

Of Dragons and Classifications

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INTRODUCTION

Upon entering the long, dark corridor, it is on the first right turn that one will find the section of the Helinä Rautavaara collection that deals with Latin American culture. Perched on a corner of the third glass case to the right, is a strange figurine of an old oriental warrior slaying a dragon. A quick survey of the items in this section of the exhibition may prompt the guest to wonder Why is it that this artifact of seemingly oriental provenance has been placed amongst the Mexican materials of the collection.



Samurai ja lohikäärme, as it is referred to in the records of the collection, is a statue depicting a samurai slaying a green dragon with a golden sword. The statue is 33 cm in height and 20 in width.

As lore has it, Helinä Rautavaara was personally very fond of dragons. Her enthusiasm for the subject is reflected in the myriad examples found throughout the collection. Some of these items were included in an earlier exhibition at the museum.¹ Personally, she felt that they represented good luck, and during the period of her illness, she always kept a small plastic dragon close to her.² Furthermore, it was at her insistence that *Samurai ja lohikäärme* was placed among the Mexican artifacts. For the piece was purchased by her in a healer's shop in Mexico city. Within the context of syncretism that is usually found in settings such as a *curandero* shops throughout Latin America, the function of this piece may have been one of bringing health and good fortune to the owner. Whatever motives fueled her concern, in retrospect, her insistence is to be commended. It can be seen as an act of resistance that raises interesting

questions regarding syncretism and its representation, through classification, in the ontology of museum artifacts.³

Ontology has been described as the science of being; a "theory regarding the entities, especially the abstract entities to be admitted into a *language of description*."⁴ Ontology can also be defined as a way of characterizing the world and its entities through language.

As a tool for description, ontology can be used in defining parameters, as well as the artifacts and ecology that populate a given domain of knowledge. Formal classification systems are definitions of shared ontologies for particular knowledge domains. Against this background, the material culture resulting from syncretism presents an immense challenge to traditional ontological approaches. On the one hand, there is the immense variety and complexity of knowledge sources and traditions crystallized in the syncretic representation. On the other, there is the problematic of fuzzy boundaries characteristic of syncretism.

When dealing with a syncretic artifact, there may be no way to empirically ascertain a common ancestor, a source of origin. Ultimately there may not be such as thing as a pure ideal type against which others can be measured. This essay examines some of the issues and problems involved in the classification of syncretic artifacts. It advocates the need for development of alternative approaches and proposes an initial thrust of development through the use of Prototype Theory. Such efforts can be instrumental in the design of new forms of interpretation and knowledge production.

ABOUT CLASSIFICATION

It is not accidental that classification systems have been described as powerful technologies. By virtue of their ubiquitous nature—they form complex webs that are interdependent and integrated—classification systems saturate our environment.⁵ As ecologies and flat sets of compatibilities, they are embedded in the very fabric of our existence and how it unfolds within culture and society.⁶ For classification systems seek to apprehend not only the symbolic, but also the physical world as well, with its myriad of textures, rhythms, and dimensions. This becomes apparent in how they are articulated: Categorization is not an arbitrary action, but rather one in which consistent and unique principles are implemented. Whereas in the real world reality artifacts are constantly being defined by different communities, in the formal classification systems used in many of the disciplines practiced within the institution of the museum, objects must be adapted to fit, neatly and uniquely, into clearly demarcated categories. In these systems, categories operate as mutually exclusive entities. By virtue of its inclusion in one category, objects are immediately excluded from membership into another class. Moreover, formal classification systems aim to provide total coverage of the matter being described so that no item is left outside. This leaves little room for interpretation and knowledge production that pertains the vast territory encompassed by artifacts of syncretism; items that belong exclusively to none, but which fit into more than one category.

Classification systems influence the spatial and temporal segmentation of the world in a way that is brought to bear on the production of knowledge. How categories and systems of classification are assembled, and how a place is assigned to items in a knowledge structure affects both the perception as well as the interaction with the artifact.⁷ There is no essential museum, no point of origin, and no progressive development that is inherent to the institution itself. Being institutions engaged in the safeguard of culture, as well as in its creation, museums not only partake from the constellation of knowledge-producing practices available to a society at a given point in time; they also help to shape them. These practices are neither neutral, nor objective, nor static. They stand in stark contrast with the peaceful and composed impression one gets from the artifacts exhibited in the museum's display case. Like the society that supports it, the museum and the objects of its collections are subject to constant change, and interpretation. A case in point is the recent restitution of "El Negro" to his home country for proper burial. Stolen from his grave in southern Africa, the remains of this man had been on display in a glass case since 1888 at the Museum of Banyoles in Spain.⁸ In our time of post-colonial discourses, what had once been an accepted spectacle for the enjoyment of the masses is sanctioned as an example of blatant racism and insensitivity:

[Museums] "They themselves are understood to be implicated centrally in cultural regimes of dominance and power of which they are now required to be aware and which they may be obliged professionally to interpret and challenge."⁹

As Foucault clarified through his concept of *episteme*, at different points in history, there is an active set of relations within which knowledge is produced and rationally defined. Through its implementation in categorical discourse, the concept of Order transgresses into the physical dimension.¹⁰ Forms of truth do not follow a continuous identity but shift according diverse social, cultural and political parameters. This is as true for the museum as it is for any other public institution. In her analysis of *epistemes* of the museums in the West, for example, Hooper-Greenhill has applied Foucault's methods of an archaeology of knowledge to demonstrate how traces of regimes of truth can be discerned by examining museum collections through time. How these have been altered and reorganized can reveal their instrumentality in supporting discursive practices and regimes of truth.¹¹

CLASSIFICATION AND SYNCRETISM IN THE MUSEUM

Syncretism is a descriptive term used to describe belief systems that contain elements originating from diverse sources. In anthropological literature, the term became popular through the writings of Melville Herkovitz, a North American anthropologist writing before World War II about African cultural retentions in the New World.¹² Herkovitz applied the concept of syncretism interchangeably with the word synthesis when discussing the African's "nominal Catholicism while belonging to what was termed as fetish cults."¹³ Another well-known source on this topic is Roger Bastide's study of African Civilizations in the New World. Bastide's approach viewed syncretism as the conscious effort of a threatened culture's will to survive.¹⁴

Though it is mostly known for their use within the context of New World religious phenomena, the term syncretism need not be restricted to African and Latin American belief systems. For example, many of the religious ancient belief systems that developed in the Mediterranean region have also been labeled as syncretic.¹⁵ In fact, it has been suggested that the term syncretism is derived from Plutarch's *Moralia* where *sugkretismos* which means "mixed together" was used to refer to the Cretans "who despite the discord habitual among them, closed ranks when an external enemy attacked them."¹⁶

In the case of many of the religions of Latin America that are regarded as syncretic, many of the sources that inform these belief systems date back to the slave trade. The African slaves who were brought to the Americas by the Europeans carried with them the beliefs and traditions of their tribes. The conversion to Western religions was superficial so that from the combinations of these different components the result was beliefs and practices that include elements from several African cultures, Indian folklore and also from Catholicism.¹⁷ In the context of this essay, syncretism is a term used to denote the phenomena and processes through which syncretic objects and forms are created, as well as the artifacts resulting from such processes.

A syncretic representation consists of an *assemblage* of artifacts, borrowed from multiple sources.¹⁸ Multiplicity of meaning is a key factor in syncretic representations, as is its capacity for expression. Although retaining vestiges from their earlier provenance, in the context of syncretism, these artifacts coalesce into new modes of expression that are different from those of the tradition from which they were extracted. The syncretic representation revels in its ability to map itself into multiple domains.

Syncretic objects in museum collections can exhibit a resistance to formal classification schemas. For one, they exist as so-called boundary objects. Susan Leigh Star has defined these as artifacts that fulfill the informational requirements of diverse communities, while at

the same time maintaining their identity across sites.¹⁹ This definition can be extended so as to allow for its applicability in the realm of the context in which an artifact exists and through which it is defined. This context includes the narratives that shape the interpretation of the artifact as an object of knowledge, as well as other representational forms that support a particular understanding of it. As Leigh Star has noted:

“Representation is a pathway that includes the multiple contexts that people and objects inhabit.”²⁰

As boundary objects, syncretic representations in artifacts arise over time and as products of the interaction among different cultures. It has been proposed that they reflect the problems engendered when diverse belief systems collide and can be seen as part of the way in which cultures manage divergent and sometimes conflicting world-views.²¹

By virtue of their presence in multiple contexts, syncretic artifacts can also be thought of as residual or marginal. As such they embody the borderland: They are heterogeneous and exist simultaneously in different classes. Within the borderline territory encompassed by the syncretic, a painting containing a representation of “Saint George Slaying the Dragon” in a museum can be as much about high art and Medieval Christian legends, as about Ogun the god of iron in the Brazilian religion of *Umbanda*.

