

# THE RIGHT TO STARLIGHT UNDER INTERNATIONAL LAW

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It is often said, “there is nothing new under the sun” and this is true for the laws protecting the Right to Starlight. This essay focuses on international law principles as found in International Travel, Outer Space, and World Heritage law and treaties. I define Starlight broadly, to include all celestial bodies that could be seen from the Earth, such as: asteroids, planets, meteoroids, galaxies, et cetera thereby expanding the scope of the Starlight Initiative to *Starlight, and the Light of All Celestial Bodies*.

International law is frequently based on thousands of years of precedent, and it is the application of these established international legal norms and principles to the new situations, or to restate long existing situations, that leads to the creation of so called “new law.” This was felt when Sputnik was launched on October 4, 1957 because until that moment, according to the laws of most States – outer space, the stars and the heavens above, were under the sovereignty of the State whose territory was beneath these stars. With Sputnik passing overhead every 98 minutes, a new custom in international law was instantly created overnight – the right to launch objects into space above any State’s territory, and arguably the removal of every State’s exclusive dominion to the starlight produced by the heavens above its territory.

From its inception, the development of space, and all of the benefits that derive from space, has been founded on the principles of equality, openness, and cooperation of all of humanity<sup>2</sup>. In part from these principles the Right to Starlight arises, as evidenced by the numerous international treaties that have recognized that outer space, and likewise the starlight it produces, is our Common World Heritage to be shared and enjoyed by all of humanity.

## **Starlight Is Our Common World Heritage**

First let’s understand the evolution of “common heritage of mankind” from previous conventions. Although the *Outer Space Treaties* from the 1960’s used the term “mankind,” the more modern and gender neutral term of “humankind” has been adopted in most recent legal instruments and international treaties have also moved from “Common Heritage of Mankind” to “World Heritage”<sup>3</sup>. Thus the Right to Starlight might best be framed as a “World Heritage” property right owned by all of humanity.

The law of World Heritage Rights as presently understood, was crystallized in Article I of the *Outer Space Treaty*, signed by most countries including the Launching states of China, Russia, the USA<sup>4</sup>, holding that Outer Space is “the Common Heritage of All Mankind.” So that one State – through light pollution or other means – may not interfere with another State’s right to explore space through starlight. The *Outer Space*

*Treaty* describes how outer space, as a territory, along with the objects that derive from it, cannot be owned by individuals or States<sup>5</sup>. Therefore, as one State cannot exclude another from space exploration, as all peoples have a right to utilize outer space as a property right for tourism, and to enjoy and access starlight for recreation, artistic and religious inspiration, scientific development, or any other pursuits.

“Outer space, including the moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies”.<sup>6</sup> This means that States cannot prevent other States from having access to any other form of space for exploration including the use of Starlight.<sup>7</sup>

Although this doctrine subsequently was a basis for appropriately designated UNESCO World Heritage Sites being set aside as destinations for all of humanity to enjoy, it is of importance to the Starlight Initiative that prior to later heritage conventions, outer space had already been designated as the “common heritage of mankind”.<sup>8</sup> *The Convention Concerning the Protection of the World Cultural and Natural Heritage (1972)*<sup>9</sup> (hereinafter *World Heritage Convention*)’s primary mission is to define and conserve the world’s heritage, by drawing up a list of sites whose outstanding values should be preserved for all humanity and to ensure their protection through a closer cooperation among nations. The *World Heritage Convention* is easily construed to include heritage destinations such as outer space and locales that provide starlight. A natural heritage property is considered to be of outstanding universal value for the purposes of the *World Heritage Convention*. Outer space and the starlight it produces is arguably a natural heritage and the *Space Treaties* collectively treat outer space in a similar manner with outstanding universal value, to be used, enjoyed, and explored by all humanity.

