Hauntings Across the Divide: Transdisciplinary Activism, Dualisms, and the Ghosts of Racism in Engineering and Humanities Education

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Abstract In this paper, we report on an intervention across continents and disciplines that brought together differently positioned students in South Africa and the USA. A collaboration between our classes—an introductory Geographic Information Systems (GIS) class in South Africa and a composition class in the United States—was facilitated and investigated by us. The point of departure of the intervention was to service socially just and anti-racist pedagogies through experimentation. Drawing on posthumanist, feminist, and new materialist theory, we investigate the hauntings of several prejudices and stereotypical tropes that foster racism. We link the concept of hauntology to Plumwood’s (1993) theorization of dualisms. We then draw a cartography of geomatics education in South Africa, focusing on the subjectification of geomatics graduates in particular and engineering graduates in general. We then zoom to our collaboration, and focus on several interactions amongst the cohorts to show instances of hauntings that perpetuate anti-Black, anti-Muslim, and related silences. We find that analysis of dualisms can highlight racist hauntings, and can also provide guidance on how to flatten hierarchies. Our transdisciplinary activism allows us to harness the positivity of difference to trouble binaries. We conclude with some thoughts on pandemic pedagogy in an unequal world.

Résumé Dans cet article, nous nous penchons sur une intervention intercontinentale et interdisciplinaire qui a réuni des étudiants sud-africains et américains positionnés de façon différente. Nous avons rendu possible et étudié une collaboration entre nos classes, l’une d’initiation en système d’information géographique (SIG) en Afrique du Sud et l’autre d’une classe de composition aux États-Unis. Le point de départ de l’intervention consistait à rendre des pédagogies empreintes de justice sociale et de lutte contre le racisme, par le biais de l’expérimentation. En nous appuyant sur la théorie post-humaniste,

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féministe et néo-matérialiste, nous examinons les apparitions de plusieurs préjugés et de figures stéréotypées qui alimentent le racisme. Nous lions le concept de « hantologie » à la théorisation des dualismes de Plumwood (1993). Nous traçons ensuite une cartographie de la formation en géomatique en Afrique du Sud en nous attardant particulièrement à la subjectivation des diplômés en géomatique et de façon générale à celle des diplômés en ingénierie. Nous convergeons ensuite vers notre collaboration en focalisant sur plusieurs interactions entre les cohortes afin de montrer les épisodes d'apparitions qui entretiennent les silences trahissant une hostilité à l'égard des Noirs, des Musulmans, et autres silences analogues. Nous constatons que l'analyse des dualismes peut faire ressortir des apparitions racistes et aussi fournir une orientation sur les moyens à prendre pour aplanir les hiérarchies. Notre activisme transdisciplinaire nous permet d'exploiter le positivisme de la différence pour perturber les dualités. En conclusion, nous soumettons quelques réflexions sur la pédagogie en temps de pandémie dans un monde d'inégalités.

“If haunting describes how that which appears to be not there is often a seething presence, acting on and often meddling with taken-for-granted realities, the ghost is just the sign, or the empirical evidence if you like, that tells you a haunting is taking place. The ghost is not simply a dead or a missing person, but a social figure, and investigating it can lead to that dense site where history and subjectivity make social life” (Gordon, 2008, p. 8).

Introduction

In this paper, we report on a partnership across continents and disciplines that brought together differently positioned students in South Africa and the USA. At the time of our meeting and later conceptualization of the collaboration, Kristi (American, female, White, and privileged) expressed concern toward the growing polarization on US campuses and intensification of racialized rhetoric, especially after the election of Donald Trump in 2016. Siddique (a person of colour who spent his childhood and early adult life under apartheid) noticed a systemic anti-Blackness in the South African university, specifically through the perpetuation of coloniality in the engineering learning experience.

We decided to facilitate and also investigate a shared curriculum between our classes—an introductory geographic information system (GIS) class taken by students who were studying toward a qualification in geomatics in South Africa (Siddique's class) and a composition class in the USA (Kristi's class). The point of departure of the intervention was to service socially just and anti-racist pedagogies through curricular experimentation. Now that we are in the midst of the global coronavirus pandemic, it is evident to observe what Nxumalo (2020) called the “racial capitalist conditions of asymmetrically distributed precarity” (p. 36). At that time, we wondered how we could encourage our students to become more open minded, to see the world as connected, and to interrogate both their global and local entanglements. We would extend to these aims the desire for students to discuss and expose the asymmetrical precarity mentioned above. What emerged in our teaching and analysis were hauntings of several prejudices and stereotypical tropes that foster racism, which we focus on here.

We begin with an explanation of hauntology, which we explore and analyse from the standpoint of posthumanist and new materialist theoretical perspectives. Posthumanism is the historical moment that sees a convergence between anti-humanist philosophies on the one hand, and anti-anthropocentrism on the other. Ferrando (2019), in her definition, adds that it is also a post-dualism. We link the concept of hauntology to Plumwood's (1993) theorization of dualisms. We then draw a cartography of geomatics education in South Africa, focusing on the subjectification of geomatics graduates in particular and engineering graduates in general. We show that this subjectification serves to interpellate geomatics graduates into a humanist sensibility. We also briefly outline the exigency for a humanities education

that crosses disciplinary boundaries. We then zoom to our collaboration, a semester-long curriculum between our classes that took place in 2019. In this paper, we focus on several interactions amongst the student cohorts to show instances of hauntings that perpetuate anti-Blackness, anti-Muslim prejudice, and related silences. We implement a diffractive analysis (Barad, 2007; Haraway, 1992) to examine the entanglements that were created between our classes/disciplines and how both may work toward our shared goals of antiracist education. We also show that despite the humanist interpellation mentioned above, there is room to innovate and trouble hierarchies through, what we term, transdisciplinary activism. We take a decidedly post-qualitative stance in our analysis because ghosts may not appear in dominant codes that are extracted from data. However, we also do not entirely discard elements of traditional qualitative methodology. Like Jackson and Mazzei (2017), “we work within and against the truths of humanist, conventional, and interpretive forms of inquiry and analysis that have centred and dominated qualitative research texts and practices” (p. 217).