ALTERNATIVE CLASSIFICATION STRATEGIES: PROTOTYPE THEORY

Prototype theory is a relatively new approach to categorization developed initially through the work of cognitive psychologist, Eleanor Rosch. It is an approach that has received attention in fields such as design as well as linguistics.²² Prototype theory is framed by a constructivist point of view that presupposes human reasoning as the result of an active engagement between both mind and body. It proposes that we have a broad picture in our mind of what objects are, and that the boundaries between categories in a classification system are fuzzier than what they appear at first glance.²³ Instead of categorizing objects into vast numbers of objects and concepts that are precisely organized, the mind selects the optimal option and treats items as equivalents when the differences are irrelevant to the human response. Further, a category is defined at its center, or so called basic-level. In addition, there is a common abstraction level at which most people operate. For example, when categorizing the world, we employ cognitive strategies, such as analogy, to extend and interpret the meaning of the artifacts in our environment.

The application of the theory in design is based on information about how perception and form are associated into concepts, and its relevance to issues of product development. Designers are often called in to create new products, or even to *revitalize* already existing product lines. Until recently, designers have worked in this area in an intuitive manner. The development of new methods, such as prototype theory, can yield a deeper understanding of product concepts at various levels.

Products can be examined as artifacts. These latter have been described as having an inner as well as an outer dimension.²⁴ The inner dimension of the artifact can be understood as composed of matter and form. The outer dimension, on the other hand, includes the collective and social aspects that coalesce into the symbolic and ritualistic function of the artifact. In the course of this work, the designer works *within*, as well as *alongside*, the boundaries of the artifact. Within these dimensions of the artifact, the designer must consider a multitude of details from which she selects what stands in for the “bowlness” of

a bowl. And though it is true that the bowl does not determine the essence of the soup, it is served in a bowl precisely because it is soup...²⁵

BELONGING TO MULTIPLE CATEGORIES

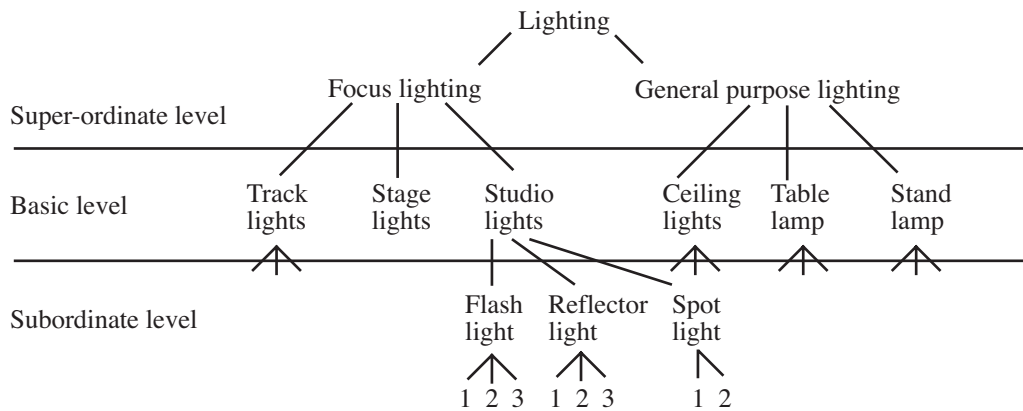


Figure 2: From Athavankar, Uday A., “Categorization...Natural Language and Design” *Design Issues*, Vol. V, No. 2, Spring 1989. P.106.

Figure 2 illustrates the organization of material artifacts that have been classified according to their prototypical features. The basic-level depicts the prototype, with the super-ordinate and subordinate levels indicated below. Above the basic level, few semantic features are shared:

“The resulting images of concepts are likely to be fragmented and only collectively represent the category as a whole.”²⁶

At this level, however, it is possible to understand the features that influence the degree of belonging of the object in the category. Below the basic level, definitions of the object are based as much on the prototype as on the semantic and functional features exclusive to the subordinate category. The identity of the object, or concept, lies in how it is connected to other concepts and objects.²⁷ This hypothesis has implications for the more traditional approaches that consider the structure of knowledge domains as being implicitly hierarchical in nature.²⁸ It is also a matter for consideration when designing information retrieval and navigation systems as well as digital repositories of culture heritage resources. Clearly reducing the object to its physical description does not necessarily reveal much about the agency of object; or its interaction between the physical and the symbolic.)

Other findings of the theory indicate that there seem to be ideal types. These ideal types, or prototypes, exhibit so-called prototype effects. These typical instances, or the prototype, represent the core meaning of a term. Uday Athavankar has reported studies that indicate how qualifying terms in natural language are used to denote a prototype. Some examples of these are the use of words and phrases such as “almost like” or “virtually like” when referring to the prototype. Conversely, terms such as “unusual” “rather big” are used to indicate distance from the prototype:

“Theoretically, it is possible to treat category belongingness as a scalable variable, allowing designers to carefully positions the product form at a measurable distance from the central tendency. The key issue is how close or distant you want to be from the central tendency.”²⁹

Another basic tenet to the theory that bears some significance to our analysis of the dragon is this that the organization of perception occurs at a basic biological level and as a response to certain shapes. There is evidence that these shapes, which also exhibit so-called prototypical effects, and their apprehension varies according to cultural group and training. In this context, the designer might seek to strike a balance between the convention exemplified in typicality and formal innovation. Between the positive clues that declare membership in a category, the designer must also find the deviations necessary to give the artifact a new identity. This is relevant when designing a material product, as well as when designing a non-physical artifact, such as the guidelines for presentation and information retrieval of digital culture heritage resources.

