# Rc-material culture

ATLANTIKA’S “ONLINE MUSEUM OF WORLD CIVILIZATIONS”

Earth in the 21st century is losing cultural resources at an ever-increasing rate through a variety of agencies ranging from cell phones, encroaching urbanization, wanton destruction by political and religious fundamentalists and by unscrupulous looters.

In these threatening contexts it has become obvious that certain conservation methods must be put into place to prevent cultural and biological treasures from being lost. For instance, a number of efforts have been launched to record indigenous languages that are threatened by replacement as the world’s most populous major languages, such as English, Spanish and Chinese, replace less populous, indigenous languages. Losses of indigenous languages are being facilitated through the use of cell phones that have encroached on even the smallest traditional villages in Latin America, China and Africa. Similarly, encroaching urbanization and wanton destruction by looters are threatening archaeological treasures of which only a small proportion are being protected through the United Nation’s World Heritage Sites program. Many other non-protected sites are vulnerable and subject to loss or defacement. The wanton destruction of cultural treasures by political and religious fundamentalists regarding the “other” as anathema has been harder to stem, witness 1) the Republic of China’s destruction of thousands of Chinese Buddhist and Tibetan Buddhist religious sites beginning in the 1950’s and continuing to the present in the destruction ordered in June 2016 of the famed Tibetan Buddhist religious encampment of thousands in eastern Tibet, 2) the destruction of sites in Syria and Iraq by ISIS from 2007 to the present, 3) in Afghanistan by the Taliban and al-Qaeda with Saudi Arabian funding from 1998 to the present, 4) in Africa by Boko Haram from 2004 to the present with Saudi Arabian and Qatari funding, and finally 5) in Yemen the Historical Museum was bombed by F16 fighters from Saudi Arabia with the blessing of the U. S. to fight terrorists there. From these five examples it is clear that modern repressive political or religious regimes are investing heavily in destroying the heritages of World Civilizations. Something must be done.

Consequently, Atlantika, a non-profit organization dedicated to the protection of cultural resources through internet dissemination and training, has begun to address preservation and education by making available artifacts critical to understanding the evolution of Earth’s cultures that are being lost or that are other wise unavailable for study. The Atlantika Wiki Semanic Database will allow access to these artifacts remotely by providing textual, visual and holographic data to be downloaded and reproduced using three-D printers at remote locations thus providing a truly distributed “Online Museum of World Civilizations”.

These artifacts will be provided with current, up-to-date descriptions and a cross-referencing ability through a relational database so that a user can access any artifact by any term and thus produce a network of artifacts related by any of the terms chosen. These artifacts can then be integrated into Atlantika’s pedagogical tools that teachers around the world can use to disseminate the Earth’s cultural treasures and give the students hands-on experience of them as well.

To give one example of how this database can work we need only reflect on metaphor as a primary way in which persons and cultures make sense of the world. When things are linked metaphorically one thing is linked in terms of the attributes of another. For instance, mental images of Earth can be based on either heavenly or earthly bodies mediated through the culture and language of the observer. This is a variant of the Medieval linkage of the macro-microcosm idea of a vision of the [cosmos](https://en.wikipedia.org/wiki/Cosmos) as the [universe](https://en.wikipedia.org/wiki/Universe) regarded as a complex and orderly system where the part (microcosm) reflects the whole (macrocosm) and vice versa.

For instance, the indigenous **Lakóta people** (**Teton Sioux** or **Thítuŋwaŋ** ("prairie dwellers"),[[1]](https://en.wikipedia.org/wiki/Lakota_people" \l "cite_note-p329-1) a confederation of seven council fires or the [Očhéthi Šakówiŋ](https://en.wikipedia.org/wiki/Oceti_Sakowin) of North and South Dakota believe that the Earth’s topography is mirrored in the heavenly constellations. Sinte Gleiska University scholar Ronald Goodman spent ten years studying the astronomical folklore of Lakota people, and the result of this work was Lakota Star Knowledge: Studies in Lakota Stellar Theology, a book that detailed the literally "cosmic" importance of the Black Hills for Lakota people. It discusses the spring constellations that the Lakota people observed while moving in a cyclical round from site to site in the Black Hills. The Black Hills were thought to be a terrestrial mirror of the cosmos, so the Lakota were simply "mirroring" the motions of the heavens. As the sun moved counterclockwise through the ecliptic, the Lakota were moving clockwise through the terrestrial analogues of their constellations. (Goodman, 1990.)

