

Toilet Futures: Sustainability, Scenarios and Climate Change Futures

Marcus Bussey
University of the Sunshine Coast
Australia

Abstract

This paper seeks to explore the concept “sustainable culture” by exploring the metaphorical possibilities inherent to the toilet. It offers an analysis of the toilet as both a technology and a symbol of (Western/pure) culture via an application of CLA to the problem with (and promise of) shit. Following this the paper offers a set of possible futures scenarios (flushed away; compost; squat; cyber-toilet) for both developing and developed countries and their responses to climate change and more broadly sustainable futures. The paper concludes by exploring the possibilities of a practical spirituality for recoding cultural practices and individual pathways towards what we rather hopefully call sustainable culture.

Keywords: Sustainable futures, climate change, CLA, toilet, practical spirituality

“Practical spirituality ... challenges us to realize the significance of the body and understand that the aesthetics of spirituality are not only confined to places of worship, but they also touch our bathrooms thus overcoming the dualism between the temple and the toilet”

Ananta Kumar Giri (2013)

Toilets are, as Giri suggests in the above statement, contested spaces with global geographies. Toilets as sites both intimate and public map the tensions in cultural assumptions, sustainability practices and futures trajectories in vivid and striking ways. These assumptions, practices and trajectories can provide the templates for thinking about climate change futures beyond the confines of *real politic* and its functionalist pragmatism. Perhaps it is possible to transform this space through playfully engaging a range of toilet scenarios and provoking thought around a spiritually grounded pragmatics?

This paper seeks to do just this by firstly exploring some aspects of the concept “sustainable culture” and then moving to unpack the dominant western culture of the toilet via an application of CLA to the problem with (and promise of) shit. It then maps out a set of possible futures scenarios (flushed away; compost; squat; cyber-toilet) for both developing and developed countries and their responses to climate change. The dominant approach to climate change, as noted above, is taken to be functionalist in nature¹. This is a hardy and stoic functionalism which hinges on an understanding of sustainable culture and development which is problematic for being unquestioningly situated within the dominant Western technological paradigm (Brundtland, 1987). This paper concludes by exploring the possibilities of a practical spirituality for recoding cultural practices and individual pathways towards what we rather hopefully call sustainable culture.

Sustainable Culture?

It seems likely, based on the evidence, that the concept sustainable culture is an oxymoron. Human cultural practices have always shaped the environments in which they are located whilst also simultaneously responding to the feedback from these environments (Diamond, 2005; Ponting, 2007). Historically all cultures and the societies they spawn have had a limited shelf life and succumb sooner or later to the impacts of internal contradictions (Tainter, 1988). Such contradictions hinge on the cultures’ energy regimes (Christian, 2003). Even the oldest continuous culture in the world, that of the indigenous Australians, had marked impacts on the environment and experienced regular dilemmas in resource management and demographic viability (Rolls, 2000).

Anthropologist Joseph Tainter (1988) and historical geographer Jarrod Diamond (2005) have both demonstrated the tendency of cultures to collapse over time. Macrohistorians as diverse as Ibn Khaldun, Karl Marx and Arnold Toynbee have similarly argued that there are patterns involving decline and fall and then usually some kind of renewal (Galtung and Inayatullah, 1997). Given this broad macro context sustainability, that juggling act with energy and order (Holling, 2003), and culture, the practices and identity regimes that maintain the coherence of the present (Berkes, 2003; Folke, 2002), seem strange bedfellows. Whilst sustainability, to paraphrase the Brundtland Report (1987), seeks to meet the needs of the present without compromising the needs of future generations, culture involves practices rooted in the past, crystallised in the present and projected into the future that ensure a sense of identity, continuity and meaning for people at a given moment in time (Bussey, 2014).