CLASSIFICATION, MONSTERS AND OTHER BOUNDARY OBJECTS

In the words of Donna Haraway: “Monsters share more than the word’s root with the verb ‘to demonstrate’; monsters *signify*.”³⁰ Monsters, however, go beyond representation. The monster also expresses, denotes. It provides a pathway, for divergent visions:

[the monster] “...was distinguished by making several senses: by providing an oppositional corporeal limit to human definition; by eroding the strong conceptual differentiation between man and beast, man and demon, or man and god, pointing to pollution, transgression, a breakdown in social order; and by bearing a sign of warning from the forces of the sacred.”³¹

The monster is the antithesis of classification. Monsters arise in anomaly, where the classification system fails: They are related to multiple meanings and residual categories, that which is not elsewhere classified, or classified as other.³² The dragon as a monster is the marginal, heterogeneous, and has multiple meanings. As a syncretic form, the dragon is neither symmetrical, nor rational. Its representation is one where disparate elements remain on a plane of co-existence. This is because syncretism involves a translation by which artifacts are re-interpreted to produce a new cultural entity. In this process the old and the new are merged into a functioning, unified entity that is clearly a multi-cultural derivative.³³

“The final entity does not form an integrated whole but at most exists in spatial and temporal separation.”³⁴

The dragon exists as a coalescence of multiple representations from diverse culture sources. As a monster the dragon is also a boundary object. It exists in the borderland and used by diverse cultures and groups. Naturalization is about the stripping away of the contingencies of an object’s creation and its situated nature.³⁵ But the dragon refuses to be naturalized. The dragon is about diaspora, and about acculturation. It may indeed be the case that the more something becomes universal, the harder it is to hold on to a pure ideal.

WHO IS THE DRAGON? NARRATIVE OR BASIC INSTINCT?

No dragon exists, and none ever did, but the belief in its actuality has prevailed since remote antiquity.³⁶ From the vestiges of mythological sagas, an idea of the basic features in the representation of the dragon begins to emerge. Wherever it exists, the substratum of its anatomy consists of a serpent or a crocodile, usually with the scales of a fish for covering. The feet and wings and sometimes the head of an eagle, falcon or hawk, are used as well as are the forelimbs and sometimes the head of a lion. Based on these descriptions, one can

also deduce that the dragon has not evolved from ancient extinct monsters, but rather it is a mythical animal, a composite drawn from existing creatures.

From the point of view that views culture as conventional behavior acquired from social learning, it has been proposed that the dragon is a narrative skeleton that has been successful because it provides endless possibilities for dramatic development and expression. According to George Elliot Smith, this narrative structure has been clothed with the fabric of multiple stories representing the earliest theories of astronomy, meteorology and the emotional conflicts of daily life.³⁷ A creature engendered between inward fear and outward peril, it has been suggested that the dragon survives because it embodies the underlying principle of all morality. That is, the eternal struggle between Good and Evil, characterized by the contest of man with the forces of nature and with his dual self.³⁸

From a bio-cultural point of view that focuses in understanding the potential biological basis of learned behavior, it has been proposed that the dragon is a primary impulse that arose from the struggle for survival among early primates:

“The composite predator beast, the dragon, originates from three different animals—snake, raptor, cat—that have been in a predator/prey relationship with primates for millions of years. At a particular point in human evolution, a novel conception ‘dragon’ enters human consciousness.”³⁹

This composite predator comes to being in primates, according to Jones, in response to the predator behavior from snakes, raptors⁴⁰, and leopards. This response, which favors survival and the passing of genes to the next generation, becomes codified in the behavior of the organism. This codified behavior operates much like a template whereby possible responses opens to the object of prey as the predator approaches. Under the rubric of ‘chunking’, ‘indexing’ and ‘biogram’, the idea whereby there exists templates of higher processes of thinking that have a biological foundation has found support in diverse areas of research. There may be a relation between this concept and the idea of basic-level, or prototype.

IN EGYPT AND THE NEAR EAST

Though the location and source of its origin may be subject to debate, the presence of the belief in the dragon seems to exist in every human culture. Attempts to trace its origins have led scholars back to the dawn of human history as preserved in mythical sagas. According to George Elliot Smith, among the ancient myths that have in them trace s of a narrative of the dragon are those that tell the story of Destruction of Mankind and the relations between the Great mother deity, the Water god, and the Warrior sun god.⁴¹ The most ancient representation bearing resemblance to our character is to be found in Babylonian depictions of Tiamat. (See Figure 3) This evil deity, with serpentine attributes, is featured in the widely circulated myth of Marduk.



