

KLAUS ANTONI, DAVID WEISS (EDS)

SOURCES OF MYTHOLOGY

Ancient and Contemporary Myths



Religionswissenschaft: Forschung und Wissenschaft

LIT

Klaus Antoni, David Weiß (eds)

Sources of Mythology

Ancient and Contemporary Myths

Proceedings of the
Seventh Annual International Conference
on Comparative Mythology
(15 – 17 May 2013, Tübingen)

LIT

Cover image:

Louis le Brocquy, *The Morrigan*

Lithographic brush drawing from *The Táin*, Thomas Kinsella
(translator), Dublin: Dolmen Press, 1969

Portfolio Edition, 38 × 54 cm © Estate of Louis le Brocquy

This book is printed on acid-free paper.

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche
Nationalbibliografie; detailed bibliographic data are available in the Internet at
<http://dnb.d-nb.de>.

ISBN 978-3-643-90475-1

A catalogue record for this book is available from the British Library

©LIT VERLAG GmbH & Co. KG Wien,
Zweigniederlassung Zürich 2014
Klosbachstr. 107
CH-8032 Zürich
Tel. +41 (0) 44-251 75 05
Fax +41 (0) 44-251 75 06
E-Mail: zuerich@lit-verlag.ch
<http://www.lit-verlag.ch>

LIT VERLAG Dr. W. Hopf
Berlin 2014
Fresnostr. 2
D-48159 Münster
Tel. +49 (0) 2 51-62 03 20
Fax +49 (0) 2 51-23 19 72
E-Mail: lit@lit-verlag.de
<http://www.lit-verlag.de>

Distribution:

In the UK: Global Book Marketing, e-mail: mo@centralbooks.com

In North America: International Specialized Book Services, e-mail: orders@isbs.com

In Germany: LIT Verlag Fresnostr. 2, D-48159 Münster

Tel. +49 (0) 2 51-620 32 22, Fax +49 (0) 2 51-922 60 99, E-mail: vertrieb@lit-verlag.de

In Austria: Medienlogistik Pichler-ÖBZ, e-mail: mlo@medien-logistik.at
e-books are available at www.litwebshop.de

Contents

Foreword

I. MYTH IN MODELS

Mythic Modes in
The Evolution of Intero
Whitney Beltrán

The Mythology of
Chasing the Divine fo
Devorah Cutler-Rube

Global Mythopoe
A Way for Humanity
Troy Davis

Deities in Japan
Kikuko Hirafuji

Dwelling Myths
Kampung Naga as a S
through Ancient Wise
Grace Pamungkas &

Star Trek: The Ne
A Study of the Mytho
of a Contemporary W
Who Wrote on the Te
Scott Rubenstein

Two-Faced Solstice Symbols and the World Tree

JAMES OGIER

The now burgeoning fields of ethno-astronomy and cultural astronomy attempt to recover – on the basis of archaeology as well as the interpretation of symbols – the astronomical understanding of ancient cultures and to demonstrate how those cultures used their astronomical knowledge to shape their cosmological traditions (cf. Aveni 2001 and Krupp 1983). These fields certainly do not lack controversies and detractors, but they have played a vital role in, e.g., explaining the orientations of cult buildings and henges all over the world, and in untangling the symbolism of the Maya codices. As Clive Ruggles (1996, p. 9) has pointed out, the sky offers an unparalleled resource for cultural research: it is the only cultural resource upon which humans can have no influence; it is one of the few parts of a different culture that we can reconstruct accurately; and it has features common, “at different levels”, to a wide range of cultures, thus permitting cross-cultural studies, especially of cultures that share roughly the same latitude.

