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Earth with Agency

A Thoroughly Queer Notion

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ABSTRACT Prevailing Western thought assumes earth is a machine to be worked, its matter existing to be converted into the fuel for human progress. This philosophy both underpins industrial design practice and helps to legitimate anthropogenic climate change. In a cross-disciplinary endeavor, this article utilizes esoteric spiritual discourses (Marcel Mauss's Gift theory and James Lovelock's Gaia theory) to "queer" the dominant notion of *what earth is*. In so doing, it attempts to posit a generative metaphor, which may help articulate an augmented role for designers in the age of climate change.

KEYWORDS: design for sustainability, Gift theory, Gaia theory, generative metaphor

What Is Earth?

What is earth? It depends which way you look at it. The earth has been flat, the planet around which the sun has revolved and (according to Mircea Eliade) has, at various

points on its circumference, provided a direct conduit to heaven. It is the third rock from the sun and the place where life began over three billion years ago. Given that human existence is pretty much earth-bound, it may follow that we ought to view ourselves as indebted to it. Or perhaps indeed even take it to be our master? Raymond Williams¹ argues that up until Elizabethan times, Western humans viewed themselves to be part of nature and subject to its every whim. However, man's increasing aspirations and growing aptitude during the Renaissance and the ensuing early modern period necessitated a dramatic shift in the way nature was to be perceived and both parties began to part company. A metaphysical separation between man and nature can be evidenced in, for example, Sir Francis Bacon's assertion that "Knowledge is power,"² Rene Descartes's Dualism³ and subsequently, John Locke's influential philosophy on land ownership.^{4,5} Williams⁶ claims this "abstraction of man" was intrinsic in enabling humans to perceive nature as no longer being the incarnation of God's Grand Design but instead a subject of man's *Reason* – that most famous of Enlightenment buzzwords. According to Carolyn Merchant,⁷ nature came to be ideologically "reconstructed as dead and passive, to be dominated and controlled by humans." Nature became viewed as a mechanical artefact open to scientific investigation in the pursuit of rational progress.⁸ In this wholesale turnaround in the relative positions of humans and nature, earth was destined assignment to the losing team, Descartes's *res extensa*,⁹ and consequently to the morally justified ecological destruction termed the Industrial Revolution.¹⁰

The perception that earth is a vast stockpile of matter waiting to be converted into the material culture shaping human existence still dominates in contemporary industrial practice.¹¹ The extent of the damage it has done is startling. For example, not content with producing astronomic amounts of carbon dioxide from burning fossil fuels and cement manufacture during the last century, humans are predicted to increase the production of pollutants at an alarming rate.¹² In attempting to make earth acquiesce, Mike Sandiford¹³ claims we may have created "the Anthropocene," a "geological epoch dominated by the global effects of our own species." Although this speaks volumes of the success of our endeavor for "progress," its negative effects are potentially extremely serious. The World Wide Fund for Nature (WWF)¹⁴ has famously concluded, "If our demands continue at the same rate, by the mid-2030s we will need the equivalent of two planets to maintain our lifestyles." Time may be running out for us to radically alter the dominant perception of *what earth is*.

Despite the WWF's stark warning, it is difficult to envisage what may prompt, in the near future at least, a necessary shift in attitude. For such is the pull of a global economic system dominated by a thrust for expansion,¹⁵ governments and stock markets are thrown into panic when growth is disrupted in two consecutive quarters and

a nation is plunged into an ensuing recession. Earth's materials are extracted and goods manufactured. For the anthropologist Daniel Miller, the next step, consumption, "is merely the logical outcome ... that moment which completes the production cycle."¹⁶ And at the heart of this cycle of destruction is the notion that substances originating from earth are dead, passive, mechanical matter to be utilized to fuel our yearning for progress.¹⁷

Design and What Earth Is

For the vast majority of the time that humans have been creating artefacts, this activity was not called "design." The term can be traced back only to the middle of the nineteenth century.¹⁸ To illustrate what we today may understand as *industrial design activity*, Samer Akkach¹⁹ states: "As human rationality and the scientific truth became at once the source and measure of dealing with reality, the act of designing became a measurable rational exercise." As mentioned, *rationality* was perceived as being a vital ingredient in precipitating progress in the move to the modern era. The rhetoric of progress is thus inextricably woven into the history of industrial design. Many writers have implicated the profession in the widespread destruction of the environment. Here, I shall highlight how the definition of *matter* utilized in the design process contributes to an ecologically unsustainable position.

