



# THE COSMIC DEEP BLUE: THE SIGNIFICANCE OF THE CELESTIAL WATER WORLD SPHERE ACROSS CULTURES

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## ABSTRACT

The aquatic world plays an essential part in ecosystems. On the earth it provides the fertilizing, vital basis for life. Devastating giant flooding, however, has been destructive and fatal for certain cultures. Archaic people identified the realm of the water world as the primeval and lasting cosmic ocean, which surrounds and intersperses the world. The respective land ("the earth") and the celestial bodies emerged out of the cosmic sea, both swimming there as the first "aquatics". People identified different species of the celestial fauna and flora as having counterparts in the earthly water world, with the moon, single stars and asterisms, open star clusters, zodiacal star patterns, shooting stars, the Milky Way, and the cosmological structure. Ancient cultures, especially those whose subsistence was based mainly on fishing and navigation, often correlated their time reckonings using lunar cycles and star phases with the rhythms of the water realm (e.g. tides, seasonality etc.) and of certain aquatics. Fishing aids (nets, hooks, and spears), boots and ships as well as navigation aids were recognized in certain star patterns. Some celestial aquatics, e.g. certain fish asterisms, were important as navigation aids for seafaring cultures. Finally, their archaic cosmovisions are linked to the cosmic water world: There are widespread ideas about a giant water animal out of which the world was created or about the aquatic monster in the middle of the abyss in the cosmic ocean, causing earthquakes and tsunamis. The combat between an avian and an aquatic illustrates the antagonism and polarity of the upper world and the lower world, closely linked to the earth's water cycle. An example par excellence for a cosmic water plant is the water lily or lotus. The present work sums up some important aspects of the topic, based on selected examples and a comparative methodology.

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**KEYWORDS:** cosmovision, aquatic animals, lotus, Milky Way, cosmic water monster, uroboros, earth's water cycle, alternate states of mind

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## 1. INTRODUCTION

The aquatic world plays an essential part in human ecosystems. Ancient cultures, especially those whose subsistence was based mainly on fishing and navigation, often correlated their time reckonings using lunar cycles and star phases with the rhythms of the water realm (e.g. seasonality, tides, currents, etc.) and the chronobiology of certain aquatics (Taylor 1957; Whatahoro 1913: 170 and fn. 18; Luomala 1980: 548-549; Hoeppe 2000; Dunlap, Loros, and Decoursey 2004; Aveni 2008: 50; Espina 2008: 315-318, fig. 3, and 327-333, table 1).

The moon and sometimes the sun have been regarded as "vessels" (Kunike 1925: 63-64; Leeming 2010: 281, 283). Asterisms are shaped as vessels and navigation aids (Staal 1988: 23, fig. 10; 58, fig. 29A; 72, fig. 38, 101-109; fig. 51, 127; fig. 62 B; Miller 1997: 138; Rappenglück 2009; Leeming 2010: 208-209; Johnson 2011: 295-296), often signalling the time of seafaring. Archaic people also perceived fishing aids (nets, hooks, spears) in star patterns (Staal 1988).

Sun and moon, single stars and asterisms, open star clusters, zodiacal star patterns, shooting stars, and the Milky Way were also correlated with aquatics (Wassén 1934: 638-641, 642-643; Kunike 1925: 66-68, 70-74; Deonna 1954: 57-58; Staal 1988; Clark, 1991: 309, 329-330, 334; Birrell 1993: 169-170; Hoeppe 2000; Werness 2000: 71; Stross 2007: 391-395; Milbrath 2013: 59, 60-61, 6, 67, and 130, n. 82). Examples for the cosmic symbolism of aquatic plants are the water lily and the lotus (see below). Even today, the International Astronomical Union's fixed scope of 88 constellations consists of several real aquatics or fantastic chimeras, coming mostly from older times, but also from the early modern period (Staal 1988).

It isn't surprising that archaic people developed elaborated mythic models about the origin, development and structure of the cosmic water sphere.