*The Preamble of the World Heritage Convention* holds that “the deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world”<sup>10</sup>. This protection appears again in the 1994 Universal Declaration of Human Rights for Future Generations:

*Persons belonging to future generations have the right to an uncontaminated and undamaged Earth, including pure skies; they are entitled to its enjoyment as the ground of human history of culture and social bonds that make each generation and individual a member of one human family.*<sup>11</sup>

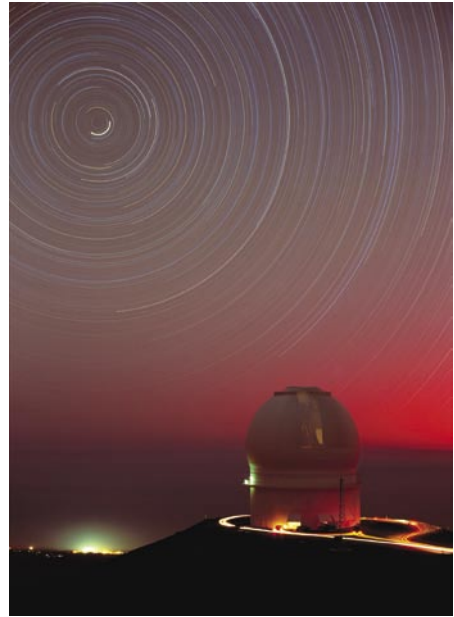
UNESCO has undertaken activities for the safeguarding of cultural heritage related to astronomy under the “*Astronomy and World Heritage*” project launched by the World Heritage Centre in 2003. This concept was taken up again by UNESCO in 2005 as:

*The sky, our common and universal heritage, is an integral part of the environment perceived by humanity. Humankind has always observed the sky either to interpret it or to understand the physical laws that govern the universe. This interest in astronomy has had profound implications for science, philosophy, religion, culture and our general conception of the universe.*<sup>12</sup>

This in turn led to the following concepts taken from the *Proposed Draft Decision*:

*... astronomical observations have profound implications for the development of science, philosophy, religion, culture and the general conception of the universe... discoveries of astronomers in the field of science have had an influence not only on our understanding of the universe but also on technology, mathematics, physics and social development in general... the cultural impact of astronomy has been marginalized and confined to a specialized public...<sup>13</sup>*

These protections for Starlight are necessary as the impact that Starlight has held on humanity has been expressed in works of religion, art, literature, science, philosophy, business, and travel.



Star trails above Mauna Kea Observatory (Hawaii). Photograph courtesy of Richard Wainscoat.

### **Protection of Religious use of Starlight**

The idea of holding the heavens as a religious site is found by nearly every major world religion, as well as, most of the world's more localized religions. As such, general protections offered by treaties in regard to religious significance have long been in place including the *United Nations Charter* and the *International Covenant on Civil and Political Rights*, and numerous other instruments<sup>14</sup>. These include protection to practice religion, hold religious beliefs, tolerance, cultural diversity, and maintain religious cultural identity. While the reduction of Starlight may not be a deliberate and calculated attempt by States to eliminate religious beliefs, the State's complacency about not protecting these beliefs that are attached to Starlight, have the same result of constraining religious identity.

### **Starlight as a Product derived from Outer Space**

Space, as a Common Heritage of Humanity, also includes the principle that activities of people in outer space affect us all. "*That's one small step for man, one giant leap for mankind...*" as Neil Armstrong declared on his historic first moon excursion in 1969. Everything discovered, invented, created, destroyed, explored, defined, developed, and so on, in outer space will gradually trickle down and reach all people everywhere. As such, the activities carried out in outer space, the right to conduct such activities, and the benefits from those activities belong to World Heritage.<sup>15</sup> One State cannot exclude another State from participating in this form of sustainable development of the territory owned by all of humanity, nor in the participation of viewing Starlight, no more than one State can forbid another State from touring the high seas.<sup>16</sup> As such, Starlight plays a

significant part in sustainable development that involves the balancing of diverse social and economic needs of all peoples in the present while respecting the needs of future generations.

Primarily, those States involved in space endeavors are guided by the principle that all potential scientific discovery and investigation is for the betterment of all people, and as such, any action undertaken in space affects us all<sup>17</sup>. The *Liability Treaty's Preamble* States that the activities of a State acting in outer space affect all mankind when "Recognizing the common interest of all mankind in furthering the exploration and use of outer space for peaceful purposes." This concept is further explored in *Article 4* of the *Moon Treaty*, which States that:

*"The exploration and use of the moon shall be the province of all mankind and shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development. Due regard shall be paid to the interests of present and future generations as well as to the need to promote higher standards of living and conditions of economic and social progress and development in accordance with the Charter of the United Nations."*

This principle holds true for all celestial bodies as would be observed through Starlight, the Moon merely being the celestial body explored in the greatest detail, and being relevant at the time the *Moon Treaty* was drafted.

