

Protection-from and connection-to: On how the sacred could be a framework for sustainable design practice

by Soumitri Varadarajan

Could the sacred be, whatever its variants, a two-sided formation?

- *Julia Kristeva*

Religion is important and powerful. We, in design, treat it as a feature of the client's brief that we have to work around (organization of spaces) or incorporate as a formal feature (furniture for religious spaces). That is a peripheral way of dealing with religion and is an example of design in a reactive utilitarian mode or as an aesthetic and primarily visual discourse. In the modernist project the alignment of design with technology, the analytical and scientific, was proposed as sufficient for delivering solutions. However now that design has begun to view itself as an agency for deep change it actively looks for ways to carry people with it.

My task is to propose that design can harness the positive powers of religion to achieve collaborative, and thus lasting, change. In what follows, I will explore this proposition not via a focus upon religion but upon a key aspect of religion, **the sacred**. The exploration begins with three reflections upon my personal experience of negotiating the sacred in India and elsewhere. Building on this, a four part model of the sacred is put forward, which is then extrapolated from to develop connections to design and to the secular discourses of sustainability.

Reflection 1 - negotiating religion

My father is an atheist and to be more precise he professes a belief in the *Vasisht-Advaita* – the Hindu philosophy of non-duality, oneness, or more precisely not-two-ness – branch of vedantic philosophy in which the world is clearly recognized as being either

completely unreal, or only partially real. He visits the temple down the street from his home every morning, and on special occasions is the key speaker discoursing upon topics from the Hindu scriptures. His father, my grandfather, was highly orthodox in his practice of his faith. He maintained order in his house, and among his nine children, with a firm hand. As a child I looked upon him as stern, highly disciplined and a very religious person.

Years later I wrote about that house of my grandfather as a system of negotiations within a cultural matrix where the 'right way' was implicitly and tacitly known, though not spoken of.¹ I remember never getting satisfactory explanations to questions about why things had to be done a certain way, such as what could be touched and when. My grandfather would wake up early every morning, bathe and do his prayers often before we kids woke. Physical contact with him was to be avoided till we had bathed. This was the principle of *madi* and as a child the most powerful symbol of the existence of a malevolent force that could descend upon all of us if angered by violation. *Madi* thus was for me a religious principle and it was only later that I could make a separation between the cultural, the sacred and the religious.

Growing up in India, to appear modern, I hid the embarrassing fact of the extreme orthodoxy of my family from friends. I grew out of it and came to terms with orthodoxy where now it is a source of texts such as this one. But many in India still reject the orthodox as backward and a shameful fact of their roots. This is potentially one of the inner reasons for the extreme passion that accompanies the separation of the secular and religious in India. Compartmentalization, religion-home and secular-workplace, is a fact of life in India.

Reflection 2 – secular renunciation

A few years ago I developed a course in Design with the express aim of challenging students into self-transformation in the area of sustainable consumption where the eventual goal is a reduction in overall consumption of goods and services. An initial assignment required each student to give up and live without something that was important to them for a week. At the presentations almost all of them spoke of a feeling of superiority and of their friends considering them 'cool' simply because they were doing this giving-up though the things they were giving-up were I-pods, and hair wax. Significantly at the end of the week none of them seemed to want to stop, some went on

to give up many more things, like long showers and cosmetics, and were planning on continuing their abstinence routines either till the end of the semester or longer.

In class a few weeks later I read to them from Dumont about the renouncer who feels empowered and uplifted as a result of his renunciation.² We were in this way dipping into ethical consumption and connecting with a global movement of people who gave up consuming specific things based upon their individual or collective beliefs. If we dwell in this way on the parallels between ethical consumption and renunciation, in the religious sense, we are loosely in the territory of the discourse of the sacred. We are also seamlessly connecting ways of thought in both traditional and modern societies and this inclusivity has powerful implications for behaviour change at a global scale.

Reflection 3 – constructing the sacred

For some years I ran a pilot project recycling waste in a university campus in India. My goal was to prove the concept of a 'zero-waste service'. Early in the project I came up against the established practice of waste disposal in households in India. Traditional households refuse to have a waste bin in the house, a manifestation of the notion of waste as polluting which was defined by the oppositions pollution-outside/ pure-inside and so waste would spend only the absolutely necessary time in the house.