## 2. THE PRIMORDIAL WATER SPHERE

Based on myths worldwide, elements of a widespread archaic cosmivision can be

partially reconstructed: There once existed a primordial aquatic domain, a perpetual undifferentiated *materia prima*, occupying an infinite abyss of timeless, chaotic, unconscious dark space, having the potentiality of creation and regeneration, but also of absorption and destruction of entities (Brown 1942: 87-88; Rudhardt 1987; Mondì 1989; Leeming 2010: 341-343).

Often the liquid is characterized as a specific spume (Leeming 2010: 290). The Mongols (Holmberg 1964: 328-329) know that the primordial ocean and the foam covering it were produced by strong winds, which stirred up and mixed a mass of air and water, forcing them to conglomerate into gigantic drops. The Iatmul in Papua New Guinea (Werness 2000: 71) tell about a crocodile that spun around, causing the primeval water to transform into foam. People regarded the foam of the primordial sea as a manifestation of milky semen, as a life-giving substance that gave birth to mother goddesses such as the Greek Aphrodite or the Indian Lakshmi (Andrews 1998: 206-207; Leeming 2010: 10, 118, 324, 375, 478). The Milky Way was regarded as a concentrate of the initial foam and semen in the Night Sky (Rotzler 1915: 803, fn. 5; Rappenglück 1999: 134-135).

The primordial aquatic domain was identified with a powerful gigantic female being that was, both primarily and universally, creative and destructive, controlling life and death. It is considered to be a kind of amniotic fluid (Wessing 2006: 208). The watery realm is compacted in a container formed by a semipermeable membrane, which is typified by a rock cave or a living being's shell, carapace, or skin. This enclosure, later more technically imagined as a "firmament" or "water dam", prevented the primordial waters from uncontrollably flooding the interior (Casalis 1976: 39-41). In this way two realms are set, characterized by the male and female water outside and the water inside of the membrane (Cheva-

lier and Gheerbrant 1996: 1081-1087). The Maori creation myth, for example, tells about the separation of water into two spheres (Lemming 2010: 184). The female water organism, beyond the boundary, was imagined to be a gigantic serpent, octopus, or chimera, like a dragon, hydra or other kind of water monster demon, coiling or clutching around the container, using many windings, arms, legs, or heads. People (Eck 1981: 324; Wessing 2006: 208-211) thought that this aquatic cosmic monster was responsible for retaining the life-giving waters beyond the firmament. The first light, the sun, was said to appear in the greatest depth of the aquatic domain beyond the boundary, produced by some kind of initial fiery breath. Casalis 1976: 41). According to Indonesian and Southeast Asian people the sun was kindled at the celestial pole located in the water sphere, by whisking the fluid with a huge pole, which was the world axis (Rappenglück 2007). This area was often compared to a (celestial) maelstrom, opening an abyssal passage to the waters beyond (Santillana and Dechend 1994: 85, 102, 187-196). Later manifestations of the fire are the astral objects, the lightning, and the rainbow. The primordial fire embodied in the sun, or in the moon as the sun's nighttime manifestation, was thought to be engulfed in a water monster's dark belly like an embryo in a womb, e.g. in Indian tradition (Brown 1942: 88, 91, and fn. 35a; Irwin 1976: 741-743, 749; Varenne 1977-1978: 382, 384) and elsewhere (Kerényi 1940; Schröder 1960; Akima 1993). Similar conceptions are about pearl-shaped luminaries (sun, moon) in a mussel or swallowed by a water monster, for example a whale, a frog, or a dragon (Dixon 1916: 69; Wassén 1934:

644-649; Snodgrass 1985: 351-352; Clark 1991: 333; Chevalier and Gheerbrant 1996: 742-745).

Such approaches addressed the primeval polarity of fire and water, the dry and the wet, providing the potential for a subsequent creation of the sensible world of things and living beings (Schröder 1960; Santos Granero 1992).