Hauntology and Dualisms

We have found the concept of hauntology to be useful in analysing silences. Additionally, we rely on Plumwood’s (1993) theorization of dualisms to uncover and to critique dualisms that appear in our context. Derrida (1994) coined the term “hauntology”—a play on the words “ontology” and “haunting”. Hauntology refers to the presence of things from the past found in the present, such as the persistence of settler colonial logics in higher education. Tuck and Ree (2013) point out that a haunting “is the relentless remembering and reminding that will not be appeased by settler society’s assurances of innocence and reconciliation” (p. 642). These hauntings trouble established binaries such as then/now, presence/absence, and being/non-being (Zembylas et al., 2020). Hauntology aids our understanding about how painful ancestral, historical, and lived experiences reveal themselves in the present day. As Barad (2017) articulates, “Hauntings are not immaterial, and they are not mere recollections or reverberations of what was. Hauntings are an integral part of existing material conditions” (p. 74).

Hence, hauntology is a useful tool to analyse hegemonic hauntings that have re-surfaced recently, such as anti-Black and anti-Muslim prejudice. Feminist scholarship teaches us that where there is a focus on something, there is a concomitant exclusion of other things. We wondered if a typical learning experience in South African engineering education, with its exclusions of humanities-related knowledge and ethics, serves to promote a tacit environment that could amplify racisms. Are the ghosts of prejudice emboldened in such an environment? Relatedly, we wondered if our micro-instance of transdisciplinary activism could encourage our students to become more open minded, to see the world as connected, and to interrogate entanglements.

We find that a useful analysis of the intervention may be achieved by referencing Plumwood’s (1993) work on dualisms. A dualism is a relational phenomenon that relies on a denied dependency between relata in a domination/subordination relationship. A dualism denotes a relationship of binary opposition that erases any continuum occurring between both ends of the binary and implies a hierarchical relationship in which one side is depicted as superior and the other is depicted as inferior (Bozalek, 2014). Dominant systems use otherness to institutionalize power, as well as to appropriate materials and cultural aspects of the subjugated other. Apartheid is a perfect example of this. Difference was used to advantage Whites, and diversity was seen as negative. Cartesian logic is central to subjugation. Plumwood theorizes about how dualisms work, as well as, how they can be dismantled—they require anti-dualist remedies, which is a difficult task because of the “logical maze” (Plumwood, 1993, p. 42) set up by Western, humanist philosophy. In our contexts, several dualisms are observed clearly whereas others appear as hauntings—subtle, yet they help to normalize relationships of domination. A posthumanist analysis investigates the complex nature of subjectivity, which is non-linear, non-unitary, relational, embodied,

embedded, affective, and connected to human and non-human actors and participates in dynamic power relations (Braidotti, 2019). Hence, we see that in joining our classes, power shifts dynamically, and dualisms sometimes emerge unexpectedly.

Characteristics of Dualism

Plumwood (1993) identified five characteristics of dualisms that can be used to reinforce superiority or inferiority:

1. Backgrounding—this occurs when the master relies on and benefits from the services of the other, but denies this dependency.
2. Radical exclusion—differences are magnified and similarities are eliminated to create maximum separation between the privileged and the marginalized.
3. Incorporation—the lower member of a dualistic pair is defined in relation to the upper member, in terms of lack.
4. Instrumentalism—the lower side of the dualism is objectified and its identity is constructed instrumentally, resulting in the master not viewing the lower side as kin.
5. Homogenization—the dominated class is made to appear homogeneous, and internal differences are disregarded.

We note the significance of silencing in these characteristics as outlined by Plumwood (1993). In particular, backgrounding, radical exclusion, incorporation, and homogenization rely on silence in various forms. Silencing can result in hauntings, and it is on this haunted space that we focus. Each characteristic can be countered in the following ways:

Overcoming Dualisms

Plumwood (1993) has also suggested ways in which dualisms can be subverted or escaped by countering each of the characteristics.

1. Backgrounding—the contribution of the underside must be recognized and dependencies acknowledged.
2. Radical exclusion—continuity is affirmed between the relata, showing areas of overlap.
3. Incorporation—a story for the underside is rediscovered, hence reclaiming positive sources of identity.
4. Instrumentalism—the needs, values, and striving of the underside are recognized as being separate from those of the master.
5. Homogenization—the complexity and diversity of the other nations that have been homogenized and marginalized are recognized.

Geomatics Education—a Cartography

A favoured methodology of posthumanist theorists is cartography, which is “a theoretically-based and politically-informed reading of the present” (Braidotti, 2002, p. 2). It is a way for critical theorists to represent people’s situated historical locations and recognizes the power of memory. By combining hauntology and cartography, we bring to the surface some of the pertinent issues that haunt higher education, such as inequality, trauma, and coloniality (Bozalek et al., 2021).

