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World building: Creating alternate worlds as meaningful making in undergraduate education

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ABSTRACT

In this article, we offer a description of and reflection on our 2019 ‘creating alternate worlds’ course as a model for critical making in twenty-first-century higher education. Open to arts and humanities undergraduate students interested in creative research, our course used world building as a central approach to imagining alternatives. We found that explicitly centring Black and Indigenous perspectives helped support non-dominant students in their striving to realize possibilities beyond settler colonial visions of the future. We share our position in relation to decolonization and decolonizing pedagogies before describing the course at a high level and through an in-depth case study of an author’s research project. Our analysis of the course is presented via three axiological allegiances and three performative pragmatics. By discussing our political stance and a conceptual innovation that we term, ‘transcosmic potentials’, we conclude with insights for fellow educators. This pluriversal learning community opened a multiplicity of ‘portals’ to heterogeneous worlds, each with the power to fundamentally and forever alter all who pass through.

OPENING: CHARTING A COURSE

In the following article, we share the structure of and reflections on an undergraduate research institute at the University of Washington, Seattle, which sits in the heart of Coast Salish territories. Titled ‘creating alternate worlds’, this course scaffolded ‘world building’ as an experimental practice. Our cohort of students and instructors were drawn from across art, design and humanities departments, and as such, we see this course as an exemplary model for critical making in higher education.

As a research practice, world building is inherently generative. This means that the process of building a world generates deeper understandings of that world, by opening channels for others to explore together. As such, world building as a research practice allowed students to move beyond critique and into creation, where the intention was not just to say what ‘is’, but was to provide new ways forward – or new timelines, or new parallels – in ways that can shift the fabric of our own world. This is radical and necessary work as we head into uncertain, complex futures while attempting to heal difficult and painful pasts. As we will discuss, part of the appeal of this learning environment was its ability to contain many, plural perspectives. Deeply engaged in artistic research practices, our course was responding to the same ‘current 21st-century racial, political, and economic climate’ that have brought Acuff to demand that ‘art educators, and thus our curriculum, not only to provide our students with access to the arts, but to demonstrate how the arts can be used to access the future’ (2020: 21). Therefore, it remains timely and worthwhile to increase access to futures by deploying world building in pursuit of creative alternatives to dominant settler colonial narratives. To promote these virtues in western academies, we have aligned ourselves with a pedagogical stance that education researchers have termed ‘desettling’, which weaves together understandings of settler colonialism and critical race theory with tactics of unsettling movements (Bang et al. 2012: 304). In doing so, we aspire to be in solidarity with the motives of decolonization while countering the appropriation of its pedagogies.

Honouring the groundbreaking legacy of Linda Tuhiwai Smith, we affirm that critical research in the absence of a decolonizing framework, 'does not help people to improve their current conditions. It provides words, perhaps, an insight that explains certain experiences – but it does not prevent someone from dying' (2013: 3). This is why the authors elected to elevate the work of a single undergraduate researcher. Nathanael conducted an interview with Mariama, a former student, in order to better understand her concrete experience of the course as a Black and Indigenous woman. Mariama's profound insights have sharpened the teaching team's self-reflections as educators, underlining the value of framing world building as a refusal of settler colonial racialization. With collective reflection guiding the progression of this article, in the following, we offer several contributions. First, we offer a description of the curriculum and an in-depth case study of Mariama's research project. Building on this description, we explain our theoretical axes and teaching praxes, which frame world building as simultaneously conceptual and practical. We then offer a discussion of political stances, including one that we term, 'transcosmic'. Finally, we offer insights as to how others may approach world building as opening 'portals'. By foregrounding visions of the future that explicitly centre non-dominant students, educators may support undergraduate researchers in actualizing decolonized worlds.