For the project to function required two things: one, that the households segregate their waste and two, that I slow down the circulation of waste so that I did not have to do pickups everyday. My solution was to split waste into a pure-impure opposition. I asked that the household have a bin in the house for packaging and other non food waste that could be recycled thus creating a category of "non-polluting" waste, the pure waste fraction, which could be kept in the house to await less frequent pick ups, while the biodegradable waste could continue to be kept outside the house and picked up every day. I also opted for a sacred sounding name for recycling, *punarchakran*, which had a connotation of eternally cycling, as opposed to *jaive*, or that which was living, for the organic waste. In this way the waste segregation by the households took off and the project went on to become a well known service design case study.³

I cite the example to show how an understanding of ways of thinking, or knowledge of the social discourse could effect behavior change in design projects. Read another way the home-pure and waste-polluting categories point to the existence of negotiations that define the discourse of the sacred, that, though stated as the ways of the people, may in fact be a discourse of the sacred or the religious. For what makes

something sacred is not that it is somehow connected to the divine but that it is the subject of a prohibition that sets it radically apart from something else. In this the meaning is similar to the root meaning of the word sacred - to set apart.

“The sacred, by contrast, confers on objects, symbols or values that which results in a feeling of radical dependence ‘experienced, individually and/or collectively, in emotional contact with an external force’. This implies that people who experience the sacred obtain a sense of encountering a force or a power that is greater than themselves.⁴

The Sacred in four parts

The sacred is many things. It is a construct and an attribute that is attached to specific objects and places. As an artefact it can be subjected to analysis and reconstruction. The sacred is also a language and a particular kind of vocabulary.

I propose the sacred as a three-dimensional model – as both a way to read into the artefact phenomenon and as a way to change an artefact with the sacred as a force. Imagine a tetrahedron: resting on the ground the base triangle denotes the ‘connection-to’ and rising above the base on three sides are the ‘protection-from’ which then constitutes the essential dual nature of the sacred.⁵ Then open out the tetrahedron to derive a diagram where each of the triangles is charged, as one of the four aspects of the sacred:

1. The sacred is defined through oppositions
2. The sacred is about siting
3. Anything can be sacred
4. The sacred connects to an overarching scheme

My proposition here is that the sacred can be effectively negotiated by dwelling upon these aspects. What follows is a further opening out of the meanings and significance of the four aspects of the sacred.

1. The sacred is defined through oppositions

The sacred is described as that which is not profane by Eliade, and herein lies a key to the character of the sacred, that it sits in opposition to the profane.⁶ The description earlier of the encounter with purity-pollution in waste practices of the households, an instance of the sacred-profane opposition, is particularly charged with a tension for purity is a delicate and fragile state, accompanied by the notion of danger-pollution. Dumont's description of the food practices of brahmin households captures the rules that accompanied the preparation and eating of food in my grandfather's house in Chennai, India; "this everyday food whose cooking and eating requires so many precautions, and which is, like the eater himself, so vulnerable to impurity...is the subject of various rules which apply to the preparation and consumption of food".⁷ The negotiation of impurity connects then to the larger discourse:

"For one thing, food, once cooked, participates in the family who prepared it. It seems that it is appropriated like an object in use (pot, garment) but even more intimately and without even entering the body, ingestion being only one part of the matter. This is perhaps because, by cooking, food is made to pass from the natural to the human world, and one may wonder whether there is not here something analogous to the 'marginal state' in rites de passage, when a person is no longer in one condition nor yet in another, and consequently exposed, open in some way, to evil influences. In India itself most of these rites de passage correspond to an impurity which expresses the irruption of the organic into social life"

The notion of purity is also crucially about three further aspects; security, vulnerability and access.

One, security amplifies the idea that the sacred exists in the domain of threats. The life, ways, objects are threatened constantly hence governed by a code of practice that excludes. As Mary Douglas tells it the unfamiliar and foreign is a threat and gets negotiated as a successive series of exclusions. What is let in needs to be controlled, for the foreign renders the familiar vulnerable.⁸ The Portuguese seafarers who frequented the south of India with food from the new world would never have had a meal with the local Brahmins of Tamil Nadu. In the house of the Brahmin visitors were excluded from the eating-room and those permitted in were either family or priests

Two, purity is a state of vulnerability or the pure have a sense of vulnerability attached to them is illustrated in Dumont's description of the Brahmin eating habit:

“When he eats he is in an extremely vulnerable state, and even if everything takes place without mishap he rises from his meal less pure than when he sat down. It is not only a question of avoiding contact with polluting agents (even of the same caste) but of general precautions. Among the Brahmins, the eater must be pure (he has bathed and his torso is bare) and he must be sheltered from any impure contact. He eats alone or in a small group in a pure ‘square’ (*cauka*) in the kitchen or a nearby part of the house carefully protected from intrusion. Any unforeseen contact, not only with a low-caste man (sometimes going as far as his shadow) or an animal, but even with someone from the house (woman, child, man who is not purified for eating) would make the food unfit for consumption. It is thought that ordinary cooked food is particularly vulnerable, and so is the eater, who, the texts tell us, is in any case less pure when he finishes his meal than when he began.”⁹

In my experience of the meal in my grandfather's house, I saw the food being brought from the inner kitchen and served, after which it is returned to the kitchen. In its journey it was never placed anywhere, either on the ground or on a counter, and it was ensured that it does not touch the people eating or their plates. These practices continue in the homes of the very orthodox and can be seen in other homes during a special day such as that marking a religious or commemorative event.

Three, purity is protected and mediated by controlling access to the significant places in the home: the inner kitchen was, in principle, accessible only to those who had been through the rite of *samasrayanam*, or the hot metal branding with the mark of *Vishnu's* disc and conch. Some limited access was permitted to those who had been through the thread ceremony and were thus twice born. Additionally all these people would have to be in a state of purity, expressed by the notion of *madi*, to be permitted to enter. To be in a state of *madi* the brahmin had to bathe and then wear clothes that had been recently washed and dried, and that had not been touched by a person who was not *madi*.

The above examples illustrate the pure-impure opposition and demonstrate how purity, as a subset of the sacred, can be apprehended through these three or similar notions – that of security, vulnerability and access. While purity is one example it serves to illustrate the idea of oppositions. Then also while purity focuses upon protection-from it also suggests the way of negotiating ‘the other’.

2. The sacred is about siting

In the description of the Kabyle house Bourdieu has given us a precise and very detailed description of direct parallels between the organisation of elements in the household and the form and orientation of the household as mirroring or directly representing the cosmos.¹⁰ The Kabyle house model can seldom be encountered with such clear correspondences between that which is perceived by the eye and that which has to be imagined by the mind. So it is not in a specific geometric description of terrestrial and metaphysical orientation and sites that we find the significance of both the Berber house and Bourdieu's description. It is in the very existence of the two dimensions, the here and now and the cosmic, in the construction of buildings and potentially artefacts too.

In Hindu mythology the form of the *purusha*, a crouching man drawn into a square, defines meanings for the different parts of the site/ square based upon correspondences with the body parts of the *purusha*. Therefore it is imagined that the corner where the head is located is either the site for the shrine, or the room of the head of the family. Commonly referred to as *Vaastu*, this metaphorical overlay impacts upon organization of the spaces in the house and defines the sites of artefacts and activities. A well orientated house with well sited spaces is considered a prescription for the prosperity and well-being of the family and is in fact a situation where the sacred and secular are in accord or effectively not in conflict.

Extending and categorising from the above, the sacred as siting is also crucially about three further aspects: axis, siting and memory.

Sites on earth have axes that connect the cosmic with the terrestrial and thus the here and now becomes charged with force and meaning. Eliade uses the notion of *axis mundi* as an archetypal symbol locating a place for man to orient himself to the sacred, a scheme he refers to as a *heirophany*.

In India in the typical Iyengar house, which was a version of the courtyard house, the doors were located on the central axis of the house. Walking through the streets of Chennai you can still look right through houses into their back yards. Being a coastal city on the northern hemisphere, a south facing house with clear path for the sea breeze to blow straight through, was considered valuable. This climatic-economic consideration informed the built form which had then to be in accordance with the principle of *Vaastu* too, so that spaces and locations became significant. Then every evening at 'the lighting

of the lamps' (*vilaku etal*) Lakshmi, the goddess of wealth, was thought to visit these houses. At these times the doors from the front up to the shrine, in the middle of the house, would be open and the door leading out to the rear of these houses was closed, to stop Lakshmi from walking right through.