### 3. CREATING ORDER BY SLAYING THE AQUATIC WORLD MONSTER

Myths worldwide claim that the aquatic world monster, e.g. a reptile, fish, shell, octopus, turtle, or water chimera, was killed by a huge, usually avian, being, a manifestation of the fiery (solar) power. The "membrane", which was imagined as a rock cave or a living being's shell, carapace or skin, was sliced and halved, releasing inwards the primordial waters and the fiery luminous objects, especially the sun, which appear and move in the upper world (Brown 1942: 96-98; Leeming 2010). The container split into a supernal and chthonic hemisphere (Brown 1968: 203; Baumann 1986: 283-284). This concept is an essential part of the Indo-European dragon-slaying myth (Brown 1942: 95-98), but is also well known in other traditions, such as the Babylonian Tiamat (Muss-Arnolt 1894; Casalis, 1976: 40-41).

Society and Tahiti islanders speak of the myth of Tangaloa / Taaroa (Baumann 1986: 234-235, 275; Leeming 2010: 251-253): In the primeval water that fills the endless space there exists a bivalve shell. The creator being, shaped as a bird-man, lived in a bivalve egg like a shell, which rotated in dark space. Tangaloa touched the shell and it cracked into two pieces, which he transformed up to the sky (lower shell) and down to the earth (upper shell). Then he created the world's landscape, flora and fauna, the red sky in the morning and evening, and the rainbow. Tangaloa embodies the sun, which, since cracking the bivalve shell, is able to move through the air, thereby illuminating the world.

A variation on the container that was split up to make the world is that of the egg

swimming in the primordial sea (Leeming 2010), produced by birds (air and sky) as well as by reptiles (earth and underworld). In addition, a turtle's and tortoise's body recalls the shape of a bivalve shell (Rappenglück 2006): The plastron signifies the flat and square earth, while the carapace stands for the dome-like sky. The four limbs indicate cardinality and the main supporters of the world. The head and the tail often denote the meridian line. These body parts together appear as a kind of "snake". The sculpture of the plastron represents a kind of reticulated division of the cosmic "container".

#### 4. EARTH DIVER MYTHS

Peoples worldwide (Appel 2005: 72-73; Leeming 2010) have developed sets of earth-diver myths, in which an animal accustomed to the aquatic sphere creates the world. It swims in a kind of primal aquatic sphere or lives at its bottom. The animal dives down to the floor and secures mud. This material becomes the earth, shaped as flat land or a stone ball (Leeming 2010: 40) surrounded by the sea. The new land starts to expand, generating the world. Various animals are capable of diving (Leeming 2010): mammals (e.g. otter, boar, and muskrat), water birds (e.g. duck, loon), crustaceans (e.g. crab, crawfish), reptiles (e.g. turtle), mollusks (e.g. octopus), amphibians (e.g. frog, toad), insects (e.g. beetle), and annelids (e.g. leech).

#### 5. THE COSMIC SETUP BY AQUATICS

Some people hand down archaic ideas about an abstract framework for terrestrial and celestial orientation, imagined to be in the body parts of certain aquatics (Leeming 2010: 18, 324-325, 343). The Iatmul in Papua New Guinea say that the world crocodile's lower jaw constituted the earth while the upper jaw formed the sky (Appel 2005: 72, 79). According to Tahitian (Emory 1940: 74 fig. 3, 79-90, 105) concepts, an octopus separated the world's shells, which are the realms of sky and earth, by grasping one and peeling it off of the other. The head of the octopus with its parrot-bill mouth, defines the world's centre and is considered

to be a cosmic navel point (Saura, Capestro, and Bova 2002: 141-142, fn. 6). The eight arms correspond to the eight cardinal directions, supporting the heavens like pillars. For the Gilbert Islanders (Kiribati) (Grimble 1922: 92-96; Leeming 2010: 205-206), the primeval being Nareau called to himself and awakened from eternal sleep. A transparent primordial sphere, a kind of carapace, appeared from the darkness. Inside were several creatures, including the octopus, shark, turtle, eel, and flattened human bodies. Nareau failed to open the sphere. The octopus and the eel helped him to open the shell from within. The eel, likened to a snake coiled under the ancestor world tree and serving as a kind of world axis, was thought to have lifted up the sky. He came into existence by cutting two arms off of another primeval animal, the ten-armed squid, and merging them together. As a result, the squid equipped with ten arms (a decapod), including two specially shaped tentacles, turned into an eight-armed one, an octopus. The octopus kicked the eel's tail, pushing him to the highest point of the sky. There he transformed his shape into the Milky Way. Fire and water are considered to be the Octopus's children. All of this enabled Nareau to breathe life into the flattened first people. He gathered them beneath the *maneaba* structure (meeting house) and surveyed the limitless waters as they merged with the infinite sky. The shape of the primordial octopus also defines a Maori cosmic board game (Levinson 1984: 129-130). The Babylonian Tiamat was also a water monster chimera with octopus-like legs (Dirven 1997: 101 fn. 17). It was halved in order to shape the world's two hemispheres. Its viscera and body parts were used to shape the sky's framework, including the zodiac, and the terrestrial landscape (Muss-Arnolt 1894). The aquatic monster's twisted tail was fixed at the polar world axis (Geyer 1987: 170-171).

