BEYOND SPECULATION – Using speculative methods to surface ethics and positionality in design practice and pedagogy.

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INTRODUCTION

Design rhetoric is full of temporal assertions of 'change', 'transformation', 'innovation' Maze (2017), but these assertions point to not just to any possible future but specific and preferred futures. Futures, that design helps bring into being through. As such, Design is deeply and intrinsically political, but for the largest part without reflecting on, or declaring, its implicit biases or intents (Fry 2015, 2010). Whilst speculative methods might sit easily with design methods; as design is already future directed and future making (Yelavich, 2014; Gunn, Otto and Smith, 2013), design also has a knack of technicalising and commodifying methods at will (Hunt 2011), with demands for positionality and foundational ethics often viewed with suspicion and judged as partisan (Tonkinwise, 2019; Fry, 2015). We propose that design education has a much larger role to play in the making and un-making of design practices and visions beyond dominant ontologies and to bring into being more 'liveable' social, political and environmental futures - 'futures yet un-thought' (Grosz, 1999).

The paper explores the relationship between speculative design and ethics, both within and beyond the context of design pedagogic research. It examines some our struggles to, and motivations for, engaging with speculative methods in design as design scholars and practitioners, by reflecting on research which aimed to explore whether speculative, future facing design curricula would have an impact on raising design student's awareness of design's agency, beyond the micro-environment of specific design disciplines or disciplinary industrial contexts.

The focus of the pedagogic research was a first semester project worked on with MA Design students over three years with three cohorts of students. The project was called 'Design Futuring the City' and had international cohorts of students from a cross-disciplinary design programme working on designing specific social and material futures for their home cities. Those futures were developed from a wide range of futurologist predictions; informed and supported by critical design theory and design anthropology. We discuss how findings suggest that speculative methods can encourage students to develop an understanding of how design simultaneously 'futures' and 'de-futures' (Fry, 2015). We reflect on, to what extent, it has made ethics and positionality visible to students and their sense of their potential material agency in future-making as designers.

We draw on feminist theory and critique to go on to argue that speculative methods *could* help the design discipline to break out of its oft wilful ontological blindness (Escobar 2013, Fry 2015), but in order to fulfil their full critical and transformative potential, foundational ethics, and questions of positionality, require equal status around the table. If speculation is to facilitate the surfacing of issues around positionality and foundational ethics within the design curriculum and beyond, contestations central to feminist critique such as 'what futures and who's futures' (Ahmed *et al.*, 2000) are needed.

SPECULATION IN DESIGN

Over the past decade; speculation has become an increasingly potent tool for research, thinking and study across a wide range of discipline such as sociology, politics, geography and design amongst others (Moffat, 2019). In relation to design, Appadurai (2014) points out that 'Designers and design scholars have always understood that there is an obvious kinship between design, innovation, and newness and, thus, that design is a natural ally of futurity.' (ibid., p. 9)

Speculation gained a much wider audience as a distinct approach or method within design after the publication of Dunne and Raby's 'Speculative Everything' in 2013, though scholars point out that speculation has been central to many practices and movement in art and design for a long time (Rosenbak, 2018; Martins, 2014; Tonkinwise, 2015). Speculative design is also often talked about in correlation with design fiction, with the difference in terms and application, dissected and mapped out inconsistently by different design scholars (Lindley et al., 2018). Distinction are often explained as, - design fiction dealing with far futures and world building, - while speculative design materialises near futures or parallel presents (Malpass, 2017).

Initially, many of these alternate scenarios were technology centric, and the method(s) were seen a useful tool for 'testing' user acceptance of technological soft and hardware, yet to exist or to become mainstream (Auger, 2013). Malpass (2017) describes that: 'Speculative design is concerned with developing technology or science and projects possibilities. Often these innovations are yet to be appropriated into everyday life' (p.117). More recently, the approach has broadened to dealing with social, economic, political and environmental issues (Mitrović, 2015) and the idea that 'speculative design is the process of addressing big societal issues with design processes and system' (Ho Tran, 2019) has now become quite mainstream. Lindley *et al.* (2018, p.133) suggest that speculative design asks questions about '*possible futures*' as opposed to design which 'answers questions...to *create* futures', they (ibid.) propose that design fiction is a specific method of speculative design, which uses world building through the design of fictional artifacts and systems that materialise these worlds (Lindley *et al.* 2018).

But, Martins (2014) suggests that 'speculative design' and 'design fiction' is primarily a differentiation of term, with speculative design being more widely used in Europe and design fiction more commonly used in the United States (ibid 2014). And indeed, the US science fiction writer Bruce Sterling is often credited with coining the term 'design fiction', whilst speculative design is traced back to interaction design curricula at the Royal College of Art, developed by design researchers such as Dunne and Raby (Auger, 2013). Both speculative design and design fiction are framed as a method; methodology; a design technique; a research trend; a genre or a tactic; amongst an expanding list of other terms (Rosenbak, 2018; Gonzatto *et al.*, 2013; Malpass, 2017). Design scholars agree that both speculative design and design fiction are located within the field of critical design practice (Martins, 2014; Tharp and Tharp, 2018; Malpass, 2017; Rosenbak, 2018). Speculative design is also discussed as speculative critical design (SCD) and critical speculative design (CSD), which make its genealogy in critical design more explicit but also shows the fragmentation of terms within the discipline.