COURSE OVERVIEW: LEARNING WITH PORTALS

The annual Summer Institute in the Arts and Humanities that sponsored 'creating alternate worlds' in 2019, which is generally taught by different teaching teams each year, consisting of a mix of faculty and graduate students. Our learning community consisted of a team of five instructors and a cohort of twenty students – the culmination of year of students, staff and faculty gathering to trouble the curriculum of design. The teaching team consisted of three white faculty: one in Comparative History of Ideas, one in Design and one in Human Centered Design and Engineering, as well as one white graduate student from Design and one Black staff member from Comparative History of Ideas. The instructors selected students based on their applications and in-person interviews, evaluating candidates on their preparedness for conducting mature research, their individual expertise and their openness to learning new research practices. We purposefully chose students in whom we anticipated great potentials for growth over the course of the summer. Creating a diverse, collaborative cohort was a high priority throughout the selection process – a crucial factor in sustaining a milieu conducive to envisioning and actualizing alternate worlds. This interdisciplinary research course was designed to provide students a window into the rigours of critical and creative inquiry. The course was quite intensive, meeting for three hours each Tuesday, Wednesday and Thursday. We divided the course into in two distinct four-week phases: (1) for the first four weeks, the teaching team offered seminars and workshops; (2) during the second four weeks they supported students as they researched, designed and presented their projects.

The first half of the course grounded the students through a shared set of diverse but interrelated texts on world building, speculation, virtuality, techno-aesthetics, Afrofuturism and more-than-human relations. Each student experienced the readings differently, and we noticed many students gravitating towards topics or assignments that helped inform their research projects. For example, Mariama affirmed that, 'specifically after our week on Afrofuturism,



Figure 1: Tutorials and excursions, 2019. Colour photographs. Seattle, WA. Courtesy of Audrey Desjardins.

and then the week after that on Indigenous futurisms, I think [“creating alternate worlds”] allowed me to connect with world building in a way that actually took me into the past’. Seminar days were interspersed with hands-on workshops, introducing students to new forms of making such as laser cutting, sewing, electronics, video editing, 3D printing and creative writing (see Figures 1 and 2). We also invited guest instructors to share their research with the students, including Dr Afroditi Psarra on cyberpunk e-textiles, Dr Megan Bang on culture and human learning and Dr Edmond Chang on critical game studies. Sometimes the instructors thought of these curricular offerings as opening windows or doorways into other worlds (i.e. ‘portals’). These ‘portals’ prepared the students for the second half of the institute, wherein they would be asked to conduct research by building a world, displaying that world, and discuss the mechanisms, mentalities and implications of their world. Throughout the first four weeks, the instructors also scaffolded material and theoretical forays into world building, such as interviewing objects (Giaccardi et al. 2016: 377), imagining universes where these objects could reside and finally, summoning an object from that other world into a physical or digital form in this one – all as initial practice for future, in-depth world building. The instructors strove to expand the possibilities for making meaning with materials by engaging students in thoughtful artistic research. Through these feats of speculation, the students investigated and produced original knowledge.



Figure 2: Tutorials and excursions, 2019. Colour photographs. Seattle, WA. Courtesy of Audrey Desjardins.

In the second half of the course, making was supported through regular, structured critique sessions as well as one-on-one mentoring. Based on their research interests, the students were organized into five groups of four but were also encouraged to work across groups throughout the course. This fluid group structure facilitated intimate discussions, sharing of feedback and interdisciplinary exploration. For the majority of the second four weeks of the course, students guided their own work, engaging in open-ended critiques and improvisational approaches while forging classroom camaraderie. As a culminating assignment, students were asked to make something meaningful from the world of their imagining – an artefact designed to evoke curiosity and wonder – in order to deepen that very same world. Students were given full control over their chosen medium, process, questions and final products, resulting in performances, games, audio engineering, comic books, fungal cultures, oral storytelling, sculptures and video games, and more. The instructors then asked the students to reflect on their objects, and how critical making informed their learning trajectories. Every year, the university sponsors an annual symposium to ensure students have a platform to share their research with their peers and mentors. However, to showcase the unique corpus of work our cohort generated, in addition to the symposium, the instructors arranged a pop-up exhibition that emphasized the material labours of our students' independent projects in a public forum. Over the summer, a powerful sense of pluriversality emerged, consisting of multiple universes (Fregoso 2014: 593). By nurturing these relationships as foundational to each world, we began collectively curating passageways between complementary cosmogonies. Quickly, the instructors realized that the students were offering their own 'portals' in kind.