The serpent-like Lernaean Hydra of the Greek myth (Schoo 1939: 282-283), living in a cave, is comparable to the octopus: Eight

of the monster's nine heads were mortal; the central one, however, was immortal. Like other cosmic water monsters, the creature is sliced. Even the ancient Japanese eight-headed dragon, which shares mythic similarities with the water monster Keto, expresses the same idea (Akima 1993: 156, 191).

The symbolism of eight limbs around an animal's or chimera's body as the center represents a simple division of the celestial hemisphere around the immovable center of the sky: the celestial pole, for example. While the octopus and the mythic hydra are aquatic variants of the same concept, the spider (eight limbs and eyes) illustrates the cosmic model in the realm of insects (Rappenglück 2007: 161-162). In any case, the symbolism of the center and eight cardinal points, adding up to the magical number nine, in a cosmic system is mythically thematised (Chevalier and Gheerbrant 1996: 702-704).

## 6. THE WATER MONSTER CAUSING TIDES, EARTHQUAKES, AND TSUNAMIS

According to various traditions, a giant water animal, a fish, a reptile (turtle, snake etc.), a cephalopod mollusk, or a mythical creature such as a dragon resides at the deepest point in the aquatic and chaotic abyss of the world (Bluestone 2010; Leeming 2010: 35; Schnytzer and Schnytzer 2012). In ancient India it is mostly known as Makara (Dashew Robins and Bussabarger 1970; Snodgrass 1985: 27, 292-297). It combines parts of a crocodile, dolphin, fish, ram, turtle, whale, elephant, and a lotus.

The hitherto oldest example of the idea of a subterranean cosmic water monster can be found in the cave of Pergouset (Saint-Géry, Lot, France), dated 30-15 ka B.P., where the full relief of a big (2.70 m x 0.5 m) fish (a pike or a sturgeon?) can be seen (Lorblanchet 2001: 140, fig. 121).

The water monster was thought to carry the world (Leeming 2010). Its periodic movements, a kind of soaking and streaming out, caused the tides (Leeming 2010: 110-111). Its casual stagger was considered

to bring forth earthquakes and tsunamis (Blust 2000: 520 table 1; Leeming 2010: 35, 108; Bluestone 2010; Smits 2012). The Mongolian belief was that if the giant frog carrying the earth moves a certain part of his body an earthquake will appear at once just above the limb (Bluestone, 2010).

Ancient Chinese and later Japanese myths are about an "earthquake aquatic", considered to be a giant fish (often a catfish), a squid, a turtle, a serpent, a dragon, or a hybrid creature consisting of the aforementioned animals (Smits 2012: 43-47). Its serpentine body was thought to encircle the islands of Japan. In Japanese tradition the devastating action of the earthquake fish was kept back by a god setting a foundation stone upon the water demon. The Chinese equivalent, the Ao water monster, was similarly dammed up by the Big Dipper asterism standing atop the creature (Smits 2012: 48-49).