Tonkinwise (2014) contests that to add any qualifiers such as speculative, critical, fictional, etc. to the term design, should ultimately be viewed as mere tautology which only serves to frame design as an instrumental technical task, with aspects of it to be picked up or discarded at will. He insists: 'Designing that does not already Future, Fiction, Speculate, Criticize, Provoke, Discourse, Interrogate, Probe, Play, is inadequate designing' (ibid). Furthermore, in 2019 he proposed that any potential resistant powers that speculative critical design (SCD) may have had is ultimately already nullified by a contemporary politic and media landscape where 'deepfake videos and shitposting meme wars' are eroding our sense of the real as a matter of daily routine (Tonkinwise, 2019). He does however remind us that 'all studio-based design education involves making speculations, which, when done on the basis of an adequate education, will have critical aspects' (ibid).

Design is often critiqued as a discipline void of any discernible moral compass. As a discipline, it emerged as an agent of capitalism and western design education matured primarily closely entwined with industrialisation and mass production (Souleles, 2013; Thackara, 1988; Papanek, 1971).

Thackara (1988) pointed out that 'Because product design is thoroughly integrated into capitalist production, it is bereft of an independent critical tradition on which to base an alternative' (p.22).

Design scholars have long criticised the disciplines apparent lack of desire to sever its apron strings with capitalist industry and instead establish itself independently through theory and discourse. Thackara (1988) explained that for the most part governments of industrialised nations traditionally didn't see a need to either promote or fund theoretical design research and that design education had remained vocationally focused for many decades (ibid). Three decades have passed since Thackara advocated for the discipline to adopt a more critical approach 'to a subject which has far too long been considered either neutral or 'technical'' (1988, p.7). Yet, these issues remain potent both within the disciplinary discourse and within design education.

One might assume that without criticality an adequate discourse around ethics and positionality could not be developed and matured. But it often appears as if that hasn't stopped design from trying to do just that. Discourse around foundational ethics or declared positionality have been hard to come by even within critical design practice:

> 'Over the past several years, critical design practice has received increasing attention in design research, education, and practice but only recently in design research has critical design been viewed as a form of design where ideological basis and theoretical grounding are a requirement' (Gonzatto, *et al.*, 2013, p.36)

But to this date, even practices which specifically situate themselves within critical frameworks, such as critical design or discursive design, are at best hesitant or at worst downright reluctant to ask designers to take or declare a specific stance as part of their practice. In a recent expansive book publication on discursive design, which describes speculative design and design fiction as some of its practices, the authors point out that within design literature 'academic underpinnings and theoretical articulations are relatively feeble' (Tharp and Tharp, 2018, p.19). They frame discursive design as a way for designers to 'communicate and engage more deeply and intellectually with individuals and collectives' (ibid., p.24) and 'as a means through which ideas of psychological, sociological, and ideological imports are embodied and engendered through artefacts' (ibid., p.24). Yet, at the same time the authors offer the designer the option of neutrality, because as they posit - criticality either invokes simplistic notions of being negative or is too complicated for designers to engage with (ibid., p.24). Thus, they suggest that:

> 'Discursive design offers the possibility, not the necessity, of a critical stance. Not requiring criticality saves discursive designers from being improperly judged by different and higher standards that they may not find relevant' (Tharp and Tharp, 2018, p.25)

This is, in many ways, a very typical example of how design at once positions itself as a critical practice, whilst at the same time refuses to be held accountable within wider critical discourses. Following that logic, the best a designer might ultimately aspire to, is to competently materialise some form of discourse, without ever really needing to comprehend its implications.

Designs' refusal to meaningfully engage with ethics and positionality has been an ongoing frustration for practitioners and scholars from a wide range of disciplinary backgrounds, because it means that much of the disciplines output is an uncritical reproduction of normativities. In the context of speculative critical design (SDC) Martins and Oliveira (2015) critique, that whilst it 'seems to spare no effort to investigate and fathom scientific research and futuristic technologies, only a small fraction of that effort seems to be directed towards questioning culture and society beyond well-established power structures and normativities' (ibid., 2015, p.64). They highlight that visual and conceptual narratives in speculative design primarily reflect the people who are designing them, - pre-dominantly white, western, middle-class, male and straight. Furthermore, they critique that the

designers remain primarily silent around issues of oppression in relation to capitalist, heteronormative, sexist, racist and classist societies and rarely reveal a definite positionality or ethical stance through their work.

Kwandala (2019, para. 16) highlights this underlying ontological stance, when she quotes Danah Abdulla: 'For far too long, designers have remained married to the concept that what we do is neutral, universal, that politics has no place in design,'. She further rebukes the idea of 'design neutrality' and insists that all design choices are intrinsically political: 'With every design choice we make, there's the potential to not just exclude but to oppress; every design subtly persuades its audience one way or another and every design vocabulary has history and context' (ibid. 2019, para. 16). This effectively means that in reality we do not practice any part of design without a positionality, without ethic, without politic. The question is only whether we do so knowingly.