One can find many examples of the connection between ethno-astronomy and mythology; it can hardly be a coincidence that Hercules, whose defeat of the Hydra reflects a heroic act of water management (Salowey 1994), rises as a constellation in time to accompany the dry summer season in Greece and the necessity for the release of the many-channeled irrigation system [viz. the many heads of the Hydra, a water beast]. Nor can it be a coincidence that Indra’s defeat of the serpent Vṛtrá released the floodwaters just as Scorpio set in the west and the monsoon season let loose;¹ similarly, the slaying of the Egyptian snake deity Apophis corresponds with the start of the Nile flood season and the Egyptian New Year. BWM L28A lists a connection between the con-

1 Mallory & Adams (2006) link the name Vṛtrá to an Indo-European root *wṛto/eh_a- meaning ‘enclosure’ (cf. NE -worth), which could imply that the defeat of Vṛtrá represents a breaking open of a dam or wall that had enclosed and withheld the waters.

sumption of a snake and the release of water, but not in Eurasia (Bezrezkin 2013). This myth may enjoy wider distribution than previously thought.

One further example: the Scorpion Macehead currently in the Ashmolean in Oxford shows the pre-dynastic Egyptian King "Scorpion" wielding a hoe, probably to break open the dikes at the beginning of the agricultural season Peret and to flood the fields before planting (Clayton 2006, p. 17). Above him floats a scorpion (thus his modern appellation as King "Scorpion") and a seven-petaled flower that appears repeatedly in pre-dynastic iconography and that may have been borrowed from the Near East as a symbol for the sun (Wilkinson 2000, p. 29). In that millennium, the rise of Scorpio would indeed have heralded the end of the flooding in October and the beginning of the growing season in Egypt.

No ancient culture remained indifferent to celestial phenomena. Even where and when one can otherwise detect no trace of a class of astronomer priest or shamans in the archaeology of a site, material evidence of a profound interest in the sky turns up, as with the second-millennium BC Nebra Disk from Germany. The main problem resides in determining whether – or at what point – a given symbol has astronomical meaning. The swastika, for example, most likely had its origin in a sun symbol, but then evolved into a good luck sign (thus its name: *su-asti-ka* 'being good'; cf. Schlosser & Czerny 1996, p. 43) and later into much more sinister contexts remote from its celestial origins.² Similarly, the Tree mytheme lives on in its pale derivatives of the Christmas tree and the Maypole, while the originally unrelated concept of the *axis mundi* becomes the pole around which the Mexican *voladores* twirl, as well as contributing to the tradition of wrapping the Maypole.

It seems impossible that for the past hundred millennia early peoples did not look up at the sky and attempt to make sense of the jumble of stars presented to their eyes every night. At the very least, they must have noticed the condensed strip of light that we know as the Milky Way and now understand as the view down one axis of our disk-shaped galaxy. Attempts to interpret it in mythological terms seem to have branched in two directions, depending on the position of the Milky Way relative to the horizon. When, in the northern hemisphere, it arches overhead in summer, it resembles a tree;³ when in winter it hugs the

2 I find it difficult to credit Haynes (2009)'s suggestion that the ancient world modeled the swastika on the relative positions of the Mississippi, Amazon, and Nile rivers, plus the North and Baltic Seas, as that would imply a rather stunning display of geographical knowledge on the part of the ancient world.

3 Witzel (2012, pp. 132-136) lists both the World Tree and the Axis Mundi as elements of his Laurasian proto-mythology. De Santillana and von Dechend (1977, pp. 242-262) make an argument for the equation of the two, but the visible Milky Way rotated at a decided angle from the imaginary line from the area of Polaris down through the North Pole. I prefer to treat them as different mythemes.

horizon, it resembles a road.

Cultural astronomy has by World Tree/Tree of Life (he stem from one of the ways viewed the Milky Way (*pace* gives only a small fraction of take the correlation of Tree demonstrate that the perceived significant role in early time recorded particular on the Milky Way phenomena, each of which has cultures, gave birth to dicepha

The oldest example of the T Sumeria (Dalley 2000, pp. 19 myth of Etana there stands a the base by a serpent. The tw presses their natural enmity to tacitly pre-supposes as a natu tectly sensible warning from o snake's lair and eats the snake snake appeals to Shamash, wh on the eagle. The now captiv Shamash, after giving the eag eagle. The eagle then flies up back, a scene sometimes inter

Turning to North Europe, which has both an eagle and a Níðhöggr, which gnaws at its the serpent can be inferred fr which runs up and down the ties. The Poetic Edda evinces it stands under attack from sev all nibble on it – reflecting t Way.