CASE STUDY: STAYING WITH 'LE'GAAL'

In environmentalism and ethical design, there is a lot of drawing on Indigenous practices in terms of, 'How do we envision a world that is futuristic and sustainable?'. Oftentimes it is digging into the past of



Figure 3: Mariama Sidibe, Desert Biome, 2019. Digital illustration. Courtesy of Mariama Sidibe.

these Indigenous communities, whether that's in the Americas or the
Africas. So being able to take that identity and place it into the future
combats erasure, which I think is an act of decolonizing.

Mariama Sidibe

As mentioned in the introduction, to reflect on instructional design while highlighting decolonial efforts made by students, we draw upon a focused example of world building. Majoring in international studies at the time, Mariama applied to 'creating alternate worlds' with an interest in envisioning an Afrofuturist world that lifts up the talents of Black and Indigenous people, where they can operate outside the confines of western technological advancement. Mariama was interested in using this world building practice to ask several research questions, including (1) 'What does a world look like if Black women are able to be the leaders of society?'; (2) 'How does natural hair fit into a vision of sustainability?'; (3) 'Who is left out of our current visions of the future?'; (4) 'What is the function of oral storytelling in passing on ancestral knowledge?'. Her final project combined vocal narration with audio editing and digital illustrations and collage to tell stories of the planet 'Le'Gaal', where the 'Ba'Le' and the 'De'Ne' peoples reside (see Figure 3). The story opens in a time of severe crisis, as 'Le'Gaal' has been almost entirely stripped of natural resources by the 'De'Ne'. The 'De'Ne' decided to abandon 'Le'Gaal' in favour of other, habitable planets. However, they also decide to exclude the 'Ba'Le' peoples from this galactic exodus according to racialized criteria that discriminate against the 'Ba'Le' based on their darker skin and textured hair. However, after the 'De'Ne' leave, there is planetary regeneration rather than disaster.

The rest of the story describes how the 'Ba'Le' come to live in harmony with the three biomes of 'Le'Gaal': the mountains, the desert and the ocean. Each biome is inhabited by peoples with different cultures of wearing natural hair. One way the 'Ba'Le' peoples coexist within their respective biomes is

by burying their ancestors and growing trees above them. These trees grow hair textures as leaves from their branches, extending the culture of the 'Ba'Le' ancestors buried below and connecting with the ecology of each biome. Mariama had this to say about the animist funerary tradition that inspired her project:

The idea of planting people for them to grow into trees is that idea of us replenishing the earth. To think about the burial of a body that then becomes the nourishment for that tree, or whatever grows on top of it, as a continuation and as a 'planting' of a person – to almost be immortalized into something.

While the project's audio recordings carry the major plotlines, the digital collages act as socio-technical illustrations, filling in visual details of how the trees and hair are linked in a way that integrate the bodies and spirits of 'Ba'Le' ancestors through the soil of 'Le'Gaal'. This alternate world refigures conversations about posthuman futures by championing ancestral practices as viable technological visions of relationship with nature.

AXES: THREE AXIOLOGICAL ALLEGIANCES

The 'creating alternate worlds' curriculum was based on three key conceptual commitments. We will call these pedagogical positions our 'axes', as they provided a flexible set of convictions around which we could organize a series of seminars, workshops, excursions and speakers for the students.

Axis one: 'Making is theory and theory is making'

We asked students to engage with both materials and ideas when building worlds, which resulted in sophisticated experimentation at the intersection of theory and making. As this was a research institute based in the arts and humanities, we necessarily had a mixed cohort of researchers with different comprehensions of what conducting research looked like, how research questions were asked, what constituted rigour and how to contribute to knowledge.

