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04 August 2016

Version of attached file:

Accepted Version

Peer-review status of attached file:

Peer-reviewed

Citation for published item:

Strang, V. (2014) 'Lording it over the Goddess : water, gender and human-environmental relations.', *Journal of feminist studies in religion.*, 30 (1). pp. 83-107.

Further information on publisher's website:

<http://dx.doi.org/10.2979/jfemistudreli.30.1.85>

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Lording it over the Goddess:

water, gender and human-environmental relations

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Keywords

Water, history, religion, human-environmental relations

Abstract

This article considers critical transitions in the historical trajectories of most societies, from animistic and polytheistic ‘nature religions’ that venerated localised female, male and androgynous forces, to increasingly male-dominated and hierarchical belief systems valorising humanised and more distant religious figures. These transitions intersected with shifts from hunting and gathering to settlement and agriculture; changes in gender roles; and the emergence of stratified socio-political arrangements. As technologies such as irrigation developed, and societies enlarged, human-environmental relations also moved away from egalitarian and reciprocal partnerships with other species and ecosystems to more directive interactions with them.

These cosmological and material changes are readily apparent in the history of water. Often seen initially as an embodiment of female principles, water became the gift of powerful male religious beings. From being owned collectively, it became the focus of primarily male property rights and control. From being understood as the substance of social and spiritual regeneration, it became an economic ‘asset’. In tracing these patterns, the article highlights

longstanding ideological ties between indigenous people's struggles to maintain their own lifeways; the attempts of subaltern religious groups to re-establish more equitable social and human-environmental relations; conservation movements' hopes for more sustainable co-existence with other species; and feminist challenges to socio-political inequalities.¹

Methodological terrains

Rather than focusing on a particular historical or cultural context, this article considers patterns that seem to recur across these. There are limitations to this interdisciplinary 'big picture' perspective. Unless vast and encyclopaedic, it elides the evidential grounding provided by more specific historical and ethnographic approaches, subsuming a host of historicalities, particularities and diversities. It is openly comparative, resisting pressures to theorise social change only through a frame of historical and cultural relativity.² It cannot engage more than fleetingly with complex debates about particular spatio-temporal contexts. However, what it can do is trace patterns and cross-connections that are difficult to discern through more close-grained analyses. It can provide insights and raise critical (and exciting)

¹ Acknowledgements. A number of my former colleagues in New Zealand provided positive input to this work in its early stages: Kathryn Rountree, Maureen Molloy, Christine Dureau, Mark Busse and Claudia Gross. In Durham, Douglas Davies, a leading scholar in this area, was immensely kind in providing extensive feedback on a later draft. I am also grateful both to him and to Marilyn Strathern for encouraging conversations about 'big picture' thinking. And I would like to thank the anonymous reviewers for their encouraging, meticulous and helpful comments.

² I have suggested elsewhere (Strang 2005) that the acknowledgement of a broadly comparative theoretical framework and an appreciation of cultural and historical specificities are/should be intellectually complementary rather than mutually exclusive. It is commonly assumed that only cultural relativity can be ethical. But debates on ethics have raised the point that cultural relativity can also be seen as an abdication of wider responsibilities (Caplan 2003). Given that gender inequalities recur across cultural and historical boundaries, it may be that comparison can also be 'ethical'.

Veronica Strang, "Common Senses: Water, Sensory Experience and the Generation of Meaning", *Journal of Material Culture* 10.1 (2005): 93-121; Pat Caplan, ed. *The Ethics of Anthropology: Debates and Dilemmas* (New York: Routledge, 2003).

questions about gender relations, long-term trajectories of human development and recursive relationships between social, cosmological and technological change.

There is both a methodological and political case for this approach: discipline-based scholarship mines specific historical periods and cultural contexts for a deep understanding of these. While such depth is vital, it is equally important, from time to time, to traverse a wider terrain, and to draw on more diverse areas of knowledge to ask larger questions. Why do gender inequalities recur across time and space? How do technological changes articulate with changing cosmological precepts? What has caused human-environmental relationships to become so exploitative? Methodologically, such questions require interdisciplinary approaches and cross-cultural conversations. And, politically, to achieve changes in direction, we need to understand how and why human societies repeat patterns of development that are socially and ecologically unsustainable and unjust.

Through a glass darkly

Prehistory can only be seen ‘through a glass, darkly’,³ but the archaeological evidence suggests some broad commonalities in early human societies. Clans of hunter-gatherers, governed by all their (male and female) elders, inhabited sentient cultural landscapes containing numerous and variously gendered spiritual beings and forces that were simultaneously potent, beneficent and dangerous. This animated material world responded to human actions, providing resources, offering protection, or dispensing punishment when laws were transgressed. Deities took totemic forms, as birds, animals or elements of the environment. Sculptures and images made between 30,000 B.C.E. and 10,000 B.C.E. also

³ 1. Corinthians 13:12 (King James Bible).

depicted female forms,⁴ and their meaning has been intensely debated. With little explanatory record this debate cannot be resolved, but the persistent presence of female beings in prehistoric iconography suggests, at least, some cosmological gender complementarity.

The archaeological and early documentary records also contain multiple serpentine figures, sometimes male, sometimes female, sometimes neither or both.⁵ Their form mirrors water's fluid characteristics,⁶ and it would appear that aspects of the environment have often been symbolically gendered according to their particular attributes. Thus water sources were often seen as embodying 'feminine' principles, homologously echoing women's containment of fluid, life-sustaining places. There are, of course, myriad cultural variations: each spatio-temporal context – the inhabitation of arid or well-watered areas; the nomadic flexibilities of pastoralism or agricultural needs for reliable water sources – has brought its own particular ways of using and venerating water.⁷ However, there are also undercurrents of commonality in each specifically cultural adaptation, and recurrent patterns in their developments over time.

⁴ The most well-known are the 'Venus of Willendorf', a limestone figure discovered at a Palaeolithic site in Austria; the 'Venus of Lespugue' a mammoth-ivory figure found in the cave of Les Rideaux, and the 'Venus of Lausell', a similarly ancient carving at the entrance to a cave in the Dordogne.

⁵ Asit Biswas, *History of Hydrology* (Amsterdam, New York: North-Holland, American Elsevier, 1970); Karl Butzer, *Early Hydraulic Civilization in Egypt* (Chicago, IL: University of Chicago Press, 1976).

⁶ Because humans 'use the world to think with' cognitively and metaphorically (Levi-Strauss 1966, Lakoff and Johnson 1980, Strang 2005), the material properties of water have tended to manifest serpentine water-like beings, often being depicted as shining and/or multi-coloured, and fluid and ephemeral in form. Claude Lévi-Strauss, *The Savage Mind* (Chicago: University of Chicago Press, 1966); George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago, London: University of Chicago Press, 1980); Strang, "Common Senses".

⁷ There are many specifically located historical and ethnographic accounts, but some useful examples include David and Thomas 2008; D'Arcy 2006; Galvin 2009; Shove 2003. Bruno David and Julian Thomas, eds., *Handbook of Landscape Archaeology*, World Archaeological Congress (WAC) Research Handbook Series (Walnut Creek CA: Left Coast Press, 2008); Paul D'Arcy, *The People of the Sea: Environment, Identity and History in Oceania* (Honolulu: University of Hawaii Press, 2006); Kathleen Galvin, "Transitions: Pastoralists Living with Change," *Annual Review of Anthropology* 38 (2009): 185-198; Elizabeth Shove, *Comfort, Cleanliness and Convenience: The Social Organization of Normality* (Oxford, New York: Berg, 2003).