Martins and Oliveira (2015) take a dim view on speculative designs' capability of even grasping the complexity of these issues beyond a shallow perspective, which they trace back to its tenuous grasp of the social sciences and humanities. This, they propose, results in 'perhaps, the most defining trait of a teenaged field: the ironically anachronistic nature of a practice that creates futuristic gizmos for profoundly conservative moral values.' (ibid., 2015, p.65). But the critique of speculative design goes beyond its apparent inability to take a meaningful stance on social and cultural issues. It also attracts criticism for its oft unreflective modernist art –school aesthetic, where stylistic renderings of 'the future' amount to nothing more than to, what Tonkinwise (2019, para. 4) describes as, the 'aesthetics of fashion editorial or neo-noir cinema' representing the reproduction of uncritical visual politics. In many ways, this lack of criticality points towards designers' ontological entrapment within a modernist, capitalist, worldview. Even at the point of attempting conceptual criticality – their own embodied aesthetic sensibilities remain largely invisible to themselves and thus remains uncritiqued. Even if it is true to that to at least some extent, 'Design exists because capitalism absorbed modernist art' (Tonkinwise, 2015, para. 52), it can still appear baffling that a discipline as highly trained as design, in generating 'the new,' can be operating in such a consistently conservative and uncritical bubble. As part of this weakness has to be traced back to how designers are trained and how their training does often not go further than competently reproducing aesthetics and concepts which are deemed acceptable within their community of practice (Levick-Parkin, 2017), we feel that design education has an absolute duty to do better. It is perplexing that disciplinary arguments persist which insist that because design has its own way of generating knowledge through materiality, it has no need to engage in other disciplines discourses in order to validate its own. This is a very insular and deeply flawed way of positioning human ways of knowing through materialism and craft. After all, so many scholars from a broad range disciplines such as philosophy, archaeology and anthropology, amongst many others, have put their scholarship towards making visible how materiality and practice based and experiential ways of knowing, are as important to human knowledge as those conceived to be of a more academic or theoretical nature.

SPECULATION IN FEMINISM
We came to our speculative design curriculum in a haphazard way. We had knowledge of speculative design and design fiction and their contested mapping and roles within the field, but our desire to create a speculative space within the design curriculum, was not primarily informed by speculative design, but inspired by our engagement with speculative feminism.

The MA MFA Design programme had been written by one of us in a future facing manner when it was first launched in its current incarnation seven years ago. Its primary focus was on social innovation; influenced by the DESIS network, which was working towards re-evaluating the role of the designer in society and their responsibility to it. The curriculum was conceived around themes

from critical design and design for social innovation. Three years ago, we re-focused this and decided to introduce the first semester projects as a speculative design brief. One of the things we wanted to achieve was to design a curriculum that would encourage students to design with questions of positionality and ethics at the core of their projects. Having previously often tried and only moderately succeeded in engaging design student with these in a theoretical way, we considered speculations about futures a possible way of doing this more holistically and embedded in their practical work. And it was our own immersion in speculative feminism and new materialism which was informing us most of all. Writers such as Donna Haraway, Karen Barad, Elizabeth Grosz and Doreen Massey amongst others, had motivated us to try to situate our design research and teaching in a questioning stance towards traditional design ontology. It was feminist speculations which actually gave us the headspace to consider design as a way of *being* and *becoming*, beyond disciplinary boundaries and industrial contexts. It was this headspace we also wanted to create for the students and our aim here is to make visible how our feminism and engagement with feminist theory and practice act upon our own design decisions when making the curriculum.

In many ways, it makes perfect sense that our drive came from within a feminist framework rather than speculative design. Feminist theory and practice has had a robust and rigorous critical relationship with the future and with speculation, built on much more radical and expansive foundations than any design research and scholarship could possibly put a claim to. It's acute critical awareness of how time and space are sites of epistemological and ontological contestations and transformations means that feminist speculation has always been existential.

> 'Various, usually implicit, concepts of time are relevant to and underlie many of the central projects of feminist theory, theories of law and justice, and the natural sciences and their relations to the social sciences and humanities. Questions about culture and representation, concepts of subjectivity, sexuality, and identity, as well as concepts of political struggle and transformation all make assumptions about the relevance of history, the place of the present, and the forward-moving impetus directing us to the future. (Grosz, 2005, p. 1)

Feminist scholars frequently point out that feminist thought, theory and activism centres around both imaginations and demands of different futures (Grosz, 2005; Ahmed, 2016; Sargisson, 1996). Grosz (2005) points out that in order to imagine futures beyond patriarchal constructs feminism *had* to address issues of ontology across a broad spectrum of human knowledge and experience and describes these as questions of 'becomings':

> 'how becomings are possible, what forms they take in biological, cultural, political, and technological processes, what transformations they might effect and what implications they have for how we understand ourselves and our world.' (Grosz, 2005, p. 2)

She highlights Irigaray's insistence that this is not a project which seeks definite ends but entails a commitment to the re-negotiation of the very concept of order and solution.

> 'Irigaray makes it clear that a transformation of ontology, our conceptions of what is, entails a transformation in our conceptions of epistemology, how we know, in the ways in which we understand space and time, which in turn transform our conceptions of matter, subjectivity, and politics.'(Grosz, 2005, p.173)

Grosz (2005) conceptualisation of 'becomings', highlights a critical engagement with the future through speculation that is a complex open ended process which continuously seeks to 'trouble' the most fundamental aspects of how we understand the world. This, if done properly, is an arduous and often punishing task in any discipline or school of thought, because conventions have to be broken on a personal level in order for those thoughts to be thought in the first place. And these speculations, and with them new ways of seeing, are not just abstract concepts, but also become

visible as and into conflict with material realities. Ahmed (2016, p.43) explains how 'power works as a mode of directionality, a way of orienting bodies in particular ways, so they are facing a certain way, heading towards a future that is given a face.'(ibid., p.43). This directionality is important as it enables the envisioning of destinations which can be critically evaluated.