The philosopher Gilles Deleuze and the psychotherapist and semiotician Félix Guattari²⁰ identify two opposing models of comprehending matter, the materials utilized in the physical processes of trades or professions. The first is practiced by what Deleuze and Guattari term "royal science," the second by "minor science." Of the two, royal science is the more legitimate process as its activities have been "established by history."²¹ Examples of activities following the schema of royal science are those commonly referred to as *the sciences*. In contrast, traditionally, minor science is practiced by artisans such as carpenters and smiths.

Royal science perceives matter as being measurable, rationalized, and homogenized. As such, this model "implies a form that organizes matter and a matter that is prepared for the form."²² Minor science, on the other hand, observes matter to be heterogeneous, for it works to retain the variation of variables. In the minor science model, Deleuze and Guattari claim "Matter ... is never prepared and therefore homogenized ... but is essentially laden with singularities."²³ Unlike royal science, minor science recognizes matter which is utilized in its creative activities as *taking part* in these processes. Deleuze and Guattari provide the crafting of timber as an example of a minor scientific process: while working with timber, a carpenter must appreciate the importance of, for example, the direction the grain runs in, *following* it instead of trying to change the direction in which he plans to fit his own formulae. Deleuze and Guattari²⁴ claim this necessitates "surrendering to the wood ... instead of imposing

a form upon matter.” In the West, a dominant view of matter sees it cast as passive and subservient to human actions.^{25,26} The prevailing view of matter is thus propagated via the royal scientific model. Being a legitimate schema, royal science makes minor science succumb to its own models.²⁷

Design – prior to its inception as a modern, rationalized process – can be thought of as a minor science.²⁸ Indeed, Nigel Cross²⁹ makes a distinction between the craft-oriented design of the pre-industrial era and industrial design which is based on what he terms “scientific knowledge” (i.e., royal scientific knowledge). The act of industrializing design has affected the agency of materials used in the creative process. Before the advent of routinized and standardized processes and the need for homogenization,³⁰ the philosopher Manuel De Landa claims materials had a potent voice in the production of physical form:³¹

Craftsmen ... always had to take the complexity of matter into account because before the advent of homogenized materials like steel, the materials available were always heterogeneous. A blacksmith, for example, would get his iron from one mine one week, from another distant one the following week, from a meteorite later on, each time dealing with different impurities and mixtures that demanded creativity and did not allow the process of creation of new forms to be reduced to routine.

De Landa argues that when design practice came under the control of rational scientific processes, materials utilized in its creative activities acquiesced, becoming “obedient and receptive to the wishes of the designer.”³² Consequently, materials became “deprived of any active agency.”³³

The identity of matter used in the industrial design process resonates with the dominant perception of earth, as previously discussed. Both are viewed to be passive to the requirements of humans. And, as matter used in design activities is originally sourced from earth, it follows that industrial design upholds *what earth is*.

The German philosopher Martin Heidegger conceptualizes earth in a different manner to the one discussed above. Heidegger uses an early Greek definition of earth, one denoted by the term *phusis*. Phusis encapsulates what Kate Rigby³⁴ calls “the primordial nature of earth and sky.” For Heidegger, the usual model of earth – that received through the Judeo-Christian tradition – supposes that via the act of producing implements or artefacts, earth’s materials are “used and used up.”³⁵ In contrast, Heidegger argues that the process of human intervention in working materials enables them to come into being. For Heidegger, “Humans have a privileged role to play in giving voice to the phusis.”³⁶ A Heideggerian point of view supposes that man is able to breathe life into materials, for “Work lets the earth be an earth.”³⁷

Via taking an early Greek cosmological starting point, Heidegger's argument does enable earth to be endowed with a level of agency: Heidegger's earth "call[s] upon us to respond."³⁸ However, this agency is initiated by human intervention. In order to posit a generative metaphor which may help articulate an augmented role for designers in the age of climate change, this article will propose that earth should be perceived as independently agential. This process necessitates *queering* what earth is.