For students comfortable with art and design practices, there was a rigour in craftsmanship. The details of construction or material process were symbolic, refined through iterations of making. This emphasis on discovery through exploration and repeated trials for meaning to come through visual languages of materials and making was quite normal for these artists and designers. However, applying theory and philosophy to their designs was a bit disorienting, at first. Eventually, the slow iterative journey through rounds of making and storytelling yielded results – the materials began to push back in intuitive ways, the development of a narrative finally becoming expressed through the process of making. For the humanities students, they quickly jumped into the world of theory and ideas. Even 'worlding' seemed quite familiar to them, perhaps due to a love of literature. This familiarity with how narrative can operate both symbolically and theoretically already reveals how literary worlds can bring critique alive, and how critical theory can be a lens to see the world. On the other hand, building an object from these worlds was a strange process for those students who were used to thinking in constructions of language, stories and ideas. It took longer to imagine how those ideas could be used to structure an object, to inform material decisions, to mean symbolically and to push into the world virtually.

In this course, we sought the limits of how materiality and language both ‘make’ or constitute knowledge. It is not only a pertinent question to ask how discourse materializes, but also to ask how material might produce discourse, and how these forms of research might be rigorously expressed. There is a way of knowing that comes from making things that cannot be experienced through discourse alone – the intimacy with materials, their push back and potential – which is to investigate the capacity of materiality to mean and do in the world. Discourse on the other hand, is also ‘making’ in that through analysis and interpretation, thinking is extended. Through contemplation, inner workings of selves, societies and cultures are reflected upon and contextualized. To extend making practices by expanding discourse, or to deepen discourse through knowledge gained by making, is to begin to explore the contemporaneous intersection of materiality and discourse; not just one and then the other, but both together. In world building, this is a radical move from merely hypothetical notions in science fiction or thought experiments into the realm of truly bringing new worlds into material existence.

Axis two: ‘World-view vs. storyview’

Indebted to lessons from Indigenous sciences, speculative practices and Afrofuturist media, our second axis linked two related convictions: (1) stories are an invaluable source of knowledge about the world; and (2) storytelling is an especially useful tool for creating alternate worlds. Key for us was the distinction introduced by speculative fiction author Jeff Vandermeer between ‘storyview’, the view provided by a single story, and ‘world-view’, which establishes the context that a story can occur within (2013: 216). Importantly, the world-view of a story always exceeds the storyview in its breadth and complexity. This allows for new – perhaps even contradictory – presences to emerge, and the opportunity for characters to learn from their world’s environment. Instructors encouraged broadening focus from the storyview to the world-view, which allowed students to expand their attention from specific stories or objects to the vast multitude of different kinds of stories and objects that any world can produce. This allowed for the course to hold space for a number of decolonial political goals including, but not limited to: (1) promoting the emergence of powerful, new voices in discursive arenas already dominated by other’s views; (2) supporting the potentials for enlarging a storyview through interaction and counter-stories and (3) strengthening capacities for leveraging non-dominant perspective through observation, critique and imaginative entanglement with established and emergent power dynamics. This was especially visible in how deeply students’ projects were embedded in virtual worlds with actual consequences. For example, Mariama incorporated photographs of natural hair texture into her collages, braiding contemporary African American culture together with traditional Fulani ecological practices. In the case of ‘Le’Gaal’, material traces of ‘this’ world are folded into the alternate world. By growing a unique metaphysics from the building blocks of the African diaspora, Mariama exemplifies how world building can allow students to embrace nuanced ethical positions through correlated aesthetic elements.

Axis three: ‘Student-centred learning’

The instructors designed the course to maximize student agency in regard to their research projects. This meant that we did not require them to follow a set of preconceived principles, nor did we provide them with highly structured

assignment cues. Instead, students were expected to identify some kind of first principles to begin structuring their world, to think through the political stakes of a world based on these principles and to then imagine the types of stories and objects that their world could produce. Although students were solely responsible for stewarding their world into being, each week involved exploratory activities to help develop ideas and integrate critiques on works in progress. This third axis provided for a number of important outcomes: (1) it facilitated students taking up perspectives that could not be anticipated by the instructors; (2) it legitimized students building from their intersectional identities to carry forward the wisdom of their personal experiences and (3) it cultivated stable and familiar ground, which anchored students as they studied more abstract theories on the relationships between fabrication, storytelling and speculation.