Skipping over to Mesoame tale of the Hero Twins Hunaj upon themselves to shoot d Kaquix (Seven Macaw) (cf. Te Macaw, naturally, lives in a tr there is again a pair of birds i and rather pale manifestation the Principal Bird Deity. On o classic-era pottery vase (Kerr

horizon, it resembles a road or a river. Thus, the Milky Way is polysemous, but in its tree aspect, it attracts birds and serpents.

Cultural astronomy has by now built up considerable evidence that World Tree/Tree of Life (henceforth simply "the Tree") mythologies stem from one of the ways in which ancient cultures the world over viewed the Milky Way (*pace* Berezkin 2013, Motif BWMI 1102, which gives only a small fraction of the attested cases). In the following, I shall take the correlation of Tree and Milky Way as given and attempt to demonstrate that the perceived rotation of the Milky Way played a significant role in early time reckoning and that, furthermore, two areas in particular on the Milky Way correlated with winter and summer solstice phenomena, each of which had its own complex of images that, in many cultures, gave birth to dicephalic, or at least diprosopos representations.

The oldest example of the Tree complex that I have found comes from Sumeria (Dalley 2000, pp. 190-202). At the focal point of the Sumerian myth of Etana there stands a tree occupied at the top by an eagle and at the base by a serpent. The two have apparently struck a deal that suppresses their natural enmity toward each other, an enmity that the myth tacitly pre-supposes as a natural phenomenon. One day, despite a perfectly sensible warning from one of his eaglets, the eagle descends to the snake's lair and eats the snake's eggs. Weeping with sorrow and rage, the snake appeals to Shamash, who works out a scheme to snare and imprison the eagle. The now captive eagle also begs Shamash for help, and Shamash, after giving the eagle a good scolding, sends Etana to free the eagle. The eagle then flies up to the top of the tree with Etana on his back, a scene sometimes interpreted as shamanic.

Turning to North Europe, we find the Norse World Tree Yggdrasill, which has both an eagle and a falcon on top of it, as well as the serpent Níðhöggr, which gnaws at its roots. The enmity between the birds and the serpent can be inferred from the presence of the squirrel Ratatöskr, which runs up and down the tree sowing discord between the two parties. The Poetic Edda evinces great concern for the health of the tree, as it stands under attack from several quarters – Níðhöggr, deer, and a goat all nibble on it – reflecting the porosity and irregularity of the Milky Way.

Skipping over to Mesoamerica, we find in the Maya Popol Wuj the tale of the Hero Twins Hunajpu and Xbalanque, who find it incumbent upon themselves to shoot down the egotistical sun-imposter Wukub Kaquix (Seven Macaw) (cf. Tedlock 1985 and Christenson 2003). Seven Macaw, naturally, lives in a tree – here a nance tree – has a wife (thus there is again a pair of birds in the tree), and may well represent a late and rather pale manifestation of the creator god Itzam Na or Itzam Yeh, the Principal Bird Deity. On one visual representation of the scene, on a classic-era pottery vase (Kerr 1226), one sees Seven Macaw, wings out-

stretched, in the branches of the tree; to one side crouches Hunajpu with his blowgun; and his twin Xbalanque appears to be hiding behind the tree and shows only his jaguar paw (his name means "Jaguar Deer"). Most significantly, a large scorpion floats at the bottom of the tree, taking the place of the serpents that dwell there among the roots in the other two images.

