruments that are particularly focused on heritage matters. Next, the main global treaties concerned with the natural environment, but that also promote or incorporate heritage concepts, are examined. The chapter then delves into the area of Indigenous heritage, where the close integration of heritage issues and environmental matters is often quite easily demonstrable, making it even more obvious that the cultural heritage and the natural environment do not reside in separate camps.

The chapter concludes that, in promoting the recognition of the legal relationships between culture and our environment, a more unified approach is required to the implementation of the various cultural and natural heritage instruments and that, from both legal and policy perspectives, cultural and natural heritage concepts must be understood in a more integrated fashion. Achieving a greater integration may also promote a greater awareness of the dependence of all people on the natural environment for their continued existence. Put another way, the cultural heritage, in all of its guises, cannot be enjoyed without the sustenance provided by the natural environment. This point is reinforced by a consideration of some of the messages of sustainable development, most recently expressed in the Sustainable Development Goals of 2015.¹⁸

(p. 321) 2. International Policy Instruments and Soft-Law Declarations

2.1 Stockholm Declaration

At the first global conference on the environment in 1972, the drafters of the Stockholm Declaration felt the need to confirm the interdependence of humans and their environment, proclaiming in the first sentence that 'Man is the creature and moulder of his environment, which gives him physical sustenance and the opportunity for intellectual, moral, social and spiritual growth'. Principle 1 of the Declaration focuses on the rights of freedom, equality, and adequate conditions of life and the responsibilities for the protection and improvement of the environment for present and future generations. Centrally, in the context of this chapter, Principle 4 records both the ethical and economic aspects of the human-environment continuum: 'Man has a special responsibility to safeguard and wisely manage the heritage of wildlife and its habitat which are now gravely imperilled by a combination of adverse factors. Nature conservation including wildlife must therefore receive importance in planning for economic development.' The ethical component of this 'special responsibility' to care for nature relates on the one hand to the aeons-long debt that humans owe to our sustaining environment, recognizing that we are an integral part of it. On the other hand, we have the duty to restore and maintain the integrity of the

environment, in recognition that, with some exceptions, people have historically degraded it and continue to do so. 20

2.2 World Charter for Nature

The World Charter for Nature, ²¹ a soft-law instrument developed by the IUCN and other bodies and approved by a United Nations resolution in 1982, reflected the (p. 322) emerging view that conservation is consistent with development and is not in conflict with the concept of sustainable development.²² In 1992 it was seen as one of the documents forming the basis of the (then) proposed Earth Charter discussed at the United Nations Conference on Environment and Development (Earth Summit). 23 The Charter is pertinent to the discussion of the relationship between environment and cultural heritage, in recognizing that '[m]ankind is a part of nature and life depends on the uninterrupted functioning of natural systems which ensure the supply of energy and nutrients' and, further, that '[c]ivilization is rooted in nature, which has shaped human culture and influenced all artistic and scientific achievement, and living in harmony with nature gives man the best opportunities for the development of his creativity, and for rest and recreation'. 24 The World Charter for Nature can be seen as a high point of the 1980s in understanding the links between human culture and its supporting environment; it was a matter only hinted at in 2015, with the publication of the Sustainable Development Goals (see Section 2.7).

2.3 World Commission Environment and Development

The World Commission on Environment and Development, established by the United Nations in 1983, further recognized the inherent relationship between the natural environment and its cultural manifestations. The Commission's report, *Our Common Future*, ²⁵ identifies these links in a variety of ways. For example, with regard to conservation of wild species, it recognizes that species diversity is necessary for the normal functioning of ecosystems and indeed for the whole biosphere. It also recognizes the contributions made by wild species to crop improvement, medicine, and provision of raw materials for industrial use. However, it also states that, apart from their utility, 'there are also moral, ethical, cultural, aesthetic, and purely scientific reasons for conserving wild beings'. ²⁶

The report also equates the loss of forests and other wild lands with a loss of cultural heritage: that loss 'removes forever creatures of beauty and parts of our cultural heritage; it diminishes the biosphere'. With regard to the world's oceans, the report sees their 'critical role' in the maintenance of the earth's life-support systems, on the one hand, but also their provision of human services: 'protein, transportation, energy, employment, (p. 323) recreation, and other economic, social, and cultural activities' (now often referred to as 'ecosystem services').

2.4 Rio Declaration

Principle 1 of the Rio Declaration,²⁹ in comparison with Principle 1 of the Stockholm Declaration, is not as robust in recognizing the interdependence of people and their environment. It takes on a more anthropocentric character: 'Humans are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.' The phrase 'in harmony with nature' does not have the same resonance as the approach of Principle 1 of the Stockholm Declaration, where humans are regarded at once as 'creatures and moulders' of their environment.

Principle 22 of the Rio Declaration does, however, recognize the role that Indigenous people and their communities, and other local communities, play in environmental management and development 'because of their knowledge and traditional practices'. It encourages States to 'recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development'. This principle

presaged the increasing emphasis that has been placed on culture as an instrument in achieving sustainable development. This is evidenced, inter alia, in the Preamble to the 2007 UN Declaration on the Rights of Indigenous Peoples—'Recognizing that respect for indigenous knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment'30—and in the Sustainable Development Goals.³¹

2.5 The Earth Charter

The Earth Charter, 32 originally conceived of and proposed as an outcome document of the 1992 Rio Conference, did not come to fruition at that time and was seen as part of the 'unfinished business' of the Conference. 33 It became the impetus for a separate movement called the Earth Charter Initiative, commenced in 1994, with the Earth Charter being launched, after long negotiations, in $2000.^{34}$ It contains several references to culture and heritage. Under the heading of 'ecological integrity', it recognizes that viable (p. 324) nature and biosphere reserves should be established and safeguarded 'including wild lands and marine areas, to protect Earth's life support systems, maintain biodiversity, and preserve our natural heritage'. 35 The Charter also urges the recognition and preservation of 'the traditional knowledge and spiritual wisdom in all cultures that contribute to environmental protection and human well-being'. 36 Under the rubric of 'Social and Economic Justice', the Charter upholds 'the right of all, without discrimination, to a natural and social environment supportive of human dignity, bodily health, and spiritual well-being, with special attention to the rights of indigenous peoples and minorities' and, as part of that commitment, promoted the protection and restoration of 'outstanding places of cultural and spiritual significance'. 37 While the Charter has no legal force, it may in time become part of the legal toolkit for global environmental management.³⁸

2.6 Millennium Development Goals

As indicated, the relationship between the human environment, development and culture has been discussed at an international level for many years. The World Commission on Culture and Development, reporting in 1995, acknowledged that the 'instrumental view of culture is of great interest and importance, since the process of economic growth is generally highly valued'. 39 However, it went on to say: 'It is also difficult to accept the view that culture can be fully captured in a purely instrumental role ... It is therefore important both to acknowledge the far-reaching instrumental function of culture in development, and at the same time to recognize that this cannot be all there is to culture in judgements of development. There is, in addition, the role of culture as a desirable end in itself, as giving meaning to our existence.'40

Notwithstanding this awareness we can note that, while the eight Millennium Development Goals (MDGs), prepared in 2000, 41 included a goal on environmental sustainability, none of Goals directly touched upon the issue of cultural heritage in the sense discussed in this chapter. Tellingly, the United Nations 2010 resolution entitled 'Keeping the Promise' on progress with the MDGs included this statement: 'We acknowledge the diversity of the world and recognize that all cultures and civilizations contribute to the enrichment of humankind. We emphasize the importance of culture for development and its contribution to the achievement of the Millennium (p. 325) Development Goals.'42 It also considered 'that the cultural dimension is important for development' and encouraged 'international cooperation in the cultural field, aimed at achieving development objectives'.⁴³ Of this resolution, Francesco Banderin et al. lamented the belated recognition by the United Nations of the influence of culture on the MDGs, noting that such recognition was 'a full ten years into the implementation of the Millennium Development Goals'.44

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2.7 Sustainable Development Goals and Cultural Heritage