The instructors quickly discovered that student-centred learning was not a course that could be charted in advance, but rather a spinning of invisible threads through their own relays. These meshes had rules that were generative of many new forms. Students began by learning the rules of their worlds, meaning how they promoted ways of being while also revealed gaps and unexplored terrains – then they bent these rules. This was a radical way of learning and conducting research: as we pushed and pulled, the worlds pushed back and exposed even greater layers of potentials (see Figure 4).

PRAXES: THREE PERFORMATIVE PRAGMATICS

The three axes above informed our activities in the classroom and beyond. We enacted these conceptual commitments alongside three pedagogical practices that we call our ‘praxes’, as they helped instructors facilitate a generative learning environment for students and their research.

Praxis one: ‘Critique as contextual’

In the second half of the course, when students were developing their independent research, we used critique as our stage for collaboration. Following the axis of student-centred learning, critiques allowed for dialogue with the instructors as well as students’ peers to offer feedback and guidance particularly targeted at each project. In a critique, a practice common in fields like design and art, students bring work that they feel materializes an idea or concept (e.g. a sketch, a prototype, a model and a drawing) to receive feedback before they continue to refine, revise and drive their work forward (Forlano and Smith 2018: 282). In a learning environment where the curriculum emphasized how making is also theorizing, critique became a particularly well-suited tool in shaping the artefacts and the worlds created, as well as the discourse surrounding it. Instructors introduced students to a variety of forms of critique during the second half of the course in order to scaffold student growth and comfort in critique. This allowed students who were less familiar with critique to begin trusting the process. This was a critical challenge, because students with disciplinary training in design or art were very familiar with showing work and receiving feedback in public, whereas students from the humanities may feel completely out of their comfort zone.

A challenge of critique-based pedagogy is the potential for non-dominant students to come away feeling misheard, misunderstood or even mistreated – especially those inhabiting Black and Indigenous bodies and identities. Mariama reflects on her experience of critique in the course, sharing that ‘so

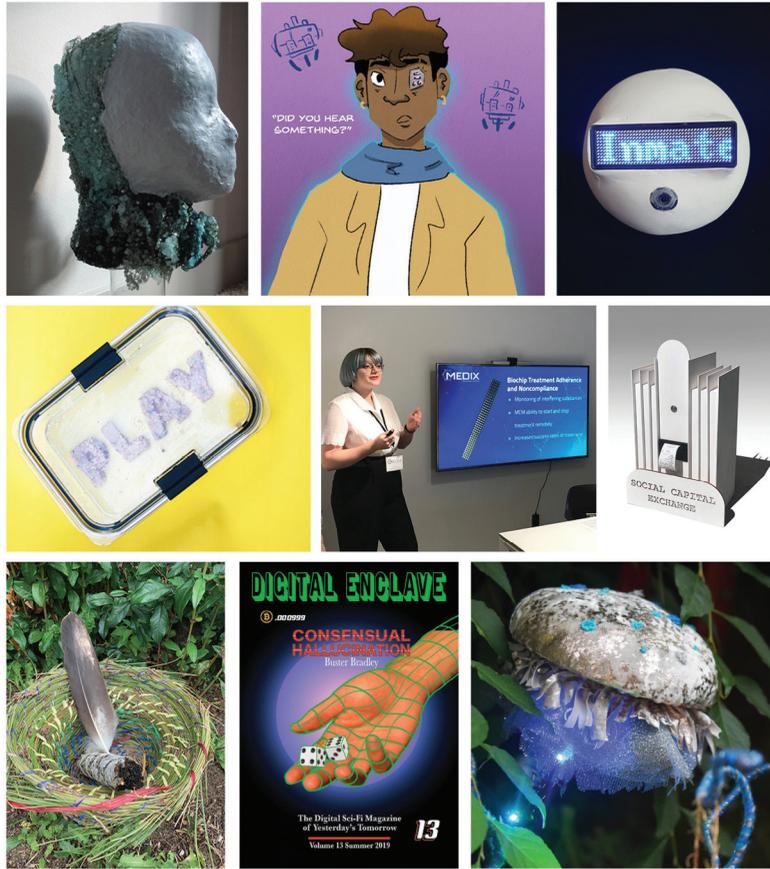


Figure 4: Select projects, 2019. Colour photographs. Seattle, WA. Images used with the permission of the students. Courtesy of Audrey Desjardins.