Queering What Earth Is

"Queer theory" came to prominence in the 1990s.³⁹ The notion takes its influence from Michel Foucault's discussion of the social construction of sexuality.⁴⁰ For Foucault, the state had created and maintained certain discourses on, for example, homosexuality, in order to drive the formation of a stable, procreating population which would feed the developing capitalist system. The concept of homosexuality, Foucault argued, is a relatively recent phenomenon as modernity had cast people of alternative sexuality as belonging to an aberrant subset of society. Key to Foucault's analysis is his notion that the production of a vocabulary which rationalizes the control of certain populations also creates a means by which to articulate resistance to this control. Tamsin Spargo argues that through the creation of what Foucault terms a "reverse discourse ... those who are produced as deviant subjects, 'homosexuals,' may find a common cause, a common dissenting voice that turns confession to profession."⁴¹ The latter stages of the twentieth century saw homosexual communities using reverse discourse in the (re)creation and ownership of identities.

The practice of "queering" is mainly associated with lesbian, gay, bisexual, and transsexual movements and aims to challenge prevailing definitions and perspectives on sexuality.⁴² Queer theory renounces both "prescribed" and reverse discourse; as such it is constantly challenging notions of normal sexuality, be that dominant heterosexuality or homosexual identity.⁴³ Ann Light⁴⁴ claims this discontent with accepting the given is applicable beyond the movements in which the term queering was coined, for "to queer something, taking the Greek root of the word, is to treat it obliquely, to cross it, to go in an adverse or opposite direction." Light uses the notion to discuss how we might approach identity formation in the study of human-computer interaction. Informed by this application of queer theory to a broader intellectual context, I move on to use it in relation to the practice of *upcycling*. In so doing I will attempt to queer the identity of matter used in the industrial design process.

The popular design movement termed "upcycling" has a sustainable ethos and aims to reduce the quantity of goods being disposed of.⁴⁵ The corporate consultant Andrea Anderson⁴⁶ summarizes the practice:

The eco-conscious consumer can store her writing instruments in a pencil case made from OREO cookie wrappers, carry that pencil case in a purse made from FIRESTONE tyre inner tubes, and accent her home with wall art crafted from TIDE and GAIN detergent bottles. [Original emphases]

Upcycling provides designers with an opportunity to reappraise the identity of matter. Matter, as conceived through the dominant Western position, can be successively broken down until its essential, indivisible, or inseparable building blocks are established. This process is known as atomization.⁴⁷ This paper argues that the perception of matter used in upcycling differs from that defined through the prevailing Western position. Oreo wrappers, Firestone tyre inner tubes (or any other object used in upcycling) may be used intact or chopped up into smaller pieces, but crucially they are *never wholly deconstructed*. Referring to a cabinet created from upcycled materials, Bahar Emgin⁴⁸ states: “Designed by Patrick Schuur, [it] was made by placing 918 cassette tapes on a wooden frame structured to create a spacious storage area.” Cassette tapes are quite flat, rigid objects. Whether used whole or in fragments, one would not expect Shuur’s cabinet to be defined by a series of complex curves. And indeed it is not.⁴⁹ In theory, this situation would differ if the cassette tapes were to be “melted down” (or even “atomized”) and the resulting “broth” reconstituted into a material capable of obedient athletic malleability. In Shuur’s cabinet, the upcycled cassette tapes – with reference to Deleuze and Guattari⁵⁰ – have to be surrendered to. They are not the obedient materials of the modern design process described by De Landa.⁵¹ They are not passive. They cannot be atomized. They must be *worked with*, just as Deleuze and Guattari’s⁵² carpenter must work with the grain of a piece of timber. Consequently, upcycled matter has agency as it *participates* in the design process.⁵³ The identity of objects utilized in the creation of upcycled goods thus differs from that generated through the dominant Western view of matter. Upcycling therefore queers the identity of matter used in the design process.