In design, we conceptualise this human habit of shaping the world as design thinking and material agency – the human impulse and capacity to transform their environment in order to improve their existence. In a way, it is a form of hope in the possibility of the future, which is then backed up by intellectual and material capability. We would argue that, for the most part, the way in which the world is materially constructed is governed by how it is socially constructed. Thus, design needs to have the capacity to shape its material ontology consciously if it wants to seriously engage with questions of how it is situated within and realised through social constructs.

Much of the feminist project seeks a future directed temporality where the construction of new and different ontologies appears possible and Sargisson (1996) reminds us that the construction of alternatives is an essential function of utopianism and without it feminism would grind to a halt (p. 92). She highlights that feminist utopian frameworks were largely conceived to address issues of gender oppression, but that - since gender is not the only site of oppression, - the frameworks methodological commitment to multiplicity and open-endedness, has a much wider role to play in the construction of new ontologies. Sargisson (1996) suggests that utopianism can have a transformative function which goes beyond material change, - utopian thought can evoke and permit conceptual change: 'By employing various tactics of estrangement, utopian thought provokes a certain distance from the present which permits the creation of new conceptual space' (ibid., p. 101). We suggest that conceptual change is necessary in order for material change to be meaningful. And conceptual change is not possible without positionality, because otherwise the direction of change cannot be consciously affected. By raising questions of positionality and ethics in relation to utopian or dystopian judged futures, we hope to make students conscious of the directions of change they might be designing towards. Haraway (2019) reminds us that materialism is never simply representation but always situated meaning-making, - it is a semiotic materialism. Speaking about the importance of semiotic materialism and how it has claims to knowledge through being an essential part of discourse, she explains:

> 'They are questions of worlding and all of the thickness of that. Discourse is not just ideas and language. Discourse is bodily. It's not embodied, as if it were stuck in a body. It's bodily and it's bodying, it's worlding.' (ibid., para. 31)

Materiality is an essential part of discourse and you cannot have a meaningful material discourse if you are not prepared to engage with what your material practice means within the broader context of the world and how it acts upon and within it.

In the classroom, we only tentatively direct the students towards an engagement with speculative feminism and feminist materialism and ethics, because we do not wish to force our ethical framework onto them any more than we are already doing through the design of the curriculum. We do however, make it transparent that it central to our own positionality and ethical consideration and students are introduced wide range of critical frameworks including intersectionality and design justice for example. But the aim is for students to choose their own paths to surfacing ethical frameworks and critical practices in their design work, whilst realising that becoming conscious of their own biases and positionality is an essential part of achieving this.

The next section of the article describes how we have used speculative design methods as part of our curriculum design. It gives a situated example of how our previous discussion connects to our professional making within design education.

DESIGN FUTURING THE CITY

The Project
Here we are reflecting on some of the work and research that has taken place in relation to the kind of teaching that we have been doing for the last three years during the first semester of an MA/ MFA Design programme at a post 92 University in northern England. The programme has students from different design disciplines such as product, interior, graphic, interaction, illustration, fashion, packaging and jewellery & metalwork design. Our cohort is both national and international. Most year groups include a certain number of UK and European students, but the majority are from further afield, from China, India, Iran, Syria, Iraq, Yemen, Turkey, Vietnam, Taiwan, Mexico and Brazil amongst others. Around 70 percent of the cohort is usually female. The majority of students have previously completed an undergraduate degree in their specific discipline and for the overseas students this is often the first design project in UK education they have worked on. We as staff, are primarily white European, middle-class; and female, - educated to MA or doctoral level.

The Brief
We wrote a design brief for the students to work on during their first semester called 'Design for (speculative) Social Innovation: Design Futuring the City'.
- We chose 'their city' as a boundary within the brief, in order to encourage students to envisage futures for their own particular cities/homes across the world.
- We talked to them about concepts of heritage and intangible heritage; and how culture and material practice might be located there - both in the past and in the future.
- We introduced them to speculative design approaches and they had workshops and lectures to introduce them to design research methods running alongside their project work.

The briefing told the students:

'design futuring the city is a project designed to introduce you to ways in which designers change the world and how this may impact on all of our futures, whilst developing your individual design practice.'

It asked them to:
*'Create a designed outcome that materialises a particular future prediction in form of a speculative social innovation: For this brief, you will need to identify **one** issue/prediction, which may potentially affect your home city/town/country in times to come. You need to look at least 50 years into the future and come up with a designed outcome which materialises this prediction in a speculative way. You will be given particular themes loosely based on the UN sustainable development goals.'*

'There are many predictions and forecasts out there about issues that will impact on how we will be living in the future. No-body knows exactly which ones will turn out to be true, but as designers we have the ability to imagine the future and put our skills and material knowledge towards/or against creating particular futures.'

'You will design and produce something that is a material artefact suitable to your specialist area. As you are designing for the future, these outcomes will be concept pieces, which means that although they have to look finished, they do not have to physically work. Each design outcome needs to be submitted within a body of work that communicates your design's use and application. This will include a project report, a moving image piece and other supporting work like sketchbooks and/or

evidence of material experimentation for example. These will be curated by you in a pop-up exhibition in the design studio.'