These constellations were: *Canshasha Ipusye* (Dried Willow), which was watched from the winter camps during the spring equinox; *Wincinchala Sakowin* (the Seven Little Girls = the Pleiades), which were watched from Harney Peak during "thunder's welcoming"; *Tayamni* (the Buffalo), which were watched from a central cairn during "life's welcoming in peace"; *Ki Inyanka Ocanku* (the center of the "Race Track"), which were watched from *Pe Sla* (a bare hill); and *Mato Tipila* (the Bear's Lodge), which were watched from Devil's Tower, during the summer solstice, prior to the Sun Dance. The 'race track' was subdivided into *Cangleshka Wakan* (sacred hoop) and *Tayamni Cankahu* (the Animal's Backbone.) The idea of the Black Hills as a 'terrestrial zodiac' is interesting; such an idea was proposed by Katharine Maltwood for some of the formations around Glastonbury.

The key sacred sites within the Black Hills, which are themselves thought to be enclosed by a terrestrial 'race track,' are Bear Lodge Butte, Old Baldy, Ghost Butte, and Thunder Butte. Devil's Tower is actually outside the Black Hills, but it forms the symbolic "Buffalo's Head" of the Lakota with two other hills inside the area -- Bear Butte as the "Buffalo's Nose," and Inyan Kaga as the "Black Buffalo Horn." Goodman notes that the tipi's shape also mirrors the heavens: 3 poles for the North Star, 7 poles for the cardinal directions, 2 poles for "ears", equaling the 12 months and the 12 stars (morning, evening, 7 in the dipper, 3 in Orion's belt.)

Goodman also discusses Fallen Star and the afterlife beliefs of the Lakota. This ties into the Lakota constellation known as *nape*, "the Hand," which consists of Orion's belt and sword, and the stars of Rigel and Eridanus Beta. He suggests "the Hand" can be correlated with the "Chief who Lost his Arm." In this legend, the chief has his arm torn from his shoulder by Thunderbirds as a result of his selfishness. His daughter offers to marry Fallen Star if he can recover the hand for her. Fallen Star succeeds in this quest, defeats the Thunderbirds and Inktomi, and marries her. As Goodman points out, Fallen Star represents the new chief and the new year, and their son the renewed earth of spring.

In the legend, it is said that while searching for the arm, "Fallen Star... seems to be in the Black Hills area, but at the same time he also appears to be moving through the star world. He travels through three villages or 'star peoples,' and it is said his son will have to visit the other four." Something of astronomical significance is being described here... but I am not sure what. What's most fascinating is how similar this is to the "wounded king" myth of European Grail legends - the wound leads to a loss of fertility, and only healing this wound restores the land. The Grail legends are said to have a zodiacal basis too...

In quite a different metaphorical view of the Earth, the Dogon of Mali, Africa, see the human body as a macrocosm: a village is a macrocosmic human with an iron smithy at its head (iron smithing being a revered esoteric craft hence embodying a high level of arcane knowledge), with the shrines of deities at its feet as though paying homage to the art. The Dogon also see the constituents of a village as anthropomorphic microcosms. Houses are microcosmic anthropomorphic beings. The Earth is also a sacred microcosmic place. Minerals and rocks correspond to organs. Red ochre is blood. White dolomite is bone. The furrowed earth is like the spoken word, the former corporeal the other incorporeal. Unspoken words are likened to grain, uttered speech to germination, divination of the truth to winnowing (Griaule 1965). This reveals the source of the Dogon metaphor: the fact that they are growers of grain who rely on the iron smith to produce the blades used in tilling the land so that it can be planted and seeds can germinate to fruition, just as the priests can utter esoteric words of teachings so that the truth of the soothsayers can be winnowed from the chaff and bear their fruition through their believers.