### **Ownership of Space Objects**

Celestial bodies and natural objects, such as all the stars, galaxies, asteroids, meteoroids, comets, the Moon, Mars, et cetera are owned by no one, as "no man's land" like the high seas and Antarctica, and are treated as our common World Heritage. The International Astronomical Union (IAU) holds that "As an international scientific organization, the IAU dissociates itself entirely from the commercial practice of "selling" fictitious star names or "real estate" on other planets or moons in the Solar System. Accordingly, the IAU maintains no list of the (several competing) enterprises in this business in individual countries of the world"<sup>18</sup>. On the other hand, the IAU has recognized the public's naming of small bodies in space through The IAU's Small Bodies Names Committee. "The committee oversees the process of giving names to some of the nearly 12,000 such objects discovered to date." And "After 10 years have elapsed (from the time of discovery), it's fair game and almost anybody can propose a name," said Brian G. Marsden, then secretary of the naming group.<sup>19</sup>

Manmade objects launched into space, on the other hand, fall under a different theory, that of State based ownership. A telescope satellite, such as the Hubble Telescope<sup>20</sup> launched into orbit is a manmade object and is not a celestial body. This is an important distinction as it means that a satellite is like a sovereign ship floating on the high seas and under the full jurisdiction of the State.<sup>21</sup>

### **Rights According to Travel and Tourism Law**

Starlight is a cultural and scientific property right, owned by all of humanity, protected by international law and norms, whose guardianship has been entrusted to individual

States, for the benefit and enjoyment of all human kind. As a property right, Starlight must be made available to the owners of this property, so that members of humanity may freely enjoy their property and be free to travel to it for scientific and leisure purposes.

Starlight could be found everywhere, in the same way that clean pollution free air could be found everywhere, but the current trend in industrialized and post-industrial societies, has made Starlight a more scarce a commodity. The right to Starlight therefore does not seek to enable Starlight views to all communities of humankind, as in metropolitan areas where floodlights at night bear their own technological, safety, convenience, and aesthetic merits<sup>22</sup>, although this has certially been proven possible with examples found in Tuscan and Flagstaff Arizona of the USA, but to provide all of humankind to have *access through reasonable travel* to nearby locales that provide Starlight. The goals of the Starlight Initiative would then be tailored to Starlight as a right of travelers, and here enters the Right to Starlight as a matter of tourism for leisure and scientific travel purposes. Therefore, the Right to Starlight is a right for persons to travel to areas where Starlight is provided and protected, particularly when such view are not available in their home city.

It is through State based implementation of international laws and norms and the development of national tourism laws that practically enables the traveler to realize and exercise her Right to Starlight. Starlight can then be seen as a commodity for consumption by tourists and economic gain for the local tourism industry, and the State, resulting in a means of tourism and sustainable development.

### *Travelers*

Tourists have particular rights, as found in the law that recognizes the rights to: 1. to enjoy starlight in space; 2. to enjoy starlight from terrestrial spots on Earth; and 3. to enjoy starlight while traveling for touristic and scientific purposes. Examples, of the legal protections are found in treaties, statutes, case law, and local organizations<sup>23</sup> regarding light pollution for the environment, ecology<sup>24</sup>, and of State based patrimonial rights to landscape and starlight views<sup>25</sup>.

### *Hosts*

The sustainable development aspect is felt by the State that is acting as a host showcasing the starlight to the scientific traveler and tourist. The United Nations along with other governments and non-governmental organizations have sought ways in which regular and continuous economic development can lead to the betterment of mankind. Pursuant to these goals, *sustainable development* as advocated by Bruntland to be “development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of ‘needs’, in particular the essential needs of the world’s poor, to which overriding priority should be given; and the idea of limitations imposed by the State of technology and social organization on the environment’s ability to meet present and future needs”<sup>26</sup>.

A significant part of sustainable development involves the balancing of diverse social and economic needs of the present and respecting the needs of future generations. Here it is important to recognize that the access to starlight will normally be found in the rural

areas that are frequently in need of greater development, compared to the metropolitan areas whose development has blocked out views of starlight.