Ethics & Positionality
Running alongside the design brief the students all studied a module called 'theory supporting practice' which included lectures, workshops and seminars. The module's aim is to extend student's knowledge of design research methods, so that they can identify, evaluate and apply research methods appropriate to their practice. The students are introduced to research ethics and positionality, both as theoretical frameworks but also during workshops where they explore materials led research, ethnography, participatory methods, amongst others. All workshops have a material and making element to them and there is a common theme across all activities that focuses on 'knowing through making' (Mäkelä, 2007, p. 158). As part of those activities, there were seminars to guide discussions about the impact of ethics and positionality on design and contextual analysis of how choices made during the design process have consequences in the wider world and how to attend to this during the design process. These themes were then picked up in the speculative design project and contextualised based on the individual student's theme.

We asked students to examine their future predictions in relation to what they might consider utopian or dystopian futures. This was also picked up as part of a seminar where we discussed that that what might be perceived as utopian for one person, might be considered dystopian by the next. We asked them: 'Why might this be?' We explained that by exploring these differences they might uncover their own positionality in relation to futures they were proposing and materialising. We asked them if there were commonalities in what people considered utopian and dystopian and to try to weave these questions into their making and to then make these discussions visible in how they were describing their future worlds.

Within this project we were aiming to create an educational space in which the students could start to ask questions of the term 'social innovation' and the designer's role in this context and within broader social, political and environmental issues. We intended to use speculation and fiction to put the students in the position of auteur, - the makers of worlds, which we would hope would make visible the impact of their material agency as designers upon the world. We hoped that by making visible their agency as designers, we would be able to surface how issues around positionality and ethics are an intrinsic part of this agency, whether explicitly or implicitly.
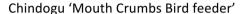
To reflect upon the project, we asked ourselves questions in terms of what we hoped the brief would achieve and what kind of space it would create for the students' creative practice. This is the basis of our research question:

- What effect do speculative design methods have on students' awareness of their *design* agency beyond the micro-environments of artifact creation and disciplinary context?

Chindogu
As the students initial research would be primarily desk based, we thought it would be good for them to start making something straight away and so we asked them to create a chindogu. Chindogu is a term for inventions that are meant to be useless. Originating in Japan, they are inventions based on a balance of anarchy and ignorance. This was their first speculation materialised. Chindogu is ultimately a quick way of prototyping seemingly silly ideas. Creating crude design outcomes to communicate a simple concept. 'A successful Chindogu elicits laughter as well as giving space for thoughtfulness' (Chindogu Society, 2019, para. 2). The students had a day to produce theirs and then presented them to the group.

Chindogu 'Mouth Crumbs Bird feeder'   Chindogu 'Daily Karma Meter'

Chindogus have rules:

'No crude humor of the "fake dog poop" variety. No language dependent gags. Nothing that might prove commercial or be mass-produced for sell at the joke shop. A chindogu should come from the same place that a truly useful invention does. It should seem at first glance like it's actually going to fill a need, but only on closer observation reveal itself to be not quite right. 'It's that twist that brings the smile. And it's that smile that makes the art worth practicing. Chindogu are not useful, but neither are they useless. They are "unuseless."' (Chindogu Society, 2019, para. 3)

What is interesting about chindogus as a teaching tool is that they are very effective in facilitating student's reflection on the process of speculation in an accessible way. Throughout the project the students and tutors would come back to them, asking questions like: 'In what kind of world would your chindogu have been an essential item to have, - what would have been that worlds belief system, ecology, economy, etc.?'. This helped the students frame their main design speculation throughout, because they realised how they could situate their designs within an alternative world, which made them 'real'.

In the following section we review the project, by drawing upon analysis of students interviews and we use direct quotes to illustrate key moments of reflection. We situate these with disciplinary theory and our own personal reflections on ethics and the influence of positionality.

REFLECTIONS ON PRACTICE – DESIGN FUTURING THE CITY

There is limited space here to fully reflect on all the data created in relation to the 'Design-Futuring the City' project. We received internal funding from Sheffield Hallam University, which meant we were able to employ five students on the project as researchers. We went through different phases of date collection and analysis. These included:

- Visual Analysis of 48 project reports from one cohort by four staff researchers.
- 10 projects chosen for close reading of emerging themes
- Evaluation of 16 digital questionnaires
- Five student interviews conducted by student researchers
- Four student interviews conducted by one staff researcher

Here, we use the headings 'The Future', 'The City' and 'The Heritage' to organise the following discussion to highlight some aspects of our thematic analysis of the experiences of students working on the project and reflections of staff on the reasoning for framing the brief as we did.

The Future

We wanted the students to work on an explicitly speculative, future directed brief for a range of different reasons:
- It would introduce them to a wide range of design methods and skills, from ideas and concept generation to material research and exploration.
- It would allow then to explore a range of potentially difficult political and cultural themes and subjects, whilst situating them at a 'safe' distance.
- It would give them space to evaluate their designs in the context of an either desired or undesired future yet to come.

Maze (2016) points out that: 'The future exposes basic philosophical questions about our assumptions and worldviews. That things can be different also raises political questions about what can, or should, change and difference that makes.' (ibid p. 38). For us this meant that we could situate design as a material practice right in the middle of this questioning and explore how speculation with concept and material could be made relevant to the students' specific design discipline. We asked students if they had ever worked on a speculative future directed design brief. None the 16 students surveyed in one year's cohort, had ever worked on a design for social innovation before, nor on a brief which had asked them to design for a future scenario or world.