The MDGs were the precursor to the Sustainable Development Goals (SDGs). ⁴⁵ The recognition of the cultural dimension mentioned in the *Keeping the Promise* ⁴⁶ resolution in 2005 concerning the MDGs was subsequently reflected in the discussions leading to the formulation of the SDGs in 2015. UNESCO argued that '[c]ulture is who we are and what shapes our identity. Culture contributes to poverty reduction and paves the way for a human-centred, inclusive and equitable development. No development can be sustainable without it. Placing culture at the heart of development policies constitutes an essential investment in the world's future and a pre-condition to successful globalization processes that take into account the principle of cultural diversity.' ⁴⁷ Such a strong statement makes the failure of some high-level protagonists to convince States to include culture as a specific goal of the SDGs all the more disappointing. ⁴⁸

The document that launched the SDGs, Transforming Our World: The 2030 Agenda for Sustainable Development, 49 sets out the concerns of the drafters with regard to culture and sustainable development, pledging to 'foster intercultural understanding, tolerance, mutual respect and an ethic of global citizenship and shared responsibility. We acknowledge the natural and cultural diversity of the world and recognize that all cultures and civilizations can contribute to, and are crucial enablers of, sustainable development.'50 This view is reflected in Goal 4 of the SDGs, which is to '[e]nsure inclusive and equitable quality education and promote lifelong learning opportunities for all'. Target 4.7 of Goal 4 elaborated on this, with the aim being to ensure that all learners acquire the knowledge (p. 326) and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development' (emphasis added). While this broad sentiment is in itself unobjectionable, the focus of the last phrase confirms the largely instrumental nature of the Target.

Goal 11, focused on Sustainable Cities and Communities, obfuscates the situation. It aims to '[m]ake cities and human settlements inclusive, safe, resilient and sustainable', with the role of Target 11.4 being to '[s]trengthen efforts to protect and safeguard the world's cultural and natural heritage'. Target 11.4 is inserted between two targets that are not obviously connected to it. This clumsy drafting appears to be the result of having to find some kind of bolthole for heritage matters in the SDGs, given that culture was not given an actual home as a goal in itself.⁵¹ A further point in Target 11.4 is the reference to 'the world's cultural and natural heritage' (emphasis added); this creates some confusion as to whether World Heritage was specifically meant or whether the wording was intended to refer literally to the natural and heritage of the world as a whole.⁵² Nevertheless, the juxtaposition of cultural and natural in the target provides some comfort that the drafters were cognizant of the links between them.

2.8 IUCN Draft Covenant

The Draft International Covenant on Environment and Development,⁵³ developed over a period of two decades by the IUCN World Commission on Environmental Law and the International Council on Environmental Law, was intended to be 'a blueprint for an international framework agreement consolidating and developing existing legal principles related to environment and development'.⁵⁴ The latest edition was completed in 2015 in the light of the preparation of the SDGs and accordingly is sub-titled 'Implementing Sustainability' The commentary to the Covenant's Preamble clearly articulates several of the basic themes of this chapter, recording that 'all civilizations spring from and are shaped by the quality of their surrounding natural elements' and that 'the histories of different peoples are inseparable from the natural conditions in which they have lived for millennia'. It also recognizes that nature provides inspiration for human culture:⁵⁵ 'Art, literature and

science cannot be understood, or even imagined, (p. 327) without acknowledging the influence of nature and its components. Thus, cultural diversity, like biological diversity, emerges from the various ecosystems.'56

The specific provision on cultural and natural heritage is article 28, which calls on parties to take all appropriate measures '(a) to conserve or rehabilitate, in situ, cultural and natural monuments, and areas, including landscapes, of outstanding scientific, cultural, spiritual, or aesthetic significance; (b) to prevent all measures and acts which are likely to harm or threaten such monuments or areas; and (c) to preserve, ex situ, heritage at risk of loss'. While the drafters of the Covenant have not achieved their aim of generating an overarching and binding international instrument, several further documents have been generated, based partly on the efforts of some of the same drafters of the Covenant, namely the IUCN World Declaration on the Environmental Rule of Law and the Draft Global Pact for the Environment, which include reference to culture within broader environmental concerns.

2.9 IUCN World Declaration on the Environmental Rule of Law

The IUCN World Declaration on the Environmental Rule of Law was drafted by the IUCN World Commission on Environmental Law in 2016.⁵⁷ The preamble to the Declaration 'recognizes that humanity exists within nature and that all life depends on the integrity of the biosphere and the interdependence of ecological systems'. It also records 'the importance of indigenous knowledge and cultures and their contribution to equitable sustainability'. Significantly in this context, it declares that strengthening the rule of law 'is critical to protecting environmental, social, and cultural values', thus once again reiterating these links, consistently with the IUCN Covenant.

2.10 Draft Global Pact for the Environment

Another (currently) informal instrument, the Global Pact for the Environment, 58 drafted in 2017, also contains the foundations for recognition of links between the cultural heritage and the environment.⁵⁹ The deliberations on the proposed Pact led to a UN resolution, (p. 328) 'Towards a Global Pact for the Environment', which called for a report from the UN Secretary-General on this topic. The resulting report⁶⁰ explored gaps in the international regulatory regimes on protection of the atmosphere, the conservation of biological diversity, the protection of soils, the regulation of freshwater resources, oceans and seas and of hazardous substances, wastes, and activities. It indicated that a 'comprehensive and unifying international instrument that gathers all the principles of environmental law' could serve to strengthen international environmental law and its implementation. The proposed Pact is regarded as 'a logical next step in the evolution of global environmental governance'. 61 Article 1 is headed the 'Right to an ecologically sound environment' and, importantly, includes culture within its purview: 'Every person has the right to live in an ecologically sound environment adequate for their health, well-being, dignity, culture and fulfilment.' As Boyd has written, this 'article provides a lens through which the entire Pact may be read, so that the principles in the Pact reflect rights not just of States vis-à-vis one another but also of rights held by human beings against States. In effect, the first article ensures that the Pact is seen as a human rights treaty as well as an environmental convention.'62 Following this logic, while Article 1 does not directly recognize the right to culture or to the cultural heritage as such, it could be so interpreted. However, it is interesting to note that the report of the Secretary-General does not itself discuss the treatment of cultural heritage as constituting a gap in international environmental law, possibly because of the narrower approach as to what is constituted by environmental law in the report.

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3. The Heritage Instruments

This section examines the various international cultural and natural heritage conventions and other instruments that have direct or indirect links with the natural and broader environment.

(p. 329) 3.1 Hague Convention

The 1954 Convention for the Protection of Cultural Property in the Event of Armed Conflict (Hague Convention), 63 drafted as a result of the devastating impacts of armed conflict during World War II, obviously focuses on 'cultural property', defining it in article 1 as 'movable or immovable property of great importance to the cultural heritage of every people'. However, it includes 'scientific collections' within the various examples listed, which may of course cover natural history museums and their collections, and in this respect the Convention can be interpreted as linking cultural heritage and environmental concerns.64

3.2 World Heritage Convention

The World Heritage Convention⁶⁵ began its life with a focus solely on cultural heritage, but, with the intervention of the International Union for Conservation of Nature (IUCN) at an early stage of the drafting process, the concept of natural heritage was added, becoming the first international treaty to incorporate the cultural and natural heritage in one instrument.⁶⁶ As Kari and Rössler have argued: 'Conceived with the fundamental notion that heritage is both cultural and natural, the World Heritage Convention provides a welldefined and compelling framework to examine the interlinkages between culture and nature.'67

There is nevertheless a degree of ambiguity in the Convention's preamble and in the definitions, indicating an initially uncomfortable union, the preliminary processes of which were referred to by Bolla as '[e]pisodes of a painstaking gestation'. 68 The sixth recital in the Convention's Preamble states: 'Considering that parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole.' Use of the word 'or', as opposed to 'and', already betrays some separation of the two concepts. This apparently dualistic approach is evident in the separate definitions of cultural heritage and natural heritage. As Larsen (p. 330) and Wijesuriya note, 'the defining articles of the convention keep natural and cultural heritage as separate domains by situating humanity, history, and construction in the cultural field, contrasting these with natural features'. They continue: '[T]here is today a growing understanding that heritage sites are not made up of isolated natural or cultural attributes split into separate realities, but are intertwined, connected, and constituted of relationships. Heritage thinking has matured in its appreciation of the complex interconnections between values both cultural and natural, attributes, and the people living in and around World Heritage sites regardless of whether they manifest Outstanding Universal Value (OUV) only.'69

It is only in the third paragraph of the Convention's cultural heritage definition that we see an attempt at integration of cultural and natural: 'sites: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view'. This forms the basis of the nomination of 'mixed sites' under the Convention, as well as the concept of 'cultural landscape'.