One key element in this dance between sustainability and culture is the famous Second Law of Thermodynamics² which asserts that all systems are subject to entropy, the tendency of active energy to become passive, and that without access to more energy a system will ultimately collapse into chaos, the natural state of energy depleted closed systems (Bussey, 2009). Culture, as an energy hungry system, pulls against the tendency of sustainable imperatives to balance, conserve and maintain (Bussey, 2013). Clive Ponting (2007) describes the intimate relationship between cultures and their energy regimes whilst David Christian (Christian, 2004) goes to great lengths to elucidate the link between the evolution of social forms via the collective learning people engage in when extracting energy from the environment and from the social systems they create. Such explorations underline the delicate

balance between a complex system and the energy available to it (Ferguson, 2010). This can be understood as a natural, cyclic process. Holling's (Gunderson and Holling, 2002) panarchic model makes it quite clear that balance and disruption go hand in hand and that, as Eelco Runia (2014) points out, disruption and surprise are as essential to understanding systems dynamics and their histories as is continuity. There is, as Richard Slaughter (2010) argues, an unsustainable relationship between current human energy demands and the energy available within the system as it operates today. This tension has been escalating as human appetites increase the pressure on the finite resources of the planetary system.

Culture as Practice

So let us get personal. It is easy and useful to generalise in the manner demonstrated above. However, culture is a *practice* (Hermes, 2005) and it involves individuals in the daily routines that make up life (Wann, 2010). So we eat, sleep, love, dream, sorrow and defecate. This last expression of our humanity is often overlooked yet it is a fundamental site of human practice. In these common bonds of practice we find ourselves to be both social and alone. In fact our 'collective individuality' is just as much a conundrum as our quest for sustainable culture (Denning, 2003). Now this paper seeks to explore climate change futures via the futures of the toilet as a site that is both intimate and social.

Toilets are part of all collective spaces whether they be the home or the civic centre (Jewitt, 2011). Thus toilets are spaces for both practical and cultural engagements with climate change. In this engagement issues of hygiene and social action are tied to social practices and also to questions of identity, value and taboo. The toilet has been part of our civilizational journey from the beginning and is found in one form or another in every experiment in sedentary collective living. Thus toilets and sewers are part of all early urban sites (Watson, 2006, p. 73ff). The toilet has always been a dimension of the human equation and is thus at the heart of any consideration of sustainable culture and, like sustainable culture, it is a site rich in paradox.

The intimacy of our bodily functions gets played out in the toilet, whilst the sociality found in public toilets where the setting acts as a zone of communal gathering – think of toilets in bars, stadiums, and sporting grounds – in which congregation is enacted in the sociality of a shared private-collective moment. As a site of sociality the toilet offers an apparent levelling in which social hierarchies become obscure and in which they are ironically reconstructed through popular phraseology such as the colloquial “throne” and “pedestal”. Such words speak of the biopolitics of ordering that is behind all human activity. The toilet thus performs the useful function of eliminating waste and also the social function of building culture. But does it build sustainable culture? Can it?

This question invites engagement via Causal Layered Analysis (CLA) (Inayatullah, 2004) because the toilet plays both a practical and also a metaphoric role in efforts to establish sustainable cultures. Yet it is in its cultural and mythic effects that most is to be learned about what is needed to recode human action and thus foster the adaptive capacity that lies at the heart of culture³. It is clear that our civilisation has the capacity to respond energetically to climate change (Bussey, 2010). However, it is acknowledged that this capacity is compromised by the deep stories our culture tells itself about our bodies and their place in the world.

CLA of Shit

CLA looks at the world as a series of layered experiences. Each layer informs the other layers, yet no layer has primacy. When used in consultancy the actors/agents in a context identify the layers according to their perception of the expression of these layers and their effects on them. They attribute causality and agency according to their own reading of the situation. When used taxonomically, as done below, CLA becomes an analytic for unpacking elements of a context and suggesting effects *in situ*. Causality in either application is not linear but inherent to all layers even though it is expressed differently (Bussey, 2014). So we have **litany** as the busy surface layer in which issues are experienced as ordinary, discrete and random. The litany level looks to the **systems level** in a context to address and manage issues that appear at the litany level. The **worldview level** is the level of paradigm where beliefs and morals are expressed rationally and managed as ideology, values and epistemology. This layer is the rational expression of the deep stories held, told and often unconsciously enacted as **myth/metaphor**. This level is unconscious and creative – it is the cultural soup from which new hybrid dreams/myths can emerge.

The following **Table 1** offers a taxonomy of shit via the application of CLA. It sketches out a possible reading of the cultural-social landscape within which the toilet is situated.