Figure 3: Tiamat, from an early Near Eastern seal.

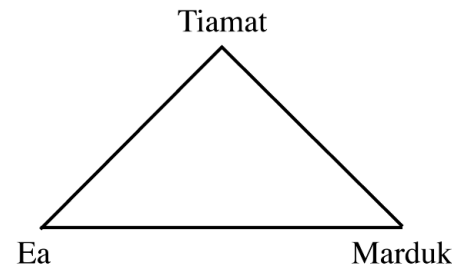


Figure 4: The trinity model of the Near Eastern Tiamat. Proposed by Eliot Smith.

Figure 4 illustrates Elliot Smith's proposal that the sagas of the dragon have a triad structure that adjusts to the narrative of the hero that slays the dragon, but who is the dragon himself. This is a narrative that portrays the eternal struggle of man against nature, and between the Good and Evil within man himself. The act of dismemberment, by which the earth is created from the mutilated body of the dragon/hero, is yet another feature of the narrative of the dragon, according to Elliot Smith,

IN THE ORIENT

Japan

In the entries to the collection, pertaining *Samurai ja Lohikäärme*, Helinä indicated correctly how in the Orient, the dragon is considered a positive entity that is associated with abundance and with the power of rulers. She remarked that the representation of this artifacts may be the result of the influence of Catholic belief systems, such as is evidenced in the legend of Saint George and the slaying of the dragon. She noted that the roles have changed, since it would be unlucky for Chinese or Japanese soldiers to kill a dragon.

Many ancient religious systems, such as those found in Asia, can partake, and exhibit traits of syncretism. In this manner, the characteristics we have already pointed out for syncretic artifacts may also be present in syncretic artifacts from the Orient.

With respect to mythical sagas dealing with the dragon in Japan, there is the story of Susan-o-no-o-no Mikoto, the ancient fertility Storm-Thunder god who embodies the duality principle of good and evil, and who is also linked to lunar fertility cults. This is a story purported to be of key relevance to the Japanese ethos. The story may indicate a shift from an ancient belief system to the cult of Amaterasu, the sun-goddess.

According to the legend Susano came to a house where all were weeping and learned that the last of the eight daughters of the house was about to be given to a dragon with eight heads, which came to the seashore yearly to claim a victim. He changed himself into the form of the girl, and induced the dragon to drink sake from eight pots set before it, and then slew the drunken monster. From the end of its tail, he took out a sword which is supposed to be the Mikado's state sword.⁴² In yet another version, it is said that while he was cutting the tail he discovered a beautiful sword, the Kusa-nagi, which he presented to his sister, the sun goddess Amaterasu, as a gift. The sword's name translates to mean Grass-mower or Grass-pacifier, and was used by Amaterasu to cleanse Japan of demons. Kusa-nagi is owned by the Japanese Emperor and is part of his imperial regalia, part of his 'Crown Jewels' as it were, and is presented to him upon his ascension to the throne.



In Japan, the slaying of the dragon with a sword, may not necessarily carry negative overtones. Further, the presence of this item in the possibly syncretic context of a Mexican *curandero* shop, may indicate a syncretic representation where the act of slaying the dragon is about achieving power over one's problems, or enemies

China

The earliest references to the dragon in China come from the Yih King, or the Book of Changes. In this work, that includes commentaries by Confucius, the dragon is portrayed as a god of water, associated with thunder, clouds, and rain. He is a harbinger of blessings and the symbol of holy men.⁴³ In China, dragons are classified not only according to their attributes, but also ways of

being. The five-clawed dragon in China, was a symbol whose use was restricted to the emperor. Its four-clawed counterpart, was reserved for use by mandarins and princes of the third or fourth classes. The three-clawed *Tatsu*, that is also the symbol of the Imperial Dragon of Japan, has been used for general decoration.⁴⁴

THE DRAGON IN MESOAMERICA

Though the first impulse may be to attribute the presence of the dragon as being related to Catholic myths and legends, it turns out, that in the ancient ritual calendar of the Aztecs, there is a dragon-like figure. In his study of the Codex Borgia, Eduard Seler indicates how in the Tonalámatl, the first sign is *cipactli* and it is represented as an animal with spikes whose particular characteristic is the lack of a lower jaw.⁴⁵ *Cipactli*, is also the nahua word used to designate the dragon.⁴⁶ Like its the Western counterpart, *cipactli* is also a mythical animal.