Emgin⁵⁴ claims that through the process of upcycling, designers can play an important part in steering an environmentally positive path for matter and that they can “invigorate [it] with new life.” Though Emgin argues that upcycling provides an environmentally positive role for designers, his notion adheres to the familiar “industrial” concept of matter, i.e. matter that is obedient to the wishes of the designer. For Deleuze and Guattari⁵⁵ *disobedient* matter is ever-present, but its “vital state [...] is ordinarily hidden or covered, rendered unrecognizable, dissociated by” individuals operating through the dominant Western schema. Instead of celebrating the omnipotence of the designer in allowing matter to breathe, let us posit that designers practicing upcycling are *following* matter participating in the process. Let us consider a slightly different take on the

idea that upcycling can stimulate new life in objects. Imagine that this arousal is due to the presence of recalcitrant matter which refuses to be atomized or subdued by humans. Consider that matter plays a significant part in the creation of its story. Light⁵⁶ claims her use of queering enables us to reframe given perspectives and to precipitate thought-provoking alternatives:

Queering ... is predicated on letting (other) values and lifestyles surface – not the ones already in use, but ones that might come to be if allowed enough space to emerge.

I argue that *queer matter* can help to provoke an alternative narrative around sustainability. What if this *disobedient matter* were considered as being embodied with spiritual energy? How might this resonate with the dominant definition of *what earth is*? What might it mean for designers in an era preoccupied with tackling climate change? The remainder of this article explores these issues.

Queer Matter

Climate Change – Queer Spiritual Discourses

Akkach⁵⁷ summarizes the decline in the power and influence of spirituality in Western society in the transition to modernity. He argues this shift witnessed the sacred being “redefined and its efficacy ... severely undermined.”⁵⁸ The legacy of this decline has affected Western society greatly in that our experience has become an ever more secular one.^{59, 60} In recent times, spiritual discourse has found a place in ecological discussion. For many writers environmental issues have significant religious connotations.⁶¹ Brad Allenby,⁶² for example, argues that environmental concerns have begun to “serve theological purposes” for people and that this is especially the case in secular societies. Thomas Schelling⁶³ argues that with regard to climate change, “For many people, something close to religious values are at stake.” Jonathan Porritt,⁶⁴ the former leader of the UK’s Green Party and ex-head of the UK government’s Sustainable Development Commission, appears to support these notions.

The philosopher Slavoj Žižek⁶⁵ claims that when it comes to approaching environmental issues, the inclusion of spiritual discourse amounts to unhelpful mystification of “very real problems.” I disagree. In our secular societies the incorporation of spiritual narratives may help to change our frame of reference on our predicament. Consider for a moment the following argument from Soumitri Varadarjan:⁶⁶

Our subscription to a science that pushes for a rationally behaving earth ... 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.

As noted, queer theory is averse to the notion of “norms.” Introducing spiritual concepts in a rationalistic and secular age helps us begin to queer the governing identity of earth and the matter it contains. However, if we reflect on Tim Duvall’s⁶⁷ suggestion that in contemporary Western culture, God still plays a role in legitimating publicized action in times of crisis (and climate change is perhaps the defining crisis of our era), it is possible to argue that such action can be perceived as a “go-to setting”: that is “a norm” in times of emergency. The use of dogma from a major organized religion can therefore be perceived as being antithetic to the queer cause. Instead, I employ more esoteric discourses with inherent spiritual elements, specifically Marcel Mauss’s Gift theory and James Lovelock’s Gaia theory. In particular, this paper will argue that elements contained within Mauss’s and Lovelock’s theories can be *combined* to form a generative metaphor which may help articulate a role for designers in the age of climate change.

Of Gifts and Gaia

In his seminal text *The Gift*, the anthropologist Marcel Mauss⁶⁸ attempts to set out rules of engagement and themes for transactions between humans from indigenous cultures as well as more “developed” ones from various parts of the globe and throughout history. Inscribed within his definition of gift-giving practices are three separate tenets: giving, receiving, and reciprocating. Mauss terms these the “three obligations.”⁶⁹ Gift theory posits that a party is obliged to give. When another accepts that gift (i.e., receives), it is placed into the debt of the giver. Mauss’s notion thus implies the acceptance of an obligation and the necessity to repay the debt incurred (i.e., reciprocation). In his passionate appraisal of Mauss’s text, Maurice Godelier⁷⁰ argues that “what creates the obligation to give is that giving creates obligations.” When protagonists (whether human or nonhuman) become congealed in adhering to Gift theory’s three tenets, a state of what Mauss⁷¹ identifies as “total prestation” occurs. This is a phenomenon of obligation in which everyone in a clan (or an opposing clan) owes everything to everyone who is part of that system. For Mauss, gift-giving obligations form bonds between humans, whether local or distant to one another, and between humans and spirits.

