

The Resilience of Settler Colonialism in  
University-Level Sustainability Education

by

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## ABSTRACT

University-level sustainability education in Western academia attempts to focus on eliminating future harm to people and the planet. However, Western academia as an institution upholds systems of oppression and reproduces settler colonialism. This reproduction is antithetical to sustainability goals as it continues patterns of Indigenous erasure and extractive relationships to the Land that perpetuate violence towards people and the planet. Sustainability programs, however, offer several frameworks, including resilience, that facilitate critical interrogations of social-ecological systems. In this thesis, I apply the notion of resilience to the perpetuation of settler colonialism within university-level sustainability education. Specifically, I ask: How is settler colonialism resilient in university-level sustainability education? How are, or could, sustainability programs in Western academic settings address settler colonialism? Through a series of conversational interviews with faculty and leadership from Arizona State University School of Sustainability, I analyzed how university-level sustainability education is both challenging and shaped by settler colonialism. These interviews focused on faculty perspectives on the topic and related issues; the interviews were analyzed using thematic coding in NVivo software. The results of this project highlight that many faculty members are already concerned with and focused on challenging settler colonialism, but that settler colonialism remains resilient in this system due to feedback loops at the personal level and reinforcing mechanisms at the institutional level. This research analyzes these feedback loops and reinforcing mechanisms, among others, and supports the call for anti-colonial and decolonial reconstruction of curriculum, as well as a focus

on relationship building, shifting of mindset, and school-wide education on topics of white supremacy, settler colonialism, and systems of oppression in general.

*Keywords:* Settler Colonialism, Higher Education, Sustainability, Sustainability Education, Climate Change

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## CHAPTER 1

### INTRODUCTION

Settler colonialism, as defined by Eve Tuck and K. Wayne Yang (2012), “is different from other forms of colonialism in that settlers come with the intention of making a new home on the land, a homemaking that insists on settler sovereignty over all things in their new domain,” including its current inhabitants (p. 5). In the context of what is now called the United States, settler colonialism refers to the historic and present taking of land, life, and ways of life of Indigenous peoples by European settlers through violence (physical and biological) to people, relationships, food and waterways, and ways of life themselves (Estes, 2020; Tuck & Yang, 2012; Whyte, 2018). Settler colonialism thus “destroys to replace” (Wolfe, 2006, p. 388). The sense of entitlement to land and territory held by European settlers hinges on logics of Christianity, capitalism, white-supremacy, and patriarchy, as will be discussed in more detail below (Estes, 2020; Speed, 2019; Tuck & Yang, 2012; Whyte, 2018).

Although this initial act of settlement took place over 500 years ago, settler colonialism continues to systemically persist into today through societal norms, rules, and institutions (Tuck & Yang, 2012). This is seen in how many present-day Westerners experience relationships with others, the beyond human world, and the land through continued white supremacy and violence (Speed, 2019; Tuck & Yang, 2012). One such place that settler colonial logics and white supremacist norms are reinforced in Western society is through education. Western education systems, including academia, are “rooted in attempts to coerce [Indigenous] people [and others] to assimilate to a white

supremacist status quo” (Gahman & Legault, 2019, p. 1). Therefore, those educated through these systems are often taught to perpetuate the same settler colonial logics that are baked into Westerners’ social fabric (Gahman & Legault, 2019; Jacob et al., 2021).

Jacob and colleagues (2021) state:

The idea of white-American superiority, based upon settler-imposed values and logics, and the narrow script of what is acceptable behaviour within this individualistic and capitalistic paradigm are so deeply ingrained in U.S. culture that they may seem to many as natural and inevitable. Most social and academic/research systems, including public schools, health care, environmental activism and the field of sociology, are either unable or simply refuse to meaningfully engage with colonization as a contributing factor in our lives. (p. 138)

Thus, one essential step in halting continued violence is to dismantle settler colonial logics as they are reinforced through education systems and societal norms. This breaking down of settler colonial logics can be done in many ways but should ultimately center Indigenous perspectives. Indeed, “curricula built with a respectful understanding of Indigenous cultural values can help build a workforce that centres Indigenous peoples, and work to dismantle white settler dominance and colonial violence” (Jacob et al., 2021).