In their multiplicity and relative gender equality, the deities inhabiting early cultural landscapes demonstrate Durkheim's maxim that societies compose their gods in their own images.⁸ Hunter-gatherers with gerontocratic, egalitarian forms of leadership would therefore be expected to have multiple and variously gendered spiritual representatives – an expectation supported by the traditional beliefs of contemporary hunter-gatherer groups. More hierarchical social arrangements tend to generate fewer and more powerful beings, which decrease in number as government centralises. Thus Breasted suggested that 'monotheism appears when people have before them a model of a powerful, centralised government'.⁹

This is a recursive relationship: cosmological beliefs serve to affirm and uphold socio-political arrangements, and *vice versa*. But it is a triangular rather than linear relationship: beliefs and values are manifested in practice, and when practices change, it follows that religious and political arrangements will also be affected. Thus – though this transition seems to have occurred only when agriculture advanced well beyond early small-scale horticulture – Swanson highlights a critical link between technology and religion in the parallel emergence of monotheistic beliefs and 'societies which have the most stable sources of food, namely a

⁸ Durkheim observed that classificatory systems are 'modelled on the social organisation' thus 'the essential categories of thought may be the product of social factors' (1968: 145). Parsons noted similarly (1949) that 'society is always the real object of religious veneration' (in Swanson 1968: 15). And Swanson's view is that 'the relation of men to their society is like that of the worshipper to his god' (1968: 15). As Hocart commented: 'myth, ritual and social organisation are inseparably connected and cannot profitably be studied apart' (1970 [1952]: xi).

Émile Durkheim, *The Elementary Forms of the Religious Life* (London: Allen and Unwin, 1968 [1915]); Talcott Parsons, "The Theoretical Development of the Sociology of Religion," in *Essays on Sociological Theory Pure and Applied* (Glencoe, Illinois: The Free Press, 1949): 52-66; Guy Swanson, *The Birth of the Gods: The Origin of Primitive Beliefs* (Ann Arbor: University of Michigan Press, 1968); Arthur Hocart, *The Life-Giving Myth and Other Essays* (London: Methuen, 1970[1952]).

⁹ James Breasted, *The Dawn of Conscience* (New York: Charles Scribner's Sons, 1933) (in Swanson 1968); Guy Swanson, *The Birth of the Gods: The Origin of Primitive Beliefs* (Ann Arbor: University of Michigan Press, 1968): 75. This resonates with Freud's hypothesis that monotheism came out of Egypt with Moses, despite its prevailing polytheism, as 'the reflection of a Pharaoh autocratically governing a great world Empire' (1974). He also noted that many early societies had more powerful creator beings as a backdrop to more localised polytheistic arrangements (Ibid.). Sigmund Freud, *Moses and Monotheism: three essays*, James Strachey, ed., transl. (London: Hogarth Press, 1974).

settled agriculture’, observing that ‘complexity of social organization requires increased resources to permit its appearance and sustain its functioning’.¹⁰

By examining the dynamic relationships between cosmological understandings, socio-political arrangements and material practices, this article considers how human adaptive processes have reshaped gender relations over time. The intention is not to suggest a linear evolutionary perspective, nor to essentialise gender. It is merely to observe that among the varied rates and trajectories of change in multiple societies there appear to be some broader and consistent patterns in movements from flat political structures and animistic ‘nature religions’ to more hierarchical socio-political arrangements in which power and status accrued to men, human agency superseded that of the environment, and cosmological explanations of the world produced increasingly humanised (and increasingly unequal) male and female deities, until even these were replaced by patriarchal monotheism. It suggests that people’s relationships with water, and the development of more directive ways of engaging with it, have been critical in enabling these changes. And it asks what it would take to regain more egalitarian social, religious and environmental relations.

From Hydrolatry To Idolatry

Water is central to every aspect of human life. Prehistoric societies clustered near resource-rich wetlands, lakes, rivers and sea shores, and migrated along waterways and shorelines. The remnants of their art and material culture illustrate that, from the earliest eras of human consciousness, water has featured prominently in people’s religious beliefs. Its core meanings

¹⁰ Swanson’s theories suggest a rather linear evolutionary movement from simple to complex societies. With diverse societal trajectories in mind, I would frame this more as an issue of scale, with enlarging societies tending to require/enable regional or national governance, and new economic practices requiring greater specialisation and diversity. Swanson, *Birth of the Gods*, 11.

as a life-giving, generative element have pertained, even as people's ways of being in the world have altered radically across time and space.¹¹ Equally persistent is a keen awareness of water's 'dark' side: it can submerge or sweep away; dangers lie in its depths.

Rock art in various parts of the world suggests that the earliest hunter-gatherer societies practiced hydrolatry, valorising water's life-giving properties and propitiating powerful water beings. Water was thus the great generative element in an animated, sentient environment seen as having agency equal or superior to that of its human inhabitants. It appeared in multiple origin myths as a life-creating force. For contemporary hunter-gatherers it has retained precisely this role: for example, the cosmologies of Aboriginal Australians have focused on the Rainbow Serpent for many millennia.¹²

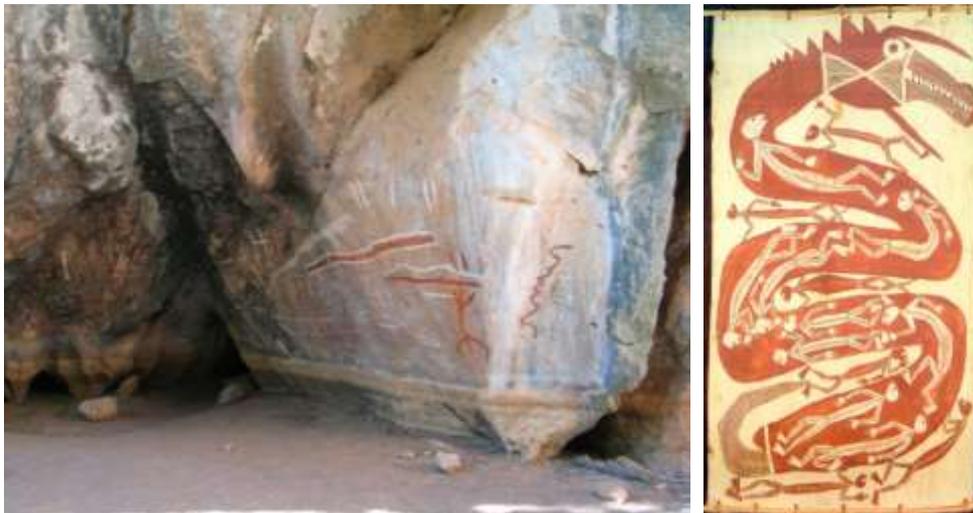


Fig. 1. and 2. Ancient rock art serpents, such as these in Cape York, can be found in many parts of Australia. (Photo Veronica Strang) The Rainbow Serpent also appears in recent and

¹¹ Veronica Strang, *The Meaning of Water* (Oxford, New York: Berg, 2004).

¹² Comparable imagery in prehistoric cave art in Malawi depicts rainbows and serpent beings, and these also appear in traditional local stories about the water/mother goddess *Makewana*, or the serpent *Napolo*, who causes floods and landslides (Strang, fieldnotes 2013).

contemporary art, as in this bark painting from Arnhem Land (Photo Pitt Rivers Museum, Oxford).

Composed of water, the serpent created all human, animal and plant species in the Dreamtime. It remains in the land, continuing to generate human spirit beings and the resources on which they depend. This focus on water as an original animating force echoes early belief systems elsewhere. For example, the Ur-Babylonians believed the earth was created out of the primordial waters of Nūn, and that such waters still surged below it.¹³ Egyptian mythology describes what Schama calls a ‘(literally) seminal fable’ of Osiris and the Nile.¹⁴

In a pre-Christian European context, Celtic tribes, dependent on a small-scale mixed economy, made sacrifices at holy wells that provided access to fluid female forces, surrounded by complementary ‘masculine’ groves of trees. Roman records of the invasion of Britain provide some details, with the poet Lucan (CE 39-65) describing a ‘Druid grove’ and ‘barbaric’ ritual practices.¹⁵ The gender complementarity in these ancient cultural landscapes is also demonstrated in their nomenclature: many rivers were seen to embody specific female deities such as Sinann (the River Shannon) and Sequana (the River Seine).¹⁶ Wooden and stone henges – whose design may have drawn inspiration from a notion of ‘groves’ – were commonly built with avenues leading to related water bodies into which worshippers cast votive offerings (Richards 1996).¹⁷

¹³ Biswas, *History of Hydrology*.