Geomatics is an umbrella term which includes several disciplines, such as land surveying, geographic information systems (GIS), remote sensing, and cartography. In South Africa, geomatics education at universities is generally situated in engineering faculties. The origin of geomatics education in South Africa can be traced to the education of land surveyors. The education of surveyors was started by Louis Thibault, who was the Government Land Surveyor in the early 1800s (Fisher, 2004). He mentored several aspirant surveyors and was also ultimately the judge of their professional competence. This was during a turbulent time in Anglo-Dutch relations and was shortly after the British re-occupied the Cape Colony in 1806. A prospective land surveyor (who was always White and male) would be issued a certificate if they successfully completed a number of tasks. He would then have to swear an oath of allegiance to the Crown and swear that he would conduct all future work professionally and with impartiality. The ethical stance of these men was shaped under the tutelage of the master surveyor. This model is still implicit today, in which university graduates go on to be trained by masters whose ethics are assumed to be of the highest calibre. In general, the mention of such masters (such as Thibault) and the reporting of the historical development of surveying and surveying education in South Africa follow a specific trajectory. The repetition of this history produces sedimentation of facts in the minds of surveyors and canonization of the achievements of the great surveyor-explorers of the past. Geomatics academics extol the virtues of the brave colonizers and largely uphold the view that surveyors helped to bring progress to Africa. Pieter Potter, Nicolas-Louis de Lacaille, Henry Georges Fourcade, and Sir Thomas Maclear are White men whose triumphant, masculine narratives prevail in the story of surveying in South Africa (see for example Adams, 1975; Hurly, 2004; Lloyd, 2004). These names appear in most, if not all, surveying students' curricula, and the achievements of the bold colonists overshadow the repetition of the resultant dispossession and domination of the Indigenous population, together with the degradation of the natural environment in the name of "progress".

Ironically, the progress of the profession and its underlying knowledge benefited directly from the subjugation of the structural others of modernity (women, ethnic others, and the natural environment). Women and Black subjects were not allowed to study surveying. In contrast to the education of White land surveyors, the nineteenth century saw Indigenous Africans slowly being introduced to the mission schooling system. Western missionaries set up mission stations and mission schools, in order to convert the Indigenous people to Christianity, to spread Western cultural ideas, to teach them work values, and generally to "civilize" the "heathens" (Christie, 1985). The promotion of property rights, economics, and Christian values (like diligence) served to promote merchant capitalism and at the same time subjugate Black people into slavery. Colonial texts discuss the education of the native, yet the native voice is silent (see for example Loram, 1917). The colonial period saw the creation and maintenance of many dualisms, such as master/slave, Black/White, civilized/primitive, and rationality/animality. We will see that the image of the primitive African still haunts the imaginary of American students.

The controversial system of Christian National Education (CNE) as implemented by the Afrikaner National Party government from the 1940s had a strong influence on the apartheid education policies that came afterward. The apartheid education system, like the town planning system, had far-reaching influence, and their effects are still observable in South Africa today. Christian values of freedom and land ownership place humans (especially White men) firmly on top of the natural order. These "civilizing" tenets were used by Westerners to permanently change South African society and continue to perpetuate violence (both symbolic and literal) against people of colour. Academic publications on geomatics education from the 1970s and 1980s (the height of apartheid) were relatively silent on the plight of Black South Africans. The lack of any mention of the abnormal nature of South African society by White academics could be viewed pragmatically. One could simply blame them for turning a blind eye to the plight of the Black populace and the atrocities of their government. It should be noted that there was much state-sanctioned violence to defend the regime, and there was a very real threat of violence against those who spoke out against the government. However, the sympathetic White voices were in

the minority, and there was an environment which supported what Tronto (1993) calls their privileged irresponsibility. This refers to the phenomenon of how a dominant group fails to acknowledge their exercise of power and maintenance of hegemony, thus taking for granted their position of privilege. The result is that the geomatics scholarship of the time appears ahistorical.

In South Africa today, engineering qualifications are focused on maintaining minimum standards and covering technical knowledge (Winberg, 2008). Furthermore, the clear emphasis on science in the early surveying qualifications and their similarity to other European qualifications at the time has been noted (Jones, 1982; Landman et al., 2017). This Western colonial dominance on knowledge practices has been unbroken: from colonial times, through apartheid, and even in the present post-colonial, post-apartheid academy. We will see that this dominance brings forth hauntings in our students' perceptions of the differential quality of their education. The skewness of content toward technical knowledge tends to minimize the importance of affective, social, and creative graduate attributes that should be nurtured during their education. A focus on emotion and affect in education is also important in subject formation, and is useful in finding "better ways of inhabiting the world with others" (Zembylas, 2009, p. 380). Clough (2007) describes critical theory's turn to emotion in the social sciences and humanities as the "affective turn". Bozalek and Zembylas (2016) add that affect "marks a shift in thought in critical theory through an exploration of the complex interrelations of discursive practices, the human body, social and cultural forces, and individually-experienced but historically situated emotions and affects" (p. 194).