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Given the attempts at closer integration between the cultural and the natural heritage in recent times, the characterization of the Convention by Dupuy and Viñuales as a 'hybrid instrument'⁷⁰ would seem to be the most satisfactory approach.

3.3 World Heritage Operational Guidelines

The introduction of the concept of 'cultural landscape' in the Convention's Operational Guidelines in 1992 can be said to represent a recognition that the concept of 'combined works of man and nature' did not sufficiently address the issue that World Heritage properties can represent a satisfactory and ongoing combination of both realms. As introduced by Plachter and Rössler: 'Cultural landscapes reflect the interactions between people and their natural environment of a space and time ... Cultural landscapes mirror the cultures which created them.'71 However, this modern conception of landscape emerged from age-old roots: '[t]he meaning was a clearing in the forest with animals, huts, fields and fences. It was essentially a peasant landscape carved out of the (p. 331) original forest or weald, with interconnections to patterns of occupation and associated customs and ways of doing things.'72

Article 6 of the Operational Guidelines nevertheless underlines the 'cultural' mindset of the drafters, recognizing that cultural landscapes are cultural properties; they represent the 'combined works of nature and of man' and are illustrative of 'the evolution of human society and settlement over time'. Thus, cultural landscapes are classified and inscribed on the World Heritage List under the cultural criteria only and are evaluated by ICOMOS 'in consultation with IUCN' as two of the three expert bodies advising the World Heritage Committee.⁷³

The seemingly unnecessary ambiguity of the convergence of the two realms is also reflected to an extent in the ten criteria set out in the Operational Guidelines for the assessment of 'outstanding universal value'. Originally, the Operational Guidelines separated cultural and natural heritage into two lists of criteria. In 2003,⁷⁴ these criteria were consolidated in one list. However, the first six criteria are nevertheless focused on the cultural heritage, and the other four on the natural heritage, so this 'integration' might be seen as more imagined than real.

Another aspect of the awkward integration of natural and cultural heritage under the World Heritage Convention is the practice of nominating 'mixed' sites, consisting of properties which fulfil one or more of the cultural and natural criteria spelt out in the Operational Guidelines.⁷⁵ Assessments for mixed properties are subject to a joint mission by IUCN and ICOMOS, but they are then required to prepare separate evaluation reports under the criteria specified in the Operational Guidelines. However, they are expected to harmonize and coordinate their evaluations 'to the extent possible'. This uneasy mix of processes reflects some of the ambiguities of the provisions of the World Heritage Convention itself. Larsen and Wijasuriya advocate 'critical approaches' to challenge World Heritage with regard to the way it 'is framed and institutionalized, and its social effects'. 77 They argue: 'At stake are not simply "local" cultural or natural heritage values, but the values and cultural practices of the (global) heritage sector potentially displacing other values and practices, neglecting rights, transforming power relationships, and/or leading to commodification. Addressing nature and culture (p. 332) interlinkages in this respect requires addressing and harnessing the power inherent in these dynamics.'78

Clearly, there is a strong case to be made for a more integrated approach to the nomination, assessment, and management of cultural heritage and natural heritage properties, which would involve a paradigm shift in thinking on the part of World Heritage policy makers and

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managers, and a further revision of the Operational Guidelines to reflect this shift, as well as institutional reforms at both national and international levels.

3.4 Universal Declaration on Cultural Diversity

The Universal Declaration on Cultural Diversity 2001,⁷⁹ developed as a soft-law instrument through UNESCO, recognizes the diverse forms that culture takes, equating cultural diversity with biological diversity. Article 1 states in part: 'As a source of exchange, innovation and creativity, cultural diversity is as necessary for humankind as biodiversity is for nature. In this sense, it is the common heritage of humanity and should be recognized and affirmed for the benefit of present and future generations' (emphasis added). As noted by Blake, the Declaration was 'responding to the strong emphasis placed by the executive board [of UNESCO] ... on the interaction between cultural diversity and both human rights and sustainable development'. She goes on to assert that 'not only is cultural diversity necessary for humankind (as stated here) but is also, in itself, vital for preserving biological diversity and ensuring environmental sustainability'. 80 This assertion is borne out in various ways, particularly in the realm of biocultural diversity, defined by Maffi and Woodley as comprising 'the diversity of life in all of its manifestations—biological, cultural, and linguistic—which are interrelated (and likely co-evolved) within a complex socio-ecological adaptive system'.81 They cite a wide range of legal and policy examples to show the links between biological and cultural diversity.⁸² These are driven in part by endeavours to comply with the obligations under the Convention on Biological Diversity, especially with respect to article 8(j), which obliges parties to 'respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices'.

The IUCN pays a good deal of attention to the links between the maintenance of language and the conservation of biodiversity, especially through its Commission on Environmental, Economic and Social Policy, 83 stating: 'It is no coincidence that areas of (p. 333) linguistic and ethnic diversity are also areas rich in biodiversity. Most of the world's languages are spoken by indigenous and other tribal peoples in countries that harbour great biodiversity. When a language dies, we also stand to lose the local ecological knowledge and wisdom that reposes in that language.'84 These statements have immediate relevance to Indigenous and local community cultures that depend for the continuation of their existence on traditional knowledge of ecosystems, with that knowledge often expressed in the languages of those communities. With the loss of language comes the loss of the knowledge of how to maintain those ecosystems. This point is underlined by UNESCO: 'While indigenous peoples make up only 5 per cent of the world's population, they speak the majority of its 7,000 languages and "own, occupy or use resources on some 22 per cent of the global land area, which in turn harbours 80 per cent of the world's biological diversity"'. 85 As Blake points out, 'when the languages and traditional cultural practices of local populations are lost, a vast repository of traditional knowledge of biodiversity associated with it is also lost'.86

3.5 Underwater Cultural Heritage Convention

Although the Underwater Cultural Heritage Convention⁸⁷ is obviously focused on cultural heritage, the natural water environment is clearly of the essence of the Convention; the primary definitions in the Convention thus cannot avoid including reference to the natural context. Article 1(a) makes this clear in defining the underwater cultural heritage as meaning 'all traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years'. It specifies these as including 'sites, structures, buildings, artefacts and human remains, together with their archaeological *and natural context* and vessels, aircraft, other vehicles or any part thereof, their cargo or other contents together with their

archaeological and natural context' (emphasis added). The natural context can include the sea life, reefs and other natural elements; it can also be constituted by the marine vegetation and other life that develops into 'artificial' reefs because (p. 334) of the presence of underwater cultural heritage such as shipwrecks, amphorae, and other objects. In addition, the Rules found in the Annex to the Convention, pursuant to article 33, refer to 'assessment that evaluates the significance and vulnerability of the underwater cultural heritage and the surrounding natural environment to damage by the proposed project', underlining once again the cultural heritage and environment link. Lixinski notes that there were attempts to include underwater landscapes within the Convention and suggests that during the drafting there 'may have been a missed opportunity to engage with intangible aspects of underwater cultural heritage, as well as with natural aspects'.⁸⁸

3.6 Convention on Safeguarding the Intangible Cultural Heritage

The Convention on Safeguarding the Intangible Cultural Heritage⁸⁹ (ICH Convention) has provided a vital, modernizing addition to the heritage conservation regime. In contrast to World Heritage concepts, which are primarily related to 'physical properties', the intangible heritage perhaps more readily lends itself to an integrated approach to the cultural and natural heritage, as well as the environment in general, despite inclusion of 'cultural' in its title. The Convention's preamble recognizes 'the deep-seated interdependence between the intangible cultural heritage and the tangible cultural and *natural heritage*' (emphasis added). This interdependence is affirmed in the definition of intangible cultural heritage itself, where it is acknowledged that ICH is 'transmitted from generation to generation, is constantly recreated by communities and groups *in response to their environment, their interaction with nature* and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity' (emphasis added).

The Convention also sets out how the intangible cultural heritage is manifested in a range of domains, including in oral traditions and expressions, performing arts, social practices, rituals and festive events, knowledge and practices concerning nature and the universe, and traditional craftsmanship. The mention of 'knowledge and practices concerning nature and the universe' in article 2(d) underlines the more integrated approach that the Convention takes to the cultural and natural environment. Further, concerning the relationship of the ICH to other international instruments, article 3 notes that nothing in the Convention may be interpreted as 'affecting the rights and obligations of States Parties deriving from any international instrument relating to intellectual property rights or to the use of biological and ecological resources to which they are parties'. This provision resonates with the intellectual property rights provisions regarding the access (p. 335) to transfer of technology concerning genetic resources that is the focus of article 16 of the Convention on Biological Diversity.