much of my work was through my own imagination, my own cultural context, and my own positionality. So, taking peoples' critiques in was somewhat difficult because I had to consider the audience'. At times, critique in the classroom felt as though they assumed a universal baseline from which to judge the perspectives held by non-dominant students. Fortunately, as students got to know one another better over the quarter, similarities and differences of lived experiences actually enriched the collective sense that each project existed in a shared pluriverse, further distancing our critiques from any superior cultural vantage point. Mariama shared, 'it was definitely good practice thinking about how to share work that is very personal in an academic space where there are so few people who look like me or come from my backgrounds', and remembered asking herself, 'How do I share that but still keep the meaning?'. The praxis of critique was bolstered by the axis of student-centred learning, insofar as the instructors prioritized an ethical commitment to helping students produce work that was meaningful to them. Playing to each students' strengths while nudging them in new directions provided the substrate of useful and non-violent critiques.

Praxis two: 'Improvisation as additive'

With twenty nascent worlds in our care – resplendent in variety, and each expressing different possibilities through a wide variety of media – improvisation emerged as a core pedagogical strategy. Instructors affirmed student work with a 'Yes, and!' attitude, meaning that we always built from what was already there in an additive fashion. Benefiting from the axis of distinguishing world-view perspectives from storyview perspectives, instructors witnessed how in constructing their worlds, students were able to lure others into their worlds through this 'Yes, and!' practice. This improvisational instinct grew stronger as we entered the second four weeks of the course and began final projects. As general guidelines for representing their work, students were asked to construct an artefact expressing a world-view as well as an object endemic to their world. This assignment needed no further constraints: the worlds furnished their own self-determining principles, which students improvised with to make decisions for how to develop their project further.

Students built worlds in response not only, or even primarily, to academic discourse. More often, they envisioned alternatives in response to their own lived experience. To embrace such lived experience requires more than just a community agreement – students and instructors all had to become enthusiastic co-conspirators in an evolving process of in virtual and actual cosmogenesis. Instructors took great care to ensure projects not only formed representations of worlds, but also formed immersive experiences and tangible artefacts 'of' those worlds, imbued with meaning. Instructors were impelled to 'go with the flow' and to respond, question and imagine on the fly with students. This resulted in improvisational outcomes, activating the expertise of the instructors and other students to leap beyond moments of indecision and dead ends. This 'Yes, and!' approach is more than just polishing student work until it is rendered acceptable. Improvising meant becoming invested in the potential for each alternative vision of the world to create value. Only then could the instructors keep up with these twenty visions, and to help facilitate the process of making these lived experiences into meaningful worlds for others.

Praxis three: 'Relationship as webbed'

The luxury of a five-person teaching team, each with their own background, positionality and experiences, allowed students to look beyond the search for 'right' answers to research questions. When instructors proposed five divergent ideas in five different voices, we intentionally opened up spaces for new learning trajectories to be taken up. To amplify this dynamic potential, the teaching team paired students with instructors that we felt were best prepared to mentor students and help push their work further. Similarly, we relied on small-group mentorship among peers, which allowed students to share feedback in a more intimate audience of collaborators who had become more familiar over time. On attuning to her peers' worlds, artefacts and ideas, Mariama related to two students who shared specific life experiences:

Keith's experience specifically was relatively similar to my experience, as an African person who considers themselves to be somewhat Indigenous. And also having BreAnna in the course as another Black woman to say, 'Oh, I see myself in this'.