*Cultural patrimony* rights to scenic views are a part of intellectual property law, and hold yet another binding protection for the Right to Starlight. Although owned by no particular individual, it has been established that certain landscapes cannot be misappropriated by others to deceive consumers into believing that products originate from that particular region, nor can power lines or other modern encroachments displace the landscape portrayal that has been used and enjoyed “virtually untouched since the Middle Ages”<sup>27</sup>. In the Tuscany case, the landscape was deemed as the backdrop for “renaissance paintings, 19<sup>th</sup> century novels and innumerable Italian movies,” and had remained virtually untouched since the Middle Ages”<sup>28</sup>. That is to say, these intellectual property rights to certain views are held to be owned by a community. In the same way, Starlight views, particularly those that have centuries’ old ties to literary, religious, scientific, and artistic uses find protection under the these same cultural patrimony rights.

### *Providers of Travel*

We quickly see that a great deal of jobs, affecting both individuals and whole economies, can be tied in with the concept of tourism and sustainable development of Starlight locales.<sup>29</sup> The need to produce a product for which tourists are willing to take their time and money to visit and purchase is of the utmost concern for the financial needs of the host country and its individual citizens that will act as hosts and guides for the tourists.<sup>30</sup> The UN World Tourism Organization emphasizes this point:

*The challenge for stakeholders involved in all industries is to find a balance between sustenance, prosperity and people’s desire to improve their financial/material well-being, with the underlying need for identity, community, religion, home and family. Travel and tourism can play a vital role in balancing these forces. It not only provides the livelihoods for both rural and urban communities, but has the capacity, when planned, developed and managed properly, to enhance community relations and build bridges of understanding and peace between nations.*<sup>31</sup>

From the provider of travel and host State point of view, *cultural landscapes* would also rightly encompass Starlight, and therefore receive protection according to the Heritage Convention in a manner like that already adopted by UNESCO.<sup>32</sup> Here it is worth noting that the Right to Starlight could easily be attached to existing World Heritage sites, merely ensuring extra protection of preventing outside lights from interfering with the natural and historic views that accompany the site many of the 830 properties presently designated.<sup>33</sup> At the same time taking care to not condemn such renowned artificial lighting as is found in Spain with the floodlights of Seville’s Cathedral, whose nighttime illumination is specifically lauded in travel journals, yet is a designated World Heritage site.<sup>34</sup>

### **Enforcement of the Right to Starlight**

International law enforces international legal obligations, including property inter-

ests. Here, World Heritage is the property of all humankind, and while there may be protective laws, enforcing this is another matter, as only States can sue other States under this type of international treaty.<sup>35</sup> A State is responsible for the activities that occur within its jurisdiction – whether they are authorized or unauthorized. Protection of cultural heritage is not as fundamental as say protection for the necessities of life or human rights, as such would not warrant sanctions like those provided by UN Security Council threats of Art 39.

Within the framework of International Law and State based legal instruments<sup>36</sup>, Protection of Starlight could then be implemented in the same manner as previous instruments of heritage law that: 1. *Reaffirms* the sovereign rights and responsibilities, towards the International Community, of each State for the protection of its own cultural and natural heritage; 2. *Calls upon* the International Community to provide all the possible assistance needed to protect and conserve the cultural and natural heritage of Starlight; 3. *Invites* the authorities of States to take appropriate measures in order to safeguard the cultural and natural heritage of Starlight; 4. *Further invites* the States to co-operate with UNESCO, the World Heritage Committee, the UNWTO, and the Starlight Initiative with a view to ensuring effective protection of its cultural and natural heritage in Starlight.<sup>37</sup>

While punishments in the form of Sanctions or suspension of diplomatic relations are more appropriate for a State's violation of more fundamental Human Rights, enforcing organizations for Starlight, could instead offer rewards for States that implement and provide Starlight areas for travelers. This would naturally take the form of organizations mobilizing their scientific and touristic pursuits towards those States that are in fact providing Starlight. The recognition, and conversely boycott, by these organizations towards those States would provide the economic remedy and motive sought to ensure Rights to Starlight are protected.