3.7 ICH Operational Directives

The Operational Directives⁹⁰ to the ICH Convention are more explicit with regard to the link between intangible cultural heritage and the environment. Paragraph 188 recognizes that 'environmental sustainability requires sustainably managed natural resources and the conservation and sustainable use of biodiversity' and emphasizes the benefits that could be gained from 'improved scientific understanding and knowledge-sharing about climate change, natural hazards, the environmental and natural resource limits'. Even more explicitly, intangible heritage is associated in paragraph 189 with 'knowledge and practices concerning nature and the universe that are recognized by communities, groups and, in some cases, individuals as part of their intangible cultural heritage and that contribute to environmental sustainability recognizing their capacity to evolve, harnessing their potential role in the protection of biodiversity and in the sustainable management of natural resources'. It exhorts States Parties to, inter alia, 'recognize communities, groups and

individuals as the bearers of knowledge about nature and the universe and as essential actors in sustaining the environment' and to 'adopt appropriate legal, technical, administrative and financial measures to ... promote access to and transmission of traditional knowledge concerning nature and the universe while respecting customary practices governing access to specific aspects of it' and to 'conserve and protect those natural spaces whose existence is necessary for expressing the intangible cultural heritage'.

These articles serve to illustrate that the ICH Convention and its Operational Directives have manifestly been drafted with an acute awareness of the need to give voice to the individuals and local communities that own and literally 'live' that heritage within an environment that sustains and nurtures them both physically and spiritually. Additionally, the Operational Directives recognize the need to ensure the adoption of 'appropriate legal, technical, administrative and financial measures to encourage environmentally friendly practices and to mitigate any possible harmful impacts' (para 190). This awareness and recognition is reinforced by the placing of many items on the Convention's Representative List of the Intangible Cultural Heritage of Humanity that record the practices, traditions, skills, and ceremonies relating to a wide range of elements of the natural environment. Examples include the traditions and practices associated with sacred forests of the Mijikenda in Kenya, ⁹¹ the practices and know-how (p. 336) concerning the Argan tree in Morocco, ⁹² and the traditional system of Corongo's water judges in Northern Peru. ⁹³

3.8 Convention on Diversity of Cultural Expressions

The Convention on Diversity of Cultural Expressions⁹⁴ also includes links between cultural heritage and the natural environment, but the language is not as clear as that of the Intangible Heritage Convention. Article 13, which deals with the integration of culture in sustainable development, comes closest to an identifiable link: 'Parties shall endeavour to integrate culture in their development policies at all levels for the creation of conditions conducive to sustainable development and, within this framework, foster aspects relating to the protection and promotion of the diversity of cultural expressions.' The Operational Guidelines under the Convention provide more substance on this aspect. They urge States Parties to list the measures that focus on integrating culture as a strategic element in sustainable development policies and assistance programmes at the national and international levels. The specific measures include those that operate to integrate culture into a country's national development planning, including poverty eradication, social inclusion, education and training strategies, and so on.⁹⁵

Some of the periodic reports by States Parties, required under the Convention, record the cultural heritage-environment link quite directly. For example, Nigeria's periodic report⁹⁶ explains the key objective measures it has taken to address culture and environment under the Convention: 'Culture encapsulates the people's living styles, patterns and habits which are central to their survival in the environment. The protection of the natural environment against indiscriminate exploitation of mineral wealth, deforestation, erosion, bush burning and desertification as well as natural disasters can be achieved through the instruments of culture.' It states that the results of the measure include (perhaps as a forlorn hope), 'the preservation of cultural heritage and a natural ecosystem and using the instrumentality of culture in addressing the global warming issues'. ⁹⁷ There is no indication in the report of any practical program to achieve such outcomes.

(p. 337) 4. The Environmental Instruments

The nurturing of land, plants, and animals in many Indigenous societies reflect long-standing traditional practices and intimate knowledge of their local environments. Traditional environmental knowledge is becoming increasingly recognized as part of the contributions of Indigenous peoples to the conservation of biodiversity heritage and is protected, sometimes robustly and sometimes weakly, by legal mechanisms at international

and national levels. Several of the treaties concerning the conservation of biodiversity include either direct or indirect recognition of the traditional ecological knowledge of Indigenous and local communities. This knowledge often forms part of the rich cultural heritage of such communities. As Blake has argued, '[t]he relationship between traditional local knowledge and biodiversity is an intimate one and any loss of biodiversity reduces human cultural diversity that has co-evolved with it'.98

Multilateral environmental agreements (MEAs), by their nature, are focused primarily on the protection and conservation of particular aspects of the environment. However, cultural heritage aspects are often either directly or indirectly raised, and those relationships in turn have implications for human rights concerning access to nature. More recently, some are also depicted as having relevance to the furtherance of sustainable development. 99 This section briefly reviews selected MEAs in order to examine elements of these relationships. It looks at treaty provisions on traditional hunting and exploitation of wildlife, as well as at the recognition of traditional knowledge in environmental conservation treaties, as examples of the often-close links between the cultural heritage and the environment, and their interdependence. Section 5, below, returns to the topic of Indigenous and local communities in order to examine several instruments that are specifically focused on the concerns and rights of those communities.

4.1 Whaling Convention

The International Whaling Convention was originally drafted to ensure that whale stocks could be maintained for human exploitation. 101 This initial regime intention has, over the years, been transformed into a more protective mechanism, with the imposition (p. 338) in $1986 ext{ of a moratorium}^{102}$ on commercial whaling. Nevertheless, the International Whaling Commission, which oversees the implementation of the Convention, has for many years allowed Aboriginal subsistence whaling by particular countries, for various species of whale, on the basis that 'whale products play an important role in the nutritional and cultural life of native peoples'. 103

4.2 Fur Seals Convention

The North Pacific Fur Seals Convention 104 is aimed at regulating the exploitation of fur seals in order to maintain achievement of maximum sustainable productivity of the fur seal resources. However, article VII of the Convention in effect recognizes traditional seal hunting methods as part of a cultural tradition and is thus an example of an exception to the regulatory provisions. It provides that Indigenous people in the region can 'carry on pelagic sealing in canoes not transported by or used in connection with other vessels, and propelled entirely by oars, paddles, or sails, and manned by not more than five persons each, in the way hitherto practiced and without the use of firearms' and not employed by others to provide fur seal skins.

4.3 Agreement on Polar Bears

Similarly to the Fur Seals Convention, article III of the Agreement on the Conservation of Polar Bears of 1973¹⁰⁵ provides an exception for contracting parties to allow the taking of polar bears 'by local people using traditional methods in the exercise of their traditional rights and in accordance with the laws of that Party' (article III(d)); or 'wherever polar bears have or might have been subject to taking by traditional means by its nationals' (article III(e)).