Existing efforts to decolonize and dismantle white supremacy in Western academia, especially as it relates to environmental education and studies, are strong (Bratman & DeLince, 2022; Calderon, 2014; Jacob et al., 2021; Liboiron, 2021; Tuck,

2014; Tuck & Yang, 2012). However, even when educators decenter white supremacy in their classrooms through coursework and readings, there are still barriers to change embedded within the structure of academia (Bratman & DeLince, 2022). Further, “the opposite of colonization is not inclusion” (Liboiron, 2021, p. 876). Including Indigenous knowledges, justice lectures within existing curriculums, and Black scholars, Indigenous scholars, and scholars of color, while important, should not be equated to decolonization of education, and can often be done in a performative or tokenizing manner (Bratman & DeLince, 2022; Liboiron, 2021). Therefore, it is important that dismantling efforts go beyond performative actions and include measures to systemically break down settler colonialism, white supremacy, and other interconnected systems of oppression.

At present, however, settler colonialism continually manifests in Western academia through course activities and structures, course topics, readings, and the structure of the university itself (Bratman & DeLince, 2022; Tuck & Yang, 2012). Therefore, this thesis addresses the questions: How is settler colonialism resilient in university-level sustainability education? How are sustainability programs in Western academic settings addressing, or how could they address, settler colonialism?

More simply put, this paper looks at how university-level sustainability education, at Arizona State University specifically, both challenges and is shaped by settler colonialism. Western universities play a crucial role in the perpetuation of colonialism through the reproduction of settler colonial and white supremacist norms and logics, as well as through the accumulation of land itself (La Paperson, 2017). Indeed, “land accumulation as institutional capital is likely the defining trait of a competitive, modern-

day research university” (La Paperson, 2017, p. 43). Further, although land accumulation is central to the university’s picture of progress, the critical treatment of what this capitalistic land accumulation means is unlikely, and especially unlikely is a critical engagement of what it means for universities to exist on occupied Indigenous lands (La Paperson, 2017). While all branches of the university system operate on these lands, some disciplines are more deeply engaged with not only relationships to the land, but also human interactions with it. Sustainability is one such discipline.

University-level sustainability education in Western academia seeks to focus on eliminating future harm to people and the planet through classes and coursework designed for students to think critically about solutions to real world problems. However, Schools of Sustainability operate within a Western academic setting that upholds systems of oppression and reproduces settler colonialism where technocratic solutions are privileged, and land and people are often seen as resources from which to be extracted. Further, university-level sustainability education in Western academic settings still widely privileges Western sciences and knowledge over Indigenous sciences, knowledges, and other ways of knowing/being (La Paperson, 2017; Liboiron, 2021, McCoy & Villeneuve, 2020). These interactions thus aid in the reproduction of settler colonialism which is antithetical to sustainability goals as they continue patterns of Indigenous erasure and extractive relationships to the land that perpetuate violence towards people and the planet. Sustainability does, however, offer frameworks, such as resilience, that allow for more nuanced understandings of reproductions of settler colonialism.

I reference the example of resilience intentionally here as an often-used concept in sustainability programs that lends important tools for the analysis of settler colonialism. In general, concepts of resilience “measure... how far [a] system could be perturbed without shifting to a different regime” (Holling, 1973; Walker et al., 2021). However, over the past few decades, many more definitions for and uses of resilience have been added to the space. In this project, I am specifically referencing multiple equilibrium resilience in which “instabilities can flip a system into another regime of behavior—i.e. to another stability domain” as well as analyses of resilience that use reinforcing feedback loops and basins of attraction (Gunderson, 2000; Holling, 1973). Here, “resilience is measured by the magnitude of disturbance that can be absorbed before the system redefines its structure by changing the variables and processes that control behavior” (Gunderson, 2000; Holling, 1973; Walker, 1981). Understanding settler colonialism in sustainability education as resilient can aid in assessments of it through curriculum, and university structures in general, by highlighting more specific ideas of barriers, reinforcements of norms, and momentum of basins of attraction, as will be defined in the next section of this paper.

Resilience makes use of concepts of reinforcing and balancing feedback loops, as well as reinforcing mechanisms, that help in understanding where reproductions of settler colonialism happen and potentially how to intervene in the system to break patterns of continuation. The practice of assessing the resilience of settler colonialism, therefore, can aid in the effort of uncovering potential feedback loops within settler colonialism as it manifests in university-level sustainability education. Further, as resilience is a useful tool for understanding systems, it is thus important to view sustainability education as a

system itself made up of the relationships between people, places, and the beyond human world. In this way, sustainability education is uniquely positioned as a field to address issues of settler colonialism due to its focus on relationality and the future, as the dismantling of settler colonialism is an endeavor premised on the elimination of future harm and injustices. However, mainstream sustainability education often perpetuates the idea that land is a resource that exists for human extraction and ownership, a concept steeped in capitalist and settler colonial thought (Bratman & DeLince, 2022). Therefore, to challenge settler colonialism, sustainability education must critically examine its understandings of land and how to engage with it.