Where Writing/Humanities Curriculum and STEM Converge

University writing courses and curriculum, housed within the broader humanities discipline, instruct students in a variety of writing styles and genres meant to encourage students' exploration of ideas central to the human experience. Creative, expository, and academic writing assignments sit adjacent to students reading critical and narrative texts that facilitate their rhetorical awareness, independent thought, and critical thinking. Writing instruction (in Kristi's class) is foregrounded by a posthumanist theoretical approach. Posthumanism theory, in the context of this work, follows Bradiotti's (as cited in Veronese, 2016) articulation that rejects universalism and hierarchical placement of "man" as a class and culture specific entity, thereby politicizing and negating otherness that exists outside of this paradigm. Bradiotti describes how this conceptualization sits in opposition to anti-racist and post-colonial thinkers, both pedagogical and ideological perspectives that frame this paper.

Writing students in the US classroom (Kristi's) are both consumers and producers of course material. They write as they are written upon, and they do not separate themselves from the pen, the computer, or the stories they share. Barad (2003) notes that all things are marked by material-discursive practices. Students are "marked" by the continuous and reciprocal activity of reflection, revision, and thinking anew, as they interrogate how phenomena are entangled by human and non-human entities shaped by historical, political, and social forces. Instruction, knowledge production, and classroom activities are intertwined, ongoing, and have both ethical and lasting consequences. A pedagogy inspired by posthumanism provides a space for abstract ideas to become visible, ripe for analysis, and is a perfect complement for discerning how students exist outside of classroom environments. Students are allowed to probe their own social and cultural positionality in relation to alterity and material conditions of the global world. Classroom practice is also foregrounded around the "affective turn" in social justice education (Clough, 2007). Student voices and their lived experiences reveal themselves through critical and counter-storytelling, which are central components of writing instruction. This is a classroom approach that disavows the logics of "Western industrial capitalist societies, bringing forth ghosted bodies, and the traumatized remains of erased histories" (Clough, 2007, p. 4). Instruction encourages students to read

the world before the word, as Freire (1970) expressed, thereby investigating how humans are connected to the world, their personal histories, each other, and the work writers produce.

A humanities education, according to Strauss (2017), stresses tackling twenty-first century problems through the lenses of creativity, flexibility, and clear thinking and writing skills. Twenty-first century problems require out of the box thinkers and skills the humanities promote. In fact, guiding principles in university writing instruction, namely, the “Framework for Success in Postsecondary Writing” (2011), advocate college readiness through students developing rhetorical and twenty-first century skills, adjacent to what the authors term “habits of mind” (p. 1) in order to support students’ college success. The “habits” refer to skills such as openness (described as new ways to consider thinking about the world), responsibility, flexibility, and engagement, to name a few. Instructing students to form these habits is meant to take them from the classroom to the world and to nurture success in a variety of fields and disciplines.

A humanities education, more broadly, provides students a thoughtful and intellectual means to examine products of the human experience like music, art, and literature (Strauss, 2017). In fact, a case has been made for a humanities curriculum that reaches across disciplines, particularly into STEM fields. In “Why STEM Students Need Humanities Courses” (Horgan, 2018) and “At MIT the Humanities are Just as Important as STEM” (Fitzgerald, 2014), the humanities are presented as vital to a STEM education. The STEM curriculum at MIT stresses the importance of an arts and humanities education as they believe the world’s largest problems, like climate change, poverty, and disease, are embedded in human experience (Fitzgerald, 2014). Horgan (2018) outlined the exigency for a humanities education that teaches students to probe and to challenge the very certainties that a science-based education promotes. Horgan describes the need for the humanities in a science education because the world depends upon both to move society forward. Mullen (2019) has articulated why STEM graduates benefit from an integrated humanities approach in “Behind the Scenes at the STEM-Humanities Culture War”. Mullen pointed out that STEM programs cannot view university curriculum as merely a means to a job as students may choose to alter career paths later in life and the workforce, largely, depends upon the skills that students may find in writing, ethics, or history courses (to name a few) that are found in a liberal arts education. Mullen further cites the National Academies of Science, Engineering, and Medicine’s report that due to varied student backgrounds and curricular approaches, students could benefit from an integrated curriculum that views the sciences and humanities as “branches from the same tree” (para. 1). This coincides with Plumwood’s (1993) advice on countering radical exclusion by affirming continuity between the branches. Strauss (2017) has argued similar points. She expressed how the humanities provide an education that depends upon a “cohesive collection of experiences” (para. 9) that prepares students to explore varied ways of thinking and questioning adjacent to learning languages or even how culture operates, which in turn might alter a worldly point of view.

However, and taking the USA as an example, and the combination of budget cuts and universities that are cancelling and defunding humanities programs, coupled with the increase of graduates with STEM degrees (CAA, 2018; Schmidt, 2018), there is a struggle to prove that studying the humanities is a relevant, worthy endeavour—a struggle that STEM does not have (Dix, 2018; Dutt-Ballerstadt, 2019; Marowski, 2020). In South Africa, too, it has been noted that the corporatization of academia has resulted in a “symbiotic, mutually reinforcing, relationship between university researchers, especially in the STEM disciplines, and trans-national corporations” (Alexander, 2014, p. 50). South African scholars relay the importance of responsibility that affirms difference and eschews binary thinking. Bozalek et al. (2018) focus on the entangled nature of the educational setting and how students and teachers are becoming—with each other through processes that render each other capable. As Bozalek (2017) notes, the “corporatization of the academy has meant that market principles such as competitiveness, efficiency, excellence, consumerism, individualism and productivity now dominate all aspects of the university” (p. 43). The economic imperative has privileged the hard sciences and now haunts

and marginalizes the humanities, setting up a dualism (hard science/soft science) that is detrimental to an understanding of the complexity of the world. This fosters an attitude that views people and things as exploitable resources. It further alienates disciplines and instead of difference being harnessed for celebrating diversity, difference “becomes a springboard for xenophobic stereotyping and latent social conflict” (Alexander, 2014, p. 53).