The spaces in a house are organized according to principles of inclusion-exclusion, outer-inner, or as a progression or procession. In my Grandfathers house the front room, where visitors were allowed, was called the 'camera room' and it was marked as 'male'.¹¹ When relatives visited the men would sit here, and the women would proceed deep into the house going up to the 'outer kitchen'. Now a small room, marked as the "bedroom" in the drawings of the house, was connected to this first room. Though it served, when necessary, as a room for newlyweds, its meaning as a conjugal space was not very strong. This room had at various times held a table and chair or a bed. The room was used by children as a study and periodically served as the room where the women during *dooram* (literally, "distant", a term used to denote the woman during menstruation) secluded themselves, for physical contact with them was prohibited during this period. The *dooram* woman would be the last to eat, after everyone had eaten. All food in a meal would be served onto her plate at one time, as compared to individual courses served in a normal meal. The elder will not eat if he had seen a *dooram* woman before the meal. Small children were allowed go to the *dooram* woman after taking off their clothes. This room had a fortuitous location that allowed the occupant to witness the coming and goings of people to the house. And in recent times the *dooram* woman could leave for work without entering the rest of the house. She could also use the lane to access the rear of the house where the wash area and toilets were located, outside the house proper. She would also make such a trip after every meal to wash her plate, which she retained and kept in the room. As also the only space with sexual connotations when kept for the newlyweds, the space contained the meaning of fertility in a birth-death opposition. Though not physically set apart it is, as a category, treated as being outside the main house. This room thus demanded care in its siting, and its siting both produced and reproduced the culture of the iyengars.

3. Anything can be sacred

Emile Durkheim remarked that anything could be a sacred object: 'A rock, a tree, a spring, a stone, a piece of wood, a house, in other words anything at all, can be sacred'.¹² The sacred is not a single domain that can be analysed as such - but is a notion that can

be attached to objects, shared system of beliefs and to place. The sacred has become a significant territory in the reclamation of what is theirs by indigenous peoples of different countries. Viewed from the perspective of the object, to be rendered as sacred serves as a marker to set apart or render significant an object. In short the usage of the word sacred is 'mostly as an adjective to designate objects that inspire a collective sentiment of respect, are often hedged about by prohibitions and generally have an absolute value for the members of their community'.¹³

Extending and categorising from the above the sacred is also crucially about three further aspects process, time and balance.

One, there are specific processes by which something can be made sacred. Anita takes the car to the temple as soon as she buys it - at the temple the priest is quite willing to walk out and touch the car with '*kum kum*' (red powder), sprinkle water over it and utter the key phrases (*mantra*). The car is thus effectively transformed (consecrated) and potentially protected and will go on to protect the occupants. This is car puja and as Polan explains in her web article; "it's a ceremony to consecrate or bless a new car in the Lord's name and keep it safe from bad influences".¹⁴ The Shiva Temple in Melbourne offers a car puja. There is a strong sense that the fleeting presence of the sacred does many things such as acknowledgement to God saying that even though she has just bought a really expensive car she is not proud and still has time and space for him. In turn the objects themselves go through several stages of being marked as the sacred or non-sacred, with different owners, through their life cycle.

Two, days are significant and are marked as sacred. The day in the *panchanga*, an almanac listing significant times in each day, is a manifestation of a specific planetary and solar arrangement or alignment, and the *panchanga* defines different parts of the day as propitious or dangerous (unlucky). These slots of meaning in a day keep varying so its all printed in the *panchanga* and people refer to it before planning or starting a new activity, often even before venturing out of the house. Then there are certain days which are marked in the Hindu calendar with certain gods. Saraswati puja is a festival devoted to Saraswati, the goddess of knowledge, music and art when the family brings out the pens and arranges them with books. Traditionally during this festival children are taught to write their first words. The color yellow has a special meaning during this festival, and people usually wear yellow and even sweets are yellow. I have seen my Lamy pen sitting amongst writing instruments and objects being rendered sacred for the

day. The examples I give here are either religious or at least cultural though all instances have elements of ritual in their engagement with the sacred. This is significant as it points to the pervasive nature of the sacred and hence the casual way in which a ritual is conducted.

Three, the practices show a keen awareness of the need to maintain a balance. Van Gennep's notion of the liminality captures the tension inherent in artefacts and relationships that can quickly become something else. The sacred here is a discourse to tilt the balance towards a favourable outcome and the talisman, the consecration, the other enveloping or touching rituals are all focussed upon maintaining and thus protecting. The existence of ritual hints at an the acknowledgement of and desire not to upset the order or scheme of things.

4. The sacred connects to an overarching scheme

The sacred is a connection with the divine and in the context of the specifically non religious it is a connection to the myth that provides an account of the world, the cosmos:

‘One should pay attention to the cosmological information contained in ancient myth, information of chaos, struggle and violence. They are not mere projections of a troubled consciousness. They are attempts to portray the forces which seem to have taken part in the shaping of the cosmos. Monsters, Titans, giants locked in battle with the gods and trying to scale Olympus are functions and components of the order that is finally established. A distinction is immediately clear. The fixed stars are the essence of Being, their assembly stands for the hidden counsels and the unspoken laws that rule the whole. The planets seen as gods, represents the Forces and the Will.’¹⁵

At this level the diagram, *Vaastu* or *Mandala*, captures the scheme of the universe. The diagram, the myths become mediations that permit the cosmology to be apprehended. We see here the cosmos as an overarching scheme, that is subtle though potentially malevolent.