Arizona State University (ASU), home to the first (academic) School of Sustainability, is one such colonial institution located on occupied Indigenous lands with a sustainability discipline operating under its wings. As a student within ASU's School of Sustainability, I am aware of efforts being made to incorporate Justice, Equity, Diversity, and Inclusion (JEDI) competencies into the existing School of Sustainability curriculum at the request of faculty and students. Many faculty are interested in incorporating and embodying anti-colonial and decolonial practices more holistically across curriculum, as well as in their personal lives, and are particularly passionate about their service to and support of students.

Addressing settler colonialism within the classroom, and outside of it, can create barriers such as feelings of discomfort or unease in many people. Topics of settler colonialism and subsequent systems of oppression often bring up feelings of shame, guilt, and complicity within settler communities, particularly as their/our privilege allows

them/us to ignore these issues (Jacob et al., 2021; Okun, 2000). These create feedback loops that reinforce the resilience of settler colonialism in sustainability education. However, the importance of moving beyond these feelings and not allowing them to result in manifestations of anger or inaction has become increasingly clear through this project.

To address these issues and the specific research questions mentioned above, this project studies how university-level sustainability education is both challenging and shaped by settler colonialism through a series of conversational interviews with faculty and leadership from Arizona State University's School of Sustainability. These interviews focused on faculty perceptions of settler colonialism and related issues and allowed for a better understanding of the current experience of faculty at ASU's School of Sustainability, and how settler colonialism and other intersecting systems of oppression currently manifest in this subset of academia.

Similarly to how faculty are interested in unlearning settler colonial logics, I too am on this journey with them. Although my perspectives center around the desire to dismantle oppressive systems and focus on anti-colonial methods, as Tuck and Yang (2012) assert, one way that settlers attempt to find themselves innocent in colonization is to “focus on decolonizing the mind, or the cultivation of critical consciousness, as if it were the sole activity of decolonization, to allow *conscientization* to stand in for the more uncomfortable task of relinquishing stolen land” (p.19). As such, I echo a sentiment highlighted by Bratman and DeLince (2022) that decolonization does not come from decentering whiteness in the classroom alone. Decolonization, including the giving back



of land, “should be taken seriously... especially by those in the field of environmental studies and sciences since the field treats land use, land management, and land ownership questions in direct ways” (Bratman & DeLince, 2022, p.3). With this, I find it important to highlight my positionality. I am a cis-gender, white-settler woman living on the unceded traditional and contemporary lands of the Hohokam, Akimel O’Odham, and Piipaash peoples in Phoenix, Arizona. My family and ancestors have been arriving from Scotland, Germany, and other European countries and settling on the unceded Land that is now called the U.S. for centuries. I grew up just outside of Atlanta, Georgia, on unceded Cherokee and Muscogee Lands where I entered and continued my education through the public school system. In this space, I was no doubt taught and internalized whitewashed histories of the United States, fraught with imperialist, settler colonial, misogynistic and white supremacist undertones. I later attended George Washington University in the Human Services and Social Justice department where histories were similarly not questioned and white savior mentalities praised. It was not until graduating college that I began thinking critically and educating myself about the historic and present settler colonial realities of the Land I live on, or how I have been complicit in these same realities. I recognize now that it is because of my privilege that I have been able to ignore this for so long.

Throughout this project I have questioned if I should be doing this work as a settler myself who is complicit in, benefits from, and holds power through the resilience of settler colonialism. I acknowledge here that my positionality may cloud my ability to analyze the results of this work in a holistic and nuanced manner, even as I call for this from others. However, as I am on my own learning journey, this process has helped me in

my own self-reflections around challenging settler colonialism in my personal life as well as my academic contributions. Further, I am actively trying to position myself in solidarity around efforts towards decolonization in education and generally. I firmly believe in not exploiting the efforts of Indigenous people, Black people, and People of Color in the fight to dismantle settler colonialism while I sit on the sidelines. As such, although I am working towards it, I make no attempt to claim that my perspective at this point is entirely decolonial. However, in my research and personal life, I am committed to the continual practice of unlearning settler colonialism and to centering and embodying justice, intersectionality, and working alongside the many others calling for the dismantling of oppressive systems. I hope that my research, including this project, can lend itself to the existing conversation in educational spaces calling for the centering of Indigenous perspectives, scholars, and activists of color, and the abolition of Western, hegemonic power structures. I recognize the privilege I have to work from this vantage point and hope to use this privilege in efforts to dismantle hegemonic power structures and diminish my own privilege and power.

In this paper, I will review the literature around resilience, settler colonialism, and university-level sustainability education. I will then outline my research design and methods, analyze the information gathered through the study, and will end with a conclusion including my suggestions for further research and action.

