

19

Sacred Natural Sites in Technologically Developed Countries: Reflections from the Experience of the Delos Initiative

Josep-Maria Mallarach and Thymio Papayannis

Summary

This chapter discusses the conservation of sacred natural sites in technologically developed countries, from the viewpoint of the Delos Initiative, an international initiative launched in 2004 by the Specialist Group on Cultural and Spiritual Values of Protected Areas of the IUCN World Commission of Protected Areas. Case studies of the Delos Initiative include over 30 protected areas from all six IUCN management categories, found in Europe, North America, Asia and Oceania. They relate to mainstream religions and several traditional spiritual traditions, folk or ethnic religions. These cases combine outstanding natural, cultural and spiritual values.

The chapter presents the approach adopted by the Delos Initiative, including key developments on science, policy and mainstream religions. The second part distils the five years' experience of the Initiative, explaining the systematic approach adopted for the case studies and presenting some

results at global, bioregional, national and site level and presenting some of the key strategic lines of work and summarizes the lessons learned.

Introduction

Sacred natural sites can be found in most of the world's countries, in different sizes and densities and with differing levels of significance. They are found in all major ecosystems and encompass all the IUCN categories of PAs (Verschuuren et al, 2008). Sacred sites constitute the oldest known form of nature conservation, and in some countries may be quite extensive. Management of sacred natural sites displays a variety of forms, some of which have proved amazingly effective and resilient over centuries, adapting to subsequent civilizations.

In technologically developed countries full recognition of their sacred natural sites has been hampered by reductionist and materialist ideology stemming from the belief that only the material world is real, and that only modern western science provides a valid understanding of reality (Smith, 1984). This has posed psychological barriers to

the inclusion of cultural and spiritual values in conservation management. In legally established PAs where the management focus has normally been on natural heritage and biodiversity values, other important values related to the intangible cultural heritage have often been disregarded. In addition, the influence of religions and spiritual traditions on society in many technologically developed countries has been declining during the last decades and many western societies have an erroneous but widespread impression that only indigenous traditions possess a sacred view of nature and have sacred natural sites.

The western conservationist community has largely merged from within and embraced a scientific materialistic paradigm, failing to acknowledge that its reductionist concepts do not exist in the vast majority of the world's cultures nor expressed in their languages (Mallarach, 2008). Despite the positive results obtained, this has prevented, in many instances, the acceptance of the full spectrum of values that link human beings with nature. This essential factor for involving local populations and attaining the conservation and safeguarding of many outstanding natural areas that have been held in high esteem for reasons quite different from natural heritage values, is proven by many of the contributions included in this book. Recognition of sacred natural sites in technologically advanced countries had been overlooked and is now being addressed by the Delos Initiative.

Background: Some key developments

This chapter discusses three significant changes regarding the growing acceptance of the sacred dimension in nature: the scientific evidence of the limits of western science; the recognition of the need to account for governance factors and their implications, and the growing interest of mainstream religions in the environment and the conservation of biodiversity.

Impact of scientific discoveries on scientism

During the 20th century the impact of scientific discoveries showed the intrinsic limitations of modern western science. This has produced waves of effects in many different disciplines, such as the philosophy of science, physics, cosmology and theology. Significant milestones include Heisenberg's uncertainty principle (1926), Gödel's theorem (1931), Gibson's theory of visual perception (1950) and Dembski's theory of design (1998). As the physicist Wolfgang Smith (2003) puts it, 'hard science...is ultimately destructive of scientist myth'.

Many scientific research organizations have made significant contributions to the recognition of the diversity and richness of the spiritual and intangible aspects and values of nature, usually from the viewpoint of humanities (Gardner, 2003). A significant milestone was the series of conferences on religions and ecology organized by the Centre for the Study of the World's Religions of Harvard University, in which large numbers of scholars participated, issuing a remarkable collection of reference works (Tucker and Grim, 2000). Another was the publication of the comprehensive Encyclopaedia Religion and Nature (Taylor and Kaplan, 2005).

