Archaeology has most often been defined as the study of (past) human behavior and history through material culture. The identification, interpretation, and preservation of the archaeological record has thus been focused on artifacts, sites, and other tangible manifestations of human activities. Today, however, there is growing acknowledgement that archaeology is as much about the intangible values that give those objects and places meaning as it is about the material record. As a result, a wide array of intellectual property issues is being recognized and discussed by archaeologists, heritage practitioners, descendant communities, and policy makers. Achieving a clearer understanding of how and why concerns over intellectual property arise has great relevance to members of descendant communities whose cultural patrimony has often been appropriated and commodified; to archaeology and other heritage-based disciplines that seek to identify and understand the nature and value of tangible and intangible heritage within cultural systems; and to a public that is constantly incorporating elements of world cultures, past and present, into architecture, fashion, music, and art. In recent years, questions have arisen globally as to who has rights to use, benefit from, or control knowledge and information about the past, whether derived from living communities or from archaeological endeavors. These relate to a wide array of situations, circumstances, and participants, as the following examples reveal:

- A lawsuit was launched by one group of scholars to gain access to another group’s translations of the Dead Sea Scrolls;
- The integrity of Medicine Wheels, ancient spiritual sites still in use by Native Americans, is threatened by New Age groups who use, and sometimes reconstruct, these petroforms;
- The Egyptian legislature is seeking to restrict the commercial circulation of reproductions of certain ancient sites and images;
- In cultural resource management, clients may claim proprietary rights over information derived from work they paid for, and restrict its use in publications and presentations, while archaeologists may restrict public access to site information to prevent looting;
- In Australia, South Africa, and the Americas, rock art images belonging to indigenous groups have been used without permission on state and national flags, currency, clothing, and many other products; and
• Memoranda of understanding between museums and descendant communities that require permission to work on certain items or collections have restricted the work of researchers.

From just this very small sampling, it should be clear that intellectual property issues may be found in virtually any corner of the archaeological realm.

There is potentially much at stake here, for intellectual property issues are intertwined with cultural and national identity, moral and economic interests, academic freedom, worldviews and religious beliefs and practices, and the public domain. Some of these issues reflect the legacy of “scientific colonialism,” whereby archaeologists have been the primary beneficiaries of, and gatekeepers for, knowledge of the past. In other instances, they are responses to new technologies (e.g., three-dimensional copying of artifacts, or digital access to images and information), or to the unauthorized reproduction of images and marketing of replicas, or to unanticipated consequences of publishing ancient DNA–derived information. Of particular concern is the impact on the economic and cultural futures of indigenous peoples everywhere, whose cultural heritage, past and present, has often been viewed as belonging to the public domain, and who have benefited very little from, or had little say over, archaeological research conducted in their traditional lands on their heritage.

What Is “Intellectual Property?”

Despite wide usage, “intellectual property” is a legal term with very specific meaning. Generally it refers to “creations of the mind”—ideas, stories, songs, images, designs, and other intangible expressions of creativity. In Western law, the expressions of such creations, once they are transformed into tangible form, become, by definition, someone’s “property,” whose economic interests are protected by such legal mechanisms as copyright, patents, and trademarks. As such, these forms of intellectual property law offer very little protection for intangible cultural heritage, which is often communally owned and held in perpetuity. More to the point, intellectual property may have very different meanings in non-Western cultural settings or legal regimes. This is especially so for indigenous peoples, for whom rights to intellectual property (e.g., clan totemic images or hereditary rights to a mask, song, or dance) are situated in customary law and culture, based on social relations and responsibilities, and an array of ownership types (e.g., communal); and for whom infringement results in cultural, spiritual, and economic loss. Indeed, tangible and intangible heritages may be indivisible, reflecting a worldview in which there is little or no separation between the “natural” and “supernatural” realms, or between “past” and “present”—which offers a considerable challenge for heritage protection.

These differences between Western and non-Western perspectives on intellectual property help explain how the consequences of unwelcome or inappropriate use of certain cultural items and expressions used out of context or in improper ways can actually jeopardize a people’s identity, health, cultural integrity, and worldview. For example, for some, rock art images do not just portray the creator beings that formed the land, laws, and customs of a society, but actually embody them. Unauthorized visits and viewing of sacred sites and reproduction of their images on T-shirts may cause harm to the community (or the viewers) and diminish respect for the sacred. Also, concerns about cultural integrity are not limited to original items but may extend to replicas of certain sacred items, such as masks or figurines,
that contain the same features and powers as the original. Finally, indigenous intellectual property also includes local conceptions of what constitutes “heritage,” and customary laws related to the proper care of ancestral (i.e., archaeological) sites and remains, all of which can form the basis for effective, and mutually satisfying heritage protection plans and policies.

Emerging Awareness of Intellectual Property.
Discussions over rights to and protection for intangible cultural heritage first emerged in ethnobotany in response to “bioprospecting” (the exploitation of traditional knowledge in the quest for new medicines), precipitating questions over ownership or access to results of research and the many claims that descendant communities (including indigenous peoples) and others make on cultural knowledge and information. Such initiatives as the United Nations’ 1992 Convention on Biological Diversity helped propel the search for equitable solutions to problems of who owns or benefits from products of research and the cultural knowledge of living indigenous groups. At the same time, archaeologists had been engaged in debates over reburial and repatriation of ancestral human remains, coupled with efforts to make the discipline more responsive to and inclusive of indigenous peoples, other descendant communities, and the public. Descendant peoples themselves were then (and are still) seeking ownership of their heritage, and fuller control of and access to information concerning their heritage, including the use of images, traditional knowledge, and other cultural expressions. Concerns also arose out of “traditional use studies” that identified the connection between land and indigenous intellectual property, and defined rights and responsibilities, all of which now has an important role in treaty negotiations, law, or land-use planning.