In fact, some of the aquatics are biologically sensitive to oncoming earthquakes (Schnytzer and Schnytzer 2012). The idea of a serpent-like water monster causing earthquakes and tsunamis was probably inspired by a real animal, the giant oarfish (pelagic lampriform fish), the king of herrings (Roberts 2012). This animal is distributed in the pelagic zones of deep oceans worldwide (72° N to 52° S, 180° E to 180° W). This species (*Regalecus glesne*), which can be up to 17 m long, normally lives in great depth (at least 1000 m). In the event of an approaching earthquake, the fish surfaces and even swims into the rivers. Because of its undulating type of movement (amiiform mode of swimming) the giant oarfish often is identified as a monster water snake (Ellis 2006: 43). The giant oarfish has a weird body, which can be interpreted as that of a horned feathered water serpent: The animal has a reddish dorsal fin, reaching from its eyes to the tail, a striking crest made of bright red lengthy hard rays (10-12) reminiscent of "horns", and a peculiar ventral fin. When upset, the oarfish raises up his "red crown". The giant oarfish's red crest recalls some ancient traditions having to do with a red jewel or crown between

the horns of the monstrous cosmic water snake. North American natives e.g., thought that the Great Water Snake had a red flower, a jewel or an eye between its horns (Lankford 2007: 249, 253-254). The Skidi-Pawnee link it to the red shining Antares ( $\alpha$  Sco) and the animal with stars in Scorpio. Similar traditions exist in Europe, the Middle East, and China (Hopkins 1932; Lehman-Nitsche 1933: 213-223). This view is notably evident when looking at Scorpio rising up from a horizontal lying Milky Way.

## 7. THE UROBORIC MILKY WAY MONSTER

Various ancient people (Roob 1996: 401-435; Bächtold-Stäubli and Hoffmann-Krayer 2006: 6352; Wessing 2006: 225; Leeming 2010: 100) tell about a water monster shaped like a serpent, worm, or fish, which encircles the world and bites itself in its own tail (uroboros motif). Many peoples believe that someday in future the water monster will destroy the earth by casting it into the ocean (Bächtold-Stäubli and Hoffmann-Krayer 2006: 6352; Leeming 2010: 110-111).

A correlation of the uroboros with the Milky Way and the rainbow (Blust 2000: 520 table1, 532-533) is most probable. Depictions of the uroboros in an alchemical-astrological context show a bisection of his body, often bi-colored, e.g. in red and green (Theodoros Pelecanos, Synosius, *Codex Parisinus graecus* 2327, Fol. 196, 1478). The dichotomous uroboros is an excellent depiction of the Milky Way located partially above and below the horizon at a specific location and date, e.g. about -2500 at  $\varphi = 50^\circ$  (Starry Night Pro 6.43). It signifies the boundaries and mixture of the sky-water, associated with male power, rain, celestial blood (sperm), saltwater, dryness, heat (fire), sun, light, and the earth-water linked to the female power, the terrestrial and underground aquatic reservoir, earthly blood (menstrual blood), freshwater, wetness, cold, and moon (Chevalier and Gheerbrant 1996: 1086-1087).

Based on the Milky Way being located on the horizon, stories about a hero "angling" the giant reptile or fish from the ocean's bottom by are understandable. German and Scandinavian traditions, going back to Indo-European roots, tell of Thor, who, accompanied by the giant Hymir, pulls out the world snake Miðgarðsormr (Jörmungandr) using a fish hook with an ox scull as bait (Simek 2006: 279-280, 428-430). The Maori (New Zealand) creation poem tells how the Maui, using an ancestral jawbone or mother of pearl as a hook, angles up Maui's fish, the North Island of New Zealand (Westerveld 1910: 4-30). The Fishhook and Maui are identified with stars of Scorpio, the (red) bait being Antares (Westervelt: 1910: 26, 136).

## 8. AMBIVALENT COSMIC WATER POWER

The idea of a water organism permeating the world's realms was an essential part of archaic cosmovisions (Leeming 2010; Boelens 2013: 8-9), especially where hydraulic societies are concerned (Zhao 1989; Boelens 2013). Stone-bearing fossils, e.g. marble, were thought to be a "petrified" part of the water sphere (Barry 2007: 631-632).