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4.4 Ramsar Convention

Guidelines were developed in 1999 under the 1971 Ramsar Convention¹⁰⁶ concerning local communities' and Indigenous people's participation in the management of (p. 339) wetlands.¹⁰⁷ These guidelines, inter alia, 'support the application of traditional knowledge to wetland management including, where possible, the establishment of centres to conserve indigenous and traditional knowledge systems'.¹⁰⁸ They state that local and Indigenous people should be involved in management when, inter alia, 'access to the natural resources within the wetland is essential for local livelihood, security and *cultural heritage'* and when 'local and indigenous people express a strong interest in being involved in management'(emphasis added).¹⁰⁹

4.5 CITES

The 1973 Convention on International Trade in Endangered Species¹¹⁰ recognizes in its preamble that 'wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come' and is '[c]onscious of the ever-growing value of wild fauna and flora from aesthetic, scientific, *cultural*, recreational and economic points of view' (emphasis added). While the Convention itself does not elaborate on issues of cultural heritage or matters of traditional ecological knowledge, statements from its Secretariat manifest an intense awareness of the value of harnessing the traditional knowledge and support of Indigenous and local communities. For example, as part of a progress review of the SDGs, a CITES contribution makes clear that these communities are recognized as having expert knowledge of their local animals and plants: '[W]hen directly involved in managing their local natural assets, [they] are the best guardians of a species. CITES engages with them to understand the spiritual, cultural, social, economic and ecological values of traded species and helps ensure that they directly benefit from any associated commerce.'¹¹¹

4.6 Convention on Migratory Species

The Convention on Migratory Species ¹¹² contains an exception to the prohibition on parties that are Range States to the taking of migratory species, but only if the taking is (p. 340) for scientific purposes; for enhancing the propagation or survival of the affected species; or to accommodate the *needs of traditional subsistence* users of such species. ¹¹³ As a specific example, the Convention has developed a Memorandum of Understanding on the Conservation and Management of Marine Turtles. ¹¹⁴ This prohibits the direct harvest of and trade in marine turtles and their eggs, parts, or products. However, it allows 'exceptions for *traditional harvest by communities* within each jurisdiction provided that: such harvest does not undermine efforts to protect, conserve and recover marine turtle populations and their habitats' (emphasis added). ¹¹⁵ Significantly, it also promotes use of traditional ecological knowledge in research studies under the conservation and management plan. ¹¹⁶

4.7 Convention on Biological Diversity

The first recital of the preamble to the Convention on Biological Diversity¹¹⁷ states: 'Conscious of the intrinsic value of biological diversity and of the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components'. The values set out in the second phrase of the recital recognizes the wide range of values involved, which are then elaborated on in subsequent recitals. The most immediately practical from the point of view of human survival is recital 20: 'Aware that conservation and sustainable use of biological diversity is of critical importance for meeting the food, health and other needs of the growing world population'. These links are captured in the ecosystem approach developed as the primary implementation framework¹¹⁹ of the Convention. The ecosystem approach is

described as 'a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way ... It recognizes that humans, with their cultural diversity, are an integral component of ecosystems' 120 (emphasis added).

(p. 341) Article 8 of the Convention is concerned with in situ conservation and states in 8(j) that a contacting party shall, as far as possible and as appropriate, and '[s]ubject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity' (emphasis added). Another expression of these links is found within the framework of article 8(j) of the Convention and the 2004 Akwé: Kon Guidelines on Impact Assessment. As Lixinski notes, 'they are intended to provide a framework that ensures the full involvement of indigenous and local communities in assessing the cultural, environmental and social impact of proposed developments on the interests and concerns of traditional communities'. 121

Article 10, focusing on sustainable use of biological diversity and its components, requires that 'as far as possible and as appropriate' States shall '[p]rotect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements' (emphasis added). These provisions have been elaborated upon in the 2010 Nagoya Protocol to the Convention, 122 which is focused on access and benefit-sharing, particularly relating to access to traditional knowledge held by Indigenous and local communities seen to 'strengthen the ability of these communities to benefit from the use of their knowledge, innovations and practices'. 123 Francioni argues that the principle of access and benefit-sharing under the Nagoya Protocol 'has an important cultural dimension in so far as it recognizes the role of local traditional communities and indigenous peoples in providing the cultural lead to the identification of commercially valuable biological resources and their right to an equitable sharing of the benefits accruing from their utilization'. 124

4.8 Convention on Climate Change

The Framework Convention on Climate Change 1992¹²⁵ contains no direct mention of heritage issues, cultural or natural. However, the Paris Agreement of 2015, adopted under the Convention, records in its preamble 'the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity, recognized by some cultures as Mother Earth, and noting the importance for some of the concept of (p. 342) 'climate justice', when taking action to address climate change. These provisions reflect a growing awareness of the need to address environmental conservation as well as the cultural and practical concerns of Indigenous and local communities in the face of the threats and effects of climate change.

4.9 Convention to Combat Desertification

The Convention to Combat Desertification 1994^{126} is primarily focused on the incidence of drought and desertification in arid, semi-arid, and dry sub-humid areas around the world. However, several of its provisions focus on issues of culture as well as traditional and local knowledge. The preamble notes that 'desertification is caused by complex interactions among physical, biological, political, social, cultural and economic factors' (emphasis added), while article 17, on research and development, calls on parties to protect, integrate, enhance, and validate traditional and local knowledge, know-how, and practices ... subject to their respective national legislation and/or policies'. 127 Further, article 18, relating to the use of technology, urges facilitation of access, while paying special attention to the 'social, cultural, economic and environmental impact of such technology' (emphasis added). 128 As Blake notes, the Convention 'places a strong emphasis on the social and cultural context of

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environmental protection and ensuring that participation of local people in decision-making processes is related to the environment $^{\prime}$. 129

4.10 Treaty on Plant Genetic Resources

In the area of agriculture, the 2001 Food and Agriculture Organization (FAO) Treaty on Plant Genetic Resources¹³⁰ records in article 9(1) that States recognize 'the enormous contribution that the local and indigenous communities and farmers of all regions of the world ... make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production'. In the context of this chapter, the focus of article 9(2) on the protection and promotion of farmers' rights concerning traditional knowledge relevant to plant genetic resources for food and agriculture is particularly important. As Blake notes with respect to this treaty, 'although a more indirect recognition of cultural practices, the right of participation implies respect (p. 343) for local cultural customs and forms of social organization which fall largely under the rubric of cultural heritage'. ¹³¹

5. Indigenous Heritage and Environment

The discussion above is particularly concerned with the links between environment and cultural heritage in specific environmental treaties, picking up the links, where appropriate, between Indigenous and local communities in the use of traditional knowledge with regard to biological diversity. This section explores instruments that particularly relate to Indigenous and local communities and that also recognize these relationships.

5.1 ILO Convention 169

The first global recognition of the need to protect the relationship between Indigenous communities and their environment was the Indigenous and Tribal Peoples Convention, 132 also referred to as International Labour Organization Convention 169 or ILO Convention 169. That instrument called attention to 'the distinctive contributions of indigenous and tribal peoples to the cultural diversity and social and ecological harmony of humankind and to international co-operation and understanding'. ¹³³ Article 1 recognizes two categories: 'tribal peoples in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations', and 'peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions'. Subsequent articles place responsibility on governments to protect their rights, to guarantee respect for their integrity, and to promote the full realization of their social, economic, and cultural rights concerning their social and cultural identity, their customs and traditions, and their institutions.

The provisions of the Convention insist on the full participation of Indigenous peoples in all aspects of decision-making concerning them, with article 4(1) requiring that '[s]pecial measures shall be adopted as appropriate for safeguarding the persons, (p. 344) institutions, property, labour, cultures and environment of the peoples concerned'. Article 7(4) requires governments to 'take measures, in co-operation with the peoples concerned, to protect and preserve the environment of the territories they inhabit'. The Convention has a specific focus on land occupied or used by these peoples, with article 13 requiring governments to 'respect the special importance for the cultures and spiritual values of the peoples concerned of their relationship with the lands or territories, or both as applicable,

which they occupy or otherwise use, and in particular the collective aspects of this relationship'.

Article 4 requires the adoption of special measures 'for safeguarding the persons, institutions, property, labour, cultures and environment of the peoples concerned'. Furthermore, under article 7(3) governments are required to 'assess the social, spiritual, cultural and environmental impact on them of planned development activities' by undertaking studies and consulting with the people, and, in article 7(4), to 'take measures, in co-operation with the peoples concerned, to protect and preserve the environment of the territories they inhabit'.

5.2 Declaration on the Rights of Indigenous Peoples

ILO Convention 169 is regarded as the forerunner of the United Nations Declaration on the Rights of Indigenous Peoples, adopted in 2007. 134 The Declaration's preamble affirms that 'all peoples contribute to the diversity and richness of civilizations and cultures, which constitute the common heritage of humankind'; it recognizes 'the urgent need to respect and promote the inherent rights of indigenous peoples which derive from their political, economic and social structures and from their cultures, spiritual traditions, histories and philosophies, especially their rights to their lands, territories and resources'. Article 31 is the Declaration's most significant provision in the context of this chapter, recognizing that 'Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions ... and the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions'.