¹⁴ This relationship also became the focus of the Roman cult of Isis and Serapis. Simon Schama, *Landscape and Memory* (London: Fontana Press, 1996): 256.

¹⁵ Julius Caesar’s military reports provide some details, as does Pliny’s work. Lucan, *Pharsalia*, III.399. Transl. Nicholas Rowe (undated).

¹⁶ Janet Bord and Colin Bord, *Sacred Waters: Holy Wells and Water Lore in Britain and Ireland* (London, Toronto, Sydney, New York: Granada, 1985).

¹⁷ Colin Richards, “Henges and Water: Towards an Elemental Understanding of Monumentality and Landscape in Late Neolithic Britain,” *Journal of Material Culture*, 1 (3) (1996): 313-335.

A Rising Tide

In the millennia preceding Christianity, a number of human societies had begun to settle and to domesticate plants more systematically, with agriculture emerging in the near east from c.8000-3000 BCE. They also began to engage with water directly. At first this was low-key: in south-west Asia and Papua New Guinea, for example, they just modified swamps a little to assist the growth of taro. At around 6,000 BCE, more intensive rice cultivation appeared in China and other parts of Asia, as Neolithic societies used stone tools and digging sticks to impound receding floods.¹⁸

But simply capitalising on floods in relatively minor ways didn't initiate radical changes in gender or power relations. As Gimbutas *et al* record,¹⁹ Neolithic societies in Turkey at this time were matrifocal and egalitarian, and Goettner-Abendroth's work confirms a vision of matriarchal, gift exchange-based social forms in early agricultural societies.²⁰ In these contexts, goddesses and serpent beings continued to thrive.²¹ However, as agriculture became established as a major economic mode, more directive water management practices began to emerge. Dating from approximately 3,200 BCE, illustrations of King Scorpion cutting the first irrigation channel in Egypt signal the emergence of more complex and ambitious irrigation schemes.²²

¹⁸ Jan Christie, "Water and Rice in Early Java and Bali," in *A World of Water: Rain, Rivers and Seas in Southeast Asian Histories*, ed. Peter Boomgaard (Leiden: KITLV Press, 2007): 235-258.

¹⁹ Marija Gimbutas, Shan Winn and Daniel Shimbaku, *Achilleion: a Neolithic Settlement in Thessaly, Greece, 6400-5600 B.C* (Los Angeles, Calif.: Institute of Archaeology, University of California, 1989).

²⁰ Heide Goettner-Abendroth, ed. *Societies of Peace: Matriarchies Past, Present and Future* (Toronto: Inanna Publications, 2009).

²¹ Gimbutas et al, *Achilleion: Miriam Robbins Dexter, Whence the Goddesses: A Source Book (Error! Main Document Only.* New York: Pergamon, 1990).

²² Biswas, *History of Hydrology*, 4. See also Tony Wilkinson, ed. "Ancient Near East and Americas", Special Issue of *Water History*, 2 (2) (International Water History Association, 2010).

Initially, these new irrigators worked with seasonal flows, measuring annual floods (for example with Nilometers), and coordinating economic activities with the natural movements of water through the environment. But the expansion of agriculture had significant social effects: the investment of labour in irrigation schemes, fields and crops required new forms of land and property ownership.²³ Clans and their limited common property regimes were replaced by more fragmented family units with increasingly male lines of inheritance.²⁴ There were new ‘domestic’ and ‘public’ spaces and greater divergence in gender roles. Larger-scale water management and economic activity also encouraged regional and more hierarchical political arrangements and, with the establishment of increasingly patriarchal systems, both women and ‘nature’ were treated, increasingly, as subservient to male ‘culture’. Thus Herodotus (writing c. 440 BCE) records that by 3,000 BCE the first Egyptian Pharaoh, King Menes, was established and building the first dam on the Nile,²⁵ supporting Wittfogel’s observation that political power is coterminous with the control of water resources.²⁶

Power is also central to human-environmental relations. As technological developments enabled societies to be more directive, there was a shift in agency between humans and their material environments (and other species). Hunter-gatherers had subtly maximised their resource use, and their activities (for example hunting mega-fauna, or clearing landscapes with fire), had some long-term ecological effects. But the introduction of irrigation was critical: with sophisticated technologies for directing water into human endeavours – dams,

²³ Maurits Ertsen and Heather Hoag, eds., “Roman and Byzantine Empires”, Special Issue of *Water History*, 4(1) (International Water History Association, 2012).

²⁴ Friedrich Engels, *The Origin of the Family, Private Property and the State*, transl. Ernest Untermann, Chicago: C.H. Kerr & Co, 1902 [1884].

²⁵ George Rawlinson, transl. *The History of Herodotus* (440 BCE) (undated), <http://classics.mit.edu/Herodotus/history.html> (accessed 20.11.11).

²⁶ Karl Wittfogel, *Oriental Despotism: A Comparative Study of Total Power* (New Haven: Yale University Press, 1957).

channels, *qanats*,²⁷ water-lifting machines,²⁸ water wheels and so forth – a more empowered and human-focused relationship with the material world and its other inhabitants emerged.

The religious veneration of water and ‘nature beings’ maintained some momentum, and such deities remained located in the material environment, inhabiting specific rivers and lakes, circulating hydrologically, or manifesting in mountains and trees. The early Romans, for example, celebrated river goddesses such as Minerva with well-dressing rituals called *Fontanalia*. But such cosmologies were undergoing important changes. Where societies developed irrigation, deities were increasingly represented not as animistic serpent beings, generalised earthy greenness, or totemic animal and bird species: they began to take on more humanised and more specifically gendered persona.²⁹

The Greeks retained a vision of a generative ‘world stream’ *Okeanos*, a serpentine water cycle which united earth and sky, and was the source of all freshwater rivers.³⁰ But early Greek art and material culture provides a rich evidential record of both non-human and human, female, male and androgynous deities.³¹ In Rome too, innovative water technologies flourished,³² and – in a move with long-term consequences in reframing water as a ‘resource’ – the Romans also created legal and bureaucratic systems for managing water.³³ Imperial

²⁷ *Qanats* were developed on the Iranian peninsula in the 1st century CE. An influential early technology for transporting irrigation water in arid regions, they consisted of vertical shafts linked by underground canals.

²⁸ King Sennacherib (705-681 BCE) not only dammed the Euphrates but also invented water-lifting machines, enabling Assyria to produce cotton – one of the thirstiest crops in the world (Biswas 1970). Biswas, *History of Hydrology*.

²⁹ Some signs of gender complementarity remained in hermaphrodite figures. For example, an early Egyptian Nile deity, Hapi, was ‘depicted as a fat, bearded man with full breasts from which gushed the life giving water’ Biswas, *History of Hydrology*, 109.

³⁰ Norman Austin, *Meaning and Being in Myth* (University Park and London: Pennsylvania State University Press, 1989).

³¹ Robert Graves, *The Greek Myths* (London, New York: Penguin, 1992 [1955]).

³² Rome’s first aqueduct, the Aqua Appia, was commissioned in 312 BCE by the censor Appius Claudius Caecus.

³³ As Bruun points out, earlier legal systems dealt with water management, but:

Among the Romans, law became a system of thought. Other ancient societies too had their laws, even collections of laws. The oldest legal code known to us, and surely the most famous one, is the Code of

hegemony served to export these ideas and material culture: thus conquered Celtic tribes in Britain, such as the ‘water dwelling’ Durotriges in Dorset, found themselves enslaved on the treadmills of Roman water wheels, while their local water beings were renamed for goddesses in a Roman pantheon inhabited, like that of the Greeks, with increasingly humanised deities.