Table 1. *CLA of Shit*

CLA of SHIT	Indicators/Symptoms	Effects
Litany	Crap, poo, turd, mess, mud, “ladies room”, dunny, bowels, accident, instincts, hygiene	Shame, disease, horror, guilt, offence, relief, humour, cleanness, hand-washing
System	Sewers, toilets, city planning	Engineering, public health, social infrastructure, plumbing
Worldview/Paradigm	Disease, social order, epidemiology, hygiene	Science, technology, modern/pre-modern, infantile, animal
Myth/Metaphor	Life is shit Poo is taboo Euphemistically called mud	Transcend animality Tame the human animal Hide what is within Limit/control/supress (human) nature

The **litany of shit** is all about the place of bodily function in culture and society. The language is variably earthy and anal, impolite, euphemistic, discrete. The litany effects of shit range from disease, shame and infantile giggles to disgust and fastidious cleanliness. When people gather in community, shit immediately becomes an issue of social order. The **symptoms of shit at the system level** are all about control and management of physical waste. Social systems and technologies swing into action to manage the concentration of bowels in a site like a city, town or village. The system effects of shit call in specialist endeavours such as town planning and engineering, trades such as plumbers and ceramicists (toilet bowls etc).

These systems – political, administrative, public health – generate patterns of thinking and doing that reinforce assumptions about the natural and physical functions of bodies. The **worldview/paradigm response to shit** takes the form

of disciplines of knowing that focus on disease, social order and hygiene. In modernist society such worldview/paradigm effects impact via scientific knowledge, epidemiology and the theory of public health which is not to be confused with systems level administration of public health. Such patterns become specialised expressions of knowing embedded in the sciences and engineering, town planning and plumbing but can also be found in cultural values, taboos and sanitary and aesthetic practices.

The myth/metaphor of shit is rich in association, taboo and symbolic power. So when the shit hits the fan and we have finished wading through all the crap we can get down to business. Such scatological expressions have roots in taboos, stories and associations that go all the way back to the first jokes, insults and curses. They are embedded in children's humour and explorations of taboo and general adult conversation. The myth/metaphor effects of shit are to be found in an antipathy to animality, the inner (psychic and physical shit), the drive to tame, master and control and a sense of limits to human nature and of the 'shit' within us all that we are ashamed of and seek to cloak. 'Spirituality' sits opposite this dark field as a zone of exclusion and purity. By being disconnected from the animal spirituality is devalued and uprooted and permanently struggles to gain traction on the ground.

This thumbnail of course needs to be explored so that we can understand how cultural responses to climate change are shaped by the human relationship with nature and also with that which lies within us all – both the shit and the soul of our being.

Expanding the CLA of Shit

In the beginning *there was the turd!* Strangely this ubiquitous object has received little attention in futures scholarship and yet it has such an important role to play in human society and culture. At the **level of litany** the ignoble turd is something hurled, so we are told, in social protests when it is often referred to euphemistically as mud. It is something, again we are told, that Francis Bacon (1561-1626) once stepped in as he went down a London street and this inspired him to quip that life is 'shit'. The implication for his listener and posterity was that science would raise humanity above this base level and help us escape the down side of our animality.

Systems are developed to *hide the turd*. The London of Bacon's era was struggling with a growing population and virtually no infrastructure to handle the large number of defecating humans living in it. In fact, it was to continue to struggle with shit – the smell of it, the abundance of it, the diseases it spawned – for many more centuries until the engineer Joseph Bazalgette (1819-1891), riding the wave of middle class outrage following the Great Stink of 1858, totally transformed the London sewers. In short, Bazalgette *sanitised* London. This was a systems response and as such both individuals and societies have often looked to systems to manage shit and essentially make it go away.

Worldviews generate ways of knowing and sense making **that disown the turd** (caste it out of the ivory tower). Both Bacon and Bazalgette are icons in the Western scientific and technical pantheon. They represent the **worldview** that has come to characterise our globalising civilisation's approach to all problems. Thus climate change – clearly a problem – regularly evokes scientific and technical responses. Yet an uncritical acceptance of the efficacy of science and technology to respond as

per need is problematic. Paradigm shifts are often needed before real solutions can be identified. So the toilet represents more than an efficient response to the problem of shit and our animal body; it represents our cultural drive to make things animal, disturbing, repugnant, disappear. Sanitation at the systems level becomes *sanitising* at the layer of paradigm.