According to Mauss, *spiritual principles* facilitate the perpetuation of the gift-giving system. Underscoring this notion, Godelier⁷² states: “A power is present that forces gifts to be passed around, to be given, and returned.” The spiritual presence belongs to the object’s owner, and when given away this entity travels with it. In, for example, Maori culture, this force is termed the *Hau*. Mauss⁷³ claims when it is given it “wants to return to the place of its birth.” If the debt incurred by the receiver is not perceived to have been repaid, the presence of the owner’s energy can make the recipient unwell.^{74,75}

Because giving, receiving, and reciprocating are active processes, protagonists in Mauss's system – whether human or nonhuman – must be viewed as possessing agency. As noted, human ambitions to increase industrialization helped to cast earth as an obedient machine which is passive to people's requirements for fueling rational progress. Accordingly, earth is viewed as non-agential and is therefore not perceived as actively *giving* resources. Humans instead may or may not choose to remunerate other humans who have assumed ownership of relevant parts of earth for the privilege of *taking* capital. Consequently, I postulate that Mauss's notion that "Gifts that are not reciprocated can cause harm to the receiver" is not applicable to the dominant understanding of the supply of earthly matter to fuel industrial processes. Given the global economic imperative for expansion and the mooted dawn of the anthropocene, there will conceivably continue to be no requirement for humans to recognize earth as an active giver of matter and thus to entertain exercising reciprocation. Mauss's Gift theory provides humans with an opportunity to queer *what earth is* and to subsequently reframe the identity of matter utilized in industrial processes.

The notion that gifts must be received and reciprocated surely follows from the presence of an act which takes chronological precedence over all others, namely the presentation of what is here termed *the initial gift*. Gift theory presupposes a time when protagonists were *outside* of a gelatinous intra-active state. Through the offering of the initial gift, a state of *interactivity* presents the opportunity for *intra-activity* (i.e., Mauss's *total prestation*) between parties. In queering *what earth is*, I acknowledge it has created (and continues to create) the raw materials humans utilize in the design process. I take the position that earth, as giver of raw materials, has provided the equivalent of the initial gift, an opportunity for humans to *interact* with it. The philosopher Mary Midgley⁷⁶ argues that tackling environmental issues necessitates a move away from an anthropocentric approach. Allenby⁷⁷ suggests that contemporary environmental discourse presupposes that we will be "engaged in a dialogue with our climate." It is evident that Western humans are not engaging with earth. James Lovelock provides us with an interesting take on our fate if we continue in this vein. Through his controversial Gaia theory, Lovelock claims that when compared to its neighbors, earth can be viewed as idiosyncratic. For unlike Mars, which is "dead,"⁷⁸ earth, "like one of us ... controls its temperature and composition so as always to be comfortable, and has done [so] ever since life began over three billion years ago."⁷⁹ Lovelock claims earth can be described in a way that suggests it is "alive,"⁸⁰ stating that this explains, for example, "why farming abrades the living tissue of its skin and why pollution is poisonous to it ..."⁸¹ Gaia theory differs from the dominant Western mechanistic view of earth; indeed, Lovelock claims it has a spiritual dimension.⁸² He states that: "As we go about our daily lives we are almost all of us engaged in the demolition of

Gaia.”⁸³ More worryingly, Lovelock argues that our industrial activities are contributing to Gaia’s increasing wrath with us humans and that if we do not change our ways we will be ejected.