Cultural anthropologist Michael Brown can be credited with raising awareness of these issues through two seminal publications: “Can Culture Be Copyrighted?” (1998) and Who Owns Native Culture? (2005), in which he discussed intellectual property issues related to archives, sacred sites, and cultural pasts. The extension of these ideas into more ancient contexts was taken up by archaeologist George Nicholas and ethnobotanist Kelly Bannister in their article “Copyrighting the Past?” (2004) and subsequent publications. Various dimensions of this and related topics have been examined by scholars in the fields of anthropology, law, museology, ethics, indigenous studies, and philosophy, such as Jane Anderson, Terri Janke, Alison Wylie, Catherine Bell, and Julie Hollowell, along with many others working in the broader field of heritage studies.

What has emerged in the work of these and other scholars and community partners is a deeper and more nuanced understanding of intangible heritage and cultural rights. Archaeologists and other social science researchers are working more closely with descendant communities, museums, governments, and policy makers to develop meaningful and better-informed research practices that consider these rights and responsibilities. In British Columbia, Canada, the Reciprocal Research Network is an example of an innovative partnership between a number of First Nations and The University of British Columbia’s Museum of Anthropology, developed to facilitate reciprocal and collaborative research and information sharing according to culturally appropriate guidelines. Likewise, an international initiative, the Intellectual Property Issues in Cultural Heritage (IPinCH) project is facilitating a series of collaborative research ventures worldwide in partnership with affected peoples,
including the development of protocols for the analysis of ancient human remains that respect local values and religious sensibilities while facilitating scientific research; recording elders’ knowledge of the Moriori cultural landscape through the involvement of youth; and repatriation of knowledge to Inuvialuit communities from collections residing in a museum thousands of miles away. Such efforts aid considerably in responding to the various and often-conflicting needs of archaeological stakeholders in the late twentieth to early twenty-first centuries.

**Challenges and Opportunities.**
The intersection of cultural knowledge, research practices, and the public domain produces many challenges for archaeologists and heritage stakeholders relating to intellectual property issues regarding, for example, who is benefiting from cultural and archaeotourism, or from bioarchaeological and ancient DNA research. Archaeologists may find themselves negotiating ownership agreements for project findings and reports, or copyrights and royalties that acknowledge the intellectual property contributions of descendant communities or other researchers. Working with community members, they may discover that indigenous methods are the most appropriate way to curate, care for, and transfer heritage items and information. Or they may participate in negotiations concerning rights to control access to archives and collections; to control circulation of images and information; to commercially use images and designs; or to have a voice in representation or interpretation of one’s past. New research policies and protocols are needed that acknowledge and respond to these and other challenges.

Understanding the complex nature of intellectual property is a first step towards resolving or avoiding concerns and disputes when they arise. Important insights can be found in anthropology, ethics, legal studies, and other fields of study, but it is the cross-cultural perspectives offered by members of descendant communities that are often of greatest value. Many issues can be avoided by relatively simple means, including: (1) addressing issues, such as information ownership, access, and dissemination plans, at the research design stage; (2) promoting more equitable research practices and ensuring that descendant communities are the primary beneficiaries of research involving their cultural heritage; (3) employing methodologically sound and culturally appropriate research strategies; and (4) providing opportunities for members of host communities to vet research results and to identify secret and sacred information, which can then be dealt with appropriately.

**Towards a More Holistic Understanding of “Heritage.”**
Human culture is very much the product of information and ideas shared cross culturally and through time. Indeed, contemporary Western society—from clothing styles, to architecture, to art and literature—is largely composed of elements derived from other times and places. There is, however, an important distinction between cultural borrowing and appropriation. In all cases, care must be taken to understand what constitutes appropriate and inappropriate use of heritage, and how, when, and why unwelcome use may cause harm. But discerning this is not always easy: the Danes celebrate the ancient but well-preserved Tollund Man’s image in advertising and entertainment, while many First Nations peoples object to images of any human remains in presentations and publications. Even celebrating aspects of ancient lifeways may have unintended consequences. Considering archaeological heritage as part of
the land, not of a people separates living descendant communities from their past, which becomes national patrimony. For example, a stylized version of an inukshuk of the Arctic—the standing stone arrangements made by contemporary Inuit and their ancestors—has not only become a symbol of all of Canada in the 2010 Winter Olympics, rather that of the Inuit themselves, but the production of untold number of replicas as souvenirs has lessened their cultural distinctiveness.

How archaeologists and others respond to intellectual property issues has the potential to either positively transform research disciplines and their relations with stakeholders, or constrain the quest for equitable and productive research relationships and appropriate sharing of information. The challenges are enormous, and there is no single way to avoid or resolve intellectual property disputes that may arise within academia, the cultural heritage management, or descendant communities—or between any and all of these entities. However, a starting point is to recognize that intellectual property, in one guise or another, is an inherent part of all human societies, and that archaeologists, working at the intersection of tangible and intangible heritages, are well positioned to provide a fuller understanding of the nature of cultural knowledge and rights and thus facilitate more equitable sharing of information derived from the past.

[See also Cultural Property Ownership Controversies; Cultural Resource Management; Dead Sea Scrolls; Ethics of Collecting; Indigenous Rights; Stakeholder Rights; Tollund Man; Tourism.]

Bibliography