James Anaya, the former UN Special Rapporteur on the Rights of Indigenous Peoples, has commented that article 31 'is grounded in a range of widely accepted universal human rights that are now part of international law. These include rights to culture, religion, property ... and self-determination, all as understood in light of the fundamental norm of non-discrimination and with attention to the specific characteristics of indigenous peoples.'135

(p. 345) A 2015 United Nations report on the promotion and protection of the rights of Indigenous peoples with respect to their cultural heritage 136 explicitly draws the link between cultural and natural heritage: 'For indigenous peoples, cultural and natural values are inseparably interwoven and should be managed and protected in a holistic manner. It is imperative that all the instruments that derive from such regimes and relate to the cultural heritage of indigenous peoples are interpreted in the light of the United Nations Declaration on the Rights of Indigenous Peoples, which is the most specific, representative and comprehensive instrument on indigenous cultural heritage' (emphasis added). 137 Gilbert reinforces this assertion in commenting on the UN Expert Mechanism on the Rights of Indigenous Peoples (a subsidiary body under the UN Human Rights Council), ¹³⁸ when he points out that 'for indigenous peoples, cultural and natural values are inseparably interwoven and should be managed and protected in a holistic manner. The division between "natural" and "cultural" heritage does not integrate such a holistic approach to cultural heritage.'139

Finally, we can note that, with respect to World Heritage and Indigenous Peoples, the World Heritage Committee established the International Indigenous Peoples' Forum on World Heritage (IIPFWH) at the behest of the Indigenous delegations, 140 building on an earlier decision to recognize the Declaration on the Rights of Indigenous Peoples in 2007. 141

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6. Conclusion

This review has canvassed a wide range of international instruments and associated documents concerning cultural heritage and the environment and has shown that, while there are often formal separations between the two realms, there is an increasing convergence between them. This is manifested both in terms of the interpretation of the primary instruments as well as development of various operational guidelines and policies. In the Indigenous world, the links between culture and nature, and indeed their virtual (p. 346) inseparability, have always been more obvious and understood. However, the increasing integration of the concepts of cultural heritage and natural heritage should be seen as not only as a welcome development from a conceptual viewpoint but also as a vital one from a practical point of view. Unless people around the world, and the governments and organizations that represent them, are able to re-establish an awareness of the fundamental dependence of humanity on its local and global environments, there is little hope that the contemporary polycentric existential crises, represented by the effects of rapid climate change, air and water pollution, land degradation, and vast losses of biodiversity, can be addressed. In the heritage sphere, this means, at the very least, that our understanding of the relationships between cultural heritage, natural heritage, and the rest of the environment must be fundamentally rethought.

Footnotes:

- ¹ Convention on Biological Diversity, 'Ecosystem Approach' <www.cbd.int/ecosystem/> accessed 19 August 2019.
- ² Ben Boer and Graeme Wiffen, *Heritage Law in Australia* (Oxford University Press 2006) 2-3.
- ³ Graeme Aplin, *Heritage: Identification, Conservation and Management* (Oxford University Press 2002) 1.
- ⁴ Luisa Maffi and Ellen Woodley, *Biocultural Diversity Conservation* (IUCN 2010) 6-7.
- ⁵ 'It is crucial to reiterate the impossibility, in most cases, of separating natural heritage from cultural heritage, and certainly the impossibility of separating the very concept of natural heritage from community beliefs and perceptions about the environment': Aplin, *Heritage* (n 3) 83.
- ⁶ Declaration of Belém 1988, International Society of Ethnobiology <www.ethnobiology.net/what-we-do/core-programs/global-coalition-2/declaration-of-belem/> accessed 25 June 2019.
- ⁷ David Lowenthal 'Natural and cultural heritage' (2005) 11(1) *International Journal of Heritage Studies* 81, 85.
- ⁸ Tim Winter and Patrick Daly, in Patrick Daly and Tim Winter (eds), *Routledge Handbook of Heritage in Asia* (Routledge 2012) 11.
- ⁹ See Patrick J. O'Keefe and Lyndel V. Prott, *Law and the Cultural Heritage* (Professional Books 1994) Vol 1, 31–81.
- ¹⁰ Michel Batisse and Gérard Bolla, *The Invention of 'World Heritage'* (History Papers, UNESCO 2005).
- Convention for the Protection of the World Cultural and Natural Heritage (adopted on 16 November 1972, by the General Conference of the United Nations Educational, Scientific and Cultural Organization, meeting in Paris from 17 October to 21 November 1972, at its seventeenth session, entered into force 17 December 1975) 1037 UNTS 151.

- ¹² Lucas Lixinski, *International Law for Communities; Exclusion and Re-Imagination* (Oxford University Press 2019) 168.
- ¹³ Ben Boer and Stefan Gruber, 'Heritage Discourses' in Brad Jessup and Kim Rubinstein (eds), *Environmental Discourses in Public and International Law* (Cambridge University Press 2012) 375, 376.
- ¹⁴ See Ana Vrdoljak, 'Human Rights and Cultural Heritage in International Law' in Federico Lenzerini and Ana Vrdoljak (eds), *International Law for Common Goods:* Normative Perspectives on Human Rights, Culture and Nature (Bloomsbury 2014).
- 15 See Janet Blake, *International Cultural Heritage Law* (Oxford University Press 2015) 275–278.
- 16 Lixinski (n 12) 238.
- ¹⁷ See Jérémie Gilbert, *Natural Resources and Human Rights* (Oxford University Press 2018), in particular ch 2, 'The Human Right to Property'.
- ¹⁸ The Sustainable Development Goals are incorporated in the document *Transforming Our World: The 2030 Agenda for Sustainable Development, United Nations, A/Res/71 2015.*
- Declaration of the UN Conference on the Human Environment, Stockholm, June 1972 (1972) 11 ILM 1416, para 1 (in the preparation of treaties and official documents in the 1970s and earlier, gender-neutral drafting was not the norm).
- As recognized in the 2019 report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES): 'Nature and its vital contributions to people, which together embody biodiversity and ecosystem functions and services, are deteriorating worldwide', *Summary for Policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services* (IPBES 2019) 2 www.ipbes-global-assessment-summary-policymakers-pdf accessed 25 June 2019.
- World Charter for Nature 1982A/RES/37/7 (28 October 1982). For history of the development of the Charter, see H.W. Wood, 'The United Nations World Charter for Nature: The Developing Nations' Initiative to Establish Protections for the Environment' (1985) 12 Ecology Law Quarterly 977; see also Wolfgang E. Burhenne and William A. Irwin, The World Charter for Nature: A Background Paper (Schmidt, 1983) <www.iucn.org/content/world-charter-nature-a-background-paper> accessed 25 June 2019.
- 22 Wood, 'The United Nations World Charter' (n 21), 987.
- Peter H. Sand, 'International Law on the Agenda of the United Nations Conference on Environment and Development: Towards Global Environmental Security?' (1991) 60(1) *Nordic Journal of International Law* 5, at 7; the Earth Charter is dealt with at 2.5.
- ²⁴ World Charter for Nature (n 21), Preamble, para (b).
- Report of the World Commission on Environment and Development, Transmitted to the General Assembly as an Annex to document A/42/427-Development and International Cooperation: Environment; also known as the Brundtland Report; published in book form as *Our Common Future* (Oxford University Press 1987).
- **26** Ibid, 20, para 53.
- ²⁷ Ibid, 34-5, para 30.
- 28 Ibid, 217, para 4.
- ²⁹ Rio Declaration on Environment and Development 1992 (1992) 31 ILM 874 (hereafter 'Rio Declaration').