We can combine these and many other examples across the world in order to posit a complex composed of bird(s) – tree – serpent/scorpion. In his *Masks of God*, Joseph Campbell listed this complex as one of those reflected in Central and South America, Egypt, Mesopotamia, India, and China (1959, p. 212). His citation of this complex occurs in the section on parallelism vs. diffusion, a can of worms I intend not to open here, except to posit – as I have already suggested – that the model for the bird – tree – serpent complex has its origin in natural phenomena available to all peoples in the northern hemisphere.⁴

Assuming that the tree element was born of a near-universal projection of earthly flora onto the night sky, one next goes in search of the bird and the serpent along the body of the Milky Way.

Matching known constellations to ancient mythemes is usually a dubious process. Different cultures slice up the sky differently, and one culture's swan may be another culture's giraffe. Even closely related cultures differ on the makeup, extent, and nomenclature of the ever-visible circumpolar stars, as, e.g., with the Dippers aka the Wagons aka the Bears. One might hope that the inheritors of Indo-European culture would have retained patterns of constellation shapes, but even assuming a continuum of astronomical imagery among the Indo-European cultures, one might ask why a Northern European, for example, would continue to see a scorpion in the constellation, when the arthropod's natural habitat ends at the Alps and typical Scandinavians would never have experienced one.

So matching constellations with myths in the absence of living native informants leads to at best dubious results because extant information is slight or easily misinterpreted. With one exception, I will claim; the sinuous line of stars that makes up Scorpio strongly suggests a serpent or a scorpion with raised tail to many cultures. Linda Schele makes this argument for the scorpion on the Maya vase, which is placed exactly where it needs to stand if the Tree represents the Milky Way. Her ethnological research suggested that the modern Maya interpreted the constellation as a "ts'ek" or "sinaan", both meaning 'scorpion', and there is some evidence in the extant codices that that view can be traced back to the clas-

4 In its geographic spread and regional variations, the complex can fall into the subsets of bird plus tree and tree plus snake. In each case, however, something of the original complex adheres to them and can be related back to the tree. Probably even the biblical snake and the tree of wisdom derive from some version of this complex.

sic Maya (Freidel, Schele & Parker 1993). The tenth-century representation of Yggdrasil places the serpent Níðhöggr at precisely the base of the tree. That the serpent and the scorpion are functionally equivalent – for the Norsemen become or poetic designations for snakes ("Grimnismál") – more common terms such as *snákr* and *Níðhöggr* itself, the item *skorpión* is derived from learned sources and here equated with the scorpion.

The curved constellation Scorpio lies on one of the two spots where the ecliptic crosses the Milky Way. Its heliacal rise would have accompanied the winter solstice period of roughly 4,000 to 2,000 BC in many parts of the world. As agricultural civilizations, time-keeping and sky-watching were of great importance. Farther north, the rise of Scorpio marked the onset of colder weather and also the waning of the long day. A millennium, precession had moved Scorpio to the winter solstice, putting it in Norse Ragnarök mythology. At Ragnarök (winter solstice) the sun takes the form of Sagittarius, the constellation Sagittarius (Scorpio) with the resulting birth of a new era and new gods. At Scandinavian latitudes, Scorpio is never visible, so one must assume that the Ragnarök myth was set south on the continent. However, the sun would have set at Ragnarök; should Scorpio and Sagittarius be visible on the Scandinavian horizon, something would have happened in the heavens, and the sun would indeed be visible.

As elaborated above, the rise or setting of Scorpio is significant in different cultures, but in each case it is a significant event on the Milky Way, a significant celestial event. But when the sun rises and the ecliptic meets the Milky Way, Gemini is visible. Gemini, as, over the past millennia, precession has moved the winter solstice closer to the winter solstice and ever closer to the winter solstice. Gemini is then as a harbinger of spring and summer in the Christian era.