It is at the worldview level cultural wars are often fought. For instance, Thai nationalists are currently lamenting and resisting the erosion of their culture as the Western pedestal toilet challenges the squat toilet in both domestic and public spaces (Sereemongkopol, 2012). They are right to see this incursion into intimate space as a deeply colonising transgression. So the toilet represents a Western approach to order, control and sanitation; it is quintessentially modern. The squat being closer to the earth is therefore a reminder of the pre-modern. Understood paradigmatically Bacon's desire to rise above the earthiness of 16th century urban squalor is as iconic as Descartes' desire to privilege the mind over the body. Both visions are dualistic and both antagonistic towards "nature" and the body.

Mythically and metaphorically **the turd becomes the shadow**, the stench that defiles the holy places (Giri, 2013). **The myth/metaphor layer** gives voice to this antagonism clearly in Bacon's metaphor in which life equals shit. The natural is caste out, it is something culture is ashamed of and seeks to manage via systems such as Bazalgette's sewer, Bacon's scientific method, Descartes' famous *cogito ergo sum*, and of course the glistening pedestal toilet. It is not that we should want shit in our lounge room but rather that it becomes a metaphor for all that is outside of the cultural ambit. Ananta Giri, for instance, writes persuasively about this from a Hindu perspective where in temples you cannot find a toilet! It is as though having a toilet so close to the holy would somehow offend, diminish or compromise it.

Shit as metaphor is therefore culturally and aesthetically significant and the toilet too acts in this way, both carrying with it the imperial status of Western innovation in non-Western cultures and also the illusion of purity and sanitisation – a thing free from, even above, nature. From the myth/metaphor layer we understand that 'poo is taboo' and as such to be kept hidden. This taboo extends to feelings, desires and the natural both as impulse and also environment. Yet the attempt to hide the shadow is akin to our attempt to manage climate change by simply referring to the systems level.

Managing Shit and Climate Futures via Toilet Scenarios

It is the contention of this paper that without a shift in worldview and the mythic construction of shit any response to climate change will be palliative. Practical spirituality offers a pathway to facilitating this shift by challenging the taboos around shit, pointing to the spiritualisation of human animality as an integral element in culture. The energy regimes of modernity hide their "shit" and thus fiddle the books both ecologically and economically. To spiritualise shit requires us to rethink our boundaries as a culture and to investigate alternatives not simply through the application of new technologies but through the kind of reflective practices offered by CLA and scenarios. So, this section applies scenarios in order to take a closer look at the current paradigms that construct our social and cultural responses to toilets, shit and the question of climate change.

There are four scenarios that spring into view when considering how humanity might approach their future. The business as usual Western approach suggests we run

with a “flushed away scenario” as evoked by the pedestal toilet. A disciplined social scenario would suggest the “compost toilet scenario”. A “cyber-toilet scenario” is evoked by a technofix transcendence scenario framework whilst the humble “squat toilet scenario”, rather than taking us back to our roots, could represent a transformationalist future in which we accept our bodies and their relationship with the natural world.

The CLA on shit maps out a specific way of thinking about shit, the human relationship to nature and the human body, cultural and epistemological preoccupations with the natural and with the inner self and finally the role of technology in shaping and sustaining dominant boundaries in regards to body function, systems needs and public health discourse. The first scenario simply extends this modernist “work in progress” by outlining the continuation of the flushed away scenario.

Flushed Away

This scenario assumes there is no epistemological or ontological problem with shit. It is simply not nice and needs to be removed from social spaces. Of course it is useful and can but put to good use through a range of technical innovations that recycle it discretely whilst concentrating its ecological properties for reintroduction to the system via agriculture. The flushed away scenario privileges elegance, efficiency, reliability and replicability. One could say, following George Ritzer (1995), that a sanitary future can be achieved via the McDonadization of the toilet. All social problems can be managed in the flushed away scenario by simply being dealt with by existing systems that are designed to manage-suppress-remove negative feedback loops from the system. Climate change futures are to be dealt with in the same way. A range of existent and emergent technological and economic responses to climate change are available to society and will, when needed, become operational. We can see by looking at the historical record that when humans began to concentrate their living in urban settings that technologies emerged to handle the pressing issue of shit. Similarly, as we now come to the Rubicon of climate change, society again will call on systems to manage the problem and effectively flush it away.