Fig. 3. A mosaic in ancient Rhodes suggests the co-existence of non-human and humanised deities. (Photo Veronica Strang)

It has been posited that in these and other early religious pantheons ‘goddess worship’ sometimes superseded the veneration of masculine deities. Graves claimed that contemporaneous human societies shared, ‘a homogenous system of religious ideas, based on

Hammurabi (of Babylon), from shortly before 1750 BCE... §55: ‘If a man has opened his trench for irrigation (and) has been slack and so has let the waters carry away (the soil on) his neighbour’s field, he shall pay corn [grain] corresponding to (the amount of the crop which) his neighbour (has raised)’. (2010: 4)

Christer Bruun, “Imperial Power, Legislation, and Water Management in the Roman Empire,” *Insights*, Journal of the Institute of Advanced Study, Durham, 3(10) (2010): 1-24.

the worship of the many-titled Mother Goddess'.³⁴ The notion of a matriarchal golden age of gynocracy had considerable appeal, particularly to the founders of the contemporary Goddess Movement.³⁵ As what Raphael describes as an 'emancipatory metaphor',³⁶ it continues to inspire goddess-focused religions; however, it has been heavily critiqued in the academy.³⁷ It is not the object here to try to resolve these debates, but merely to note that – whether 'goddesses' or not, supreme or not – female figures maintained a strong and clearly meaningful presence as powerful deities in many early religious schemes. So why did this veneration of the feminine decline?

With agricultural development women continued to be centrally involved in water use, but were increasingly confined to domestic roles as 'water carriers', a vision that was to dominate the classical era, simultaneously defining women's labour while retaining earlier notions of water's generative power. Water management, on the other hand, became a primarily male domain and, with technological expansion, required wider political coordination.

In developing humanised forms of polytheism, cosmological beliefs reflected these more directive human-environmental relationships. Though assisted by influxes of Indo-European cultures which encouraged the patriarchy of Greek and Scandinavian religions, this shift in agency was not confined to Europe. Asian religions, though still valorising dragons and water

³⁴ Graves, *The Greek Myths*, 13. See also Johann Bachofen, *Das Mutterrecht: Eine Untersuchung Über Die Gynaiokratie der Alten Welt Nach Ihrer Religiösen Und Rechtlichen Natur*. I (Stuttgart: Basel B. Schwabe, 1948 [1861]).

³⁵ Starhawk, *The Spiral Dance: A Rebirth of the Ancient Religion of the Goddess* (San Francisco: Harper & Row, 1979).

³⁶ Melissa Raphael, *Introducing Theology: Discourse on the Goddess* (Sheffield: Sheffield Academic Press 1999).

³⁷ Peter Ucko, *Anthropomorphic Figurines of Predynastic Egypt and Neolithic Crete* (London: Andrew Szmidla, 1968); Margaret Conkey and Ruth Tringham, "Archaeology and the Goddess: Exploring the Contours of Feminist Archaeology," in Stanton and Stewart (1995); Domna Stanton and Abigail Stewart, eds. *Feminisms in the Academy: Rethinking the Disciplines* (Ann Arbor: University of Michigan Press, 1995).

serpents, also became populated by humanised gods and goddesses who moved rivers and seas, sent or withheld rain depending on whether they were sufficiently propitiated, and expressed their disapproval with storms and floods. It was the Great Yu, who first ‘harnessed the water’:

Yu the Great, is said to have brought civilization to China... His great achievement was to allow the waters of the Huanghe to flow through narrow defiles. The river was blocked by high mountains, so the gods sent Yu to put the territory in order. Not only did he master the Huanghe, but also all the rivers in China... After completing these Herculean works, [he] was allowed to found the first dynasty in Chinese history, the Xia (2207-1766 BC).³⁸

Though humanised, female water deities remained powerful in some areas. In Bali, for instance, traditional irrigation schemes still fall under the authority of water goddesses, whose worship (albeit led by male priests) mediates the distribution of water to small rice-growing communities.³⁹ But female deities fared less well in larger societies where irrigation enabled intensified agricultural production, population growth and urbanisation. A concomitant need for more infrastructural management encouraged centralised forms of governance, sowing the first seeds of the nation states that would emerge between the medieval period and the 18th century.⁴⁰

³⁸ Florence Padovani, “Chinese Way of Harnessing Rivers: The Yangtze River,” in Tvedt and Jakobsson (2006): 120-143. 121; Terje Tvedt and Eva Jakobsson, eds. *A History of Water* (London: I.B. Tauris, 2006).

³⁹ Stephen Lansing, *Priests and Programmers: Technologies of Power in the Engineered Landscape of Bali* (Princeton, N.J., Oxford: Princeton University Press, 1991).

⁴⁰ Benedict Anderson, *Imagined Communities: Reflections on the Origins and Spread of Nationalism* (London, New York: Verso, 1991).

Increasingly patriarchal governance was reflected in the emergence of more powerful male gods, and deities became disembedded from local environments, instead inhabiting ‘Olympia’ and other more distant locations.⁴¹ Many female deities originally manifested in water-related serpentine forms became not only humanised but also masculinised. Rivers changed gender, acquiring male river gods and masculine ‘dynamism’.⁴² Thus Zeus, whose earlier gentler persona as a serpent was portrayed in Athenian votive tablets as ‘the Kindly God’, became a serpent-slaying warrior god.⁴³ Other powerful female water deities of the pre-Hellenic period came to be represented as ‘monstrous’: the Harpies surged up out of Stygian depths to snatch food from the hungry; Scylla and Charybdis drowned sailors; Medusa (who retained distinctive serpentine elements) turned her adversaries to stone.⁴⁴ In this way the power of water and nature was cast as an adversary to be conquered and forced into service.

From approximately 1500 BCE into the earliest centuries CE there was a florescence of male culture-hero, super-hero gods whose sole purpose was to slay the powerful water serpent beings that had preceded them. In Babylonia, Marduk prevailed over the serpent Tiamat, ‘a female spirit of primeval chaos’.⁴⁵ In Greek mythology, Zeus slew Typhon, the serpent child of the Earth goddess Gaia, assuring the reign of the Olympian gods. Perseus killed a sea monster to rescue Andromeda as well as slaying Medusa. Apollo killed Python and so

⁴¹ The disembedding of social and spiritual being from local environments has major socio-political implications (Polanyi 1957). Thus the removal of previously localised deities to ‘otherworld’ locations such as Olympia, Valhalla etc. can be interpreted in Durkheimian terms as a key indicator of the emergence of more centralised and hierarchical political forms and greater social and ecological alienation. Karl Polanyi, *The Great Transformation* (Boston: Beacon Press, 1957).

⁴² Swamps and wetlands were simultaneously feminised and reframed as disorderly, dangerous ‘nether regions’ (Ibid.). Rodney Giblett, *Postmodern Wetlands: Culture, History, Ecology* (Edinburgh: Edinburgh University Press, 1996): 87.

⁴³ Joseph Campbell, *Creative Mythology* (New York: Arkana, 1968).

⁴⁴ David Gilmore, *Monsters: Evil Beings, Mythical Beasts, and All Manner of Imaginary Terrors* (Philadelphia: University of Pennsylvania Press, 2003): 38-41; Miriam Robbins Dexter, “The Frightful Goddess: Birds, Snakes and Witches,” in *Varia on the Indo-European Past: Papers in Memory of Marija Gimbutas*, eds. Miriam Robbins Dexter and Edgar Polomé, *Journal of Indo-European Studies Monograph 19*. (Washington, DC: The Institute for the Study of Man, 1997): 124-154.

⁴⁵ Samantha Riches, *St George: Hero, Martyr and Myth* (Stroud: Sutton Publishing, 2000): 30.

appropriated the feminine powers of the oracle at Delphi.⁴⁶ Hercules did away with the many-headed Lernean Hydra.⁴⁷ In Scandinavia, Beowulf triumphed over the female serpent mother of Grendel, a ‘banished monster’, and an ‘adversary of God’.⁴⁸ Cosmologies therefore became heavily populated by male warrior beings whose role, it seemed, was to triumph over the feminine elements, over other societies, and – eventually – over all other gods.