## CHAPTER 2

### LITERATURE REVIEW

#### *Resilience*

The term resilience, as used for ecological systems, gained prevalence after it was coined by C.S. Holling in 1973 (Gunderson, 2000; Holling, 1973). For Holling, the purpose of understanding resilience as it relates to ecological systems was to provide a “measure of how far the system could be perturbed without shifting to a different regime” (Holling, 1973; Walker et al., 2021). Other ecologists (Pimm, 1991; Walker et al., 2021) view resilience in ecological systems as measurements of the speed of return to equilibrium after disturbance. Resilience is used in engineering context to refer to the ability of a system to bounce-back, or return to equilibrium, after disaster or perturbation (Gunderson, 2000; Ives, 1995; Mittelbach et al., 1995; Neubert & Casswell, 1997). This view operates under the assumption that there is a single global equilibrium that systems can reach or sway away from (DeAngelis, 1980; O’Neill et al., 1986). Conversely, other scholars characterize multiple equilibrium resilience as “[emphasizing] conditions far from any steady state condition, where instabilities can flip a system into another regime of behavior—i.e. to another stability domain” (Gunderson, 2000; Holling, 1973; Walker, 1981). For socio-ecological resilience, there is also the concern of whether a system can self-organize or adapt to new stable states after disturbance (Carpenter et al. 2001; Folke 2006; Norberg & Cumming 2008; Plummer, 2010).

More recently, the term resilience has become adopted widely in non-profit,

policy, and development realms, and even in public discourse (Brown, 2014; Meerow, Newell, & Stults, 2015). Indeed, “in the wake of any sudden event or disaster, there are inevitably calls for increased resilience or narratives about how resilient people and communities, ecosystems, cities – even the ‘economy – are in the face of a shock or calamity” (Brown, 2014). This rise in prevalence came after the 2007-8 recession in the U.S., and specifically in the last decade since then (ibid). In these ways, resilience is often used in a positive, or at least neutral, manner, speaking to the ability for a system to return to normal functioning after disturbance.

Resilience assessments have become increasingly useful and important for interrogating human-nature relationships and socio-ecological-technical systems. Indeed, resilience assessments can be used to

[understand] the resilience of [a system], how it has changed over time and what factors build or erode it; resilience assessment usually addresses both resilience to specific changes and potential shifts in a system state, as well as general resilience to unknown change. (Biggs, Clements, & de Vos et al., 2021, p. 208)

Other questions relevant to this research that resilience offers include “How has resilience of a [system] changed over time” and “What factors build or erode resilience” (ibid).

Resilience is often attributed to ecological, physical, physiological, and technical systems, but can be used to analyze social systems as well. For example, in her paper, *The Applicability of the Concept of Resilience to Social Systems: Some Sources of Optimism and Nagging Doubts*, Debra Davidson (2010) states,

There is no shortage of scholarship analyzing the crisis tendencies of the capitalist economic system... (e.g., O'Connor, 1971; Schumpeter, 1942; Schnaiberg, 1980; Foster, 1999). In one study of the economic history of Western Europe, Fischer (1996) analyzes the effects of changes in the prices of basic goods, including food and energy supplies, drawing conclusions that are strikingly analogous to ecological applications of resilience. (p. 1140)

Fischer (1996) thus highlights that there are cycles of recovery regarding societal shifts (such as disease or famine), but that these “tend to simply generate the next immanent cycle,” or equilibrium (Davidson, 2010, p. 1140). Further, Davidson (2010) references several shifts in regime and instances of social revolution, stating that “many of these...conditions could be interpreted as shifts in the domains of attraction, and/or cross-scale feedback effects—described by the resilience framework” (p. 1140).

As this claim is relatively different from the typical conversations in the resilience community, Davidson (2010) also calls for further research in this area, specifically in addressing human agency as it relates to manifestations of resilience in social systems. Anna Stanley (2016), in her article on Resilient Settler Colonialism and Indigenous Sovereignty in Canada, states that since the use of the term resilience has gone beyond the field of ecology (as defined by Holling, 1973) it has “extended to apply to all manner of eco-social and socio-economic systems... [and] refers to the complex interactions that determine the persistence of relationships within *any* system” (p. 2425).

There does exist hesitancy around the use of resilience theory in relation to social

systems. For example, Plummer (2010) states that, “Developing ‘resilience theory’ to explain behavior of social–ecological systems is problematic because of these systems’ extreme degree of complexity, the capability of multiple theories to explain aspects of behavior, and inability to run experiments on such systems” (p. 297). While the topics relevant in this paper are complex, emergent, and adaptive systems, the intention is not to use resilience theory to explain why settler colonialism exists. Rather, it is to highlight that resilience offers tools that allow us to better understand settler colonialism’s resilience and potential intervention points for interrupting its reproductions. The tools that will be relevant to this paper include basins of attraction, reinforcing feedback loops, and the concept of panarchy. These will be discussed in more detail below.