Compost Toilet

Unlike the flushed away scenario the compost toilet scenario asserts there is an epistemological and ontological problem with shit. It asserts that shit is in fact one of our greatest assets. It is also a challenge to discipline our social excesses and to curb our blandly Disney Land desire to live in a sanitized and delusionally antiseptic reality. This scenario advocates a truce with nature and calls for societies and individuals to effectively live within the limits of the system. It acknowledges that all systems have limits and that they, like shit, are natural reminders of the finite and closed nature of reality. As reality is closed humanity needs to function by not just acknowledging limits but by embracing them. Limits are good and are in fact part of the human condition (Bussey, 2013). Climate change futures require the discipline of the limit to become the guiding theme in cultural and futures-oriented responses. Yes, we know that limits are not necessarily fun, and yes we know that compost toilets are smelly, but they – limits and compost toilets – are real. So this scenario is about getting real and working with limits.

Cyber Toilet

One of the great wonders of the human journey is the repeated breaking of limits through the accidental and/or strategic application of technologies to problems. The cyber toilet scenario asserts therefore that shit poses neither an epistemological nor ontological problem to humanity; instead it poses a technological problem. However, limits are real – witness for instance Moore’s Law – so the cyber toilet response it to harness new technologies and explore the limits of shit. The cyber toilet raises the flushed away scenario to a whole new level of sophistication. It accepts the sanitisation and the McDonaldization principal but adds to it the glamour of transcendence. This scenario frees shit of its earthly nature by offering possible molecular and discursive transcendence. Shit can be refined not via natural processes but by the re-engineering of its constituent parts. Shit as a result is discursively freed from its association with mud and nature and becomes an element in a new world of increasing order and purity. Climate change futures call for a similar approach. Technology will reframe the limits of climate change at the individual level and offer new routes to transcendence and a new set of parameters for the *condition humana*.

Squat Toilet

The squat toilet scenario does have issues with the epistemology and ontology of shit as understood within the flushed away and cyber toilet scenarios. It also has issues with the disregard for limits proffered by the cyber toilet scenario and whilst it is sympathetic to the compost toilet scenario’s respect for limits it does not advocate for its closed discipline futures. The squat toilet offers an epistemology and ontology that is relational. Metaphorically to squat is to be in relation with whilst to sit, as in on a throne or pedestal, is to be above. Thus a judge sits in judgement but to be human is to squat beside. The key to relationship is twofold in this scenario.

Firstly, it is to be in relationship with oneself. Much of the human cultural journey has been outward into the world. Relationship with self is a calling of practical spirituality which is anchored in our second relational orientation: our relationship with the world. This is a calling to be in relationship with the other as in the external world, its cosmic setting and all that which populates it and makes it fascinating. The squat toilet scenario suggests we take the middle road in all things. We use a practical technology to deal with shit but we do not sit above it as though we have nothing to do with the biological process of shitting. This transforms our relationship with ourselves and with both the cultural and natural worlds.

Climate change futures calls for social and cultural processes to be transformed via the squat toilet scenario. Such an approach suggests that it would be folly to sit above the issue of climate change and seek to manage it in the flushed away and cyber toilet scenarios. Similarly, it would be stifling and ultimately damaging to adopt the discipline of limits approach of the compost toilet scenario. Instead we need to redefine limits and the human potential via the squat scenario which turns to relationship, an ultimately spiritual orientation, and reframing the social, technological and cultural responses to climate futures.

Wildcard: BwO Scenario

A piece of futures analysis generally calls for something surprising. So far this paper has looked at shit and that may be considered surprising enough but really shit is rather ordinary. The only surprise here is that we are discussing it in the

genteel environs of an academic paper. Let's for a moment consider something more surprising than the presence of shit: let's consider its absence via a Body without Organs scenario. Such a scenario can be considered a wild card (Barber, 2006) or a surprise (Inayatullah, 2008) scenario. Deleuze and Guattari (1987) posited Bodies without Organs (BwO) as a philosophic acknowledgement of the constructed nature of being. Such constructs underpin each of the scenarios just presented. Typical for these philosophers, the term has multiple possible interpretations. In this scenario the reading is in fact literal. Human beings transcend their own biology and cease to shit! Such a scenario means the end for the toilet. Perhaps it also means the triumph of the technological and social drives of both the cyber and flushed away scenarios.

