The Power of Design Education: An analysis of the impact of theory on contemporary design responses in relation to our current ecological crisis

We are living through a moment of profound change, in both our environment and the ways in which we think of it, in the midst of an ongoing exploration of what has been before and how we might learn from it, we are considering the future of our species, planet and our relationship to it. Citing examples of contemporary design responses which have links to certain schools of thought, the report follows a thematic structure chronologically, beginning with a critical analysis of the widespread inclusion of Material Culture Studies across design education, considering what influence this has had on wider society. Moving on to explore the use of anthropomorphism versus anthropocentrism before analysing how the contemporary theories of actor-network-theory and object oriented ontology are influencing design responses with an environmental tone. Using key thinking from; Graham Harman and Indy Johar to frame why a societal mind set shift is paramount in the fight against climate change. The relationship between theories and design responses is explored within the context of design education, looking at current curricula and courses at university level, seeking evidence that this continues to have an impact on design responses before hypothesising what a gap closure in structured taught theory in design studies could enable in terms of a paradigm shift towards a more sustainable way of interacting with our environment.

Universities across England and Wales are facing increasingly complex and widespread challenges, from changes in funding to Brexit there are many historical and political challenges which are impacting aspects from which subject areas are of focus to funding for research; all of which is impacting how design courses are designed, funded and ran. Before exploring contemporary design responses it is important to frame some of this context to understand the climate which establishments are operating in.

In England and Wales it is complex to even properly define if universities fall in the public or private sector. As, "universities are not public bodies. Most of them are not private bodies either. They are a third category of institution, being not-for-profit and independent of government." (Virgo, 2023). Although universities do receive some government funding they largely rely on funding from tuition fees which have been rising since their introduction, figure one shows a history of tuition fees in England and Wales. The increase in fees exists within the context that

"employability has been forcefully promoted by national governments" (McCowan, 2015). The focus on meeting a government and student drive for proven employability factors as well as having to "comply with all of the rules that control private bodies" (Knight, 2006) is having an impact on where universities are needing to direct their focus. The context is

Period	Form	Amount/Yearly
Until 1997	none	-
1998 - 2004	Paid during studies Contingent on family income	£1,000
2005-2007	Paid during studies Contingent on family income	£1,175
2008	Deferred tuition fee based on graduate income	£3,145
2009	Deferred tuition fee based on graduate income	£3,225
2013	Deferred tuition fee based on graduate income	£9,000 (since 2012)

Figure One
History of University tuition fees in England and Wales

lengthy and convoluted but importantly "what is at stake is whether universities in the future are to be thought of as having a public cultural role...or whether we move towards re-defining them in terms of purely economistic calculation of value and a wholly individualistic conception of 'consumer satisfaction'" (Collini, 2012). Through examples of historical change and exploration of new ontological fields this report attempts to frame why, for the future of our planet, it is important that universities design departments are able to retain space for research and exploration and ensure that design education be seen as a societal good rather than an individual career investment.

Material Culture has become a key field of study spanning a wide range of scholarly fields "as seemingly disparate as cultural anthropology, consumer behaviour, international marketing, semiotics, and human geography" (Scarpaci, 2016, p.1) but it wasn't until the 1980s that Material Culture saw "an increased scholarly interest in the subject" which were "largely uncoordinated responses to a perceived scholarly need and opportunity (Prown, 1982, p.1). The rise of Material Culture allows us to view an object as "just one type of 'thing' among other 'things' that make up a summation of the material world," allowing the object to become a "vehicle through which to explore the object/subject relationship" (Attfield, 2020, p.9). The field of Material Culture Studies (MCS) has had pronounced influence, creating a shift of importance to the everyday objects which impact our human lives. Through MCS "we can better understand both social structures and larger systemic dimensions such as inequality and social difference, and also human action, emotion and meaning (Woodward, 2007, p.4)," the result of MCS popularity is visibly widespread, not only across current culture but also in design courses at a higher education level. Material Culture usually features as a separate module in most design degrees from undergraduate to postgraduate. There are even degrees specifically in the subject; for example the Material and Visual Culture MA at UCL.

However, a focus on the teachings of Material Culture which often have an anthropocentric approach with a tendency to anthropomorphises objects is only one way to view things.

Anthropomorphism is a tool that is widely used across MCS, from the Marxist theory of commodity fetishism where "anthropomorphism is one of the most significant instances of the fetishism of the commodity" (Highmore, 2009, p.39) to Judy Attfield's chapter on 'things with attitude' which discusses the "disreputable wild and dangerous rabble of 'objects that talk back' " (Attfield, 2020, p.26), the use of anthropomorphism to describe objects is well engrained in MCS theories. Its exploration of our object-subject relationships uses an entirely human perspective, it is argued that the object-subject relationship view point has "created the space for…violence and waste…and this thesis is manifesting in the world around us" (Johar, 2023). Anthropomorphism, in itself, is not inherently damaging but by viewing everything from a human perspective MCS employs the use of anthropocentricism, "to engage in anthropocentrism is to perceive humans at the center of reality; to engage in anthropomorphism is to perceive reality in human terms. (Malafouris, 2013, p.131)."