Fig. 4. Benvenuto Cellini's sculpture of Perseus standing on the slain body of Medusa, Florence. (Photo Mary Ann Sullivan)

Though Shalt Have No Other God

⁴⁶ Python's name means 'he who has achieved understanding'. According to Austin, its cognate in Sanskrit is *Buddha* (1989: 95). Austin, *Meaning and Being in Myth*.

⁴⁷ There some ambivalence in this story: according to Herodotus, Hercules was also the progenitor of the whole race of serpent-worshipping Scythians, through his intercourse with the Serpent Echidna (Herodotus IV, 9).

⁴⁸ Seamus Heaney, *Beowulf: A New Verse Translation* (New York: Norton, 2000): 9; Miriam Robbins Dexter, "Reflections on the Goddess *Donu," *Mankind Quarterly*, 30 (1-2) 1990): 45-58.

As monotheism gained ascendancy, the serpent slayings intensified, most particularly in Christian societies. St George, St Michael, St Patrick and others, all dispatched powerful serpent (and invariably water-related) beings.⁴⁹ These efforts crystallised in the Garden of Eden with the ultimate repudiation not just of the serpent, but of Nature itself. Ortner presents this as the basis for a vital conceptual separation between wild, untamed and female 'Nature' and purportedly rational, enlightened male 'Culture'.⁵⁰ Though the formulation of more dualistic cosmological models was not as clear-cut as this suggests, having much earlier temporal roots, the more distinct 'othering' of the non-human in the emerging monotheisms was a critical development in human-environmental relationships, and similarly important in affirming more polarised and unequal notions of gender.⁵¹

Origin myths were reformed accordingly, superimposing directive patriarchal figures. Thus Plato's rendition of Greek creation stories, in Timaeus' *Dialogue*, describes primal unformed matter that is both a receptacle and a 'nurse'. 'He imagines a disembodied male mind as divine architect, or *Demiurgos*, shaping this matter into the cosmos'.⁵² In Biblical narratives of Genesis, chaotically primal waters are quelled by God. The Deluge remains as a violent punishment for human sin, but is also reframed as a cleansing God-directed baptism of the

⁴⁹ Being imaginatively composed of water and its hydrological movements (see note 5), cosmological serpent beings are associated with water in multiple cultural narratives: they inhabit oceans or rivers, dwell in swamps, caves or underground places, or are found in clouds and rain.

⁵⁰ Sherry Ortner, "Is Female to Nature as Male is to Culture?" in Michelle Rosaldo and Louise Lamphere, eds., *Women, Culture and Society* (Stanford, Calif.: Stanford University Press, 1976): 67-87.

⁵¹ More general agreement has emerged that notions of gender are most usefully conceived as a continuum (Strang 1999). Veronica Strang, "Familiar Forms: Homologues, Culture and Gender in Northern Australia," *Journal of the Royal Anthropological Society*, 5(1) 1999: 75-95.

Some cultural contexts contain multiple potential gender identity positions along this, and considerable licence to shift between its polarities. However, where dualistic notions dominate, more centrally located or ambiguous identities have tended to become 'abominations' (Douglas Davies pers. comm.).

⁵² Rosemary Ruether, "Ecofeminism: Symbolic and Social Connections of the Oppression of Women and the Domination of Nature," in Carol Adams, ed., *Ecofeminism and the Sacred* (New York: The Continuum Publishing Company, 1993): 326.

world. There is a plethora of biblical imagery describing how water streams down from the Temple, rains down to fertilise the soil as a gift from a magnanimous God, or is withheld when He is displeased.

Just as Nature was recast as the subject of male agency, so too were women. ‘Exclusively male God-language’⁵³ established religious practices in which ‘men hold most or all of the roles of authority and prestige’.⁵⁴ To maintain this authority it was necessary to ensure that alternative religious views and their ‘evil’ serpents were thoroughly exorcised. Centuries of such efforts followed, in which nature-worshipping ‘heretics’ were hounded to death: thus multiple images of St George show him either slaying the serpent or dispatching pagans. Papal decrees (for example the remit given to St Augustine)⁵⁵ required evangelical missionaries to build churches over or alongside ancient holy wells, to rename them after Christian saints, and to appropriate for these saints any ‘miraculous’ qualities they might possess.⁵⁶ Vestigial animistic and polytheistic religious beliefs and practices were culled through ‘witch-hunting’ that expressed deep anxieties about subversive female powers. As Walker says: ‘Diana’s cult was so widespread in the pagan world that early Christians viewed her as their major rival, which was why she later became ‘Queen of Witches’.⁵⁷

⁵³ Carol Christ and Judith Plaskow, eds. *Womanspirit Rising: A Feminist Reader in Religion* (San Francisco: Harper, 1992): vii.

⁵⁴ Rita Gross, *Feminism and Religion: An Introduction* (Boston: Beacon Press, 1996): 106.

⁵⁵ St Augustine, in his text *The City of God Against the Pagans*, castigated pagans for their rituals propitiating goddesses and for promoting the notion of a Mother Goddess (Book VII, 24, 25).

⁵⁶ Strang, *Meaning of Water*.

⁵⁷ Barbara Walker, *The Women’s Encyclopedia of Myths and Secrets* (New York: Harper and Row, 1993): 535.



Fig. 5. A holy well in Dorset, renamed for St Augustine, lies just below the potent figure of the pre-Christian chalk giant at Cerne Abbas. (Photo Veronica Strang)

A medieval desire to repudiate religions valorising fertility, fecundity and ‘base human nature’ encouraged punitive forms of asceticism that repressed sexual and sensory impulses. In early Latin and Greek Christianity, the body became a site of shameful desire, separated from a soul whose main purpose was to transcend earthly form. To be seen as having any place in this scheme, women had to reject their sexuality.⁵⁸ As Douglas Davies observes, men had to be celibate too, in order to achieve spiritual status. He also points out that these ideas had an important hydrological dimension: waterless, ‘lifeless’ desert became a space for purification, and in the Acts of the Apostles notions of blood and fluid as generative substances were replaced by an idea of generative ‘spirit’.⁵⁹

Cartesian intellectual dualism served a similar purpose, separating the enlightened ‘rational’ mind from the (putatively) uncultured body. These inner-directed dualisms were externalised

⁵⁸ Ruether, *Ecofeminism*.

⁵⁹ Dualism had its own complexities: religious celibates were to some extent de-gendered, forming a kind of third category. And, though monotheistic, Christianity configured God the Father the Son and the Holy Spirit in triadic form (Douglas Davies pers. comm).

‘epigenetically’⁶⁰ in the hope that either a patriarchal deity and/or Culture would similarly control unruly and fecund Nature herself, making her a compliant servant to ‘mankind’ through carefully channelled generative processes.

The history of malignant waters is long. Old church fathers such as Origen, Jerome and Chrysostom believed that nature and all external materialities were diabolic and in need of combating. In the words of Chrysostom, one had to bring ‘the beast under control’ by ‘banishing the flood of unworthy passions’. Aquinas, too preached the necessity of human domination over the rest of the world.⁶¹

The belief that Nature must be tamed was fully expressed in water management. The Domesday Book (1086) records water mills along almost every mile of the rivers in southern England. Through the middle ages, environmentally directive technologies increased exponentially. Water pumps, bores, pipes and canals became central to economic production. Wetlands, formerly treasured for their rich resources, were recast as fetid and feminised ‘nether regions’, and drained to enlarge agricultural areas.⁶² In urban settlements, where butchery, tanning and other nascent industries spewed pollution into streams, water became undrinkable, and was seen, increasingly, as the source of miasma and disease.⁶³ Such negative views echoed longstanding fears about water’s potential ‘dark side’. But its pre-Christian meanings as a life-giving, healing and cleansing force flowed on too, in Christian ideas about ‘holy water’ and its ability to purify with God’s grace. Thus, in the 1300s, as the

⁶⁰ Georg Hegel, *The Phenomenology of Spirit*, transl. A. Miller (Oxford: Oxford University Press, 1979).