Just as Scorpio as icon of the winter and Gemini, as icon of the summer, the four brightest stars of Gemini stand suggestive of a sort of symmetry. Each star has a counterpart in the imagery, as long as symmetry re-

the Maya (Freidel, Schele & Parker 1993, p. 120). Additionally, a seventeenth-century representation of Yggdrasill in the Icelandic MS AM 738 places the serpent Níðhöggr at precisely the same place in relation to the tree. That the serpent and the scorpion overlap semantically – if not genetically – for the Norsemen becomes clear in an anonymous list of *heiti* or poetic designations for snakes (“Orma heiti 3”) that contains, among more common terms such as *snákr* and *naðra*, and even the name Níðhöggr itself, the item *skorpión*, obviously borrowed from Latin learned sources and here equated with snake (Jónsson 1912).

The curved constellation Scorpio has two other important features; it lies on one of the two spots where the ecliptic crosses the Milky Way, and its heliacal rise would have accompanied the autumn equinox during the period of roughly 4,000 to 2,000 BC, a period of cultural condensation in many parts of the world. As agriculture began to form the basis for civilizations, time-keeping and sky-watching gained greatly in importance. Farther north, the rise of Scorpio meant the official beginning of colder weather and also the waning of the year. By the first Christian millennium, precession had moved Scorpio closer to the winter solstice, putting it in Norse Ragnarök mythology at the gateway to the end-times; at Ragnarök (winter solstice) the sun is swallowed by the wolf (which I take to be Sagittarius, the constellation adjacent and sequential to Scorpio) with the resulting birth of a new sun (year) and a new life for the gods. At Scandinavian latitudes, Scorpio and Sagittarius are never visible, so one must assume that the Ragnarök mythology developed farther south on the continent. However, this merely underscores the threat of Ragnarök; should Scorpio and Sagittarius ever actually rise above the Scandinavian horizon, something would be seriously wrong with the heavens, and the sun would indeed be in danger.

As elaborated above, the rise or set of Scorpio means different things in different cultures, but in each case, the sun rises and sets on a portion of the Milky Way, a significant celestial event to accompany a significant climatic event. But when the sun rises in Scorpio, the other point where the ecliptic meets the Milk Way, Gemini, sinks toward the horizon. Just as, over the past millennia, precession has moved Scorpio from the equinox and ever closer to the winter solstice, Gemini has left its place at the vernal equinox and has moved toward the summer solstice. Gemini functions then as a harbinger of spring for the early Egyptians, the home of spring for the European Classical Age, and tipping point between spring and summer in the Christian era.

Just as Scorpio as icon of the winter solstice has its serpents and arthropods, Gemini, as icon of the summer solstice, has its doublets. The four brightest stars of Gemini stand out by forming a rough rectangle suggestive of a sort of symmetry. Each culture can thus fill it with its own imagery, as long as symmetry reigns. The Romans saw twins (thus

"Gemini") and wove tales of the horsemen Castor and Pollux. For ancient India the stars corresponded to the *Ásvinau*, the twin horse-headed deities known for their healing power and beneficence to humans, a sharp contrast to the nasty snakes encountered at the other end of the Milky Way. Etymological cousins of theirs pop up in Persia and the Baltic, underscoring their IE credentials (Campbell 1959, p. 212).

If the Milky Way forms the tree of our complex and Scorpio the serpent at the bottom, parallelism requires that Gemini be the bird(s) at the top. Recall that the bird has positive attributes and the snake negative ones; they certainly stand in opposition to each other, as we saw with the tale of Etana. It makes sense that the spring/summer bird would connect with fecundity and the growing season, while the autumn/winter snake brought cold and barren fields. Even the Maya macaw we saw being blow-gunned out of the nance tree would, as Gemini, have arrived at the start of the crucial and long-awaited rainy season.

A propos the Maya: Linda Schele suggested that the Classic Maya alternatively saw Gemini as the constellation known as the "rutting peccaries": again a pair of creatures reflecting the symmetry of the constellation (Friedel, Schele & Parker 1993, p. 80).