One student commented - 'Not, really – I mostly worked … a client, you wanted this, you made it.'

Khandwala (2019, para. 12) highlights that 'Designers are trained to be chameleons: We shape ourselves to whatever brief comes our way.' She points out that this presents severe limitations because in many instances, designers 'cannot begin to identify with the lived experience' of the audiences they are trying to communicate with (ibid., para. 12). But her description of designers shaping themselves to 'whatever brief comes along' does not only highlight how this is ultimately compromised by each designer's 'lived experience', but also the limited agency an individual designer might feel they have within the design work they are doing. This limitation of agency is not necessarily felt as a curtailing, but becomes a badge of professionalism – we are professionally trained to put our making skills into the service of the client. Most of the time in commercial practice our agency is circumscribed by the clients' needs and realities. For most designers in industry the skill is to materialise the world based on demand.

Thus, positioning the students as auteurs, with agency beyond the material artefact, is in many ways subversive and some students expressed their unease with their expanded role and questioned the point of working in such a way during the student led reflective discussions:

"I have a question though. Do you think it will be useful for your commercial projects and employers? I think a lot of employers in my opinion do not appreciate it. They'll be like, OK, cool you have creativity, but then let's get down to what you can do in actual life."

This is a valid concern for a design student who has already been training for three years and has had some experience of commercial design practice, - it makes visible how they experience that, expressing agency beyond commercial application, is potentially detrimental to their own market value and credibility. By asking them to explore their agency and with that their positionality we were to some extent undermining their trust in us being competent design educators.

Some students also questioned the 'use' of designing anything so far into the future. We heard this repeatedly in the classroom, especially at the start of the project. One of the students also brought this up in their written account of how they felt at the beginning of the task ahead, but then reflects on their initial impressions and contextualises their topic differently:

'To be fair it felt a little futile when the brief was first stated. I've grown up watching "Tomorrows world" in which some designs did come into being, but some were far off the mark... it's hard to predict. That said, we are in such a position of dire need, in terms of climate change, over population etc., that it feels urgent to focus now… so, I dismiss my first comment... this topic is relevant and feels vitally important to consider the ethics of what is being designed and how it impacts the earth and others.'

Thus, the student here surfaces that the disciplinary responsibility of design to be 'useful' is potentially undermined by the far future setting, but then re-conceptualises the 'usefulness' of the brief in relation to ethics.

One student said 'I felt liberated and excited' to be asked to design for a far future, but for others questions over the validity of anything they might design remained:

'The problem with me is when I design something I need to solve something. And when you're designing for something that's 50 years in advance, anything can happen.'

So, both the far future setting of their design and their agency within their role as a designer of that future, was experienced as questionable in terms of validity by quite a number of students. We were creating a space which some students did not recognise as a 'valid' space for a designer to operate within and they often struggled with the framework they had been given.

Troubling
Other aspects that surfaced in the interviews were in relation to positionality and ethics, although this was expressed very tentatively. Talking to each other about the impact of the project:

Student 1:   "I'm not getting the word – more aware – what do you say when it's socially responsible? There's another better term for that."

Student 2:   "Conscious?"

Student 1:   "Yes conscious."

Student 2:   It doesn't make you think it's just about you and what you want to achieve about – like focus more and more [?on the rest of the world]

Another student, reflecting almost a year later in a follow up interview, talked about how they had never really considered bias as having an impact on their design work, but that since working on the speculative project it had become one of their ongoing reflections in their practice. These reflections are significant to us as educators, because they relate back to our desire to make questions of positionality visible to the students through the project and for these questions to become an intrinsic part of their design practice. We do not have enough empirical evidence that would verify that this has been effective across the board, but we have found that subsequent self-directed projects on the programme by these cohorts have produced more project where positionality is part of the framing from the very start.

When interviewees were asked what they had enjoyed the *least* during the project, many of them said that they had found the project quite disorientating at the beginning and used words like challenging, confused, concerned, shocked. Of the students surveyed and interviewed, several highlighted how they did not feel very well equipped to start their research as the issues were potentially so wide-ranging and broad, whilst also seeing this as an opportunity:

'I felt like I needed so much background information. It was also exciting to imagine the possibilities and design for it.'

To the question what they had enjoyed the *most* about the project, the word challenge came up again several times as a positive aspect. They also mentioned enjoying the freedom to explore their

own topics, as one student commented - to look at 'all areas that could be influenced by design - social, economic, environmental.'

'Finding how poetic the human condition is... in reality we naturally are at our best when supporting others and the beauty and humour of the writings of others in forwarding how we are united in our human journey was inspiring. Plus - planning how we could share thinking and trying to find a way we as a species gain that message socially and non-verbally.'

The visual analysis of 48 project reports from one cohort, showed that themes chosen covered a wide range of often interconnecting topics, for example climate change; food scarcity; religion; artificial intelligence; population displacement; amongst others. Some of them had an element of technology as part of their futuristic conceptions, whilst some had the absence or un-availability of technology at their core. Students developed their designs based on their specific disciplinary contexts, for example an interior design students might look at how vertical farming might work in their future city, but most of the projects covered a whole range of design issues and we started to see some students 'straying' from their disciplinary confines as they were becoming engaged in other aspects of these worlds and realities they were materialising. One thing these projects had in common was that there was a more consistent contextualisation of how design shapes the world and the designer's role and responsibility within that.