In thinking about combining our distinct disciplines, we turned to Braidotti (2013b) who has written about the link between humanism and Eurocentrism and the exigency to decouple these terms for the humanities to progress. Braidotti argues for the humanities to “become an adventure in difference and alternative cultural traditions” (p. 4). At the onset of our collaboration, we viewed our endeavour as such an “adventure in difference” where our two worlds could become entangled, embodied, and appreciated. Our work and scholarship in this regard rest in support of a larger global humanities conversation as written by Mintz (2020). Mintz emphasizes the value of “cross-cultural contacts, influences and exchanges, syncretism and cultural appropriation, colonial and borderland encounters, migrations and diasporas, colonial and postcolonial cultures, and local, regional and hemispheric linkages” (para. 21). In our case, we needed to be acutely aware of our positionalities within this inter-continental and transdisciplinary encounter, which was embedded in power relations. Enacting positionalities responsibly required us to be aware of our and our students’ embodied locations, as well as, the racisms and prejudices that haunt our classrooms. Our collaboration was intended to bring elements of both disciplines to our student cohorts—and for each of them to meet in the middle.

The Collaboration

Barad’s (2003) notion of performativity “that allows matter its due as an active participant in the world’s becoming, in its ongoing ‘intra-activity’” (p. 803) foregrounds the collaboration between the writing and geomatics students. As reported in Stewart and Motala (in press), we experimented with forging relations between our classes, situated in very different disciplines and contexts. As encouraged by posthumanist theorists such as Braidotti (2013a), our aim was to expose our students to the positivity of difference—in terms of culture, language, attitude and more broadly, lived material reality. We deliberately chose to group students together in ways that were intended to subvert or trouble dualistic power relations.

To kick off our collaboration, students were placed in WhatsApp chat groups. In the South African class ($N=22$), students were paired across differences: gender, race, and cultural or religious differences, as examples. In the American class, students ($N=67$) were placed in groups that mixed them across the lines of race, gender, and language, keeping their South African partners in mind. With the large numbers of American students, we decided to appoint a group leader that would facilitate conversation and keep the students on track. Leaders were purposefully selected to decentre Whiteness with mainly women of colour placed in charge. Additionally, based on classroom conversations and activities preceding the pairings that explored issues of race, white privilege, and topics like “America First”, students who had opposing views were grouped together. As instructors, we did not join the groups; we desired communication to unfold organically as much as possible in the context of a classroom assignment. Creating an extended, virtual classroom via WhatsApp required us to problematize conventional constructions of race, gender, and religion that exist in the world.

As part of their assignment, the South African students were asked to produce two maps of houses of their American colleagues, as well as two maps of their own houses. Thus, in one group, they were potentially asked to represent four very different lived realities. Springgay and Truman (2018) point out that “mapping and normalized geographic understandings continue the erasure and segregation of Black subjects” (p. 99), so this task was an attempt at resisting the hegemonic politics implicit in traditional maps. Hence, it was an exercise in counter-mapping and counter-storytelling. American students were

tasked with “writing the world” of their South African colleagues. The American students were enrolled in a theme-based writing section that explored the topic “What Does it Mean to Be a Global Citizen?” Students started the term by taking a world knowledge and geography quiz. They then explored global challenges and issues facing the world as articulated by the United Nations Foundation and Global Citizen (www.globalcitizen.org), and they watched TED Talks, wrote issue papers, and explored course themes with their South African colleagues in the WhatsApp chat. Together, both American and South African student cohorts had to answer questions in the WhatsApp chat to aid them in completing their assignments. Unique to this assignment was that the students depended upon each other to conclude their assignments, and both student groups submitted projects that included the maps and/or writing of their international colleagues. The American students created StoryMaps, which is a web-based application that can be used to integrate text and graphics, maps, or images.¹ At the end of our collaboration, students submitted transcripts (11 groups; average length 22 printed pages) of their WhatsApp pairings for our analysis. We specifically sought out passages where hauntings shaped the transaction.²

Data, Findings, and Analysis

In this section, we present examples drawn from WhatsApp chat communications, the StoryMap writing assignment the US students submitted, and the cartography reports the South African students submitted to illustrate the hauntings and/or dualisms that emerged. We analyse several South African and American reports diffractively (Barad, 2007), looking at examples of resonances and dissonances that emerged.

Example 1: Altering Views of the Self and the Other

What follows is an excerpt from a South African cartographic report written by Luniko (Black male) and Mathys (White male), followed by an excerpt from an American student’s StoryMap.

SA Cartography Example

“Our first thoughts were that ... the Americans would not understand our way of doing things like how we handle the assignment and how we go about accomplishing the work. We thought they would undermine us and would be self-centred due to the fact that they have a better education system in their country. We also thought they would not want to communicate with us and if they did, they would ask stupid questions i.e., do we have lions, do we ride elephants to school, do we have cars in South Africa etc. As we began to communicate with them and getting to know them, where they live and what they do on a daily basis, we had the understanding that their day to day lives are quite similar to ours e.g. working while studying, taking vacations with family, watching movies etc. We also found out that they are also positive and trying to make a success in life through education just like us with ambition and goals. We also learned that there are also quite a few different races and cultures we never knew about in America, some is in [sic] our group so that was an amazing thing to find out”.