All of these metaphors can be linked to other cultures by the Atlantika Wiki Semantic database in which similar ideas occur in order to *see* how they were embodied in visual symbols and then be able to 3D print those artifacts as examples and feel their physical embodiment.

Metaphors generate allusions and permit the creation of new meanings and connections. In this respect the Atlantika Wiki Semantic database allows symbolic meanings to emerge from unexpected connections.

The major collections in this effort encompass the following:

1. Rock Art. A collection of 50,000 photographic images from all continents and time-periods that pertain to the civilizations listed below with their descriptors that can be cross–referenced through the Atlantika Wiki Semantic database.
2. African Civilizations. A collection of masks, stools, headrests, ceremonial objects, gaming and shamanic boards, ceramics and bronzes of all time-periods with their descriptors that can be cross–referenced through the Atlantika Wiki Semantic database.
3. North America (Canada and the United States). A collection of projectile points and stone implements, stone, wood and ceramic objects of all time-periods with their descriptors that can be cross–referenced through the Atlantika Wiki Semantic database.
4. Caribbean, Mexican and South American Civilizations. A collection of stone, ceramic, and gold objects, of all time-periods with their descriptors that can be cross–referenced through the Atlantika Wiki Semantic database.
5. Australian Civilizations. A collection of stone, wood and ceremonial objects of all time-periods with their descriptors that can be cross–referenced through the Atlantika Wiki Semantic database.
6. Oceanic Civilizations. A collection of stone and wood objects of all time-periods with their descriptors that can be cross–referenced through the Atlantika Wiki Semantic database.
7. Eurasian Civilizations. A collection of ceramic and stone artifacts of all time-periods with their descriptors that can be cross–referenced through the Atlantika Wiki Semantic database.
8. Asian Civilizations. A collection of stone, wood and metal objects of all time-periods with their descriptors that can be cross–referenced through the Atlantika Wiki Semantic database.

humans both act and think through material culture; ways of knowing and ways of doing are ingrained within even the most mundane of objects. This requires that we adopt a relational perspective on material artifacts and human agents, as a means of characterizing their complex interdependencies. In order to illustrate the networks of meaning that result

although material culture forms the bedrock of archaeology, the discipline has barely begun to address how fundamental artifacts are to human cognition and perception. This idea of codependency among mind, action, and matter opens the way for a novel and dynamic approach to all of material culture, both past and present.

My concern is with material culture in both the present and the past.

**artifacts there is a constant urge to understand what they may have meant in their original social contexts.** Yet archaeologists are surprisingly ill-equipped when it comes to tackling the meaningfulness of the objects they unearth. There are many reasons for this state of affairs, not least a rather rigid understanding of what objects are and how it is that humans interact with them. What I have sought to do here is explore these basic theoretical issues—the status of objects and of the humans producing and using them—by looking at developments in a range of fields that confront such questions in relation to objects in the contemporary world. The disciplines in question include cognitive science, psychology, anthropology, sociology, and art history. I have also attempted to create a network of connections between some of these fields, and as such this volume endeavors to

The approach of the Atlantika database is firmly rooted in cognitive archaeology that developed from Gordon Childe’s progression from understanding materials to understanding behavior to understanding thoughts, a kind of “ladder of inference” (Hawkes 1954) and the basis for a tenet of the New Archaeology that seeks to reconstruct past behavior from the archaeological record (Binford).

Therefore, the first objective relating to each of these collections is to understand the materials involved in the physical artifact being represented. For example, with regard to the Atlantika Rock Art collection the physical artifacts are stone and pigments in the case of pictographs and the implements used to produce the images in the case of petroglyphs.

The behavioral aspect of the images is connected to the artist’s culture, the context of the creation and its placement in space and time.