In academia, the field of 'religion and ecology', or 'ecological spirituality', is based on the convergence the philosophical (theoretical or structural) and the moral (ethical or spiritual). Many academic institutions offer specialized studies through the departments of religion and anthropology, where diverse contemporary worldviews are being taught without prejudice.

The governance component

Four main types of PA governance are now internationally recognized: sites managed by governmental agencies; PAs run and managed by shared governance; private PAs designated and managed by individual landowners, non-profit organizations or for-profit organizations, and sites owned and managed by indigenous and local communities (Borrini-Feyerabend et al, 2004; Dudley, 2008).

Governance arrangements are usually site-specific. In addition to human rights, IUCN

has underlined seven basic principles for good governance which include: legitimacy and voice, subsidiarity, fairness, avoiding harm, direction, performance, accountability and transparency. These principles have been included in the latest version of guidelines for IUCN categories of PAs (Dudley, 2008) and are significant for the conservation of sacred natural sites.

Positive developments by mainstream religions

It is known that some branches of Christianity have maintained that human beings have the inherent and inalienable right to conquer and exploit nature and its resources, including indigenous peoples, which has contributed to the impact of the western colonization over the world (LaDuke, 2005). In addition, most Protestant churches opposed the sanctity of nature and abolished the old Christian sacred natural sites, including pilgrimage trails, hermitages, holy springs, etc., which are still very significant in Orthodox, Catholic as well as the Eastern Christian churches (see also Chapter 5).

During recent decades mainstream religions have demonstrated an increased interest and concern in environmental matters in response to growing awareness and disquiet regarding environmental matters by their followers (Palmer and Finley, 2003). Best practice case studies related to the major world religions have been documented in a number of works, for example the Chartered Institution of Water and Environmental Management (2008). The Ecumenical Patriarchate of the Christian Orthodox Church has led environmental interfaith initiatives focusing on water bodies and on broader environmental issues, mainly through shipboard symposia held in critical regions of the world. Since the 2002 joint declaration on the environment of Pope John Paul II and Ecumenical Patriarch Bartholomew I, several high level statements from Christian authorities have been calling for an 'ecological conversion' and new respect for nature (Bartholomew I, 2003). Simultaneously, good practices have been developed on most Christian monastic lands and are currently expanding.

Some achievements

At different levels dialogue developed between conservation organizations and mainstream religions has produced promising results. Dudley et al (2005) document the role that mainstream religions and indigenous spiritual traditions have played in 100 examples of SNS (Sacred Natural Sites) around the world. Bagader et al (1994) provide a good example on how a specific religious law can provide the basis for improved environmental policies in Islamic countries.

Multilateral agreements and programmes – such as UNESCO and its conventions (especially the Man and Biosphere Programme, World Heritage and Living Heritage Conventions), the Convention on Biological Diversity and earlier, the Ramsar Convention on Wetlands – have been instrumental in promoting a more holistic view of nature and in encouraging their member states to implement such an integrated approach (Bridgewater et al, 2007; see also Chapters 15 and Chapter 17).

At the 2003 World Parks Congress in Durban, South Africa, indigenous people, local communities, a number of working groups (including CSVPA) and major international organizations recommended that all PA systems should recognize and incorporate spiritual values and culture-based approaches into their conservation efforts.

Two out of many examples of positive achievements at the national level come from Europe and North America. Estonia shows that efforts at the policy level can be very effective. Estonia has more than 2000 ancient pre-Christian SNS, named *hii*. Only one-quarter of them are legally protected and this lack of legal protection, coupled with the weakening of traditional beliefs, puts many SNS at risk. Civil society organizations have taken to court public and private developers that are promoting projects that could potentially harm SNS. Maavalla Koda, a national NGO, is lobbying to achieve recognition for the native religion of Estonia and giving appropriate protection to SNS. In 2008 they convinced the Estonian government to promote an official inventory and research of SNS. Once completed, the Estonian Ministry of Culture will be responsible for the implementation of the conservation strategy (Kaasik and Valk, 2008).