Anthropomorphism, rather than anthropocentrism, can be a useful tool in encouraging empathy and one which is often used by environmental activists. Figure three shows an image taken from a campaign by the World Wide Fund for Nature (WWF) to raise awareness around deforestation. The advert is "personifying forests and associating them with lungs in order to create fear and guilt" (Cass, 2014). Although anthropomorphism can be a useful tool it is important to note that "anthropomorphizing rhetorics need not be anthropo*centric"* (Schmitt, 2023 p.2). Where anthropomorphism has the ability to create a relatability to the world around us it does not, in itself, place humans at the centre of its perspective.

Figure Three
WWF campaign raising awareness of deforestation

MCS's object-subject relationship approach places the human experience at the centre of its exploration, considering the human emotions and attachments created by the interaction with the object. Arguing that anthropocentrism is, a "bad intellectual habit, characteristic of Western modernity that we need to overcome" (Malafouris, 2013, p.131), many environmental scholars campaign for a less anthropocentric view in order to remove the human-ness and, in turn, foster a deeper respect for other species. In the face of a planetary emergency contemporary theorists are "compelled to explore the significance of complex issues such as climate change or global capital and population flows…" (Coole, 2010, p.5), environmental scholarship is increasingly exploring the removal of anthropocentrism and encouraging that we instead "reject human/nature binaries,

embrace transcorporeal conceptions of terrestrial phenomena, and attend to non-human, extra-human, and more-than-human systems of meaning-making" (Schmitt, 2023, p.601).

One theory that has explored an alternate vantage point is Actor Network Theory (ANT) which teaches that the roles which both non-human and human counterparts play are equal and "the social is 'flat', made up of a single layer of associations amongst human and nonhuman entities" (Michael, 2017, p.4). Although

Figure Two
Photographs taken from the non-human actor perspective

ANT is notoriously difficult to define as one theoretical framework it, in general terms, promotes the use of taking a view from non-human 'actors' perspective as well as human. This aspect of the theory has filtered into many areas of study including anthropology, education and design research. One piece of design research which uses the principles of ANT is a 2016 investigation by Think Tank which looks at the implication of a 'thing perspective' as shown in figure two. The research uses the perspective of non-human objects, challenging the thought that "possibilities for creativity and innovation and bounded only by human imagination and capabilities" (Giaccardi, 2016, p.1) and instead considering what "social actors, may reveal about the types of social relations and power dynamics that inhere among things" (Giaccardi, 2016, p.1). The study concludes that bringing in a non-human perspective could open up a new way of understanding and problem solving. This piece of research supports the idea that design research has much to gain from exploring contemporary theories and leads to question what we might achieve quicker should an increased focus be given over to this in the face of climate change.

Turning to thinking for sustainability, ANT has been criticised for its use of anthropomorphism which destabilises the theory's key framework of non-human actors perspectives being equally as valued as a humans, "speaking about things as agents seems to imply a personification of the inanimate and thus an illegitimate ascription of human form and attributes to the non-human" (Malafouris, 2013, p.130). ANT explores the idea that humans respond to objects just as much as objects respond to humans, for example in the research by Think Tank (figure two) the study noted that after setting the kettle to boil human participates would participate in other activities such as washing dishes before responding to the kettle once boiled. The authors of the

study believe that "a thing perspective challenges anthropocentric assumptions about the world and opens up new ways of understanding objects, people and use practices" (Giaccardi, 2016, p.11). However by concluding that employing a 'thing perspective' has enabled "novel insights about the role of objects in human practices" (Giaccardi,, 2016, p.12), the research is concluding its' findings by reverting back to an anthropocentric perspective, focusing on the impact on human lives and seeing thing from a human point of view. "It is ANT's use of anthropomorphism to create an anthropocentric perspective which has brought the theory under criticism, arguing that, in personifying 'actors,' ANT loses "sight of all difference between what a thing is and what a thing does" (Harman, 2018, p.109).

More recently the late 1990's school of thinking Object-Oriented Ontology (OOO) attempts to view an object as "more than what he is made of and less than what he does" (Harman, 2018, p.110) in an attempt to level out the social playing field and encourage the idea of a 'flat ontology' in which all things are equal and "there is no ontological privilege for humans" (Pinho, 2023, p.4). Criticising philosophical approaches tendency to place an "implausible taxonomy between human thought on one side and everything else in the universe on the other" (Harman, 2018, p.56) OOO frames that no object or even fictional concept's way of existing is of any less import than a humans, it does not deny that "humans are a remarkable species of living creature" (Harman, 2018, p.56) but identifies that even if human beings are more capable than all other beings in existence this should not "automatically make human beings worthy of filling up fifty percent of ontology" (Harman, 2018, p.56). This way of viewing anything non-human as 'everything else' has been explored by several environmental voices who have argued that the removal of an anthropocentric view is key in our fight against climate change as, the planetary and biodiversity challenges that we are facing are not "a crisis of the outside world, they are a crisis of our relationship with the world" (Johar, 2023) and that without "reconceptualisation of the self and our thesis of the self" there is no "pathway to addressing the problems" (Johar, 2023).