Multiple equilibrium resilience denotes the possibility for the existence of multiple stable states, such that if settler colonialism is dismantled within one space, such as individually, it may still operate in a stable manner in other spaces, systemically/institutionally through shifts in basins of attraction. As mentioned above, basins of attraction are one such tool that may help in assessing the resilience of settler colonialism as it shifts through different manifestations over time. The concept of basins of attraction, “the set of initial conditions whose dynamics approach the attractor,” is often used in assessing the resilience of socio-ecological systems (SES) (Biggs et al., 2021). This concept provides a visual representation of the resilience of a system as it shifts between stable states, equilibriums, and can help illustrate how settler colonialism may transform in one space but fall into another basin of attraction to remain resilient through reinforcing mechanisms.

For example, although the enslavement of Black Africans was technically abolished in 1865, it has taken on another form in the present-day and this shift can be visualized through basins of attraction. The 13<sup>th</sup> amendment of the U.S. Constitution reads, “Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction” (“U.S. Constitution,” amend. XIII). In fact, Avery F. Gordon (1999), in a conversation with Angela Davis, states

Within the institution of slavery, itself a form of incarceration, racialised forms of punishment developed alongside the emergence of the prison system within, and as a negative affirmation of, the ‘free world’, from which slavery was twice removed. Even if the forms of punishment inherent in and associated with slavery had been entirely revoked with the abolition of slavery, the persistent second-class citizenship status to which former slaves were relegated would have had an implicit impact on punishment practices. However, an explicit linkage between slavery and punishment was written into the US Constitution precisely at the moment of the abolition of slavery....The abolition of slavery thus corresponded to the authorisation of slavery as punishment. In actual practice, both Emancipation and the authorisation of penal servitude combined to create an immense Black presence within southern prisons and to transform the character of punishment into a means of managing former slaves. (p. 151)

This quote, along with the text from the 13<sup>th</sup> amendment, show shifts in stable states of the enslavement of Black Africans as it exists in the United States. Further, settler colonialism “provides the theoretical context in which white supremacy in the U.S. has

flourished through the construction, maintenance, and enforcement of racial inequality” via the dispossession, displacement, and exploitation of People of Color (McKay, Vinyeta, & Norgaard, 2020, p. 1). As seen in Figure 1 below, the concept of the enslavement of Black Africans shifts, through disturbance and activism, to abolition, but then falls into the next attractor, or equilibrium, after the passing of the 13th amendment. While abolition as it was known is absolutely something to celebrate, it is equally important to recognize the current forms of slavery that exist within the U.S., and to not allow settler colonialism to cover its tracks, so to speak, through the continuation of displacing peoples. In this way, settler colonialism is seen as resilient as, although disturbance in the form of a shift in regimes occurred (the abolition of slavery), settler colonialism can exist in multiple equilibriums, and adapt to this shift, creating a new, covert forms.

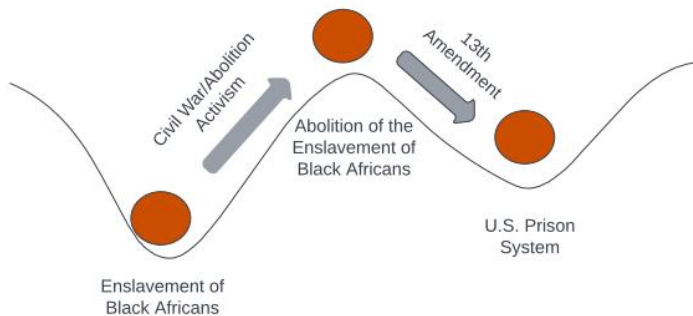


Figure 1: An example of the resilience tool, basins of attraction, showing shifts in the presence of slavery in the U.S.

Another tool resilience offers the understanding of settler colonialism is the concept of feedback loops. Feedback loops are



generally classed as either ‘reinforcing’ or ‘balancing’. In a reinforcing feedback loop, the initial changes to a variable are amplified by the feedback loop, generally leading to the system accelerating change. In a balancing feedback loop, the initial changes to a variable are counterbalanced by the feedback loop, generally leading to the system resisting change. (Biggs et al., 2021, p. 362)

In most cases, the concepts covered in this paper will focus on reinforcing feedback loops. For example, the continuation of settler colonialism is fundamentally premised on “Native dispossession and white supremacy” (Speed, 2019). In addition to white supremacy, settler colonialism also uses capitalism to remain resilient. The settler colonial project, in part, hinged on the goal of capital accumulation through plantation and land ownership, and later extraction of resources from the land, which will be discussed more below (Ramonés & Engle Merry, 2021).