The Sacred Mountains Programme in North America includes a number of national parks with Native American values and visions of nature. The programme demonstrates that for assurance of long-term sustainability, conservation programmes need to be grounded in deeply held values and beliefs and use careful, sensitive and inclusive language (Bernbaum, 2007).

Uneven results and new challenges

Nature-oriented conventions faced strong opposition to sensitization to cultural and spiritual values from countries that feared problems of national issues with indigenous peoples and local communities. Other concerns are global trade and major economic agreements, which contribute to the continuing loss of biodiversity. The most comprehensive assessments that have been made globally and in European technologically developed countries show unabated biodiversity losses continue (Hassan and Scholes, 2008; EEA, 2009).

Growing secularization has weakened the power of the institutionalized religions and the social influence of the traditional custodians resulting in the dimming of the intrinsic values and decreased protection of SNS. In fact, most PAs are managed as secular areas and there is a largely unspoken assumption that they do not have religious or spiritual significance (Byrne et al, 2006). Ignorance, indifference and neglect of sacred values result in cultural, religious and spiritual weakening or breakdown as well as the loss of the cosmic dimension of the religion. Close collaboration between the custodians of SNS and the managers of PAs is necessary to face these new challenges and to establish synergies for the benefit of conservation of both spiritual and natural heritage. This requires overcoming old mistrusts and prejudices, and learning each other's languages and values. These challenges are found in most of the world, including in technologically developed countries, despite the fact that they have the capacity and resources to manage their heritage. The reasons for that are complex and a few are mentioned here.

In some technologically developed countries, sites sacred to indigenous peoples are not respected

sufficiently against development, or are simply ignored. The US Forest Service expansion of a ski resort (and the use of waste water to create artificial snow) on the San Francisco Peaks in Arizona – sacred to 17 Native American Nations – is a case in point (Hamilton and Benally, 2009). The outstanding film *In the Light of Reverence* produced by the Sacred Land Film project documents this and other similar flagship cases in the US.

Major shrines and centres of Christian pilgrims located in natural areas are subjected to the pressures of intense mass tourism, which often undermine their spiritual functions. A typical example is the Meteora site in Thessaly, Greece, with its monasteries on rocky pinnacles. The site is subjected to heavy visitor flows and uncontrolled urbanization of the surrounding natural area (Lyratzaki, 2007). In other SNS that have been incorporated in PAs, the collaboration between their custodians and the PA management is weak, leading to conflicts and malfunction. At times, events related to mainstream religions may pose threats to protected natural areas. This is the case of the Virgin of El Rocío sanctuary in the Doñana National and Natural Parks, Andalusia, Spain. At certain times of the year, the sanctuary attracts over 1 million pilgrims who travel through the dunes and marshlands by foot or on horseback while praying, chanting and celebrating for several days (Falgarona, et al, 2007). Another example is the arrival – usually by car – of over 2 million visitors per year to the monastery of Montserrat, nested in a Nature Reserve in Catalonia, Spain (Mallarach, 2007).

The Vanatori-Neamt Nature Park in Moldavia includes the largest concentration of Christian Orthodox monasteries in Romania, receiving a continuous number of pilgrims. The monasteries are located in a mountain forested landscape with very diverse fauna, including healthy populations of top predators such as wolf (*Canis lupus*) and brown bear (*Ursus arctos arctos*), with a successful reintroduction programme for the European bison (*Bison bonasus*). The area is also considered one of the richest in Romania from a traditional culture point of view (Catanoiu, 2007).