¹ See <https://storymaps.arcgis.com/>

² We detail our collaboration further in *You Map Our World; We Write Yours* (Stewart & Motala, [in press](#)). This study was IRB approved, and consent was obtained by both instructors and locations. In that chapter, we also provide an example of a student-produced StoryMap.

US Example

“When I was first introduced to this project, I was skeptical about how I was going to collaborate with the South Africans. Before learning about South Africa, I did not [sic] even know it was a country. I just thought that we were going to be texting random people from the South part of Africa. Once I was introduced to the country, I then found out that it is its own country. My initial assumptions about the people of South Africa was [sic] that they would be way less technologically advanced than us and that they wouldn’t speak English. I also thought that there is only one dialect of African language, but I was wrong, Sinokuhle told me that there are 11 official languages and that he speaks 5 of them; Zulu, Xhosa, SiSwati, SiSotho, and English. There are many dialects of African just like there are Arabic but it varies from tribe to tribe. Before this project my vision was that South Africa was very rural with no city, just a bunch of villages that were basically “shack towns”. My group and I asked for pictures of where they live and Sinokuhle sent us a picture that showed a vast area with only one very little house in the picture. I was stunned by the vibrant colours that are seen in their surroundings. It looks so peaceful and calming. The weather looked beautiful, with the sun shining, blue skies and open grassland which was the opposite of what I was expected [sic] Africa. I did not think there would be a city or a suburb like environment” (Moroun, Arabic-speaking male).

Analysis

The South African content reveals that students entered the collaboration with suspicion and initially took a condescending tone toward their American counterparts, expecting them to “ask stupid questions”. Yet, they simultaneously assumed that their South African education was inferior to that of their American colleagues. Another important point of resonance found within most of the assignments was that students were surprised at the similarities they had with their international counterparts. Radical exclusion was countered because similarities were emphasized. The perception of South African students of their American counterparts is resonant with Black South African perception of Whites during apartheid, and these are permeated within power relations. During apartheid, Steve Biko (2004) noted the Black perception of White scientific scholarship:

Celebrated achievements by whites in the field of science – which he understands only hazily – serve to make him rather convinced of the futility of resistance and to throw away any hopes that change may ever come. All in all the black man has become a shell, a shadow of man, completely defeated, drowning in his own misery, a slave, an ox bearing the yoke of oppression with sheepish timidity (p. 31).

The dualistic tactic of relational definition is seen and criticized here with clarity by Biko. This focusing on technical excellence was one of the contingencies that led to the subjectification of both sides of the Black/White dualism. In addition to the representation of White knowledge as superior, Indigenous knowledge was systematically erased due to the imposition of Western modes of being on Black people. We observe the hauntings of Western superiority in both the South African and American students’ writings above.

American views of Africa are also dualistic in nature. Adichie (2009) articulated the lack of American knowledge about the African continent in her TED Talk, *The Danger of a Single Story*. She notes that Americans have a “single story” of Africa due its portrayal in Western literature combined with a scarcity of African content (music and TV) transmitted to the world. Therefore, an American understanding of Africa stems from aid-based need commercials, or we add, “We Are the World” type events. Adichie (2009) states,

If all I knew about Africa were from popular images, I too would think that Africa was a place of beautiful landscapes, beautiful animals, and incomprehensible people, fighting senseless wars, dying of poverty and AIDS, unable to speak for themselves and waiting to be saved by a kind, white foreigner (5:48).

Data from this project stands in agreement with this sentiment as the American students, at the onset, had little knowledge of the global world, its issues, languages, or people. This is evidenced by their stunning lack of worldly and geographic knowledge stemming from the quizzes they took at the beginning of the semester. Returning to the American example, this student reported that he had no idea South Africa was a country. He just thought when classroom discussion was centred on South Africa that we were literally talking about the southern part of the African continent.

We mitigated against several dualisms in terms of student perception of each other. Homogenization is normally used to promote the civilized/primitive and rich/poor dualism, and after the encounter, homogenization was countered because the complexity and diversity of African society was recognized. There is evidence of American students becoming more aware of differences—in this case, there is a difference between what they expected Africans to be like, and what they encountered. This is simultaneously a troubling of radical exclusion and homogenization because there is continuity between American and South African life that is being affirmed (countering radical exclusion) and the diversity of African society is recognized (countering homogenization).

Positioning a counter-story in direct contact with a majoritarian narrative situates students in a position to alter their point of view. Stories that put a “face” on the lack of material resources or gendered, cultural, or socio-political issues are no longer abstract. They sit in the classroom; they share the space. If students decide to “see” the stories of their colleagues, they begin to carry them (Stewart, 2016, 2019; Stewart & Ivala, 2017, 2019). By joining our classes and course design, we positioned our students to encounter stories of place through authentic engagement and dialogue. We view our work as overcoming dualisms in this regard as both incorporation and instrumentalism took place.

Example 2: Anti-Muslim Prejudice

In this example, we focus on anti-Muslim prejudice that was interrogated within the students’ responses from both cohorts. We pull this quote from a South African cartography report submitted by Chad (White male) and Mthobeli (Black male):

“It is this [sic] unclear whether or not American citizens fear Muslims or not. It was a difficult and sensitive topic to introduce when interacting with the American Students, since some of them were Muslims”.