- ³⁰ United Nations Declaration on the Rights of Indigenous Peoples 2007, UNGA A/RES/61/295; see Section 5.2.
- 31 See Section 2.7.
- 32 See http://earthcharter.org/discover/the-earth-charter/http://earthcharter.org/discover/the-earth-charter/>
- ³³ The original Earth Charter became the Rio Declaration (n 29); see Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (4th ed, Cambridge University Press 2018) 41.
- 34 See http://earthcharter.org/about-eci/faqs/ accessed 19 August 2019.
- 35 Earth Charter, 'Ecological Integrity', 5.b.
- 36 Ibid, 8.b.
- 37 Ibid, 12.
- ³⁸ See, for example, Klaus Bosselmann and J. Ronald Engel, *The Earth Charter: A Framework for Global Governance* (KIT Publishers 2010); see also Maksim Lavrik, Alicia Jimenez and Mirian Vilela, *The Global Pact for the Environment as a Next Step on the Way Forward for the Earth Charter* (Earth Charter International Secretariat 2018) https://earthcharter.org/wp-content/uploads/2018/07/Global-Pact-and-Earth-Charter-2018-2.pdf accessed 12 December 2019.
- ³⁹ Our Creative Diversity, Report of the World Commission on Culture and Development (UNESCO 1995) 23.
- **40** Ibid.
- 41 Millennium Development Goals, <www.un.org/millenniumgoals/> accessed 19 August 2019.
- ⁴² United Nations, *Keeping the Promise: United to Achieve the Millennium Development Goals*, A/RES/65/1, para 16.
- **43** Ibid, para 66.
- Francesco Bandarin, Jyoti Hosagrahar, and Frances Sailer Albernaz, 'Why Development Needs Culture' (2011) 1(1) Journal of Cultural Heritage Management and Sustainable Development 15.
- ⁴⁵ United Nations Development Programme, 'Background on the goals' <www.undp.org/content/undp/en/home/sustainable-development-goals/background.html> accessed 25 June 2019.
- **46** United Nations, *Keeping the Promise* (n 42).
- ⁴⁷ UNESCO, Sustainable Development Goals for Culture in the 2030 Agenda, http://en.unesco.org/sdgs/clt accessed 25 June 2019.
- 48 See further Ben Boer, 'Culture, Rights and the Post-2015 Development Agenda' in Andrea Durbach and Lucas Lixinski (eds), *Heritage, Culture and Rights: Challenging Legal Discourses* (Hart Publishing 2017) 35; see also UNESCO, *Sustainable Development Goals for Culture in the 2030 Agenda* (n 47).
- **49** *Transforming our World* (n 18).
- **50** Ibid, para 36.
- 51 See further Boer, 'Culture, Rights and the Post-2015 Development Agenda' (n 48) 53.
- **52** Ibid.

- 53 Draft International Covenant on Environment and Development (5th ed, IUCN Switzerland 2015) 28.
- 54 Ibid, Foreword, xiii.
- Ancient manifestations include the rock art of Indigenous peoples in various countries, for example the Australian Aboriginal people—see Josephine Flood, *Rock Art of the Dreamtime: Images of Ancient Australia* (Angus and Robertson 1997. In Europe, rock art was practised in many regions; see Council of Europe Portal, Prehistoric Rock Art Trails https://www.coe.int/en/web/cultural-routes/prehistoric-rock-art-trails accessed 11 December 2019.
- 56 Draft International Covenant (n 53) 30.
- ⁵⁷ First IUCN World Environmental Law Conference outcome <www.iucn.org/commissions/world-commission-environmental-law/wcel-resources/environmental-rule-law> accessed 25 June 2019.
- ⁵⁸ IUCN, *Global Pact for the Environment* < www.iucn.org/commissions/world-commission-environmental-law/our-work/global-pact-environment> accessed 25 June 2019.
- ⁵⁹ United Nations, Towards a Global Pact for the Environment, Res 72/277 (10 May 2018) https://wedocs.unep.org/handle/20.500.11822/27070 accessed 25 June 2019.
- 'Gaps in International Environmental Law and Environment-Related Instruments: Towards a Global Pact for the Environment' https://wedocs.unep.org/handle/20.500.11822/27070 accessed 25 June 2019.
- 61 See, further, Yann Aguila and Jorge E. Viñuales, 'A Global Pact for the Environment: Conceptual Foundations' (2019) 28(1) Review of European, Comparative and International Environmental Law 3, at 12; Christina Voigt, 'How a "Global Pact for the Environment" could add value to International Environmental Law' (2019) 28(1) Review of European, Comparative and International Environmental Law 13; Duncan French and Louis J. Kotzé, 'Towards a Global Pact for the Environment: International Environmental Law's Factual, Technical and (Unmentionable) Normative Gaps' (2019) 28(1) Review of European, Comparative and International Environmental Law 25; John H. Knox, 'The Global Pact for the Environment: At the Crossroads of Human Rights and the Environment' (2019) 28(1) Review of European, Comparative and International Environmental Law 40. See, further, Ben Boer 'Environmental Principles and the Right to a Quality Environment' in Ludwig Krämer and Emanuela Orlando (eds), Principles of Environmental Law (Edward Elgar 2018) 52-76.
- 62 David Boyd, in Yann Aguila and Jorge E. Viñuales (eds), A Global Pact for the Environment: Legal Foundations (C-EENRG 2019) 191.
- ⁶³ Convention for the Protection of Cultural Property in the Event of Armed Conflict (adopted 14 May 1954, entered into force 7 August 1956) 249 UNTS 240.
- 64 However, Lixinski (n 12, at 11) suggests that there were attempts by States to include nature in the definition of heritage.
- 65 Convention concerning the Protection of the World and Natural Heritage (adopted 16 November 1972, entered into force 17 December 1975) 1037 UNTS 151.
- 'The most significant feature of the 1972 World Heritage Convention is that it links together in a single document the concepts of nature conservation and the preservation of cultural properties. The Convention recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two.': World

- Heritage Centre, *The World Heritage Convention* https://whc.unesco.org/en/convention/ accessed 25 June 2019.
- ⁶⁷ Susanna Kari and Mechtild Rössler, 'A World Heritage Perspective on Culture and Nature-Beyond a Shared Platform' (2017) 34(2) *The George Wright Forum* 134.
- 68 Gérard Bolla, in Batisse and Bolla, The Invention of 'World Heritage' (n 10), at 67.
- Peter Bille Larsen and Gamini Wijesuriya, 'Nature-Culture Interlinkages in World Heritage: Bridging the Gap', (2017) 34(2) *The George Wright Forum* 142, at 145.
- ⁷⁰ Pierre-Marie Dupuy and Jorge E Viñuales, *International Environmental Law* (2nd ed, Cambridge University Press 2018) 224.
- Nature' in Bernd von Droste, Harald Plachter, and Mechtild Rössler (eds), *Cultural Landscapes of Universal Value-Components of a Global Strategy* (Gustav Fischer Verlag and UNESCO 1995), 15; see also Thomas Schaaf and Mechtild Rössler, 'Sacred Natural Sites, Cultural Landscapes and UNESCO's Action' in Bas Verschuuren et al. (eds), *Sacred Sites: Conserving Nature and Culture* (Earthscan 2010). The recognition of maritime cultural landscapes is also noted; see Christopher Westerdahl, 'The Maritime Cultural Landscape' in Alexis Catsambis, Ben Ford, and Donny L. Hamilton (eds), *The Oxford Handbook of Maritime Archaeology* (Oxford University Press 2011) 734.
- 72 Ken Taylor, 'Landscape and Meaning' in Ken Taylor and Jane L. Lennon, *Managing Cultural Landscapes* (Routledge 2012) 22.
- 73 Operational Guidelines art 146; for history and application of the concept of cultural landscapes, see Kathryn Whitby-Last, 'Art. 1: Cultural Landscapes', in Francesco Francioni with Federico Lenzerini (eds), *The World Heritage Convention: A Commentary* (Oxford University Press 2008) 50–62. The third expert advisory body is the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM); see Operational Guidelines art 40.
- 74 Revision of the Operational Guidelines, Decision 6 EXT.COM 5.1, 2003.
- ⁷⁵ Operational Guidelines art 46. Properties shall be considered as 'mixed cultural and natural heritage' if they satisfy a part or the whole of the definitions of both cultural and natural heritage laid out in arts 1 and 2 of the Convention.
- 76 Operational Guidelines art 146 and Annex 6, C.1.
- ⁷⁷ Larsen and Wijasuriya, 'Nature-Culture Interlinkages' (n 69), at 150.
- ⁷⁸ Ibid.
- 79 Universal Declaration on Cultural Diversity (2 November 2001) UNESCO Doc 31C/Res.25, art 1.
- 80 Blake, International Cultural Heritage Law (n 15) 141.
- 81 Maffi and Woodley, Biocultural Diversity Conservation (n 4) 6.
- 82 Ibid, 180-2.
- ⁸³ IUCN Commission on Environmental, Economic and Social Policy <www.iucn.org/commissions/commission-environmental-economic-and-social-policy/ceesp> accessed 25 June 2019.
- ⁸⁴ 'Bio-cultural diversity' <www.iucn.org/theme/governance-and-rights/our-work/bio-cultural-diversity> accessed 25 June 2019.