The aquatic world creature had vivid water veins (Boelens 2013: 8-9), identified with terrestrial and celestial rivers, which were thought to be interdependent. The air itself was considered to be a spatial fluid (Eck 1981: 324). The Milky Way was regarded as the heavenly prototype, origin and counterpart of terrestrial rivers, e.g. the Nile, Ganges, Vilcanota, Pirà-Paranà, and others (Bertola 2003: 96-102). People supposed that the Milky Way collects imperishable celestial light, rain, foam, mist, sperm, blood, and milky essence and pours it out onto the earth (Eck 1981: 325, 327). Ancient Indians (Eck 1981: 325, 327, 330; Varenne 1977-1978: 382) believed that the firmament acts like a huge filter, through which the eternal elixir, the soma, was pressed and comes down to earth as dew, rain, snow, hail. In this view it is present in

water resources, plant sap, blood, sperm, and milk, ready to vivify nature.

The rainbow was interpreted as a manifestation of the Milky Way at daytime (Blust 2000: 525-527). The celestial rainbow water monster, visualized as a flying reptilian chimera (Taçon 1996), is known worldwide (Loewenstein 1961; Blust 2000: 524-525). The Bifröst or Bilröst Bridge of Germanic myths, spanning between the world of humans (Midgard) and the world of gods (Asgard), is either the rainbow or the Milky Way, but probably both (Simek 2006: 51-52). For the Komo (Africa) the rainbow is seen as a double-headed horned serpent consisting of solar fire and lunar water (De Mahieu 1975: 238). The horns are each end of the rainbow. The "horned" water monster serpent is a common figure in the many traditions (Blust 2000: 520 table 1). Amerindians in the Amazonian basin associate the rainbow with a giant double-headed serpent in the sky that is a daytime variant of the Milky Way (Roe 1982: 121, 171, 173, 182, 301-303). In South American traditions not only a serpent, but also a giant catfish, a caiman, or a turtle are manifestations of the rainbow (Roe 1982: 333, fn. 15). While the rainbow indicates the wet season, the Milky Way appears best during the year's dry time (Roe 1982: 173). This concept also exists in Mesoamerica (Roe 1982: 252, 301-303). The Rainbow-Serpent of the Australian Aborigines also shows the relatedness of the Milky Way and the rainbow, both compared to a serpent, a crocodile, or a whale (Taçon 1996; Cressey 1998: 76-77). Indonesian peoples (Hookaas 1956; Wessing 2006: 212-213) understood the many-coloured rainbow as a celestial bridge between the world's realms. It was identified with a water serpent, rising up from the depth of the underworld to the uppermost of the sky, thereby transporting water from the sea to the heavens and raining it back to earth. It was also considered to be a boat of souls and closely linked to the tree of life, the sacrificial post, and the cremation tower.

## 9. COSMIC COMBAT OF AN AVIAN AND AN AQUATIC ANIMAL

The worldly water cycle driven by the sun (Brown 1968: 203-205; Irwin 1976: 738-743; Blust 2000: 529-530; Boelens 2013: 8-10) seems to be addressed in the myths of the combat between a solar hero, an avian that is often a raptor, and an aquatic hero, a sea monster that is usually a reptile or a chimeric being like a dragon, though it is sometimes also a giant fish (Andrews 1998: 207). The depiction of the raptor catching the reptile with his claws or of the snake wreathing the predator bird is widespread. The motif is essential to many archaic cosmologies worldwide and can be traced back at least several millennia (Knipe 1967; Irwin 1976: 741, 745; Baumann 1986: 310-314; Waterson 1989; Hookaas 1956: 298; Wessing 2006: 211-212, 25-226; Lankford 2007: 244-246). Moreover, sometimes there is some kind of cyclical time conception involved. An ancient Chinese myth, older than 4th c. BC, illustrates the idea: From time to time the giant K'un fish, residing in the northern hemisphere, transforms itself into the monster P'eng bird, localized at the Pool of Heaven in the southern hemisphere. The change causes giant floods. After six months the upheaval comes to rest (Birrell 1993: 191-192). In ancient Egypt, e.g. Sethos I and Papyrus Carlsberg I (117-122), fish and birds are two manifestations of a star's being, thought to be analogous to the soul's life-cycle: A star originates in the lake as a fish, comes up to the surface and ascends the sky, having transformed itself into a bird (Altenmüller 2005: 76). A similar idea might be behind Scandinavian Bronze Age depictions, which are interpreted as the solar day cycle (Kaul 1999): At dawn a fish transports the sun from the ship of the night to the ship of the day. Later, the fish is eaten by a bird.