However, settler colonialism also hinges on extraction and exploitation of ways of life and lives themselves. Therefore, as capitalism and white supremacy shift over time, so too does settler colonialism. Indeed,

As capitalism evolves, new racialized rationales must be provided, and old tropes are revived in new guises. In the latest phase of capitalism—neoliberalism—multiculturalism was the racial ideology, always promising inclusion and rights for those sufficiently or properly invested in the system (which for Indigenous people meant accepting the settler state as the sovereign power that could grant them rights). (Speed, 2019, p. 7)

In this statement, we see a reinforcing feedback loop wherein capitalism drives new racialized rationales. Through these rationales come neoliberalism and multiculturalism. Multiculturalism brings along the promise of inclusion and rights, but within a capitalist system where white supremacy still thrives. Shown in figure 2 is a simplified version of a reinforcing feedback loop. Other feedback loop examples provided in the analysis section of this paper will become increasingly more complex but will still only show a portion of the complex system.

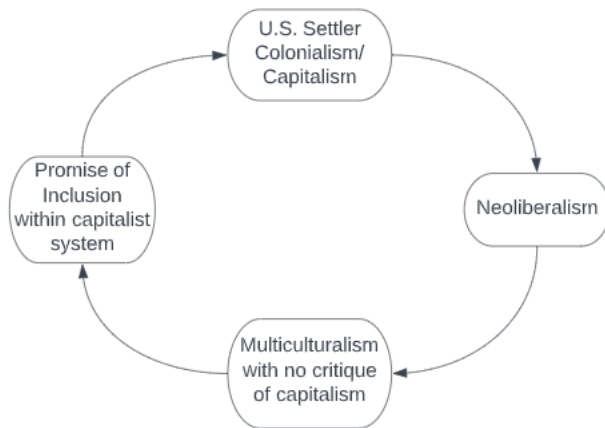


Figure 2: An example of a reinforcing feedback loop based on the information provided in the written example above.

The third tool offered by resilience theory that will be used in this paper is the concept of panarchy. As defined by the Resilience Alliance,

No system can be understood or managed by focusing on it at a single scale. All systems (and SESs especially) exist and function at multiple scales of space, time and social organization, and the interactions across scales are fundamentally important in determining the dynamics of the system at any particular focal scale.

This interacting set of hierarchically structured scales has been termed a "panarchy" (Gunderson and Holling, 2003; "Panarchy," n.d.).

As seen in Figure 3, interacting systems at different scales link and connect in different ways. The panarchy diagram provides a visual explanation for how larger systems that are slow to change influence and are influenced by smaller systems that are faster to change. In the context of this paper, the panarchy diagram will be used to explain how settler colonialism (a large and slow to change system) interacts with university-level education (a medium scale system), and Sustainability education in Western Academia (a smaller and faster to change system). Examples will be provided in the analysis section for how revolutions are already happening in the smaller systems that may undermine the resilience of settler colonialism. Figure 3 shows the blank panarchy diagram that will be built upon in the analysis.

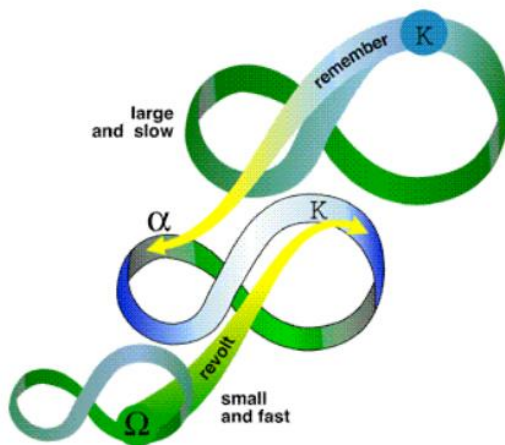


Figure 3: The visualization of the resilience concept of panarchy (Gunderson and Holling, 2003; "Panarchy," n.d.).

Settler colonialism is often referred to as being persistent or persevering, which I believe to hold true, however, I hypothesize that due to the ability for settler colonialism to adapt and shift during times of disturbance, resilience can provide tools to further assess and address its reproductions. Many articles already reference settler colonialism in this way (Bousfield, 2019; Stanley, 2020; Veracini, 2011; Veracini, 2013), however, they do not make an explicit argument for why they are using the term resilience, assumingly using it as a synonym for words like persistent.