- 85 Editorial, celebrating the 2019 International Year of Indigenous Languages (2019) 1(3) UNESCO Courier, drawn from Weathering Uncertainty (UNESCO 2012). See also Elisa Morgera, Elsa Tsioumani, and Matthias Buck, Unraveling the Nagoya Protocol: A Commentary on the Nagoya Protocol on Access and Benefit-Sharing to the Convention on Biological Diversity (Brill 2015) 25–7. For a critique of the biocultural diversity approach, see J. P. Brosius and S. L. Hitchner, 'Cultural Diversity and Conservation' (2010) 61 International Social Science Journal 141–68.
- Blake International Cultural Heritage Law (n 15) 142. See also UNESCO, Sharing a World of Difference—The Earth's Linguistic, Cultural and Biological Diversity (UNESCO 2003). At the national level, we can note the manifestations of these international efforts; see, for example, Aboriginal Languages Act 2017 in New South Wales, Australia and the Indigenous Languages Bill C-91 (Canada) February 2019.
- ⁸⁷ Convention on the Protection of the Underwater Cultural Heritage (adopted by the 31st session of the General Conference of UNESCO, Paris, 2 November 2001) 41 ILM 40 (2002).
- 88 Lixinski (n 12) 42-3.
- ⁸⁹ Convention on the Safeguarding of the Intangible Cultural Heritage (adopted 17 October 2003, entered into force 20 April 2006) 2368 UNTS 3.
- ⁹⁰ UNESCO, Operational Directives for the implementation of the Convention for the Safeguarding of the Intangible Heritage, 2018. 7.GA (2018).
- ⁹¹ UNESCO, Traditions and practices associated with the Kayas in the sacred forests of the Mijikenda
- https://ich.unesco.org/en/USL/traditions-and-practices-associated-with-the-kayas-in-the-sacred-forests-of-the-mijikenda-00313 accessed 19 August 2019.
- ⁹² UNESCO, Argan, the Practices and Know-how Concerning the Argan Tree in Morocco https://ich.unesco.org/en/RL/argan-practices-and-know-how-concerning-the-argan-tree-00955> accessed 19 August 2019.
- ⁹³ UNESCO, Traditional System of Corongo's Water Judges https://ich.unesco.org/en/RL/traditional-system-of-corongos-water-judges-01155 accessed 19 August 2019.
- ⁹⁴ Convention on the Protection and Promotion of the Diversity of Cultural Expressions (opened for signature 20 October 2005, entered into force 18 March 2007) 2440 UNTS 311.
- 95 Operational Guidelines to the Convention on Diversity of Cultural Expressions, para 4a.
- ⁹⁶ UNESCO, *Nigeria's Periodic Report 2017* https://en.unesco.org/creativity/governance/periodic-reports/2017/nigeria accessed 17 May 2019.
- 97 Ibid.
- 98 Blake, International Cultural Heritage Law (n 15) 142.
- ⁹⁹ Ibid; as Blake points out, 'the relationship between the heritage-environment-human rights nexus and sustainable development is an important one ... It is now timely to suggest that the international community needs to develop a legal framework that fully encompasses the three core elements of sustainability: the right to development, the right to a healthy global environment, and the right to the cultural heritage of humankind' (123-4).
- 100 International Convention for the Regulation of Whaling (adopted 2 December 1946, entered into force 10 November 1948) 161 UNTS 74.

- ¹⁰¹ See Malgosia Fitzmaurice, *International Convention for the Regulation of Whaling*, United Nations Audiovisual Library of International Law (2015) http://legal.un.org/avl/ha/icrw/icrw.html accessed 25 June 2019.
- 102 International Whaling Commission, *Revised Management Scheme* https://iwc.int/therevised-management-scheme accessed 25 June 2019.
- ¹⁰³ International Whaling Commission, *Aboriginal Subsistence Whaling* https://iwc.int/aboriginal accessed 25 June 2019.
- North Pacific Fur Seal Interim Convention 1957 (adopted 9 February 1957; as amended 7 May 1976) 314 UNTS 105.
- ¹⁰⁵ Agreement on the Conservation of Polar Bears (15 November 1973, entered into force 26 May 1976) 2898 UNTS 243.
- 106 Convention on Wetlands of International Importance especially as Waterfowl Habitat (adopted 2 February 1971, entered into force 21 December 1975) 996 UNTS 245.
- Ramsar Convention, Resolution VII.8: Guidelines for establishing and strengthening local communities' and Indigenous people's participation in the management of wetlands, 1999 http://archive.ramsar.org/cda/en/ramsar-documents-guidelines-guidelines-for-20833/main/ramsar/1-31-105%5E20833 4000 0">accessed 25 June 2019.
- **108** Ibid, para 15.
- 109 Ibid, para 4.
- Convention on International Trade in Endangered Species of Wild Flora and Fauna (adopted 3 March 1973, entered into force 1 July 1975) 993 UNTS 243.
- 111 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 'A contribution to the global follow-up and review in the 2017 High Level Political Forum (HLPF) on the work of the Convention on International Trade in Endangered Species of Wild Fauna and Flora: Eradicating Poverty and Promoting Prosperity in a Changing World' https://sustainabledevelopment.un.org/index.php?
 page=view&type=30022&nr=650&menu=3170> accessed 25 June 2019.
- ¹¹² Convention on the Conservation of Migratory Species of Wild Animals (adopted 23 June 1979, entered into force 1 November 1983) 1651 UNTS 333.
- ¹¹³ Ibid, art III(5)(c); A number of national jurisdictions also provide exceptions in their biodiversity and wildlife laws to allow for traditional hunting methods to be used by Indigenous and local peoples and communities; for example *Biodiversity Act: Norms and standards for hunting methods in South Africa* (GN No 456 of 2011); *Environment Protection and Biodiversity Conservation Act 1999* (Australia).
- 114 Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia https://www.cms.int/en/legalinstrument/iosea-marine-turtles accessed 25 June 2019.
- 115 Ibid, 'Conservation and management plan' para 1.5.
- **116** Ibid, para 3.1.
- Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) 31 ILM 818.
- ¹¹⁸ For further comment on the links between humans and biodiversity as manifested in the preamble, see Agustín García Ureta, 'Nature Conservation' in Emma Lees and Jorge E.

- Viñuales (eds), Oxford Handbook of Comparative Environmental Law (Oxford University Press 2019) 465.
- 119 Joint Nature Conservation Committee (UK), 'The ecosystem approach' http://jncc.defra.gov.uk/page-6276 accessed 25 June 2019.
- 120 Convention on Biological Diversity, *Ecosystem approach* https://www.cbd.int/ecosystem/ accessed 25 June 2019.
- ¹²¹ Lucas Lixinski, 'Heritage for whom? Individuals and Communities' Roles in International Cultural Heritage Law' in Lenzerini and Vrdoljak, *International Law for Common Goods* (n 14) 193, at 203.
- ¹²² Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (opened for signature 2 February 2011, entered into force 12 October 2014) CN 782.2010.
- 123 Convention on Biological Diversity, *About the Nagoya Protocol* https://www.cbd.int/abs/about/ accessed 19 August 2019.
- Francesco Francioni, 'International Common Goods-An Epilogue' in Lenzerini and Vrdoljak, *International Law for Common Goods* (n 14) 443 at 445-6.
- 125 Framework Convention on Climate Change (adopted 9 May 1992, entered into force 21 March 1994) 31 ILM 849.
- Convention to Combat Desertification in those Countries experiencing Serious Drought and/or Desertification, particularly in Africa (adopted 14 October 1994, entered into force 26 December 1996) 33 ILM 1328.
- **127** Art 17(1)(c).
- **128** Summarized from art 18(10) and (2).
- 129 Blake, International Cultural Heritage Law (n 15) 125.
- 130 International Treaty on Plant Genetic Resources for Food and Agriculture (2001).
- 131 Blake, International Cultural Heritage Law (n 15) 125.
- Convention concerning Indigenous and Tribal Peoples in Independent Countries (adopted 27 June 1989, entered into force 5 September 1991) 28 ILM 1382.
- 133 Ibid, recital 6, Preamble.
- 134 United Nations Declaration on the Rights of Indigenous Peoples 2007, UNGA A/RES/61/295.
- 135 Keynote address by James Anaya, Dean, University of Colorado Law School Former Special Rapporteur on the Rights of Indigenous Peoples, 34th Session of the World Intellectual Property Organization Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore 12 June 2017.
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