The theft of the vivifying fluid, e.g. the *soma* (*haoma*) in Indo-Iranian tradition, from the heavens by an eagle (the sun-bird) is a very archaic topic (Knipe 1967: 337-338, 351-358): The avian and the aquatic animal, raptor and reptile, represent the fire (light-

ning) of the sky and the water of the underworld. The raptor sits at the crown of the world tree; the serpent coils at the tree root. The world tree grows out of the cosmic waters. Often the world tree, the combat between the avian and the aquatic world animal, and the rape of a celestial magical plant sap, being the elixir of life, are related. People of the Amazonian basin are aware of the same topic (black jaguar, caiman, water snake), related to a world tree, a world mountain, a tripartite cosmos (sky, earth, and underworld), a male-female polarity, and blood as well as water as an elixir of life (Roe: 138-139, 215-217).

The avian and the aquatic world animals signify the antagonism and polarity of the upper world with the highest point in the sky (celestial pole or zenith) and the lower world with the deepest point in the subterranean water realm, along the (polar or zenithal) world axis. There is a chthonic hemisphere, containing primordial, chaotic water, that is associated with dark and night, destruction, disorder, unconsciousness, and death, but also possessing creative potency. Often this realm is ruled by a primeval female aquatic world being, controlling the moon, essential waters and vital juices, such as plant saps, (menstrual) blood, and sperm. The other hemisphere is supernal, filled with primordial fire. It is related to light and day, creation, order, consciousness, life, and omniscience. Frequently this realm is dominated by a primeval male avian world being, ruling the sun and shaping the world.

#### 10. THE COSMIC WATER LILY / LOTUS

Images and myths about the water lily and lotus can be found in Egypt, Mesopotamia, the Mediterranean, India, China, and Mesoamerica (Morenz and Schubert 1954; Sen 1999; McDonald and Brian Stross 2012).

The plant's ovary and radial arrangement of stamens are reminiscent of the sun. At dawn the lotus ascends from the water depth and opens its blossom above the water surface. At dusk it closes its flower and descends beneath the water (McDonald

and Stross 2012: 95). Ancient Egyptians (Morenz and Schubert 1954: 52-50) thus thought the lotus mimicked sunrise and sunset. According to the doctrine of Hermetopolis, the blue water lily arose out of the primeval mud. The so-called eight gods (Ogdoad) were responsible for creation of the water lily. The creator of the world, Atum-Ra (the sun), shaped as a divine child Horus or as the beetle Khepri, generated from the plant's blossom. Similar ideas exist in ancient India (Morenz and Schubert 1954: 116-141). The embryonic being arising from the waters in a lotus blossom is a widespread concept of ancient people (Kerényi 1940:263).

The blue water lily helped transform a dead entity into a new being in the other world (Morenz and Schubert 1954: 60-64). The lotus was also associated with the serpents Uto and especially Harsomtus. The latter is the primordial snake rising up from the primeval waters (Nun).

In ancient India the pink lotus symbolises the sun, while the blue lotus represents the moon (Morenz and Schubert 1954: 90, 94-96, 104-105). The white lotus blossom opens at moonlight, too, thus symbolising the moon god. The creator sun god ascended from the primeval aquatic realm using a lotus stem (Leeming 2010: 67, 115). He took seat on the blossom, from which he sent animals out to dive down and bring up the mud from the deepest place in the cosmic sea to the water surface, thus making the earth. The lotus blossom, the sun, the throne of the world ruler, and the serpent of the waters are closely linked together (Dumont 1933: 327, 329-332). The plant's relation to a serpent is understandable because of the phenotype and the recoiling behaviour of the extracted lotus (McDonald and Stross 2012: 83-89).