Figure 6: Cipactli-caiman. From the Codex Borgia.

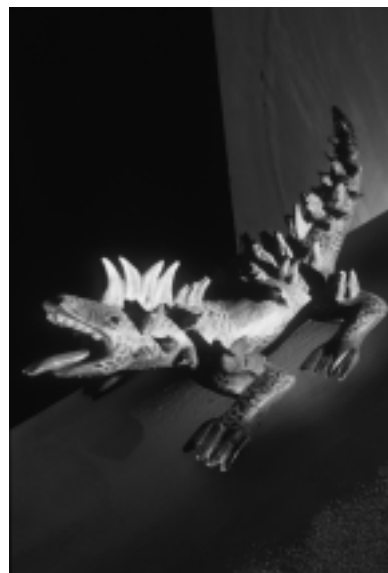


Figure 7: *Lohikäärme* Rlat 98. From Tasco, State of Guerrero in Mexico, a wood statue of dragon in green.

In Nahua mythology, *cipactli* is associated with the creation of the earth. There is a myth which tells the story of how when the gods created the world below and the sky with its deities above, they also created in the water a very big fish called *cipacuali*. With this “fish”, which is like a caiman, they made the Earth which they called *tlatecli*, and they used to represent it as the god of the Earth lying on top of a fish, having been created from it.⁴⁷ As the ruler of the first sign of the days, *cipactli*, or the caiman, is represented alongside the god Tonacatecuthtli, whose name can simply be translated as “the god of sustenance”.⁴⁸ Citing Pedro Ríos, one of the original interpreters of the Codex Telleriano-Remensis, Seler adds that this deity was:

“...the first lord they say there was in the world. Who divided the skies and the earth... and he put them as they are now. He did not have a temple, nor they make sacrifices to him, because they said he did not want them.”⁴⁹

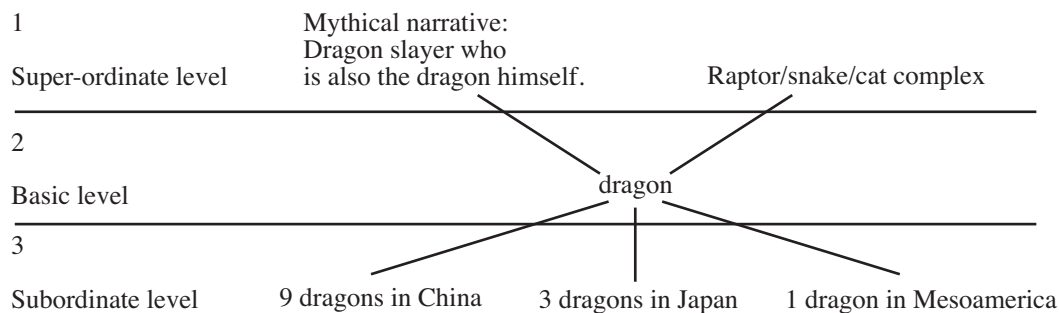
There is another story about *cipactli* that was told by the natives to the missionaries. It relates how the gods Quetzalcoatl and Tezcatlipoca had brought Cipactli, the female Earth monster, down from the sky. They attacked, raped and dismembered her. “In recompense, the Earth monster was made the source of everything needed by mankind. The gods made trees, flowers and herbs from her hair, whereas her countless eyes became springs, caves, and wells; her mouth turned to rivers and gigantic caverns and her nose became mountains and valleys. Sometimes, the Earth wept at night because she wanted to eat human hearts. She only agreed to keep quiet if she was given them and only granted her fruit if she was watered with the blood of humans.”⁵⁰

AN INITIAL PROPOSAL FOR A PROTOTYPE CLASSIFICATION OF THE DRAGON

Figure 9 depicts an initial proposal for the classification of three dragon figures according to Prototype Theory. The model is divided into three levels of the super-ordinate, basic-level, and subordinate. Movement between these levels does not proceed in a hierarchical mode, from general to specific. One can move upward, or downward into the model as the need arises.

PROTOTYPE CLASSIFICATION OF THE DRAGON

An initial proposal



As we can see in the model, at the super-ordinate level, we can place collective and fragmented knowledge, such as that which is crystallized in mythical narratives and sagas,

or through the hypothesis of the raptor/snake/cat predator complex. At the basic, or central level, is the prototype of the dragon itself, a category that is common and collectively recognized. Below the basic, or central, level we include the individual cultural and geographical variations of the basic category. As subordinate members, Chinese dragon, Japanese dragon, as well as Mesoamerican dragon share semantic features (e.g. such as “snakeness”, feline aspects, etc.) that define the meaning of the basic-level category of dragons.