## Conclusion

Having established these rights under international law, the conclusion is that there exist duties for both States and international organizations to protect the World Heritage Right to Starlight, as well as, their duties to foster the rights of travelers, hosts, and providers of travel to enjoy this Starlight “property interest” that belongs to all humanity. The existing legal instruments demonstrate the protection for the Right to Starlight, but it is the States that act as custodians of World Heritage that are charged with ensuring these rights are enforceable, and in turn made available to all of humanity.

## Notes

1. Dr. Phil Cameron of Alexander Anolik Law Corporation, San Francisco, USA ([www.TravelLaw.com](http://www.TravelLaw.com)) and President and Founder of The Space Travel Law Association (STELA) ([www.SpaceTravelLaw.com](http://www.SpaceTravelLaw.com)) earned his S.J.D. Doctorate in International Law (with honors); LL.M. Masters in International Law (with honors), and the requirements for an Intellectual Property Certificate (with distinction); and J.D. Law Degree and a Certificate of International Law (with distinction) from Golden Gate University, San Francisco, USA. Dr. Cameron completed study abroad programs hosted by Oxford University, England; Temple University, Japan; Mahidol University, Thailand; Paris X Nanterre, France; and other programs at The Hague Academy of International Law, The Netherlands; and Keio University, Japan. He has co-taught courses in Travel Law at San Francisco State University and San Francisco Law School and regularly presents papers for The International Forum of Travel and Tourism Advocates (IFTTA) ([www.IFTTA.org](http://www.IFTTA.org)). His pre-law work included

- Philosophy, World Religions, International Studies, and Linguistics.
2. *Five Outer Space Treaties – Outer Space Treaty 1967, Rescue Agreement 1968, Liability Convention 1972, Registration Convention 1974, Moon Agreement 1974.*
  3. Examples: *The United Nations Framework Convention on Climate Change 1994*, and *Convention on the Rights of Persons with Disabilities 2006.*
  4. Signatory list [www.state.gov/t/ac/trt/5181.htm#signatory](http://www.state.gov/t/ac/trt/5181.htm#signatory).
  5. *The Moon Treaty*, Art 2 Outer space cannot be under the exclusive control of any national sovereign, and States cannot profess any type of ownership, are not permitted to mount a flag as a sign of ownership; nor send in soldiers to defend; nor can States begin an occupation of space and celestial bodies. However, there is a great movement to get around this rule from the international treaty. For example, taking the position that since no one owns space, anyone can exploit space.
  6. *The Outer Space Treaty*, Art 1.
  7. But it does not mean that the State is required to provide access to Starlight for its citizens.
  8. This concept of outer space territory differs from past notions of territory used in the name of exploration. *Terra nullius* was a principle, at least as old as ancient Roman times, holding that territory that belonging to no one, may be seized by the State or an individual. *Manifest destiny*, a more recent version of terra nullius, was the 19<sup>th</sup> century doctrine that the United States of America had the right and duty to expand its State throughout the North American continent.
  9. [http://whc.unesco.org/ab\\_conve.htm#debut](http://whc.unesco.org/ab_conve.htm#debut).
  10. *UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage 1972.*
  11. *Universal Declaration of Human Rights for Future Generations*, Art. 1 and 2 UNESCO 1994.
  12. *Introduction. Proclamation of 2009 as International Year of Astronomy, UNESCO General Conference, 33<sup>rd</sup> Session. 2005.*
  13. *Proclamation of 2009 as International Year of Astronomy Summary* 172 EX/51.
  14. See, *inter alia*, Art 18(1) of the 1966 *International Covenant on Civil and Political Rights* (UNTS. vol. 999, at 171 ff.), Art 9(1) of the 1950 *European Convention on Human Rights* (*European Treaty Series*, No. 5), and Art 12(1) of the 1969 *American Convention on Human Rights* (*O.A.S. Treaty Series* No. 36). See also Art 18 of the *Universal Declaration of Human Rights* and the *UN Declaration on the Elimination of All Forms of Intolerance and of Discrimination Based on Religion and Belief* (General Assembly res. 36/55 of 25 November 1981, available at [www.unhchr.ch/html/menu/3/b/d\\_intole.htm](http://www.unhchr.ch/html/menu/3/b/d_intole.htm))
  15. Tourism in space is such an activity. In fact, space tourism has been argued by many to be the newest most economical form of space exploration. However, the space tourism market remains very much like terrestrial tourism market in many ways: both have common carriers that provide travel to destinations; and hotels to provide accommodations for tourists once they arrive. See CAMERON, PHIL, *Space Travel Law*, 2004 [www.IFTTA.org](http://www.IFTTA.org) and BERINSTEIN, PAULA, *Making Space Happen: Private Space Ventures And The Visionaries Behind Them*, 2002 Medford Press (NJ).
  16. *Five Outer Space Treaties.*
  17. *Moon Treaty*, Art 3.
  18. International Astronomical Union (IAU) [http://www.space.com/spacewatch/mystery\\_monday\\_030915.html](http://www.space.com/spacewatch/mystery_monday_030915.html). Shorter recording times are available as 86279 Brucegary was named in 7 years.
  19. [www.space.com/scienceastronomy/solarsystem/asteroid\\_name\\_991021.html](http://www.space.com/scienceastronomy/solarsystem/asteroid_name_991021.html).
  20. Edwin Hubble being my personal favorite astronomer, due to his previous profession was as a lawyer, and having expanded his scholarly pursuits to the heavens that lead to the greater acceptance of the expanding universe and size of the universe through the empirical Redshift Distance Law of galaxies, showing that lawyers can in fact contribute to the betterment of humankind; and of course the Hubble Telescope having the purpose of being in orbit, “beyond the interference of atmosphere and background light.”
  21. Not unlike the situation on the Earth, where manmade islands have been formed for example, in Kobe International Airport of Japan, The Palm Islands of Dubai, and The Venetian Islands of Flor-