A recent phenomenon related to the global movements and migration of people is the emergence of new SNS related to mainstream



Figure 19.1 Orthodox monastery of Rila, spiritual and cultural heart of Bulgaria, nestled in the middle of a natural park managed as a nature reserve created by the Orthodox Church of Bulgaria

Source: Josep-Maria Mallarach

religions settling in new places. A well-documented case are the parklands around Sydney, Australia, where new SNS related to Buddhism and Mazdeism (Zoroastrianism) are being established by migrants from different religious backgrounds (Byrne et al, 2006). European examples include the Hinduization of some parts of the mountain landscape of the National Park of Snowdonia, Wales, or the Holy Arran Island in Scotland, a long-abandoned Celtic Christian sacred site, which has been re-sanctified as an interfaith centre led by a Tibetan Buddhist organization (Soria, 2007).

The approach of the Delos Initiative

The Delos Initiative was launched in 2004 to improve the management of the natural, cultural and spiritual values of PAs in developed countries. It was named after the Aegean island of Delos,

a sacred site during the classical times for both Greeks and Romans dedicated to Apollo, the god of light. Delos Island has no links to any single living faith and was the centre of a long-lasting Athenian Alliance, home to religious and political functions during the Hellenic civilization.

The Delos initiative approach is twofold and complementary. In technologically developed parts of the world, specific natural sites sacred to mainstream faiths or indigenous peoples were chosen (see Table 19.1) to reach a balance between regions, cultures and faiths. These sites were analysed and assessed – usually by local experts – focusing on their natural, cultural and spiritual values in order to understand their specificities and to identify threats and opportunities. The case studies were then discussed with local stakeholders, to reach a deeper comprehension of the issues. Recommendations to overcome the identified obstacles were elaborated with the main stakeholders where possible. The resulting

Table 19.1 Case studies of The Delos Initiative

| SNS name | Protected Area name | IUCN category | Religion/spiritual tradition | Country |
|-----------------------------------|--|---------------|---|--------------------|
| Äjjs/Ukonsaari | Lake Inari – Natura 2000 site | V | Sámi | Finland |
| Athos Holy Mountain | Athos Peninsula WHS | III | Christian Orthodox | Greece |
| Buila Vinturarita | Buila Vinturarita National Park | II | Christian Orthodox | Romania |
| Casentine Forests | National Park of the Casentine Forests | II | Christian Catholic | Italy |
| Dhimurru | Indigenous Protected Area | – | Yolngu Spirituality | Australia |
| Ein Gedi Oasis | En Gedi Nature Reserve and En Gedi Antiquities National Park | Ia | Judaism and Christianity | Israel |
| Holy Circle of Karamats-Cape Town | Table Mountain National Park and other PAs, including CCA | II–IV | Sunni Islam | S. Africa |
| Holy Island of Lindisfarne | Lindisfarne National Nature Reserve | IV | Celtic/Anglican Christianity | UK |
| Kii Mountain Range | Several National Parks | II–V | Shinto, Buddhism, Shugento | Japan |
| Kolovesi | Kolovesi National Park | II | Pre-historic | Finland |
| Numerous diverse names | National Park della Majella | II | From Pre-historic to Christian Catholic | Italy |
| Mani-san Mountain | Mani-san Mountain National Tourist Area | V | Folk religion | South Korea |
| Maulâý Abd al-Salâm ibh Mashish | Jbel Bouhachen Site of Biological and Ecological Site. Intercontinental RoB of the Mediterranean | V | Sunni Islam | Morocco |
| Meteora | Meteora WHS | III | Christian Orthodox | Greece |
| Monastery of Chrysopigi | Chania WHS | – | Christian Orthodox | Greece |
| Monastery of Mileseva | Uvac-Milesevka Special Nature Reserve | IV | Christian Orthodox | Serbia |
| Monastery of Rila | Natural Park of Rila | III + V | Christian Orthodox | Bulgaria |
| Montserrat | Serra del Montsant Natural Park | V | Christian Catholic | Spain |
| Montserrat | Muntanya de Montserrat Natural Park | III–V | Christian Catholic | Spain |
| Mount Nantai | Nikko National Park WHS and Ramsar sites | II | Shinto | Japan |
| Oconaluftee River | Great Smoky Mountains National Park | II | Native American (Cherokee) | USA |
| Poblet Monastery | Poblet Natural Area of National Significance + WHS | IV | Christian Catholic | Spain |
| San Francisco Peaks | Coconino National Forest | VI | Native American (Navajo) | USA |
| Santuario del Rocío | Doñana National Park and Doñana Natural Park | II | Christian Catholic | Spain |
| Solovetsky Islands | Solovetsky Archipelago WHS | V | Christian Orthodox | Russian Federation |