The god Vishnu was thought to be sleeping in the world serpent (Ananta) Shesha at the bottom of the cosmic sea (Morenz and Schubert 1954: 127-129, 137-139). From his navel a lotus plant arises above the waters, revealing the four-faced Brahma as a symbol of creation and cardinality. There seems

to be a connection with the water monster Makara, which has a lotus as one body part (Dashew Robins and Bussabarger 1970). In ancient Indian tradition a giant lotus (Morenz and Schubert 1954: 110), symbolizing the vulva of the world, floats in a milk lake, which embodies the primeval waters of immortality in a cosmic womb. From it rises the world Mount Meru, identified with the lotus, both soaking the elixir of life from the abyss of the cosmic sea of milk (Mabbett 1983: 66, 71-72, 76; McDonald 2004: S167-S168). The stem illustrates a kind of an aquatic world tree of life at the navel of the earth. According to traditions in India and other cultures, the lotus stem used for whisking can be replaced by a single foot, a simple stick, a pillar or a spear (Irwin 1976: 740, 743; Schröder 1960: 224-227, 253-254), all representing a kind of axis that embodies the sun's fire power acting upon water (Grossato 1987: 255, 265, fn. 57). From its point of origin the lotus pulls up the elixir of life in just the way that a plant soaks water. Churning the milky ocean (Rappenglück 2006: 225) fills a vessel of soma on the back of the cosmic turtle.

The eight, or sometimes four, petals indicate cardinality, the world regions, and a wind rose (Morenz and Schubert 1954: 104). Nepal tradition holds that eight giant snakes set up the petals of the cosmic lotus. This calls to mind cosmic animals: the octopus, the spider, the eight-headed dragon, the hydra etc. The cosmic lotus of ancient Balinese has eight petals, each of them related to a divine couple. In the abode exists a primeval pair of a god and goddess. The Tibetans performed a special ritual dance illustrating the shape of an eight-petaled lotus supporting the world mountain (Schrempf 1999). An astronomical-cosmological meaning of the lotus blossom in Buddhist context is evident in the tomb paintings of Xuanhua, China, dated 907-1125 AD (Sen 1999).

In Mesoamerica, especially Maya tradition, serpents often are associated with an interdependent complex of motifs, pointing to a supernal as well as a chthonic manifestation of the reptile: rain, whirlwind, earth,

mountain, aquatic underworld, aquatics, cave and passage through a cavern, fire, lightning, the sun, the Milky Way, the heavens' vault, the ecliptic, and life cycles in nature and human society (Cohodas 1982; Bassie-Sweet 1996: 81-89; McDonald and Stross 2012: 75-77). The reptilian water monster, with the combined body parts of a serpent, a crocodile, and a fish, is closely related to the water lily, water lily monster, and water lily serpent (McDonald and Stross 2012). The Maya also associated the lotus bud with the sun (McDonald and Stross 2012: 80-81, 88, 91, 95). The feathered solar serpent continuously moves to and fro between the aquatic chthonic and the celestial supernal spheres (McDonald and Stross 2012: 95). This recalls the ancient Chinese concept of the dragon descending from the sky into the waters at the autumnal equinox and ascending again at the vernal equinox (Zhao 1989: 234).

The blue water lily was used as a narcotic, hallucinogen and entheogen remedy, e.g. in ancient Egypt, Asia, and Mesoamerica (Emboden 1989; McDonald 2004; McDonald and Brian Stross 2012: 100-101). The hallucinogen and entheogen *soma* of Indian myths can be ethnobotanically connected to the lotus (McDonald 2004). In this context the lotus plant's relation to the ancient Middle East "tree of life" is meaningful (McDonald 2002). Finally the Mesoamerican lotus-serpent is also linked to visions and ecstasy (McDonald and Brian Stross 2012: 97-98, 100-101).

## 11. CONCLUSION

Ancient cultures correlated practical sky-watching and time reckoning, water resources management, navigational needs and cosmovisions with the aquatic world's phenomena, e.g. water cycles, tides, and the body shapes and rhythms of water animals or plants. They especially thematised the earth's water cycle, linked to cosmogonical and cosmological models. The Milky Way and Scorpio are important in archaic cosmovisions. A certain class of myths about earthquakes, flooding, and tsunamis seems to be linked to the giant

oar fish's behavior and cosmographical ideas. Finally, altered states of mind are somehow related to the lotus and expressed in a cosmographic symbolism.

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