⁶¹ Peter Harrison, “Subduing the Earth: Genesis 1, Early Modern Science, and the Exploitation of Nature,” *The Journal of Religion*, 79(1) (1999): 86-109. 91. Cited in Lykke-Syse and Oestigaard 2010; Karen Lykke-Syse and Terje Oestigaard, eds. *Perceptions of Water in Britain from Early Modern Times to the Present: An Introduction* (Bergen: BRIC Press, 2010): 24.

⁶² Giblett, *Postmodern Wetlands*.

⁶³ Jean-Pierre Goubert, *The Conquest of Water: The Advent of Health in the Industrial Age*, transl. A. Wilson (Princeton, N.J.: Princeton University Press, 1986).

plague decimated populations across Europe, people rushed to bathe in rivers (for example the Stour in Dorset) believed to have curative properties.⁶⁴

Christianised holy wells retained their (saintly) healing powers until the 1500s, when 'the Reformation and in particular Calvinism, attacked beliefs in holy water and wells as 'popish magic and superstition'.⁶⁵ There were campaigns to use such places for profane purposes, for instance redeploing holy water stoups as pig-feeding troughs, but Oestigaard observes that

Even though the Reformation tried to end water worship, the cult was so important and such an intrinsic part of culture and religion that it continued for centuries, with nobles and commoners alike making pilgrimages to the holy wells with the aim of attaining long life and prosperity.⁶⁶

It was with the Reformation, too, that the institution of marriage became normative, providing new opportunities for dualism in ideas about gender and status.⁶⁷ Thus, once again, cosmological changes intersected with shifting social arrangements and material practices.

The God in the Machine

The rejection of ideas that spiritual power and agency was located in water, and the growing instrumentality of human relations with it was tied closely to the advancement of science which introduced a new form of patriarchy. Building on Greek philosophers' efforts to

⁶⁴ Strang, *Meaning of Water*.

⁶⁵ Arthur Gribben, *Holy Wells and Sacred Water Sources in Britain and England, An Annotated Bibliography* (London: Garland Publishing, 1992): 4, 16.

⁶⁶ Terje Oestigaard, "The Topography of Holy Water in England after the Reformation," in Terje Tvedt and Terje Oestigaard, eds., *The Ideas of Water from Antiquity to Modern Times* (London. I.B. Tauris, 2010): 15-34. 22.

⁶⁷ Douglas Davies, pers comm.

understand the material world, primarily male scholars sought to investigate water's properties. This constituted a further shift in agency and control, bifurcating the world into active subject and passive object, as Plumwood says, 'in a way that refuses objects elements of commonality, mind, or intentionality'.⁶⁸ Deason describes this as the emergence of a 'mechanical view [which] rested on a single, fundamental assumption: *matter is passive*. It possesses no active, internal forces'.⁶⁹ It was directed, instead, by natural 'laws' and animated only by the divine word of God. Thus, ecology was recast as technology, providing a basis for a 'radical discontinuity' between humans (as the sole possessors of reason) and non-human Nature⁷⁰ (though at the time, of course, 'reason' was seen as the province of only half of the human population).

This shift in human-environmental relations brought 'an increasing emphasis on the utility of natural things' to meet human needs and divine purposes.⁷¹ The new cosmological framework of the Enlightenment brought more abstract and objective 'religions' composed along 'essentially rationalist lines'.⁷² Polyvalent concepts of Nature in the Renaissance came to be dominated by Kant's notions of 'pure' and 'practical' reason, and Bacon's 'inward instinct'. 'Nature according to this view is simply another mode of divine operation... divine power pervades nature itself'.⁷³ Thus, as Davies says: 'the Psalms dwell quite specifically on the wonders of God's work in nature... it is an expression of God's will and power'.⁷⁴

⁶⁸ Val Plumwood, *Environmental Culture: The Ecological Crisis of Reason* (London, New York: Routledge, 2002): 45.

⁶⁹ Gary Deason, "Reformation Theology and the Mechanistic Concept of Nature," in David Lindberg and Ronald Numbers, eds., *God and Nature: Historical Essays on the Encounter between Christianity and Science*. Berkeley: University of California Press, 1986): 168.

⁷⁰ Plumwood, *Environmental Culture*, 100, 122.

⁷¹ Peter Harrison, *The Bible, Protestantism, and the Rise of Natural Science*, Cambridge: Cambridge University Press, 1998): 161-2.

⁷² Peter Harrison, *'Religion' and the Religions in the English Enlightenment* (Cambridge: Cambridge University Press, 1990): 2.

⁷³ *Ibid.* 5-6.

⁷⁴ Douglas Davies, "Christianity," in Jean Holm and John Bowker, eds., *Attitudes to Nature* (London, New York. Pinter Publishers, 1994): 28-52. 35.

The assertion of absolute divine authority required the eradication of ‘witchcraft’, ‘superstition’ and ‘heresy’. Even as scientific understandings leapt forward in the post-medieval period, the Church made continued efforts to erase the last traces of nature religions that venerated and ascribed agency to an animate material world. Major scientific discoveries were interspersed by punitive repressions of subaltern cosmologies.⁷⁵ Thus Galileo’s publication of *Two New Sciences* in 1638 and Descartes’ *Principia Philosophiae* in 1644 preceded the Rouen witch trials of 1670. Newton published *Principia* in 1687, and *Optics* in 1704. In 1717 Halley revealed Earth’s place in the stars. Yet five ‘witches’ were sentenced to death in Lyons in 1745, and Anna Maria Schnagel was executed for witchcraft in 1775.

In the longer term, increasingly secular cosmological explanations were probably more effective in discouraging hydrolatry and nature worship. Though some major holy wells, such as Lourdes, continued to be the focus of pilgrimages, in the 1700-1800s the majority became health spas,⁷⁶ although it could be argued that even this scientific conversion to being ‘recreational’ places merely reframed their original meanings in a secular idiom.

Another important change that came with monotheism and ‘enlightened’ rationality was a shift towards individuated forms of resource ownership, which required commensurately individual constructions of social identity. Although water, being elusive in its material nature, continued to be seen as a common good, land and resources were rapidly enclosed and privatised, falling almost exclusively into male hands, and male lines of inheritance. Thus, over time, women – who had been elders in common with men; had been party to collective

⁷⁵ Susan Griffin, *Women and Nature: The Roaring Inside Her* (New York: Harper and Row, 2000).

⁷⁶ Susan Anderson and Bruce Tabb, eds. *Water, Leisure and Culture: European Historical Perspectives* (Oxford, New York: Berg, 2002).

forms of ownership; had jointly upheld lexicons of knowledge; and had been represented by powerful female deities – found themselves increasingly property-less, vote-less and voiceless as men controlled the land and resources, the knowledge bases of religion and science; political processes and public discourse.

Land and resource enclosures were driven by intensifying economic practices and population growth. Such pressures for expansion encouraged widespread exploration and colonisation. A patriarchal religious cosmology, in which male Culture strove for dominance over Nature, was readily extended to classifying ‘the other’ (i.e. ‘primitive’, societies) as part of that unruly feminised chaos requiring ‘civilisation’. Having worked hard to excise nature religions from their own industrialising societies, monotheistic patriarchies therefore extended their evangelical efforts to dissuade ‘savage’ societies from worshipping water, trees, animistic beings and the like. And science, too, emerging to occupy centre stage, would help to disabuse them of these foolish ‘superstitions’.

From the 1500s on,⁷⁷ hegemonic colonial enterprises stretched to encompass whole continents, simultaneously appropriating land and resources and requiring their inhabitants to conform to new religious and scientific modes of thought. Indigenous people became subject to larger, more hierarchical arrangements in which, along with women and children, they found themselves at the bottom of a social heap in which more power was held by even the lowest classes of European men. White male elites dominated political life, and all were ruled, ultimately, by a male God and His representative monarch.