The City
We chose the city as a boundary within this very open and abstract brief, so students would have concrete sites and contexts to work within. 'The city' in the brief did not have to be an actual city but might be a village, town or district they identified as their home. This meant that they could use their initial knowledge of their home place to build and expand their research on and from. Students were encouraged to use 'insider' knowledge to come up with ideas and we also encouraged them to speak to their family and friends back home about their project in order to find things out they might not know. It also provided the opportunity to make them the experts rather than us, which we hoped would give them more confidence and stronger power base from which to start designing.

The question of 'who shapes the city?' is also deeply relevant to the politics of making practices (Swenarton, Troiani and Webster, 2007) and has a long history of facilitating critical reflection within both art, design, architecture and anthropology. See the Situationists, Lefebre, Archigramme and Bourdieu just to name a few. Yelavich (2014) highlights that 'By nature, all cities are unfinished' (p. 150) and considering their existence due to human material practice, cities provide endless possibilities of multi-dimensional design outcomes. Whether yet to be realised or as conceptual exercises, cities provide a space which challenges us to think about human experience in all manner of ways. As Caccavale & Shakespeare (2014) point out, Archigram's Walking City (1964) was not a concept meant to revolutionise the discipline of Architecture but the materialised intent to philosophise about the meaning of architecture and its relationship with human habitation.

Cities are temporal markers in human consciousness and agency. Massey (2012, p.18) reminds us that although time signifies change, it is through space that we experience this change and with that the passing of time. She highlights that:

> 'Precisely because space on this reading is a product of relations-between, relations which are necessarily embedded material practices which have to be carried out, it is always in the process of being made. It is never finished; never closed' (2002, p. 9).

This combination of the temporal and the spatial means that cities also have a special place in the human imaginations when they fail, - whether destroyed, missing or abandoned, myth or reality. From Babel and Atlantis, to Pripyat (Chernobyl) and Detroit, we have a fascination with cities that show us that for all their seemingly solid environment and monument to human endeavour and material agency, they are transient. Leong (2014, p. 149) highlights that cities record human activity

on a very long scale of time, beyond the individual, on a level of civilization and society. Whilst this is true, one could argue that at the same time cities fascinate us because we imagine ourselves in them as individuals, at human scale and experiences. Some of our students come from places in China which were small towns when they were born and are now on their way to being mega cities. Some of our students had home cities in Syria with a history reaching back into antiquity which they witnessed being destroyed by war in a matter of months. Although the city itself presents as seemingly solid frame within the written design brief, the very moment the students bring their personal home site to the class room it diffracts into a myriad of ways in which to understand and learn about the human experience in a very broad range of contexts and settings. Thus, social, cultural, political and environmental issues become an essential part of the design discourse.

The Heritage
Students were asked to locate their project in some way in relation to the heritage of their home place. This could either be based on materials and craft or based on practices and rituals. We consider the situating of the past as an essential element when thinking about futures, - as Elizabeth Grosz points out:

> 'The ways in which we consider the past to be connected to and thus to live on through the present/future have direct implication for whatever futurity, the new, creativity, production, or emergence we may want to develop.' (Grosz 1999, p. 18)

We asked students to think about cultural heritage and intangible cultural heritage. We also wanted this to go towards de-colonising our curriculum, so deeply embedded in designs pre-occupation with western ontologies, by giving students the opportunity to share their specific cultural knowledge and backgrounds with us and with each other.

Writing about decolonising design, Khandwala (2019, para. 4) points out that although designers often work under the illusion that their choice of style is based on universal and neutral 'design laws', it is actually just acquired taste. She reminds us that taste depends from what we are exposed to and when design values and history are taught through the canon it is this 'accepted pantheon of work by predominantly European and American male designers that sets the basis for what is deemed "good" or "bad."' (ibid., 2019, para. 6). It is important for us as educators to be reminded of our own biases and taste preferences, embodied through our upbringing as well as our formalised western design education. In the class room we often experience this as an act of intellectual labour first, trying to notice our 'felt' design preferences in terms of aesthetics and then putting these into question. It takes time for often quite narrow embodied tastes to become more adventurous and inclusive. It is particularly important that we attend to this in the context of working with designers from all across the globe. Although many of their undergraduate course may have been heavily influenced by western modernist design education, the students come with their own history and culture of material practice and we are keen to point them back at those rather than pushing them further into a western diet. We are guided by Tunstall (2019), who reminds us that:

> 'Respectful design means acknowledging different values, different manners of production and different ways of knowing. The widest possible range of diversity with respect to language, culture and beyond.' (Tunstall, 2019, para. 41)

This also points to the idea that heritage itself is a culturally contested space and as Jones (2017, p. 25) points out – official heritage discourse does not always take account of social values and meaning, which have their own historical dimensions not always commensurate with historical value:

'…aspects of social value, such as symbolic meaning, memory and spiritual attachment, may not be directly linked to the physical fabric of a historic building, monument or place.' (Ibid., p.26)

Harrison (2010) highlights that these authorised heritage discourses are also often flawed because

they assume a western model of heritage in which 'the values of an object or place are inherent in its physical fabric' (ibid., p. 190) and that these notions of heritage often exclude living cultural practices. A number of students followed our suggestion to speak to their relatives back home about their project and to ask them about things about their home places that they themselves might not know about. One student then actually went on and asked their dad to participate in a short film which explained their design outcome and context:

'Involving my father in the film. Quite humbling, he was me 50 years in the future, talking about what we did when I was 16. Weird but special moment.'