The sacred as connecting to an overarching scheme is also crucially about three further aspects: everything is connected; the right way; and narrative.

The notion of an overarching scheme which often is the divine, hinting at the interconnectedness of all that is external to the individual, is a recurring motif in the

way knowledge itself is constructed in traditional societies. There has been a strain of the environmental in such knowledge. Quite a few contemporary writers and their critics agree that Western environmental problems, projects and movements have a marked religious dimension. The notion of renunciation was just one example but it does reveal that as an environmental educator, I may have been using patterns of construction that I am familiar with where the environmental, like the sacred, contains proscriptions, a cosmology-like theory of everything being connected, and injunctions for responsible action. The view of the world as an interwoven and interconnected entity, is quite similar to the notion of the cosmology, where everything is connected and every action has a malevolent impact.

The sacred in products, systems and campaigns

The account till now has been to establish the sacred as a category that is negotiated in specific and traditionally recognized ways. In objects and the proscriptions accompanying them the sacred is significantly a dualism signifying either protection-from and connection-to.

I am intrigued by the potential such markers have for contemporary design practice. In the case of precious and valued artefacts such as the chair as a family heirloom, or a piece of jewellery from a long departed relative that resist being discarded, what is apparent is the aspect of 'connection-to'. As a collective representation, these objects are protected from annihilation or violent transformation back into their natural material form. Through their connection to something beyond their perceived value or properties they resist change offering us instances of the commonplace made singular by a connection to something beyond which then resists even circulation.

Similarly another series of objects such as those sold by Oxfam or even recycled clothes stores offer a connection to a place, time or an ethical action though here sustainability is significantly a symbolic marker. In these practices, in our way with these object consumptions, the meaning can be analogous to the sacred. While in the provocative work of the Dutch Designer Wieki Somers, the ashes of loved ones are made into useful products, a chair, a toaster or a vacuum cleaner, to make us realize the importance of 'holding onto things'.¹⁶ While the discourse here is primarily one of consuming sustainably, the sacred impacts upon the culture of artefact consumption with the added injunction of holding onto things and not discarding them.

In the discourse of the sacred the larger ecosystem that the artefacts would connect-to would often be malevolent. Violence as a theme is however absent from the discourse of sustainability focussed as it is not upon the frequent violent events but upon the more stable or quiet periods as the defining feature of the earth. The sustainability discourse presents an impoverished account. It is as though the earth is a mud ball, where the atmosphere is a closed room, and the sustainability discourse is the 'no smoking' sign on the wall. Design that deals with sustainability is in this account primarily utilitarian. It enters the room with its analytical consideration of materials and making then worries about not leaving a mess for others to clean up. Introducing the themes of the sacred could magically transform this static portrayal and unleash the malevolent in the room, which itself mysteriously pulsates and becomes sentient, if not disappears altogether.

This earth which we have imposed a campaign of sustainability upon is not really compassionate enough to listen and modulate its behaviour. But we can certainly try and propitiate it with our rituals and sacrifices. We can all take up proscription of this or that behaviour, applauding Bundanoon (NSW, Australia) the first town in the world to ban bottled water¹⁷, and speculate upon not just the protection-from pollution but a connection to this new malevolent earth. Our subscription to a science that pushes for a rationally behaving earth which only randomly subjects us to freak events is faulty and distracts from the majesty of this beast whose dynamic play is way better captured by the sacred and its privileging of vulnerability as an essential condition.

The sacred, as in the writing of Datchevsky, enters into discussion of the environmental as a moral imperative.¹⁸ In the contemporary commons can be found proscriptions such as petitions against genetically modified food, against supermarkets and in favour of ethical consumption. Such proscriptions mirror the sacred in the view of the body and the collective. Douglas in her discussion of the prospects of asceticism speaks of the 'new category of risk ... a risk of irreparable damage to the commons, in which each and every one is liable to loss if the anticipated danger to the environment is actualized'. She is here asking the question of the absence of the finger of accusation pointing at the key agency – 'public demand for commodities' – responsible for the current state of affairs, for if there were more honesty 'a popular movement of renunciation would be expected'. Such a movement of ethical consumption and renunciation exists both in traditional and modern societies and in turn this movement contains a resilient strain of the sacred in it. Characterized by a discourse of denial, of

sharing and of a collective re-engagement with the sacred, future movements of ethical consumption might well bolster sustainability campaigns and bring accelerated behaviour change.