⁷⁷ There were earlier efforts to impose religious changes on conquered peoples (this being a feature of most colonial invasions), as well as upsurges of conflict between the major monotheistic religions, for example, in the Crusades. But the technology that enabled major oceanic voyages and produced massive disparity in military strength permitted far more ambitious colonial enterprises.

Also exported to the colonies was a very different human-environmental relationship: ‘In Western society, the application of science to technical control over nature marched hand in hand with colonialism’.⁷⁸ While many place-based indigenous peoples had maintained localised, relatively egalitarian engagements with their surroundings, imposed economic modes were much more instrumentalist applying, in both cosmological and technical forms, a vision in which ‘Mankind’ was expected to hold the balance of power and agency.

The concept of ‘the environment’ itself underlines the reclassification of the non-human world as ‘other’. Such objectification is fundamentally alienating,⁷⁹ and there are key relational differences between societies that dwell ‘within the sphere’ of their material surroundings, and those for whom the earth is a ‘globe’ to be acted upon.⁸⁰ The latter view assumes ownership and authority, supporting Plumwood’s earlier argument that Nature-Culture dualism produces unequal social dichotomies and alienation from non-human species.⁸¹ Such concerns, articulated by the feminists and conservationists of the 1960s and 70s, echo the Romanticism of the late 1800s, which was similarly critical both of social elites and the ‘rationalisation’ of nature.⁸²

But patterns of change have intellectual and material momentum. In primarily masculine colonial enterprises, patriarchal beliefs and values asserted their authority despite

⁷⁸ Ruether, *Ecofeminism*, 329.

⁷⁹ Phillipe Descola and Gisli Palsson, *Nature and Society: Anthropological Perspectives* (London, New York: Routledge, 1996); Veronica Strang, “Knowing Me, Knowing You: Aboriginal and Euro-Australian concepts of nature as self and other,” *Worldviews*, 9(1) (2005): 25-56.

⁸⁰ Tim Ingold, *The Perception of the Environment* (London, New York: Routledge, 2000). Barbara Duden makes a similar point in noting that contemporary medical technology has changed women’s experiences of pregnancy from an internal feeling of ‘quickening’ to a more disembodied visual perspective of ‘the fetus’ (1993).

Barbara Duden, *Disembodying Women: Perspectives on Pregnancy and the Unborn*, Transl. Lee Hoinacki (Cambridge Mass. Harvard University Press, 1993).

⁸¹ Val Plumwood, *Feminism and the Mastery of Nature* (London, New York: Routledge, 1993).

⁸² Henry Thoreau, *Walden* (Columbus Ohio: Merrill, 1969 [1854]).

humanitarian critiques and indigenous resistance.⁸³ Missionary evangelism was not only directed at conquered societies: there was an equally zealous technological Crusade to tame and dominate the ‘wilderness’ of ‘virgin territory’.⁸⁴ Nowhere was this more apparent than in colonisers’ efforts to control and channel water resources.⁸⁵ Dams, canals and irrigation were seen as vital civilising enterprises, most particularly in arid places.⁸⁶ Hill’s classic account of Australian irrigation schemes initiated in the late 1800s describes:

...the transfiguration of a continent by irrigational science... The invisible and illimitable waters of Australia are now being revealed and redeemed, in affinity with our fertile soils to be a habitation for mankind... the sweeping floods lost in sea and sand, can all be saved... Australia Felix was an arid waste, a hell of heat and flies... The Lord gave the rains and rivers only to dry them up and take them back again. One man questioned the divine Creator's plan, a Glasgow Scot named Hugh McColl... Irrigation was his cry.⁸⁷

This modern serpent slayer/water conqueror linked up with another Australian hero, Alfred Deakin:

⁸³ Henry Reynolds, *The Law of the Land* (London, New York: Penguin, 1987).

⁸⁴ Kay Schaffer, *Women and the Bush: Forces of Desire in the Australian Cultural Tradition* (Cambridge, Melbourne: Cambridge University Press, 1988).

⁸⁵ Accounts of European settlement in Australia and New Zealand show that fresh water resources (which also tended to be important sacred sites for indigenous populations) were always the first priority for colonists (see Morphy 1993, Strang 1997); Howard Morphy, “Colonialism, History and the Construction of Place: The Politics of Landscape in Northern Australia,” in Barbara Bender, ed., *Landscape, Politics and Perspectives* (Oxford, New York: Berg, 1993): 205-243; Veronica Strang, *Uncommon Ground: Cultural Landscapes and Environmental Values* (Oxford, New York: Berg, 1997).

⁸⁶ Parallels could be drawn with discourses about drainage and sanitation in the industrial societies of Europe, where ‘civilisation’ has long been seen as coterminous with the control of unruly water flows and waste (see Goubert 1986, Illich 1986, Strang 2004). Goubert, *Conquest of Water*; Ivan Illich, *H₂O and the Waters of Forgetfulness* (London, New York: Marion Boyars, 1986); Strang, *Meaning of Water*.

⁸⁷ Ernestine Hill, *Water Into Gold: The Taming of the Mighty Murray River* (London, Sydney: Angus and Robertson, 1965 [1937]): v, 39.

Alfred Deakin looked far into the future and saw 'the bare and blinding desert transmuted by industry and intelligence into orchards and fields of waving grain'... The Victorian Government listened with interests to the youthful St Paul, approved his plan and set him to achieve the miracle.⁸⁸

Hill's account describes the 'Miracle of the Murray'; the 'Apostles of Irrigation' and a vision of 'Utopia on the Murray.' There are biblical 'Years of the Locust'; 'Gentle Rain from Heaven' and sometimes punitive 'Acts of God'. But, as McColl's reported willingness to 'question the divine Creator's plan' attests, this was not just an assertion of monotheistic authority: it was equally an instrumental vision of human (male) agency, in which 'the environment' was an object of material subordination.



Fig. 6. Wivenhoe Dam, south-east Queensland. (Photo Veronica Strang)

The 20th century secularisation of water heavily submerged its religious meanings. As H₂O, Illich argues, it became 'not water, but a stuff which industrial society creates... the twentieth

⁸⁸ Hill, *Water Into Gold*, 40.

century has transmogrified water into a fluid with which archetypal waters cannot be mixed'.⁸⁹ Core generative meanings were still celebrated in the lakes and elaborate fountains symbolizing the social capital of the rich. The construction of urban water supply systems, expressed the agency and moral rectitude of Victorian philanthropists. But, as these examples suggest, the process of controlling water – abstracting it, treating it chemically, redistributing it through sophisticated distribution schemes – had acculturated it sufficiently that it was more readily imagined as a product of human – and primarily male – actors: engineers, chemists, and water managers.

Though secularity is often presented as diametrically opposed to religious thinking, Durkheim's view of religious cosmologies as a mirror of socio-political arrangements can be as readily applied to scientific understandings of the world. There is coherence between the authority of science and that presented by patriarchal monotheism. Both, in effect, place 'expert' knowledge and the agency of events in male human hands, and support hierarchies of power in which women and non-humans are disempowered. Both are upheld by what Reilly calls 'oppressive discursive practices' that enable subjugation and exploitation.⁹⁰ By separating Culture and Nature, both encourage an instrumental approach in which both people and things are only valuable if they are 'productive' in the right way. Such utilitarianism is exemplified by recent ideas about 'ecosystem services', in which each aspect of ecology, each species and biological process, is measured to see how much (and whether) it serves human needs and those of a neo-liberal market.

⁸⁹ Illich, *H₂O*, 7.

⁹⁰ Niamh Reilly, "Rethinking the Interplay of Feminism and Secularism in a Neo-secular Age," *Feminist Review*, 97, (2011): 5-31. See also Foucault 1980. Michel Foucault, *The Archaeology of Knowledge*, transl. A. Sheridan Smith (London, New York: Routledge, (2002 [1972])).