CONCLUSION

The notion that the past is subject to revision and re-interpretation is of prime importance to classification systems and their implementation in the museum. Classification systems are not the immutable essence of knowledge that emanates from material culture. They are mere tools to assist in the activity of knowledge production. In their selection of systems of categories that act as structures to representation strategies, museums are exercising their option to choose.

The museum is one more node within a network. It can be argued that the choices they make exert an influence in the area of cultural production. The display of culture does not have to be centered on questions of origins. Instead it can embrace the multicultural aspects of knowledge production. As corpuses of knowledge, museum exhibitions can diverge from development approaches and instead focus on other aspects of material culture.

When the boundaries of formal classification do not encroach into the artifact, a space opens. This space, is a previously inaccessible area that allows us to consider diverse manifestations in the life cycle of artifacts. In this unfolding arena, it may be possible to create more complex, and richer, descriptions. They emerge not only from the artifacts, but also, from our interaction with them.

As a narrative, the longevity, richness and multiplicity of the dragon saga are testimony of its power as a tool for expression. The qualities of syncretism embodied in the artifact signal the existence of vast territories beyond the reach of formal classification systems. Are we willing to cross the boundaries?

Notes and sources:

- ¹. *Lohikäärmeet Helinä Rautavaara museossa*, Espoo, Finland, 4.5, 1999, Moniste.
- ². Lehtimäki, M., *Minä, Helinä Rautavaara*, Otava, Helsinki, 1998. P. 211.
- ³. An act of resistance can involve non-compliance with the use of a particular system of categorization. In this case, it involves the preference for the indigeneous and syncretic as opposed to the formal and academic.
- ⁴. Sevnonius, E., E., *The Intellectual Foundation of Information Organization*, The MIT Press, Cambridge, MA, 2000. P., 31.
- ⁵. Bowker, G., and Leigh Star, S., *Sorting Things Out, Classification and its Consequences*, The MIT Press, Cambridge, MA, 1999. P., 39.
- ⁶. Bowker, G., and Leigh Star, S., *Sorting Things Out*, p., 39.
- ⁷. Bowker, G., and Leigh Star, S., *Sorting Things Out*, p., 10.
- ⁸. Swarns, R., “After a Century on Display, An African Goes Home” *Herald International Tribune*, Tokyo Edition, October 7-8, 2000. PP 1 and 4. The article describes how “Two French brothers stuffed their specimen with vegetable fibers. They inserted glass eyes. They may have even painted his brown skin black to make it look more exotic.”
- ⁹. Rayward, B.W., and Twidale, M.B. “From Docent to Cyberdocent: Education and Guidance in the Virtual Museum” in *Archives and Museum Informatics*, Kluwer Academic Publishers, 1999, No. 13, pp. 23-53.
- ¹⁰. Bowker, G., and Leigh Star, S., *Sorting Things Out*, p. 5.