Not only did Mariama invest in relationships with the human participants in her learning, but she also built deeply meaningful relations with more-than-human agents. For many students, new opportunities for relationships revealed the potential for world building to transgress normative subject-object binaries. Whether manifest in the unruly growth of slime moulds or borax crystals, the autonomous power of things to move with minds and motivations of their own commanded serious engagement from the students. Furthermore, following through on 'desettling of shifting constructions of relationships between human beings, other organisms, and the material world' relies on this entanglement (Bang et al. 2012: 315). Forging relationships with the materials supplying their artistic research practice helped the students bring forth new life from their worlds.

These and other profound webs of relations became clear at our pop-up exhibition. In order to display student work, demonstrating how physical and digital artefacts gave form to their worlds, the instructors set students up to take over multiple rooms at a local design firm (see Figure 5). This was a tremendously popular event that attracted friends, family and community members. The pop-up exhibition allowed us to witness the larger ecosystem among the projects, as well as the intrinsic value of sharing research with the public. Most importantly, this involved the relationship between world building and creativity, allowing both the students and the instructors to envision how each of the projects came together to form a learning environment grounded in care and collaboration. This sense of camaraderie remained, regardless of the challenges that non-dominant students face in higher education, as demonstrated in Mariama's reflections on the limits of critique. Throughout the entire quarter, and especially near the end, students supported one another as fellow world builders. Now the authors have a better sense of how to seed the kind relational capacity required to genuinely build trust in a fruitfully heterogeneous learning environment.

CLOSING: NAVIGATING A COSMOS

In this article, we have shared the curricular and pedagogical innovations prototyped in the 'creating alternate worlds' course. Throughout, we have also pointed to evidence that world building can afford students opportunities to engage in critical thinking and critical making through creative experimentation, such as Mariama's project. We offer insights for others who are seeking ways to teach interdisciplinary art, design and humanities courses that might more closely align with decolonizing pedagogies.

However, that does not give us free license to employ the discourses and tactics of decolonization. If we recognize decolonization as an incommensurable 'elsewhere' that cannot be reduced to mere metaphor, then as a majority settler-identifying teaching team we must deeply consider how we position ourselves in relation to decolonization (Tuck and Yang 2012: 3). As design anthropologist Dori Tunstall put it recently, 'beginning with the notion of respect or respectfulness, the debate becomes about how you stand as a designer as opposed to what you're trying to *do* as a designer' (Kett 2019: n.pag., original emphasis). In terms of how we stand as designers, we take a cue from Bang et al., who have called for educators to take up a 'desettling stance' in such a way that encourages non-dominant to actualize their unique visions for a thriving world:



Figure 5: Pop-up exhibition, 2019. Colour photographs. Seattle, WA. Courtesy of Audrey Desjardins.

More than 20 years ago, Shirley Brice Heath [1986] argued that in matters of learning, teaching, and development we should elevate the creative over the uniform, 'the search for possible worlds' over acquired assimilation of worlds defined and organized by others. For us, her claim resonates no less deeply today.

(2012: 315)

The call to seek possible worlds resonates no less strongly in a time of pandemic and protest. In order to give name to the peculiar and unanticipated ways that our students reached across difference, the authors have begun to explore what kind of learning environments a 'transcosmic' stance might afford. These 'transcosmic potentials' provided the foundation from which relations emerge and persist, even between distant or divergent world-views. The shared, pluriversal quality of the projects was felt most strongly at the pop-up exhibition, instantiating how world building can support fruitful heterogeneities in critical and creative undergraduate research. To these ends, we offer three cumulative insights: (1) With a world mired in entrenched inequalities and colonizer governance, we found that the students responded well to imagining alternative arrangements of power in relation to bodies, environments, technologies and beliefs. Deepening the distinction between world-view and storyview, these alternatives formed what we think of as a 'politics of potentials', where world building could be used as a primary tool