Power relations are similarly expressed in another important change in human relations with water: the extension of earlier forms of enclosure to appropriate water resources. In the last two centuries there has been rising tension between longstanding views of water as a common good,⁹¹ and efforts to privatise it as a commercial resource (a process still dependent on the Roman law that operationalised water management in the first place). In Britain, efforts by Victorian water companies to take over municipal roles as water suppliers were pushed back by post-war nationalisation, then, in the 1980s, such collective thinking was overridden by Margaret Thatcher's determination to privatise the water industry. This generated massive public resentment, though stopped short of the violent protests that successfully repelled similar efforts in Bolivia.⁹² Such processes of marketisation have been repeated internationally.⁹³ A major result of this economic neo-colonialism is that an increasing percentage of the world's freshwater resources is now owned by transnational corporations and their (usually male) shareholders and directors, and physically controlled by their – again usually male – hydrologists and engineers, whose enthusiasm for dams and other schemes for water impoundment and redirection remains undiminished despite intensifying protests about their social and ecological impacts.⁹⁴

Although this is the briefest of sketches, in a long-term cross-cultural view of human relations with water, it is possible to discern some coherent patterns. These show how religious and secular cosmologies, socio-political arrangements, and material practices have

⁹¹ Following a lengthy campaign to formalise human rights to clean water and sanitation, the UN General Assembly adopted a resolution to this effect in July 2010.

⁹² Robert Albro, "The Water is Ours, Carajo!": Deep Citizenship in Bolivia's Water War," in June Nash, ed., *Social Movements: An Anthropological Reader* (London: Blackwell, 2005): 249-168.

⁹³ Governments have learned to do this with less confrontational nomenclature. The introduction of 'water trading' in Australia in the 1990s privatised water allocations, reconstructing them as commercial assets. One result was to awaken 'sleepers' licences and increase water impoundment and use, rather than delivering the promised ecologically-positive 'market efficiencies' (Strang 2009). Veronica Strang, *Gardening the World: Agency, Identity, and the Ownership of Water* (Oxford, New York: Berghahn Publishers, 2009).

⁹⁴ Veronica Strang, "Dam Nation: Cubbie Station and the waters of the Darling," in John Wagner, ed., *The Social Life of Water in a Time of Crisis* (Oxford, New York: Berghahn, 2013): 36-60.

articulated, over time, to elevate men in industrialised societies to ‘Lord it over the Goddess’, subjugating women and less powerful societies, and asserting male ownership and agency in relation to the physical world, its resources, and its non-human inhabitants.

The Goddess in the Mirror

A view of water over time also reflects a mirror image. This shows similarly consistent links between subaltern ‘nature religions’ valorising feminine principles; egalitarian political arrangements; and a relational ethic which frames human and non-human kinds in more reciprocal terms. Visions of human and non-human equity flow readily between feminism, the civil rights movement and environmentalism.⁹⁵ It is easy to forget, with the incorporation (some would say appropriation) of the green movement into scientific discourses, that environmentalism used to be more radically concerned with socio-political relations. The relevance of gender parity in maintaining other equal partnerships – with different cultural groups, with other species – seems to have eluded male writers who have critiqued the alienation of humankind from Nature.⁹⁶ But it was clearly foundational to the ideas of ecofeminists such as Daly and Spretnak, and concurs with Griffin’s observation that there is a parallel between the oppression of women and the exploitation of Nature.⁹⁷

We see the devastation of the earth and her beings by the corporate warriors as feminist concerns. It is the same masculinist mentality which would deny us our right to our

⁹⁵ Greta Gaard, *Ecofeminism: Women, Animals, Nature* (Philadelphia: Temple University Press, 1993).

⁹⁶ Descola and Palsson, *Nature and Society*; Ingold, *Perceptions of the Environment*. One might add to this list James Lovelock (1988), whose efforts to present humankind as the brains of the planet are integrative, but conform to particular ideas about human ‘rational’ superiority. James Lovelock, *The Ages of Gaia: A Biography of Our Living Earth* (New York, London: W.W. Norton, 1988). This underlines Plumwood’s point that the non-reflexive views of ‘ecoguardian’ scientists tend to entrench rather than challenge anthropocentrism. Plumwood, *Environmental Culture*, 68.

⁹⁷ Mary Daly, *Gyn/Ecology: The Metaethics of Radical Feminism* (Boston: Beacon Press, 1978); Charlene Spretnak, *Lost Goddesses of Early Greece: A Collection of Pre-Hellenic Myths* (Boston: Beacon Press, 1992 [1978]); Griffin, *Women and Nature*.

own bodies and our own sexuality, and which depends on multiple systems of dominance and state power to have its way.⁹⁸

A long view of human adaptations also suggests that contemporary ideological countermovements come from deep sources, welling up from prehistoric forms of hydrolatry, and persisting over time through multiple changes in form. The recognition that subaltern ideas have ancient cosmological antecedents usefully challenges assumptions that contemporary feminism is intrinsically at odds with spirituality. In Western societies there has been a significant shift away from conventional religions to more diverse forms of spirituality, and Berger argues that the world is ‘de-secularising’ in new directions.⁹⁹ Aune observes that contemporary feminists are less religious but more spiritual than the general population, underlining the abiding appeal of non-patriarchal alternatives.¹⁰⁰ Such diversification, and the emergence of what Reilly calls ‘cosmopolitan feminism’, highlights the potential for re-establishing stronger links between secular and more spiritually-oriented feminists and between feminism and other struggles for social and ecological justice.¹⁰¹ In material terms, subaltern religious practices often centre on water. Ancient holy wells not only continue to serve as a wellsprings for subaltern religious ideas,¹⁰² they are now the focus of increasing numbers of contemporary ‘well dressing’ rituals, led by women to

⁹⁸ Maria Mies and Vandana Shiva, *Ecofeminism* (Halifax, N.S.: Fernwood, 1993): 14.

⁹⁹ Paul Heelas, Linda Woodhead, Benjamin Seel, Bronislaw Szerszynski and Karin Tusting, *The Spiritual Revolution: Why Religion Is Giving Way to Spirituality* (Oxford: Blackwell, 2005); Peter Berger, *The Desecularization of the World: The Resurgence of Religion in World Politics* (Grand Rapids, MI: William B. Eerdmans, 1999); See also Grace Davie, *Europe – The Exceptional Case: Parameters of Faith in the Modern World*, (Maryknoll, NY: Orbis, 2002); David Herbert, *Religion and Civil Society: Rethinking Public Religion in the Contemporary World* (Aldershot: Ashgate, 2003).

¹⁰⁰ Kirsten Aune, “Much Less Religious, a Little More Spiritual: The Religious and Spiritual Views of Third-wave Feminists in the UK,” *Feminist Review*, 97, (2011): 32-55. Kathryn Rountree also notes the rise of neopaganism in societies where there have been feminist critiques of patriarchal religious practices (pers. comm.).

¹⁰¹ Reilly, “Rethinking the Interplay of Feminism and Secularism”, 26.

¹⁰² Walter Brenneman and Mary Brenneman, *Crossing the Circle at the Holy Wells of Ireland* (Charlottesville Virginia: University Press of Virginia, 1995).

strengthen local communities across Britain.¹⁰³ And women are major participants in the rising numbers of conservation groups hoping to regain some control over the management of local waterways.¹⁰⁴

Counter-movements hoping to effect change need to address each part of the recursive triangle. They can demand new social and political arrangements, and take action to address material inequities in areas such as the ownership, management and control of water resources. But they also need to recognise the critical centrality of cosmological beliefs and values that valorise equity and complementarity in gender and environmental relations. In the last decade it has become clear that sympathetic countermovements are beginning to coalesce, using globalisation itself, and globalised media, to challenge dominant beliefs, values and practices. The result is an increasingly vocal critique of patriarchal, market-driven rule and techno-managerial instrumentality, and an array of active demands for social and environmental justice. This coalescence raises, for the first time, the potential to create more than localised groundswells that are readily suppressed or ignored. But to make the necessary connections, to realise this potential, it is vital to pay attention to how similar patterns resonate across time and space. If we fail to listen, His Story repeats itself.

¹⁰³ Strang, *Meaning of Water*.

¹⁰⁴ Strang, *Gardening the World*.

Veronica Strang

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