Table 19.1 continued

| SNS name | Protected Area name | IUCN category | Religion/spiritual tradition | Country |
|-----------------------------|-----------------------------|---------------|------------------------------|---------|
| Tashi Ling Monastery | Park of Garraf | V | Tibetan Buddhist | Spain |
| The Holy Island of Arran | Arran Island Marine Reserve | – | Celtic – Buddhism | UK |
| Vanatori Neamt Natural Park | Vanatori Neamt Natural Park | V | Christian Orthodox | Romania |
| Via Lauretana | Several National Parks | Several | Christian Catholic | Italy |

Source: J.-M. Mallarach and T. Pappayanis

case studies were presented to a peer group in international workshops and debated among its members. Lessons were extracted from them, and shared with others.

In parallel, theoretical work applied the fundamental principles that all spiritual traditions share, namely a belief in the symbolic character of nature and in the sacredness or holiness of natural celestial manifestations. Thus, they profess awe and profound respect for the natural order as a terrestrial reflection of a divine order. Hence the Initiative attempts to better characterize the main principles and practices of different spiritual traditions, to assess their relevance and influence in various contexts, based on the common ground with ecology and nature conservation (Tucker and Grim, 1988).

The initiative has led to conclusions encapsulated in the Montserrat Statement (Mallarach and Papayannis, 2007) and the Ouranoupolis Statement (Papayannis and Mallarach, 2009; also Wild and McLeod, 2008). These conclusions are being further evaluated, refined and completed with the analysis of additional case studies so that guidance can be provided, initially to the managers of protected natural areas that include sacred sites, but which can also be of use to the custodians of these sites, and other concerned stakeholders. These conclusions can be the basis for developing a specific set of guidelines for protected area managers.

Actions at international, regional and national levels

Although the Delos Initiative has been presented at many international congresses, symposia and

workshops in Europe, Asia and Africa, most of the work has been at European, either bioregional or national, levels with organizations such as Europarc, Eurosite, the Convention of the Carpathian PAs, Mediterranean Ramsar sites, the Spanish Section of the Europarc Federation and the Romanian Service of Natural Parks. For instance, the 11th and 12th Conferences of the Spanish Section of Europarc agreed to integrate cultural and spiritual values in planning and management of PAs in the Programme of work for PAs of Spain 2009–2013 (Europarc España, 2009). Another example was the first Conference of the Carpathian Convention on Protected Areas in Romania in 2008, which approved the identification and characterization of the Carpathian cultural identity in the PAs – including spiritual, cultural and natural values – in the Programme of Work, and established a working group for tangible and intangible cultural heritage of protected areas.

The Delos Initiative is planning complementary guidance for dealing with the issue of overlapping of sacred sites from different religions and spiritual traditions. This is a common phenomenon in regions where SNS have been used by successive religions and spiritual traditions. Mount Sinai is just one example of this (Grainger and Gilbert, 2008).

In Europe, only a few countries have SNS related to living indigenous traditions. Instead many ancient SNS are now archaeological monuments or places of cultural heritage. However SNS related to mainstream religions are found in PAs belonging to all IUCN categories. In some countries entire systems of PAs have been established on lands belonging to religious organizations. For instance,



Figure 19.2 Fire-lighting ceremony in a temple of the Kii Mountain Range, a Buddhist-Shinto pilgrimage complex protected by several national parks, south of Kyoto, Japan

Source: Edwin Bernbaum

the National Parks of South Korea are owned or managed by religious organizations. Many religious organizations are significant landowners of natural areas of outstanding quality in various countries, including Romania, Bulgaria, Serbia and Greece.