Another South African cartography report, submitted by Grace (coloured³ female) and Bonga (Black male) reported on the following information that they gleaned from their American colleagues: “Even though our campus is diverse regarding the races of the students, parts of Michigan are still experiencing racism towards Arabs, Asians, Latins, Indians and African Americans”.

Analysis

The first quote alludes to the existence of the ghosts of anti-Muslim prejudice. The hidden nature of this ghost was surprising to us because of the large Arab-speaking and Muslim population (the largest

³ The term “coloured” refers to South Africans of mixed-race ancestry and was an officially recognized racial group during the apartheid era.

in North America) in the city where the American campus is located, resulting in a good representation of Muslim students in the class. What is interesting to note is that students have little knowledge about the world outside of their immediate and homogenous groups (as evidenced by their performance on the geography/world knowledge quizzes they took the onset of the course). If South African students wished to know more about the Muslim population, they were in the right place to receive first-hand information. Yet, they chose to steer clear of what they perceived to be an uncomfortable conversation even though conversations about race were taking place. This was not the case in another group, though—in this chat, Maryam (female American Muslim student) offered the following comment about the ups and downs of life in the US, “as for the downs because I wear a scarf/hijab sometimes people discriminate”.

Further, after the election of Trump in 2016, instances of anti-Muslim and anti-immigrant positionality revealed itself on campus (see Stewart, 2017). Anti-Muslim rhetoric, which brings its own ghosts coupled with Trump’s “America First” agenda and immigration policies, turned a racialized gaze back toward our Muslim population in the same way following September 11th. Chatterjee and Maira (2014) note that since the events of 9/11, there has been a systematic attack against scholars who have challenged, amongst other things, US foreign policy with particular reference to wars and occupations. During the Trump presidency, anti-Muslim prejudice was emboldened by policies such as the “Muslim Ban”. State policing and surveillance serve to propagate racial, gendered, and class practices in the neoliberal academy in the USA. Chatterjee and Maira’s premise is that the US academy is imperial and is an important agent of US global expansion and repression. As academics, we recognize our complicity in this system, yet try to resist from within by micro-political instances of activism.

We still question what held students back from the further participation and interrogation of race-based dialogues. We wonder to what extent a few scenarios impacted reticence. First, as this assignment ultimately was graded, how willing were students to invest in uncomfortable conversations? Secondly, incidents of oppression during the Trump years have resulted in many people unwilling to engage in conversations that may turn partisan. We feel that both situations represent a haunting that caused fear: South African students were scared to broach the issue and American students did not want to “see” racial realities as they persisted in real time. As we move forward and reimagine our collaboration, we understand that turning our students’ gaze toward Whiteness, which includes for some their own acknowledgement of White complicity in race-based subjugation is fundamental to our guiding principles of exposure, humanizing course design, and writing the world before the word (Stewart & Burke, 2021, manuscript under review; Stewart & Gachago, 2020).

Example 3: Resistance to Anti-Racism and Acknowledgement of Racist History

Here we provide both American and South African examples that illustrate a resistance to acknowledging race as problematic, historically or otherwise.

American

The state of race in America is like a water balloon waiting to pop. Tensions are very high although racism is not a major issue. In America we have achieved racial equality in my opinion, and simply showing statistics among whites and blacks are unequal, it does not mean that there is inequity. In the past, there was much inequity, and being white was a privilege, but that is not the case today. There are no racist laws, such as Jim Crow, if there was, then I would agree. People tend to just say that racism is such a big problem, simply because it must be out there somewhere. Show me a case that is racist, and I will agree, such as a cop shooting a black person without any justification. Race has been

a barrier for a long time, and it needs to change, and in order to do that we must come together and realize that we aren't so different after all (Mike, White male, excerpt from final project).

South African and American Example

The South African example is taken from a conversation from a WhatsApp group between one South African student (Mathys, White male) and a few of the US students (Fatima and Maryam, both female and Muslim). It starts out with Maryam asking Mathys what life is like in South Africa. He answers that life has its ups and downs like anywhere in the world. Maryam responds with the “ups and downs” in America, one being the discrimination she has faced in the USA against Muslim women who wear the hijab. She also mentions the unequal access to education that people of colour endure. Fatima chimes in to ask Mathys for specific examples of South African life, akin to Maryam's examples. Mathys responds by being overly vague, stating, “Weather simply marvelous”, the “countryside breathtaking”, and “food of the highest quality”. Finally, Fatima gets frustrated and tells Mathys that she shared with him specific examples and she expects the same in return. Mathys relents and says, “poverty, high crime rates, huge unemployment figures”. This leads the trio into a real dialogue about material conditions in both America and South Africa. Fatima writes about the disparate living conditions and unemployment figures between Black and White Americans, which leads Mathys into sharing the same conclusion about life in South Africa. This open and vulnerable dialogue invites the other members in the group to participate in the conversation. In a back-and-forth dialogue between all six members, the question, “How has South African history impacted your view of the world?” was posed. The second South African group member, Luniko (Black, male) states, “It's shaped our world in a way that people are distant to one another specially [sic] Black and Whites. There is a lack of trust and fear or betrayal against most people. Our history has also created a lot of violence and hate”.