One response that has used the principles from OOO and other contemporary theories is an exhibit by the Royal Academy of Arts. Hosted in 2020 their exhibition 'Eco-Visionaries, Confronting a Planet in a State of Emergency' explored how artists and designers have responded to environmental issues, the exhibition was accompanied by a series of talks and as a whole intended to "propose ways to intervene so that a more empathetic relationship between humans and the natural world can be forged without further damage" (Delicado, 2020) tying together contemporary theories with design responses. One installation featured as part of the exhibition was 'The Substitute' (figure four) an AI recreation of the last male white northern rhino exploring "our preoccupation with creating new life forms, while neglecting existing ones" (Ginsberg, 2019).

'The Substitute' has consistency with OOO in its' exploration of humans placing an inflated import on themselves as a species, as well as a consideration around the 'real' and the 'artificial' questioning if the extinct rhino "coming to life divorced from its natural context, is a better substitute for the real?" (Ginsberg, 2019). In the accompanying talk Timothy Morton, member of the OOO school of thought, discussed the importance of speaking about

Figure Four
The Lost Rhino by Alexandra Daisy Ginsberg

humans in a way that isn't 'species-ist' thinking instead about the human species as "a 'hyperobject,' an entity that's so massively spread out in time and space that you can't point to it all at once" (Morton, 2020). Design is a subject area which "has always had an androgynous character" (Attfield, 2020, p.30) often working cross disciplinary. Design research continues to work across specialism boundaries to explore solutions and new ways of thinking. The 'Eco-Visionaries' exhibit is an enlightening example of the tying together of design with ontology, observing the effects that exploring new ways of thinking can impact design responses.

In July 2022, Future Observatory, Arts and Humanities Research Council and the Design Museum launched "a multi-million-pound fund that brought UK design researchers, universities and businesses together to catalyse the transition to net zero and a green economy." (Future Observatory, 2024) One strand of its' design research is 'Design Accelerators' who are working to build engagement between universities and their local communities, the work is an attempt to demonstrate that design research and innovation at university level is vital for a community transition to a greener economy (Future Observatory, 2024). Future Observatories is the largest public funded design and innovation research programme in the UK, in just the first year of launch its achievements included; the redesign of council policies to support food sustainability, catalysing a sustainable fashion brands goal towards net zero and developing a data wiping solution that has enabled the safe reuse of electronic devices (Loebig, 2022). Considering that "the combined budgets of seven research councils in the UK amount to some £3 billion, but only around 3% of this goes to

the Arts and Humanities Research Council (AHRC)" (Collini, 2012) this is an impressive list of early achievements, supporting the need for a rise in profile around the contribution design research can make to communities in the face of climate emergency.

In the face of climate change and environmental concerns we are having to "think in new ways about the nature of matter and the matter of nature (Coole, 2010, p.6). The design responses referenced throughout this report created on the foundations of contemporary theories demonstrate their influence on design in practise and, with evidence that MCS being taught consistently in a structured way has created a wide spread shift in thinking and acting, leads us to consider the acceleration that might be achieved towards creating the paradigm shift needed to foster a more sustainable future should universities have the resource to allow a structured inclusion of contemporary theory and an increased focus on experimentation and research. Given that "hope rests with an affirmative ethics of sustainable futures, a deep and careless generosity (and) the ethics of non-profit at an ontological level" (Braidotti, 2010, p.216) it is vital that universities have the time, space and funding that allows for design exploration for an environmental and therefore societal good.

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Images

Figure One- Barr, F (2011) *Table 7- History of tuition fees at Universities in England and Wales.* Source: Maršíková, K & Urbánek, V. (2013). Investment in Education: Earnings and Returns (online). Available at: https://www.researchgate.net/figure/History-of-tuition-fees-at-public-Universities-in-England-and-Wales_tbl4_261173455 (accessed: 18/03/2024)

Figure Two- Giaccardi, E, Speed, C, Cila, N, Caldwell, M (2016) *Figure 2: Format of the Photographs Taken by Autographers (from a cup's perspective)* 'Things as Co-ethnographers: Implications of a Thing Perspective for Design and Anthropology,' *Research Gate,* doi: 10.4324/9781003085188-19

Figure Three- WWF (2008) *The Earth's Lungs.* Source: Cass, S (2014) *The Earth's Lungs, Propaganda for Change Blog,* 23 January. Available at: https://persuasion-and-influence.blogspot.com/2014/01/the-earths-lungs.html (accessed: 28/03/2024)

Figure Four- Ginsberg, A (2019) *The Substitute.* Source: Ginsberg, A (2024) Alexandra Daisy Ginsberg. Available at: https://www.daisyginsberg.com/work/the-substitute (Accessed: 01/04/2024)