So far we have postulated the elements symmetry, duality, and birds for Gemini. All three elements merge in the image of the double-headed eagle, which is normally portrayed with out-stretched wings, thus forming a roughly Gemini-like rectangle. Appearing first – as far as we know – in Sumer and reaching up through the Hittites, Byzantium, and most Slavic countries, the dicephalic eagle has stood for millennia for power and authority, especially when the power and authority derive from the success of the growing season, which starts under Gemini, at least during the four millennia BC when its popularity spread. The Babylonian New Year began at the vernal equinox, which coincided with the start of Gemini in that era. After its use as a power symbol for millennia, the two-headed eagle has lost its seasonal association with Gemini, but may well live on in its single-headed cousins atop poles that also abound across the world, some even with accompanying snakes as in the Aztec myth reproduced on the Mexican flag.

The metaphor of dicephalic creatures and the solstice should by now be obvious; as the sun approaches one of its stationary points, it slows down, pauses for a week or so, and then reverses direction. It thus keeps one head or face pointed toward one stationary point and the other toward its opposite. In order to see in both directions, the sun needs to have two faces pointing away from each other at 180 degrees. As Eliade points out with regard to New Year rites, as far back as Mesopotamia "the beginning was organically connected with an end that preceded it", giving the New Year celebrations a double focus of past and future symbolized by a doubling of head or face (Eliade 1963, pp. 47-49).

But the characteristic of having on the back of one's head, can, analogous to many-eyed Argos and the two-faced Roman portal guardian. Roman New Year soon after the solstitial deity of unclear culture (ans). No matter his origin, at least one planetary god is clearly ruled Rome during the time of his expulsion from Greece, Saturnus's reign. In Roman times the 17th with the rising of Capricorn thus the Roman festival of the connections with the week before the month that bears his name, an evening body with Saturn (cf. the two faces fit the pattern established, but also touch on the other: the reptilian.

According to Hostetler (2007) serpents serving a dual role: as also as protectors of our world (as protector of (both literally and the solstice), Janus parallel guard the line between the quick interpreting Janus as a serpent with the reptilian world.

Dicephaly (two-headedness) in any vertebrate as a result of fusion of twinned ova. A Google search of mutated cats, dogs, cows, antles and snakes (class Reptilia survive long in the wild, and human is limited by that fact. But the surviving dicephaly thanks to the expression, allows the thorax to be pushing the *Hoxc6* gene, which creatures, close to the reptile's tally) to have a greater propensity diprosopos, and a better ability attention of humans. So despite two-headed humans, calves, and ed two-facedness to a far greater.

But the characteristic of having not only eyes, but a whole other face on the back of one's head, can, by extension, denote watchfulness, analogous to many-eyed Argos and three-headed Cerberus. For this reason, the two-faced Roman portal guardian deity Janus, whose day begins the Roman New Year soon after the winter solstice, probably derived from a solstitial deity of unclear cultural origin (but most likely from the Etruscans). No matter his origin, Janus's ties to the celestial sphere and at least one planetary god is clear; according to Ovid (*Fasti* I), Janus once ruled Rome during the time of Jupiter's victory over Saturn, and, after his expulsion from Greece, Saturn sought and obtained refuge under Janus's reign. In Roman times the winter solstice season began on December 17 with the rising of Capricorn, an astrological sign ruled by Saturn, thus the Roman festival of the Saturnalia. Janus thus has very tight connections with the week before the solstice, as well as with the start of the month that bears his name, and apparently formed a two-headed governing body with Saturn (cf. the Etruscan tradition of dual kingship). His two faces fit the pattern established for the solstices by the Gemini creatures, but also touch on the other aspect of the winter solstice constellation: the reptilian.

According to Hostetler (2007, p. 208), Etruscan tomb paintings show serpents serving a dual role: as protectors of graves from intruders, but also as protectors of our world from the ghosts of the dead. Functionally, as protector of (both literally and figuratively) liminal spaces (doorways and the solstice), Janus parallels the snakes portrayed in the tombs that guard the line between the quick and the dead. One further step toward interpreting Janus as a serpent figure is to associate his two-facedness with the reptilian world.