Thus it emerges that the boundary between two domains, the practical/functional on the one hand and the symbolic/communicative

t the symbolic domain can be treated from a functional perspective. In Symbols in Action (1982), for example, he takes on broad aspects of the “symbolic functionalist” approach, in which it is argued that the functional meanings of artifacts may sometimes lie in their capacity for communicating information, presumably through “symbolic” processes (cf. Wobst 1977; Wiessner 1983; and more recently Wattenmaker 1998). Aspects of material culture, notably “adjunct” features such as decoration, are invested with energy because they have a communicative role. Thus the symbolic is brought within the realm of the functional; but it does not seem as if this approach allows for the functional to be treated from a symbolic perspective

the human subject must be understood simultaneously in terms of biological animacy, psychological agency and social personhood. We look at the extent to which physical objects are drawn into these roles.

theme of connectivity, but with a more explicit focus on cultural meanings: we develop a semiotic approach to material culture, based on the fundamental work of Charles Sanders Peirce and more recent contributions by scholars such as Sonesson, Gottdiener, and Gell, rather than being derived from Saussurean linguistic models that are inadequate for understanding meaning in material culture

if cognitive archaeology is to be the archaeology of the future (Renfrew 2001, 33), it needs to be developed in new post-Cartesian and nondualistic directions.

Durkheim saw the biological and the psychological together forming “the individual,” a level of existence separated from “the social” (Gofman 1998, 66). Mauss, however, rather than adopt this dualistic formula, chose to elide these human dimensions in describing “l’homme total” as bio-psycho-social (Mauss 1936; Warnier 1999a, 18). He saw the psychological as a kind of cogwheel (“roue d’engrenage”) between the biological and the social;

That Peircean semiotics is almost infinitely broad in its potential scope is demonstrated in the work of Thomas Sebeok, one of the most influential semioticians to work within a Peircean framework.2 He has expanded semiotics far beyond the confines of human language to include all forms of animal communication; thus semiosis for Sebeok is not just anthroposemiosis but zoosemiosis. As such Sebeok identifies semiosis as one of the fundamental criteria of living systems.

prehistoric archaeology to examine how Peircean semiotics might contribute to an understanding of artifactual style (Parmentier 1997, 44–52). This archaeological angle has in turn been developed further by Preucel and Bauer (2001)

Peirce’s division of signs into three trichotomies: icon, index, and symbol; legisign, sinsign, and qualisign; and rheme, dicent, and argument (Parmentier 1994, 17). Of the 27 possible combinations, Peirce claimed that logically only ten are ever formed.

Saussure set up a dualism between signifier and signified, Peirce conceived of a triadic system composed of interpretant, representamen, and object.4

**Object Studies**

a search for meaning in material culture

with a number of innovative approaches to a range of materials, such as metal (Nakou 1995), stone tools (Carter 1994, 1998), and especially pottery (Whitelaw et al. 1997; Day et al. 1997; Day and Wilson 2002; Knappett 1997). These studies break the mold of traditional perspectives on techniques and objects through the discussion of socioeconomic dimensions such as specialization, centralization, and the organization of production.

Whether it be representational frescoes, sealstones, relief stone vases, or indeed certain kinds of figurative pottery intrinsically meaningful or symbolic,

objects are thought to acquire meaning in ways such as their use in special contexts. One such context is burial: objects consumed during the ritual activities surrounding burial may well become symbolically charged. Thus two examples of work on production technology in which the issue of symbolism does arise are both concerned with burial assemblages:

work on the production and consumption of obsidian considering both the production and consumption activities of certain tomb artifacts (obsidian blades) to be symbolically charged, t

ceremonial feasting is Another kind of consumption context through which otherwise “meaningless” artifacts are thought to become symbolically charged

ceramic drinking vessel often found in ritual contexts such as tombs and peak sanctuaries. For earlier periods, Day and Wilson highlight the “symbolic value” of vessels used in conspicuous consumption at Early and Middle Minoan Knossos (Day and Wilson 1998; Wilson and Day 2000; Day and Wilson 2002). But it is not only through their central role in feasting ceremonies, that is, in ritual consumption contexts, that the objects in question acquire meaningfulness; they are not argued to have any intrinsic meaningfulness or symbolic value. They also are iconographic and hence deemed to be intrinsically meaningful and symbolic from the moment of their production