It is clear that the sacred offers narrative possibilities. What is even more dramatic is the impact such narrative possibilities would have upon design, founded as it is in a large measure upon the discourse of mass consumption and the creation of singular artifacts. Is it even remotely conceivable that design would embrace proscription and that future design practices would work towards design for avoidance, or design for renunciation of consumption? Is design re-conceivable as a political project that connects the traditional peoples, largely the rural poor, and the modern, the urban rich, through a narrative of the sacred or making significant? But first would the discourse of the sacred be welcome at all in the public sphere?

NOTES

¹ Varadarajan, Soumitri (2006). *My Grandfather's House: Prescription and Practice in the Food System of the Iyengars of Tamil Nadu*. Indo-Portuguese Encounters: Journeys in Science, Technology and Culture. L. Varadarajan. New Delhi, Lisbon, Arayan Books International. II.

² Dumont, L. (1998). *Homo Hierarchicus: The Caste System and its Implications*. New Delhi, Oxford University Press.

³ Soumitri, G.V, and Sriparna Chaudhuri. "Solving the Intractable: Two Problem Solving Case Studies." In *Ecodesign for Profit*. Sheffield, UK, 2001.

⁴ Cox, James (2004). 'Separating Religion from the "Sacred" Methodological Agnosticism and the Future of Religious Studies', in Steven J. Sutcliffe (editor). *Religion: Empirical Studies*. Aldershot: Ashgate, pp. 259-264.

⁵ Varadarajan, Soumitri (2009). *The Sacred Mandala image*, Faint Voice Blog at <http://campaignprojects.wordpress.com/2009/08/24/the-sacred-mandala/>

⁶ Eliade, M. (1959). *The sacred and the profane : the nature of religion*. New York, Harcourt, Brace.

⁷ Dumont, Louis. *Homo Hierarchicus: The Caste System and Its Implications*. New Delhi: Oxford University Press, 1998.

⁸ Douglas, Mary. *Purity and Danger*. London: Routledge and Kegan Paul, 1991.

⁹ Dumont, op. cit.

¹⁰ Bourdieu, Pierre. "The Kabyle House or the World Reversed." In *Algeria 1960*, edited by Maurice Aymard, Jacques Revel and Immanuel Wallerstein, 133-53. Cambridge: Cambridge University Press, 1979.

¹¹ Varadarajan, Soumitri (2006). *My Grandfather's House: Prescription and Practice in the Food System of the Iyengars of Tamil Nadu*. Indo-Portuguese Encounters: Journeys in Science, Technology and Culture. L. Varadarajan. New Delhi, Lisbon, Arayan Books International. II.

¹² Durkheim, Émile. *The Elementary Forms of the Religious Life*, Free Press Paperbacks. New York: Free Press, 1965.

¹³ Derlon, Brigitte, and Marie Mauze. "'Sacred' Or 'Sensitive' Objects." In *Non European Components of European Patrimony: EUROPEAN CULTURAL HERITAGE ONLINE (ECHO) Project*.

¹⁴ Polan, Jennifer. "Photo Essay: A Puja for My New Car." Beliefnet, <http://www.beliefnet.com/Faiths/Hinduism/2003/01/Photo-Essay-A-Puja-For-My-New-Car.aspx>.

¹⁵ Gioggio de Santillana and Hertha von Dechend, *Hamlet's Mill* (New Hampshire: David R. Godine Publishers, Inc., 1977), p. 151.

¹⁶ Ligett, Brit. "Artist Uses 3d Printer to Turn Human Ashes into Objects." <http://inhabitat.com/2010/06/23/artist-uses-3d-printer-to-turn-human-ashes-into-objects/>.

¹⁷ Substituted with free public drinking fountains and refillable bottles. Cubby, Ben. "Bundy Votes on Bottled Water Ban." <http://www.smh.com.au/environment/water-issues/bundy-votes-on-bottled-water-ban-20090707-dbv.html> and Bundanoon in 'world-first' ban on bottled water, *The Australian*, September 26, 2009 <http://www.theaustralian.com.au/news/nation/bundanoon-in-world-first-ban-on-bottled-water/story-e6frg6nf-1225779878437>

¹⁸ Datschefski, Edwin. "The Four Noble Truths of Biothinking " www.biothinking.com/truths.pdf.