- ida, and these became the territory of the States that built them. Just like Outer Space, States are permitted by to build any new territory on the High Seas, as “Freedom of the high seas... The high seas are open to all States, whether coastal or land-locked. Freedom of the high seas is exercised under the conditions laid down by this Convention and by other rules of international law” *United Nations Convention on Law of the Sea*, Art 87 et seq.
- 22 Alternatively, use of coverings for street lights that keep the light angled down can preserve Starlight, as can use of certain orange bulbs in these lights.
- 23 E.g., International Dark-Sky Association, [www.darksky.org](http://www.darksky.org).
- 24 or Nocturnal and Aquatic creatures that rely on Starlight for their navigation and food gathering in Hawaii, [http://dynamics.org/Altenberg/PROJECTS/STARRY\\_NIGHTS/STATE\\_HI/HB1743\\_HD2\\_HSCR753-04\\_.html](http://dynamics.org/Altenberg/PROJECTS/STARRY_NIGHTS/STATE_HI/HB1743_HD2_HSCR753-04_.html).
- 25 BOHLEN, CELESTINE, August 7, 1997, *For Tuscans: How Can You Copyright Paradise?*, New York Times.
- 26 BRUNTLAND, G. (ed.), 1987, *Our Common Future*, World Commission on Environment and Development, Oxford University Press.
- 27 See supra note 24.
- 28 See supra note 24.
- 29 Chile example
- 30 UN World Tourism Organization [www.world-tourism.org/sustainable/concepts.htm](http://www.world-tourism.org/sustainable/concepts.htm).
- 31 WTTC, May 2001: *Tourism Satellite Accounting Research*, World Travel & Tourism, Council, London & New York.
- 32 RÖSSLER, M. February 1993. *The integration of cultural landscapes into the World Heritage*, In: The World Heritage Newsletter, No. 1, 15. (E/F)
- 33 <http://whc.unesco.org/pg.cfm?cid=31>
- 34 *MapEasy's Guide map to Madrid*, 2006 USA
- 35 *Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations* 1986.
- 36 UNESCO, *Report of the XXI Session of the World Heritage Committee*. Naples, Italy, 1-6 December 1997, doc. WHC-97/CONF.208/17 of 27 February 1998, par. VII.58.
- 37 FRANCONI, FRANCESCO and LENZERINI, FEDERICO, 2003, *The Destruction of the Buddhas of Bamiyan and International Law*. European Journal of International Law, Vol. 14, No. 4, pp. 619-651.