In the following sections of this paper, I will use concepts of basins of attraction, reinforcing feedback loops, and the concept of panarchy to further interrogate the resilience of settler colonialism and its manifestation in university-level sustainability education. Further, I will analyze interviews with faculty members at ASU's School of Sustainability, including direct connections to resilience frameworks and tools of analysis. However, before advancing, I will provide additional context for connections to settler colonialism and university-level sustainability education.

### *Settler Colonialism*

In addition to their definition above, Eve Tuck and K. Wayne Yang (2012) explain settler colonialism's emphasis on control over land, and "water/subterranean earth," as grounded in the settlers' desire to "make Indigenous land their new home and source of capital, and because the disruption of Indigenous relationships to land represents a profound epistemic, ontological, cosmological violence" (Tuck & Yang, 2012, p. 5). Settler colonialism is not a one-time event, but rather a structure and a

process for the historic and continued genocide, violence, and environmental injustice towards land, people, culture, epistemologies, cosmologies, and more (Coulthard, 2014; Liboiron, 2021; Stanley, 2016; Watts, 2013; Whyte, 2016, 2018; Wolfe, 1999). This is a sentiment that will come up again throughout my paper as I argue that education broadly, without an anti-colonial/decolonial focus, erases and whitewashes the extent of the damages caused historically and presently by settler colonialism and thus reproduces systems of oppression. Further, the reproduction of settler colonialism in our society allows for the continuation of extractive land practices that further pollute and damage the Earth and lead to the exacerbation of climate change (Estes, 2020; Gilio-Whitaker, 2019).

Settler colonialism seeks to eliminate entire cultures, peoples, and connections to the land and therefore destroys the land itself (Whyte, 2016; Wolfe, 2006). As part of the “process of settler colonial domination, there is an important ecological dimension” such that settler colonialism is a “type of environmental injustice driven by settlers’ desire, conscious and tacit, to erase Indigenous peoples and to erase or legitimate causation of such domination” (Whyte, 2018, p. 135). An example of this domination over ecologies and the environment can be seen in the way U.S. settler colonialism has forced settler ecologies on the landscape, such as by implanting grasses and other European plants onto the landscape while violently removing native ecosystems (Whyte, 2018). Tomaz Mastnak, Julia Elyachar, and Tom Boellstorff (2014), in their article, *Botanical Decolonization: Rethinking Native Plants*, talk about the concepts of “planting” and “displanting” as they relate to colonization. As such,

Once ‘planted in’ themselves, the [colonizers] planted a garden in the new world in imitation of the almighty God’s creation of the Garden of Eden. But the “gardeners” worked side by side with the “diggers up of trees, roots.” Planting necessarily involved displacing. Captain Smith, for example, reported in 1629 that most of the woods around Jamestown had been cut down and “all converted into pasture and gardens; wherein doth grow all manner of herbs and roots we have in England in abundance and as good grass as can be” (cited in Crosby, 2004, page 157).

Not only does this planting and displacing involve “philosophies and practices associated with Europe, emerging US settler culture, and other parts of the world,” but also the process of attempting to erase “qualities of relationships that matter to Indigenous people” (Whyte, 2018, p. 135).

In the U.S., original forms of settler colonialism specifically included the genocide of Indigenous peoples by means of physical and biological violence (disease transfer), as well as continued violence by way of forced assimilation and the attempt to erase Indigenous culture and futurity in its many forms (Dunbar-Ortiz, 2014; Estes, 2020; Whyte, 2018; Wolfe, 2006). Further, U.S. settler colonialism included the kidnapping and subsequent enslavement of Black peoples from Africa, whose bodies were exploited to build this country (La Paperson, 2017). These acts of violence, while not carried out to the same level today, are still perpetuated through logics of white supremacy and racism held by some settler communities. Therefore,

though some may attempt to dismiss discussions of settler colonialism as overly concerned with the past, settler colonialism is important to analyze because it ‘relies upon assumptions about other cultures that are alive and well in the most powerful societies in the contemporary world’ (Hinkson, 2012, p. 1; Tuck, McKenzie, & McCoy, 2014).

The reproduction and continuation of settler colonialism in society today is a direct threat to current and future generations of humans, the beyond-human world, and the Earth itself (Estes, 2020; Gilio-Whitaker, 2019).