This then also means that a potentially abstract future becomes personal, because of how it is linked to a concrete and personal past.

BEYOND SPECULATION

Overall we have had over 150 students who have worked on this project brief, with another 96 in session in 2019/20. We have tweaked some smaller aspects of this speculative design brief and our teaching sessions each year. Students have produced a very wide range of projects, but we unfortunately do not have the space to showcase any of them here. We consider the framing of the brief overall successful and capable of achieving the educational aims of a postgraduate design education. We sit between 'pragmatism and utopianism' (Escobar, 2013, p. 226) against inequality and 'dominant modernities' and are working with speculative 'futures' and social innovation to offer students ways to know differently. When we work speculatively we hope to move beyond existing disciplinary traditions and the production of 'stuff' and draw on Escobar's (2013, p. 7) call towards 'more plural ways of making the world'. We take a micro-local place based approach to our design studio within the Project. The many cultures of the MA/MFA programme designing together create an 'ethical praxis of world making' (ibid., p. 21), embracing 'the complex assemblage of life itself ibid., p. 215). It is not an easy project brief to start a cohort off with when they are new to the programme, but we have overall seen it have a positive impact on their ability to articulate their design process in this expanded context. The speculative design brief offers a space to be uncomfortable and 'decentre knowledge and knowledge production' and 'devalue hierarchies' (Appleton, 2019, para. 7) where we rethink and remake, critique and aesthetics beyond the Western Modernist lens. In this way, the class room is a praxis space. Although, we are very explicit as to why we ask them to work in such a way on their first design brief with us, we do not expect some of them to fully understand why they have been doing this until much later in the programme or maybe even years after they have left. We see this as a normal part and duty of education, - that the ripples of impact carry on travelling.

We hope that our work shows that design benefits from engaging more deeply with other critical practices, such as speculative feminism, feminist materialism and decolonising practices amongst others, which 'trouble' ontological entrapments. We have been encouraged by more recent writings from design, which bring feminist frameworks to the design discipline, like Constanza-Chock's (2018) 'Design Justice', and are integrating ideas and ethical frameworks such as discussed by the 'Design Justice Network' (2018) further into the curriculum. Because if we want our design speculations to challenge oppressive power structures and destructive future trajectories, we need to examine our relationship with social and material progress more deeply. We need to question how it material progress gets conflated with technological advances and narrow conceptions of what is 'real' and get over, what Haraway (2016) calls 'our comic faith in technofixes' (p.3). In education, Linn (2016, para. 6) highlights that the emphasis on STEM subjects (science, technology, engineering, and mathematics) means that non-empirical subjects, such as ethics, are often neglected in teaching. He reminds us that technological progress does not equal social progress and also importantly that ethics have material consequences:

'Because it's built on a technological foundation, modern society overprivileges empirical knowledge. Many seem to believe that engineering is real, while ethics is just opinions, and opinions don't matter much.' (Linn, 2016, para. 6)

A failure to recognise that ethics have materiality puts us into social, political and environmental peril. Ethics determine the direction of social progress and how this is materialised through world making. Design is a world-making activity and design speculations do not only have the responsibility to engage with ethics but are very well placed to make ethics materially visible. Tonkinwise (2019, para. 12) remarks that design felt to him 'like a natural extension of politically engaged philosophizing', - because his engagement with derridean philosophy had pointed him to how political agency is realised through the materialisation of the world. Not only does speculative design have the capacity to materialise the tangibles of future worlds and technologies, it is also capable of materialising the ethical implications of those futures. And those intangible aspects of our social dreaming have the significant tangible impact on all of our lives.

'Any serious inquiry into design must be a journey into the trials and tribulations of capitalism and modernity, from the birth of industrialism to cutting-edge globalization and technological development. Design had doubtlessly been a central political technology of modernity.' (Escobar, 2013, p. 5)

Ethics and positionality are an essential aspect of the material worlds designers bring into being and we urgently need to raise our shared consciousness when asking questions that matter. By making ethics visible and tangible, we may be able to have the disciplinary conversations and make the material decisions needed to determine a direction of progress that is actually an improvement on the current state of the planet. Making positionalities and ethics explicit will not make design speculations inherently virtuous, but at least force a critical engagement with the potential impact of our designs on the wider world. As designers, as educators, students, practitioners, we need to continue to trouble what we understand to be the nature of design. It needs to happen at eye level with our students and other participants in our endeavours, because as Haraway (2016) reminds us 'we become - with each other or not all' (P. 4), - situated, someplace and entangled in each other's material histories and futures. Speculation in design can offer us new ways of knowing through making and maybe even help us to, in Haraway's (2016) words:

'collect up the trash of the Anthropocene, the exterminism of the Capitalocene, and the chipping and shredding and layering like a mad gardener, make a much hotter compost pile for still possible pasts, presents, and futures.' (ibid., p. 57)

If we commit to speculation beyond normative and pre-configured futures/realities, design speculation has the capacity to be a methodology which clarifies the importance of our positionality and our engagement with ethics and how to materialise this as a central part of our material practices.

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