Lessons learned

General conclusions have been drawn from the work carried out during the Delos workshops at Montserrat, Spain, and Ouranoupolis, Greece.

The sacred remains potentially one of the most powerful drivers for conservation, inspiring feelings of awe, veneration and respect. This is demonstrated by SNS, sacred landscapes or particular sacred features that have been an effective form of nature conservation over the ages, even in most technologically developed countries. Some SNS are of local importance, while others have a broader significance, for wider groups, cultures, traditions and religions. Along with the current neglect of many SNS, there is interest and even a revival of a small number of them.

In most cultures nature has significant intrinsic values and meanings – including cultural and spiritual – which are still considered key values for society. In fact, followers of mainstream religions often understand nature as a manifestation or sign of some deeper, unseen, sacred reality, in whatever form that may be considered.

The spiritual aspects of nature can contribute greatly to the conservation of a country's natural heritage. They do so directly through inspiring people and involving them in conservation actions. Taking intangible values into consideration has in many different countries contributed to a significant broadening of the social support for nature conservation.

Certain rights should be inalienable. The traditional rights of the custodians of sacred sites must be safeguarded from insensitive public or private development interventions and from misguided conservation efforts, while their participation in determining the future of the PA in which they are concerned is ensured.

All measures and initiatives concerning the natural, cultural and spiritual aspects of SNS must

respect the universal rights of people, as defined in numerous well-known conventions, and be grounded on sound and equitable participatory approaches.

Particular respect and recognition should be addressed to sites in PAs that are sacred for indigenous peoples, local communities and minorities, including new immigrants. These people often lack the capacity and means to defend their SNS. In places where multiple religions and/or spiritualities, or multiple branches of the same religion, co-exist, it is necessary to recognize their different approaches to nature and their implications for conservation, promoting the identification of common elements, so that interfaith collaboration can be encouraged for the conservation of the natural heritage.

An integrated management approach of PAs must include cultural and spiritual values in the planning processes. This requires the preparation, approval and implementation of integrated management plans for PAs that include or affect sacred sites. This encompasses the establishment of appropriate systems for evaluation and feedback, which incorporate natural, cultural and spiritual aspects, giving balanced weight to each of them. Such plans must be established with the participation of all stakeholders concerned, custodians of local communities and religious organizations alike.

It is necessary to ensure close and equitable collaboration between the custodians of the sacred sites and those responsible for the management of PAs (including related policy-makers), with mutual respect of their different mentalities and prerogatives. Dialogue should be encouraged so that better understanding of each other's position and requirements can be reached and a unified or coordinated approach satisfying both sides can be attained. However, synergy between spiritual and conservation approaches should not be limited to sacred sites in officially designated PAs only, but should extend to broader landscapes.

Capacity building is needed so that custodians of sacred sites can be exposed to the practices of nature conservation – including integrated management – and PA managers become better able to appreciate the spiritual approach and requirements of the custodians of the religious or spiritual heritage. Intercultural dialogue, joint education, research and art activities can play a positive role in bridging

the gap between cultural/spiritual concerns and conservation initiatives of SNS and facilitate collaboration between the two. Achieving complete synergy would be the ideal. The resulting benefits are already evident in sites where such holistic approaches have been implemented.

It is time for those making policy and management decisions to give more recognition to the inspirational values, healing powers and other values of SNS. This will enable a stronger and deeper relation to nature by modern societies, and less to the material short-term and short-sighted profits. This would be a crucial contribution to correct a materialistic values system that has over-exploited nature and to help redress the trends that have led to the global ecological crisis.