Dicephaly (two-headedness) or diprosopos (two-facedness) can occur in any vertebrate as a result of faulty gene expression and faulty separation of twinned ova. A Google search of "polycephaly" turns up pictures of mutated cats, dogs, cows, and even humans, but predominantly turtles and snakes (class Reptilia). Normally, dicephalic animals cannot survive long in the wild, and human exposure to and knowledge of them is limited by that fact. But the class Reptilia has a far higher likelihood of surviving dicephaly thanks to their evolution, which in terms of gene expression, allows the thorax to expand at the cost of the cervical portion, pushing the *Hoxc6* gene, which controls the double front limbs in other creatures, close to the reptile's head. As a result, reptiles seem (anecdotally) to have a greater propensity for mutations such as dicephaly and diprosopos, and a better ability to survive them and thus to come to the attention of humans. So despite the attested existence of two-faced or two-headed humans, calves, and cats, ancient peoples probably associated two-facedness to a far greater degree with reptiles than with mammals.

It is suggestive that Janus, a deity whose time comes just as the sun leaves its winter stationary point, a point associated with serpents in Indo-European and perhaps Egyptian lore, should have a feature often found in serpents. By displaying two faces, Janus echoes the doubled or twin aspect of its opposite number on the Milky Way, Gemini, which has double-headed and double-faced eagles. In this way, the bird – tree – snake/scorpion complex reveals itself to reflect the portion of the Milky Way bounded on one end by Gemini and on the other by Scorpio, two points at which the ecliptic, and thus all the planets, cross the Milky Way.

The evidence suggests that constellations at the two points where the Milky Way and the Ecliptic meet (Gemini and Scorpio) became more and more associated with the solstices as they moved toward them. Solstices have an inherent duality of momentum as the sun slows its motion in one direction, stops, and then slowly starts off in the opposite direction. Overwhelmingly, the symbols of solstice duality involve birds (summer solstice/Gemini) and serpents (winter solstice/Scorpio); the duality appears most pronouncedly with the former, in the shape of the double-headed eagle symbol, which came to express royal power, perhaps in the form of the ability to produce vernal (solstitial) fecundity and thus sustenance for the people. The links between serpents, two-facedness, and the winter solstice combine – in the Roman world, probably via the Etruscans – in the two faces of Janus, thus doubling the doublets, with one doublet at each end of the arc of the Milky Way defined by the ecliptic and associated with the inter-solstitial half-year seasons.