Earlier, I suggested that elements contained within Mauss’s and Lovelock’s theories can be combined to create a narrative which may provoke industrial designers to reframe their role in relation to dangerous climate change. Queering the identity of earth enables us to perceive *her* as the *giver* of matter. It consequently allows us to understand humans to be willing *receivers* of matter. Receiving comes at a price, for to revisit Godelier’s⁸⁴ counsel that “Giving creates obligations,” we should note that earth expects adequate reciprocation. We should also remember that an inappropriately compensated giver is liable to cause harm to the receiver through the presence of their energy in the gifted item.^{85,86} A queered, apocalyptic earth can therefore be argued to be making life increasingly uncomfortable for humans – and literally *turning up the heat* on us – through conducting spiritual energy contained within artefacts currently cluttering up our homes in a particularly malevolent manner. *Caveat emptor* indeed.

A queered earth then is an inordinately powerful force maligning the best efforts of humans claiming progress can be achieved through forging the anthropocene. In this context, the notion of an agential earth may be useful in articulating an augmented role for designers in the age of global warming and climate change.

Queer Matter – Proposing a Generative Metaphor for Designers

In more recent times, scholars have moved well beyond the position taken by Aristotle who, according to Dedre Gentner and Michael Jeziorski,⁸⁷ was adamant that “Nonliteral language should not be used in argumentation.” The figurative communication bound in metaphor is now understood to significantly aid cognition.⁸⁸ Donald Schön⁸⁹ argues such is the presence and generative power of this tacit form of suggestion that we need to “spell out the metaphor, elaborate the assumptions which flow from it, and examine their appropriateness in the present situation.” Schön moves on to highlight how metaphor can profoundly affect the way issues are framed and subsequently tackled. For example, he argues that if slum housing is perceived as being a scourge on society, any solution may necessitate the removal of what is believed to be an infestation. In this case, Schön claims “The metaphor is one of disease and cure.”⁹⁰ However, if the same homes are presented as a “natural community,”⁹¹ suffering due to the degradation of a way of life by pernicious external influences, then resolution may involve providing nourishment to inhabitants in an attempt to preserve and protect them. Thus, for Schön, the solution to a problem is influenced by how it is set in the first place, i.e., on how narratives are constructed via what he terms

a “generative metaphor.” Moreover, he claims that through reframing problem settings, individuals may create headway in tackling issues that are perceived to be intractable. Schön’s notion has grown to become influential in the behavioral sciences.⁹²

Supposing earth to be a passive, obedient machine to be worked in order to fuel human progress has helped us to view ourselves as commanders of our own destiny.⁹³ Given the efficacy of this generative metaphor, it may be difficult for us to imagine an alternative. However, with regard to environmental issues, it has assisted us in moving to the brink of what is claimed to be an irreversible cataclysmic chain of events. Schön⁹⁴ argues that the deeply embedded nature of metaphor in culture determines that we are often unaware of the significance of the role they play in generating understanding. It is conceivable that our understanding of *what earth is* has become so entrenched that we are unaware that it facilitates our ruinous behavior?

Research suggests that when it comes to framing discussion on sustainability, the roles designers ascribe to themselves are historically contextualized.⁹⁵ Given the current environmental concerns, the opportunity exists to critique the dominant ways of understanding practice.⁹⁶ According to Tony Fry, designers must initiate the “*praxis* of a new design paradigm”⁹⁷ (original emphasis). I claim that designers may benefit from an opportunity to utilize a revised generative metaphor to “trick”⁹⁸ themselves into considering an augmented role in industrial practice. This may help limit anthropogenic damage. Recognizing earth as the *giver of matter* necessitates adequate reciprocation in order to avoid unpleasant or even catastrophic repercussions. A role for designers would involve acknowledgment of the debt incurred in accepting raw materials which feed creative industrial processes. It also necessitates leading on the enacting of adequate reciprocation.

Fry argues designers should play an integral part in helping to “make [... a ...] world that will remake us.”⁹⁹ I argue that queering the identity of earth via the incorporation of spiritual narratives contained within Gift and Gaia theories may be important in helping designers achieve this aim. Ultimately, this process may help tackle what Žižek¹⁰⁰ argues to be humanity’s blinkeredness to impending environmental catastrophe:

But why don’t we do anything about it? It is I think a nice example of what in psychoanalysis we call “disavowal,” the logical state of “I know very well, but ... I act as if I don’t know.”

An augmented role for designers may help us make headway in what is evidently not just an intractable problem, but more worryingly, the elephant in the room.

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