References

- Bagader, A.A., El-Chirazi El-Sabbagh, A.T., As-Sayyid Al-Glayand, M. and Izzi-Deen Samarrai, M.Y. (1994) 'Environmental protection in Islam', IUCN Environmental Policy and Law Paper No. 20. Gland Switzerland and Cambridge, UK
- Bartholomew I (2003) *Cosmic Grace, Humble Prayer: The Ecological Vision of the Green Patriarch Bartholomew I*, William B. Eerdmans Publishing Company Grand Rapids, Michigan
- Bernbaum, E. (2007) 'Great Smoky Mountains (shagonage) and Qualla Boundary: Tennessee and North Carolina, Southern Appalachian Mountains, United States of America', in Mallarach, J.-M. and Papayannis, T., *Nature and Spirituality in Protected Areas: Proceedings of the 1st Workshop of the Delos Initiative*, Abadia de Montserrat and IUCN, Sant Joan les Fonts, Spain
- Borrini-Feyerabend, G.A., Kothari, A and Oviedo, G. (2004) *Indigenous and Local Communities and Protected Areas: Towards Equity and Enhanced Conservation*, Best practice protected area Guidelines Series No 11, IUCN, Gland and Cambridge
- Bridgewater, P., Arico, S. and Scott, J. (2007) 'Biological diversity and cultural diversity: The heritage of nature and culture through the looking glass of multilateral agreements', *International Journal of Heritage Studies*, vol 13, no 4–5, July–September
- Byrne, D., Goodall, H., Wearing, S. and Cadzow, A. (2006) 'Enchanted parklands', *Australian Geographer*, vol 37, no 1, pp103–115
- Catanoiu, S. (2007) 'Vanatori-Neamt Natural Park. A Romanian Jerusalem', in Mallarach, J.-M. and