Analysis

In the American example, the unwillingness of this White student to engage with the issue of White privilege points to a haunting that promotes the continuation of both White supremacy culture and the status quo. The spectre of the dualistic characteristic of incorporation can be discerned in this example because the Black experience is defined in relation to that of Whites (i.e., White students have not observed racism, and because it is officially illegal, it does not exist). In the second example, the extent to which the White South African student went to provide “surface” commentary about life in South Africa is indicative of his privileged irresponsibility. We note that privileged irresponsibility (Tronto, 1993) and the dualistic characteristic of backgrounding work in concert. This dualism calls forth the ghosts of apartheid and marks the bodies of students differently. This also demonstrates that the traditional, linear understanding of time may be problematized by a posthumanist analysis. In practicing an activist pedagogy, it is useful to gesture affirmatively to the future, knowing that the thick now is entangled with past and future racial injustices.

Moving Toward a Pandemic Pedagogy: Exploring Each Other's Water

There is an exigency to interrogate the dualisms we encounter in our classroom teaching now more than ever. From the US perspective in 2021, antiracism work has taken a new turn. The #BlackLivesMatter movement gained momentum that was sparked by an influx of White interest after the murder of George Floyd. However, Trump's administration continued to highlight the negativity of difference, which became starkly underlined and promoted. In 2021, systemic racism is more than just discursive—it is material and it appears in the skewed US Covid-19 death rates for African Americans in particular.

In 2020, online learning in the USA became the status quo and highlighted the differential precarity of students without monetary means or access to technology. This rings true in South Africa as well. When the switch to online learning happened in early 2020, a small group of poor Black South African students were unable to participate due to various circumstantial reasons such as lack of devices, adequate data, or even electricity. Hence, teaching a technology like GIS (which requires a computer, data, and specialized software) results in exacerbation of inequalities or the creation of new forms of exclusion (Motala, 2020). This is a worry that we have within our continued collaboration as well. How might we combat material inequality between our students in an unequal world?

There is room to identify the ghosts of racism and prejudice in the curriculum. The more we look for ghosts, the more easily they are to excavate. What we are finding out is that racialized hauntings are recurring, might reveal themselves as subterfuge, and do not go away. As Tuck and Ree (2013) articulate, “haunting lies precisely in its refusal to stop” (p. 642). We have found spectres that haunt people of colour manifest in “everyday” scenarios. As examples, in the USA there has been an effort on the political right to “Whitewash” the racism that appeared at the Capitol insurrection on 6 January 2021, even though insurrectors were photographed carrying Confederate Flags and noose and gallows were spotted on the Capitol grounds (*Associated Press*, 2021). During his tenure, President Trump banned racial sensitivity training and with that the academic philosophy of critical race theory (a theory that highlights embedded racism in America’s institutions) in government organizations. Although President Biden has reinstated diversity training, some states have echoed Trump by either banning this theory in public schools and universities (Idaho) or pushing legislation toward this goal (Tennessee and Oklahoma, see Trotter, 2021). In fact, in support of banning critical race theory, a speech was given recently on the floor of the House of Representatives that praised policies during slavery that defined African Americans as three-fifths of a person (Choi, 2021). These ghosts could appear as dualisms and become a means to counter binaries if opportunities are provided. The potential of hauntology for a justice-to-come is explored by Bozalek et al. (2021) who note that, in higher education, working towards a justice-to-come requires openness to possibilities that may emerge in analysing injustices. This is especially important in STEM disciplines where issues of ethics or justice are obfuscated by a focus on technical content.

We found that our collaboration, even our continued thinking and scholarship outside of teaching this class, has opened a space for both subjects to combine beautifully toward an antiracist curricular agenda. Partnerships like ours, if material access can be granted to all students, provide an opportunity for students to travel the world without leaving their screens. Our collaboration emphasizes the human experience across continents. Barad (2007) points out:

the other is not just in one’s skin, but in one’s bones, in one’s belly, in one’s heart, in one’s nucleus, in one’s past and future. This is as true for electrons as it is for brittlestars as it is for the differentially constituted human (p. 393).

We are not alone; our disciplines do not exist in a vacuum because our worlds are truly interconnected. David Foster Wallace (2005) reminds us that the value of a real education has nothing to do with knowledge and everything to do with being aware of what is around us. Foster Wallace establishes this claim with the story of two young fish who do not understand that they are swimming in water because it is what they do day to day. His point: “the most obvious, important realities are often the ones that are hardest to see and talk about” (para. 2). Teaching our students to care about their water—and the water of their colleagues—was fundamental to our project. However, this was a lesson that we learned best in our conversations as we Skyped during coronavirus and one that we wish to explore with our future student cohorts.

We shared with students that this project was a transdisciplinary exploration and that there were no correct/incorrect answers. Students were informed that it was important to take part in the process. This alludes to a posthumanist orientation which subscribes to a process ontology. However, such

experimental work requires a certain amount of bravery in the face of standardized gradings, engineering council requirements, and more generally, the corporate academy. We view our work as transdisciplinary activism that explores antiracism in collaborative endeavours. We feel that this last quote from one of the American students best illustrates both the hope and the goals we had for our shared work:

The questions that were answered and stereotypes that were debunked helped me to draw a picture that was more than just a landscape. It helped me view their country and their lives in a broader lens. On the other hand, “writing someone’s world,” gives the author almost too much power. The author must be careful what they say so that they don’t create a single story based on their own biases. People often believe all media without taking into account that it is just the author’s view-point. One single human’s opinion should not define a people or their struggles. Our responsibility as global citizens and humans is to keep an open mind, to explore others’ water.

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