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- ¹¹. *Ibid.*
- ¹². See “African Gods and Catholic Saints in the New World Negro Belief Systems”.
- ¹³. Pérez y Mena, A., “Puerto Rican Spiritism as Transfeature of Afro-Latin Religion” in *Enigmatic Powers*, p. 140.
- ¹⁴. Bastide, R., *African Civilizations in the New World*, Harper & Row, London, UK, 1971. P. 13.
- ¹⁵. Insert reference.
- ¹⁶. Eliade, M., In D. Carrasco, “Jaguar Christians in the Contact Zone” *Enigmatic Powers, Syncretism with African and Indigeneous People’s Religions among Latinos*, Stevens-Arroyo & Pérez Y Mena (eds.) City University of New York, 1995. P. 70.
- ¹⁷. Díaz, L., *A Structuralist Study of Puerto Rican Santería*, Honors essay, unpublished, 1981. P. 2.
- ¹⁸. Díaz, L., *A Structuralist Study of Puerto Rican Santería*. Honors essay, unpublished, 1981. P. 11.
- ¹⁹. Bowker, G., and Leigh Star, S., *Sorting Things Out*, p. 297.
- ²⁰. Bowker, G., and Leigh Star, S., *Sorting Things Out*, p. 293.
- ²¹. Douglas, M., *Purity and Danger*, Routledge, 1984.
- ²². Athavankar, Uday A., “Categorization... Natural Language and Design” *Design Issues: Vol. V, No. 2*, Spring 1989. P., 101. This essay provides a good introduction to the implementation of prototype theory in design. According to Athavankar: “It is only the human species that assembles its experiences into categories with lexical terms, and uses these terms effectively in communication and thinking. The strategy used to construct categories and to form concepts is unique and offers clues to how visual information can be controlled.” For an example of the application of the application of prototype theory in linguistics the reader is referred to George Lakoff’s *Women, Fire, and Dangerous Things*, University of Chicago Press, 1990.
- ²⁴. Simon, H., *The Sciences of the Artificial*, Third Edition, The MIT Press, Cambridge, MA, 1996. P., 6.
- ²⁵. Lave, J., “The Practice of Learning”, *Understanding Practice, Perspectives on Activity and Context*, Chaiklin, S., and J., Lave, (eds.) Cambridge University Press, 1996. PP. 3-33. This essay, which has a very interesting discussion on context and de-contextualization in representation, brought to my mind the idea that not all containers are created equal. Contours and boundaries are not mere lines, but rather, they are part of a structural skeleton that binds representation in a cohesive unit.
- ²⁶. Athavankar, Uday A., “Categorization...”, p., 107.
- ²⁷. Athavankar, Uday A., “Categorization...”, p., 107.
- ²⁸. Svenonius, E., *The Intellectual Foundation of Information Organization*, p., 163. The author argues that, while the fact that our brains are hard wired to perceive hierarchical relationships can be debatable, hierarchical relations are powerful means for optimizing recall and precision, as well as the quintessential means for navigating a knowledge domain.
- ²⁹. Athavankar, Uday A., “Categorization...”, p. 107.
- ³⁰. Haraway, D., *Simians, Cyborgs, and Women, The Reinvention of Nature*, Routledge, New York, 1991. p. 226.
- ³¹. Hanafi, Z., *The Monster in the Machine, Magic, Medicine and the Marvelous in the Time of the Scientific Revolution*, Duke University Press, Durham and London, 2000., P., 3.
- ³². Bowker and Leigh Star, S., *Sorting Things Out*, pp. 39-40.
- ³³. Cuthrell Curry, M., *Making the Gods in New York*, p. 29.
- ³⁴. Cuthrell Curry, M., *Making the Gods in New York*, p. 30.
- ³⁵. Bowker and Leigh Star, *Sorting Things Out*, pp. 299. Noteworthy is the fact that in many cultures the appearance of the dragon occurs in intervals of transitions, such as the beginning of the new year.
- ³⁶. Ingersoll, E., *Dragons and Dragon Lore*, Singing Tree Press, Detroit, MI, 1968. P., 13.
- ³⁷. Elliot Smith, G., *The Evolution of the Dragon*, The University Press, Manchester, UK, 1919., P., 81.
- ³⁸. Ingersoll, E., *Dragons and Dragon Lore*, p. 13.
- ³⁹. Jones, D., *An Instinct for Dragons*, Routledge, New York and London, 2000. P., 55.
- ⁴⁰. For Jones the category of raptors includes reptiles and birds of prey, such as falcons, hawks and other vultures and reptiles. According to Jones, these share a common biological origin: Reptiles gave rise to birds during the Mesozoic, about 180 million years ago.
- ⁴¹. Elliot Smith, G., Elliot Smith’s analysis of these figures presents them as a type of Trinity model.
- ⁴². Ingersoll, E., *Dragons and Dragon Lore*, p. 102. The *Mikado* is an archaic term used to refer to the emperor. The legend itself is found in the *Kojiki* which, with the *Nihon shoki*, is the first written record in Japan, part of which is considered a sacred text of the Shinto religion. The *Kojiki* text was compiled from oral tradition in 712.

⁴³. Ingersoll, E., *Dragons and Dragon Lore*, p. 95.

⁴⁴. Ingersoll, E., *Dragons and Dragon Lore*, pp. 77-79.

⁴⁵. Seler, E., *Comentarios al Códice Borgia*, Fondo de Cultura Económica, México, 1988. Vol. 1, pp. 63-67. All translations into English by the author.

⁴⁶. Campbell, Joseph, Online Vocabulary of the Florentine Codex, <http://northcoast.com/~spdtom/nahuatl/a-nahuac.html>, (November 7, 2000).

⁴⁷. Seler, E., *Ibid.*, p. 67. The *Codex Borgia* is a pre-Columbian codex describing rites, gods and the ritual calendar. It is currently held by the Biblioteca Apostolica Vaticana, in Rome, Italy.

⁴⁸. Seler, E., *Ibid.*, p. 65.

⁴⁹. Seler, E., *Ibid.*, p. 65. The *Codex Tellerianus-Remensis* was painted around 1562-1563 in the Valley of Mexico. The codex contains the *tonalpohualli*, or ritual calendar, plus the eighteen-month calendar of the historic annals. It is currently held at the Bibliothèque Nationale in Paris, France.

⁵⁰. Garibay Kintana, A. M., *Teogonía e Historia de los Mexicanos, Tres Opúsculos del Siglo XVI* in *Painting the Conquest* by S. Grusinki, p., 172.

All photographs in essay are by Lily Díaz.