REFERENCES

- Aveni, AF 2001, *Skywatchers*, University of Texas Press, Austin, Texas.
- Berezkin, Y 2013, *Tale Type and Motif Indices: Map*, viewed 20 July 2013, <<http://starling.rinet.ru/kozmin/tales/index.php?index=berezkin>>.
- Campbell, J 1959, *The Masks of God*, vol. I, Viking Press, New York.
- Christenson, A 2003, *Popol Vuh: The Sacred Book of the Maya*, (O Books, New York.
- Clayton, PA 2006, *Chronicle of the Pharaohs*, Thames and Hudson, London.
- Dalley, S 2000 [1989], *Myths from Mesopotamia: Creation, the Flood, Gilgamesh, and Others*, rev. ed., Oxford University Press, Oxford.
- De Santillana, G & von Dechend, H 1977, *Hamlet's Mill: An Essay Investigating the Origins of Human Knowledge and its Transmission Through Myth*, David R. Godine Publisher, Boston.
- Ellade, M 1963, *Myth and Reality*, New York.
- Freidel, D, Schele, L & Parker, J 1993, *Jaguars and Kings: The Sacred Art of Ancient Maya Palaces and Temples*, New York.
- Haynes, G 2009, *Tree of Life, Symbols of Ancient Troy*, S.
- Hostetler, KL 2007, 'Serpent in the Etruscan Foundation', v.
- Jónsson, F 1912, *Den Norsk-Ilandske Boghandel*, Copenhagen.
- Krupp, EC 1983, *Echoes of the Past: Civilizations, Konecky and Sons, New York.*
- Mallory, JP & Adams, DQ 2003, *European and the Proto-European*, Oxford Press, Oxford.
- Ruggles, C 1996, 'New Approaches to Symbolism within the Rituals of the Isles' in V Koleva & D Koleva (eds), *Cultures: Proceedings of the 10th European Society for Astronomical and Space Sciences Symposium, 31 August-2 September 1995*, Academy of Sciences National Centre Sofia, Sofia, pp. 1-13
- Salowey, CA 1994, 'Herakles and the Classical Fountains, Roman Mythology in the Peloponnese: A Study', *Oxford Books*, Oxford, pp. 77-94.
- Schlösser, W & Czerny, J 1996, *Die Astronomie der Vorzeit*, Wissenschaftliche Buchverlag, Darmstadt.
- Tedlock, D 1985, *Popol Vuh: The Sacred Book of the Maya*, Princeton University Press, Princeton, New York.
- Wilkinson, T 2000, 'What a King: The Ruler'. *Journal of Egyptian Archaeology*, 34, 1-10.
- Witzel, EJM 2012, *The Origins of the Maya*, Oxford University Press, Oxford.

- Ellade, M 1963, *Myth and Reality*, trans. by WR Trask, Harper and Row, New York.
- Freidel, D, Schele, L & Parker, J 1993, *Maya Cosmos: Three Thousand Years on the Shaman's Path*, William Morrow and Company, New York.
- Haynes, G 2009, *Tree of Life, Mythical Archetype: Revelations from the Symbols of Ancient Troy*, Symbolon Press, San Francisco.
- Hostetler, KL 2007, 'Serpent Iconography', *Etruscan Studies: Journal of the Etruscan Foundation*, vol. 10, pp. 203-208.
- Jónsson, F 1912, *Den Norsk-Islandske Skjaldedigtning*, vol I B, Gyldendalske Boghandel, Copenhagen.
- Krupp, EC 1983, *Echoes of the Ancient Skies: The Astronomy of Lost Civilizations*, Konecky and Konecky, Old Saybrook, Connecticut.
- Mallory, JP & Adams, DQ 2006, *The Oxford Introduction to Proto-Indo-European and the Proto-Indo-European World*, Oxford University Press, Oxford.
- Ruggles, C 1996, 'New Approaches to the Investigation of Astronomical Symbolism within the Ritual Landscapes of the Prehistoric British Isles' in V Koleva & D Kolev (eds), *Astronomical Traditions in Past Cultures: Proceedings of the First Annual General Meeting of the European Society for Astronomy in Culture (SEAC), Smolyan, Bulgaria, 31 August-2 September 1993*, Institute of Astronomy, Bulgarian Academy of Sciences National Astronomical Observatory Rozhen, Sofia, pp. 1-13.
- Salowey, CA 1994, 'Herakles and the Waterworks: Mycenaean Dams, Classical Fountains, Roman Aqueducts', in KA Sheedy (ed.), *Archaeology in the Peloponnese: New Excavations and Research*, Oxbow Books, Oxford, pp. 77-94.
- Schlosser, W & Czerny, J 1996, *Sterne und Steine: Eine praktische Astronomie der Vorzeit*, Wissenschaftliche Buchgesellschaft, Darmstadt.
- Tedlock, D 1985, *Popol Vuh: The Mayan Book of the Dawn of Life*, Simon & Schuster, New York.
- Wilkinson, T 2000, 'What a King is This: Narmer and the Concept of the Ruler', *Journal of Egyptian Archaeology*, vol. 86, pp. 23-32.
- Witzel, EJM 2012, *The Origins of the World's Mythologies*, Oxford University Press, Oxford.