- Papayannis, T., *Nature and Spirituality in Protected Areas: Proceedings of the 1st Workshop of the Delos Initiative*, Abadia de Montserrat and IUCN, Sant Joan les Fonts, Spain, pp289–309
- Chartered Institution of Water and Environmental Management (2008) *Faiths and the Environment*, London
- Dudley, N. (ed) (2008) *Guidelines for Applying Protected Area Management Categories*, IUCN, Gland, Switzerland
- Dudley, N., Higgins-Zogib, L. and Mansourian, S. (2005) *Beyond Belief: Linking Faiths and Protected Areas to Support Biodiversity Conservation*, WWF, Equilibrium and Alliance of Religions and Conservation, Gland, Switzerland
- EEA (2009) 'Progress towards the European 2010 biodiversity target: Indicator fact sheets', EEA Technical report No 5/2009, Copenhagen
- Europarc España (2009) *Programa de trabajo para las Áreas Protegidas 2009–2013*, Fungobe, Madrid
- Falgarona, J., García-Varela, J. and Estarellas, J. (2007) 'Doñana National and Natural Parks, Sanctuary of La Virgen del Rocío', in Mallarach, J.-M. and Papayannis, T., *Nature and Spirituality in Protected Areas: Proceedings of the 1st Workshop of the Delos Initiative*, Abadia de Montserrat and IUCN, Sant Joan les Fonts, Spain, pp175–199
- Gardner, G. (2003) 'Invoking the spirit: Religion and spirituality in the quest for a sustainable world', *Worldwatch Paper*, vol 164
- Golser, K. (1995) *Religion and Ecology: Responsibility Toward Creation in the Great Religions*, EDB Bologna
- Grainger, J. and Gilbert, F. (2008) 'Around the sacred mountain: The St Katherine protectorate in Mount Sinai, Egypt', in Mallarach, J.-M. (ed) *Protected Landscapes and Cultural and Spiritual Values*, IUCN, GTZ and Obra Social de Caixa Catalunya, Heidelberg, pp13–21
- Hamilton, L. and Benally, J. (2009) 'Holy San Francisco Peaks, California, USA', in Papayannis, T. and Mallarach, J.-M. (eds) *Proceedings of the 2nd Workshop of the Delos Initiative, Ouranopolis 2007*
- Hassan, R. and Scholes, R. (eds) (2008) *Current Status and Trends, Millennium Ecosystem Assessment*, Island Press, Washington, DC
- Kaasik, A. and Valk, H. (2008) 'Looduslikud pühapaigad: väärtused ja kaitse', Maavalla Koda, Tartu Ülikool, Õpetatud Eesti Selts, Maalehe Raamat (includes English translation)
- LaDuke, W. (2005) *Recovering the Sacred: The Power of Naming and Claiming*, South End Press, Cambridge, MA
- Lee, C and Schaaf, T. (2003) *International Workshop on the Importance of SNS for Biodiversity Conservation*, UNESCO, Kunming and Xishuangbanna Biosphere Reserve, People's Republic of China
- Lyratzaki, I. (2007) ' Meteora World Heritage Site', in Mallarach, J.-M. and Papayannis, T., *Nature and Spirituality in Protected Areas: Proceedings of the 1st Workshop of the Delos Initiative*, Abadia de Montserrat and IUCN Sant Joan les Fonts, Spain, pp251–261
- Mallarach, J.-M. (2007) 'Montserrat', in Mallarach, J.-M. and Papayannis, T., *Nature and Spirituality in Protected Areas: Proceedings of the 1st Workshop of the Delos Initiative*, Abadia de Montserrat and IUCN, Sant Joan les Fonts, Spain, pp151–162
- Mallarach, J.-M. (ed.) (2008) *Cultural and Spiritual Values of Protected Landscapes: Values of Protected Landscapes*, Vol 2, IUCN, GTZ, Caixa Catalunya
- Nasr, S.H. (1996) *Religion and the Order of Nature*, Oxford University Press, Oxford, UK and New York
- O'Brien, J. and Palmer, M. (2007) *The Atlas of Religions: Mapping Contemporary Challenges and Beliefs*, Earthscan, London
- Palmer, M. and Finley, V. (2003) *Faith in Conservation: New Approaches to Religions and the Environment*, The World Bank, Washington DC, Part 2, pp67–145
- Papayannis, T. and Mallarach, J.-M. (eds) (2009) *Proceedings of the 2nd Workshop of the Delos Initiative – Ouranopolis 2007*, IUCN and Med-INA, Gland and Athens
- Putney, A. (2008) *Sacred Dimensions: Understanding the Cultural and Spiritual Values of Protected Areas*, IUCN-WCPA, Gland, Switzerland
- Schaaf, T. (ed) (2006) *International Symposium on Conserving Cultural and Biological Diversity: The Role of Sacred Natural Sites and Cultural Landscapes*, UNESCO, Tokyo, Japan
- Smith, W. (1984) *Cosmos and Transcendence: Breaking through the Barrier of Scientific Belief*, Sherwood Sugden and Company, Peru
- Smith, W. (2003) *The Wisdom of Ancient Cosmology: Contemporary Science in Light of Tradition*, The Foundation for Traditional Studies, Oakton, VA
- Soria, I. (2007) 'The Holy Island, Arran, Scotland', in Mallarach, J.-M. and Papayannis, T., *Nature and Spirituality in Protected Areas: Proceedings of the 1st Workshop of the Delos Initiative*, Abadia de Montserrat and IUCN, Sant Joan les Fonts, Spain, pp219–234

Taylor, B.R. and Kaplan J. (2005) *Encyclopedia of Religion and Nature*, Continuum, London

Tucker, M.E. and Grim, J. (1988) 'Religions of the world and ecology: Discovering the common ground', *Earth Ethics*, vol 10, no 1

Verschuuren, B., Mallarach, J.-M. and Oviedo, G. (2008) 'Sacred sites in protected areas', in Dudley,

N. and Stolton, S. (eds) *Defining Protected Areas: An International Conference in Almeria, Spain*, IUCN, Gland, pp164–170

Wild, R. and McLeod, C. (eds) (2008) 'Sacred natural sites: Guidelines for managers', UNESCO-IUCN, Gland, Switzerland