for envisioning ethical futurities. (2) We observed that ethically informed worlds emerged from intimacies within the complex relationships between material artefacts and creative potentials. This ‘politics of potentials’, meaning the pedagogical linkage between speculation, materiality and embodiment, was also concretely tied to our students’ actualization as researchers, artists and activists, as well as to the thriving of their communities. (3) With richly constituted worlds come ‘transcosmic potentials’, where there is always room for another story; another object; another course of action; another world. This is what we have witnessed – students continue to experiment with their projects, both on their own and in collaboration with instructors. There have been exhibitions, senior theses, student organizing, scholarly presentations and new communities of practice after the conclusion of the course. For example, Mariama is continuing to develop her project in new directions – including braiding hair extensions into the boughs of a living tree at the Wa Na Wari Teaching Garden (see Figure 6). One year after the completion of the course, Mariama has said this about her ongoing process of prototyping new artistic research:

If I decide to use a model, how do I respect their hair? Even if it is extensions? How do I respect it and also respect the tree? So that is where I am at with texture: I want to combine those two in a way that respects both of their elements and connects them in a way that feels like it aligns with my specific vision of what that connection between person and plant would look.

These questions demonstrate Mariama’s continued commitment to imagination and care, as well as her prescient understanding of the tenants of ‘respectful design’, anchored in ‘the acceptance of the intrinsic worth of everything and the treatment of them with dignity and regard characterizes compassion, which is a higher virtue than empathetic shared feelings advocated in design thinking’ (Tunstall 2013: 245). Taking a hint from Mariama and Tunstall, ‘transcosmic potentials’ might then be defined as the pedagogical grounds from which relations emerge and persist, even between distant or divergent world-views.

Throughout the course, these virtues allowed all involved to open ‘portals’ to other political potentials with consistency and purpose. These portals were opened through the readings, workshops and guest speakers that the instructors assembled, as well as in the work the students did in their own artistic research practices. Just as art transports us through times and spaces, so too did these portals confront both students and instructors with unique internal logics, dynamics and values. Each portal ignited its own allegiances and pragmatics – forcing us all to reassess our positionalities, and revisit our own prior knowledges, assumptions and biases – as the condition by which we might enter into another world. In addition, these worlds also become places for relations to take form, relations between materials and ontologies. This focus on camaraderie among peers and projects, as we outlined in praxis three, also helps both students and instructors escape the predominantly western conceptual grounds for imagining the future.

One of the original goals of our course was to establish world building as a strategy for imagining alternatives to this world. With hindsight, we wonder if non-dominant students may have experienced the course differently if the instructors would have foregrounded decolonization side by side with world building, at the top of the syllabus, or if there was an instructor that identified



Figure 6: Mariama Sidibe, *Tree Braiding*, 2019. Colour photograph. Seattle, WA. Courtesy of Nat Mengist.

as Indigenous on the mostly white teaching team. Efforts to combat colonialism were present all along in our cohort, whether surfacing in students' worlds through issues of race, ability, gender and incarceration, or presenting in how students embodied their positionalities within the classroom, and within their worlds. These insights emerged within a milieu of lived experience, reinforced by our axis of student-centred learning and our praxis of improvisation. The instructors were prepared to learn from the students' ideas of what futures were imaginable, thereby interrupting the usual reliance upon instructor-led insights. We would encourage universities to support the kind of generous student-teacher ratio that we benefited from. In the next iteration of this course, we will carefully consider the racial composition of the teaching team and explicitly refuse dominant settler visions of the future at the outset of the curriculum. This recommendation may align with the pedagogical stances of design anthropology:

In all of these kinds of projects the students are coming from what would have been their discomfort, but they wouldn't say anything about it. What we've done is we've created the conditions of possibility where, not only can they articulate that sense of discomfort, but they can make something real and tangible that addresses that very discomfort to provide comfort for someone else.

(Kett 2019: n.pag.)

In spite of whatever imperfections ‘creating alternate worlds’ may carry in its early stages of maturity as an instructional model, imagination and care have always been the most valued conceptual currencies of our pluriversal learning community. As the students and instructors leapt through a multiplicity of heterogeneous portals, each of us were fundamentally and forever altered by entering these worlds. Therefore, the authors offer this window into the ‘transcosmic potentials’ of world building as an ethical model for meaningful making in the twenty-first century.

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