Certainly ceasing to shit means we no longer have anything to hide, nothing shitful to be ashamed of, no physical limits to struggle with. But the cost may be high – we also will not eat as we do now, we will not experience the relief of shitting and the fun of shit jokes. Our cultures will in this case become anaemic. But then there is another way to read this scenario. Perhaps we will transcend the body and become spirit? A spirit future is not the same as a spiritual future. Spirit futures lack the corporeal grounding of our present condition. Spirit futures are post human. They affirm some things about us whilst denying others.

Either way the BwO scenario, by denying something intrinsically human, is a surprise. This scenario offers a future in which humans are no longer humans. The implications for climate change futures is that current rules will cease to matter and that climate itself will be an extrinsic element in posthuman considerations. One can only assume that spirits do not care about the weather. An ethical consideration however is that some amongst us may become spirit whilst others may remain corporeal or, if we go with the first reading, some may cease to shit whilst others retain this ability. This scenario therefore challenges us to think about the bifurcation between human and post human societies. This in fact brings us back to the ethical issues that currently face a world in which developed societies shit in toilets whilst undeveloped societies do not. In this way the real surprise of the BwO scenario is that we might well face the ethical dilemmas of today in posthuman contexts.

Conclusion: Practical Spirituality

The scenario trajectory of this paper has explored some implications for climate change futures via a CLA of shit and reflections on the modernist relationship with the body and nature. The toilet as a vehicle for social control and as a metaphor for the human-nature divide is a significant cultural artefact that both represents and mediates the working context within which thinking, action, policy and innovation all occur. The human becoming that all scenarios seek to represent implies that human action is causally linked to assumptions and values, visions, hopes and fears and also callings.

The use of the concept BwO also alerts us to the fact that human becoming is a relational process. To use the Buddhist notion, offered by Thich Nhat Hanh (1988), of “inter-being” offers a suitable counter balance to the notion of BwO. Both concepts, drawing on quite different cultural roots, point to the relational nature of human being and becoming. This “relationality” offers a pragmatic framework for thinking through how human collectivities approach the challenges that such collectivities create. When relational consciousness, which lies at the heart of spirituality, is disavowed then a cultural psychosis develops in which certain

elements of a solution are immediately removed from sight; becoming taboo. Relationality lies at the heart of a practical spirituality and calls us to see connection, becoming and ending in ways that are richer and more profoundly human.

This paper began with reference to Ananta Giri's (2013) words on practical spirituality. It is suggested that practical spirituality offers a useful bridge between the physical conditions in which human beings abide and the relational nature of all being. In this sense spirituality is not metaphysical but rather relational in nature. It is premised on a new humanism that understands human beings as consciousnesses in relation to one another as opposed to individuals isolated and in competition. Climate change futures has much to gain from such a reframing. The calling of practical spirituality brings shit back into the human equation. It also suggests a relational logic for rethinking given futures trajectories. It challenges the colonising of images and values and questions assumptions about the real.

The scenarios and the CLA of shit presented in this paper all highlight elements in our cultural data base that are framing and sometimes challenging approaches to climate change futures. This paper suggests that relationality is an underutilised resource in our problem solving tool box. It also suggests that the concept of practical spirituality, as a conceptual and cultural bridge, allows for an intercivilizational dialogue to begin around the epistemological and ontological assumptions about relationship and being. Such dialogue has the potential to open up thinking about responses to the challenge of climate change and in so doing increase cultural resilience and adaptive capacity.

Correspondence

Marcus Bussey
Email: MBussey@usc.edu.au

Notes

- 1 See for instance Taylor's useful overview of the risk focus at the heart of climate change mitigation strategies: (Taylor, 2014, pp. 77-78)
- 2 See David Christian's elegant (and short) description of this in his (2003) paper.
- 3 Adaptive capacity is taken to mean "The ability of a system to adjust to climate change ... to moderate potential damages, to take advantage of opportunities, or to cope with the consequences" (IPCC, 2001, p.881). A society's ability to do these things is determined by a range of general and unique factors relating to; 1) its capacity to convert human, social, financial, built and natural capitals into new forms; and 2) its capacity to overcome the inertia that present practices and their historical momentum impose on context.

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