Settler colonialism provides a foundation for capitalist and extractive logics which view people and all parts of the land as potential capital (Estes, 2020; Gilio-Whitaker, 2019; La Paperson, 2017; Speed, 2019; Tuck & Yang, 2012). Indeed, “how land becomes property not only was but still is the great colonizing trick that paves the way for capitalist accumulation” (La Paperson, 2017, p. 21). Settler colonialism, white supremacy, and capitalism all separate people from each other, people from the land, and simultaneously extend “white sovereignty over these now separated lands and peoples” (ibid). This interconnection of systems of oppression and the economic systems that thrive on them creates an increasingly complex socio-economic system. Therefore, to have a more holistic understanding of the climate crisis, it is important to understand the ways in which settler colonialism, white supremacy, and capitalism, without conflating them, work together to foreground the resilience of settler colonialism.

Settler colonialism remains resilient by changing shape over time in response to societal shifts (Speed, 2019). Because settler colonialism is an enduring structure, rather

than an event, as “Indigenous peoples exist, resist, and persist,” settler-colonial structures require constant maintenance in an effort to [attempt to] eradicate them” (Kauanui 2016, p. 1; Speed, 2019, p. 2; Wolfe, 2006). One such way that settler colonialism remains resilient is by generating new system traits in response to shifting societal norms, including changes in white supremacist and nationalist logic in the U.S. (Speed, 2019). Indeed, “the intimate relationship between colonialism, capitalism, and white supremacy is not incidental. As European colonial expansion facilitated the development and spread of capitalism, it brought white supremacy along with it” (ibid). As such,

settler “imagination valorized whiteness and sanctioned the violence of white domination, enslavement, and genocide while bolstering Eurocentric understandings of land use, private property, and wealth accumulation,” a framing that usefully foregrounds not only white supremacy’s dispossessive and eliminatory capacities but also its foundational role in the formation of capitalist modernity. (Bonds & Inwood, 2016, p. 720; Speed, 2019)

Thus, white European/white settler interactions with the Land are deeply rooted in settler colonial and white supremacist norms that allow for the continuation of attempted Indigenous erasure. Challenging settler colonialism and white supremacy directly in sustainability scholarship provides pathways for addressing the root causes of climate change as those that are directly driven by extractive relationships to the land in a way that depletes resources and depends on Indigenous erasure.



Present-day white supremacy culture, which has been created in tandem with settler colonialism, exists in organizations and society in many ways, including how people interact with each other and themselves. To categorize, there are a handful of specific white supremacist logics that are present in Western institutions, and particularly in academia including perfectionism, urgency, either/or thinking, quantity over quality, emphasis on the written word, paternalism, defensiveness, power hoarding, progress equals bigger/expansion, objectivity, individualism, and fear of open conflict (Okun, 2000). I will not go through each of these here, but instead will highlight the ways in which many of these themes relate specifically to this project, and especially those that later come up in the results section through conversations with faculty.

Many of these elements are clearly seen in academia—emphasis on the written word through assignments and projects, such as this thesis, objectivity in research, and perfectionism in standardized testing and grading. As will be shown in the analysis below, during their interviews, many faculty members highlighted urgency, or time, as prevalent in their experiences of working in academia and as a barrier to addressing settler colonialism in themselves and in the institution. Urgency here is defined as a continual element that makes it

difficult to take time to be inclusive, encourage democratic and/or thoughtful decision-making, to think long-term, to consider consequences; frequently results in sacrificing potential allies for quick or highly visible results, for example sacrificing interests of communities of color in order to win victories for white people (seen as default or norm community); [and is] reinforced by funding

proposals which promise too much work for too little money and by funders who expect too much for too little. (Okun, 2000)

A sense of urgency and limited time creates scenarios where people, and particularly faculty in the context of this research, must consider trade-offs between personal life and work, especially as their time is split between research, teaching, and service to the university. In the context of academia as a product of settler colonialism and white supremacy, many faculty, and students for that matter, are forced to also choose between physical/mental health, personal growth, and time at work.

Other specific connections between settler colonialism and white supremacy that are relevant to this project include quantity over quality and power hoarding. Quantity over quality thinking is defined as

little or no value attached to process; if it can't be measured, it has no value; discomfort with emotion and feelings; no understanding that when there is a conflict between content (the agenda of the meeting) and process (people's need to be heard or engaged), process will prevail (for example, you may get through the agenda, but if you haven't paid attention to people's need to be heard, the decisions made at the meeting are undermined and/ or disregarded). (Okun, 2000)

This focus on quantity over quality can be seen through expansionist ideals of settler colonialism and capitalism, as well as Western ways of knowing that do not provide frameworks for emotional intelligence or self-reflection (Carroll et al., 2020). In these

situations, progress is seen as bigger and more, and outcomes matter over meaningful processes of learning and communication.

Power, power hoarding, and paternalism are other elements of white supremacy with strong ties to settler colonialism. Settler colonialism is premised on the idea that white men have power, divinely so, over all others. Because settler colonialism persists today, it is currently possible for white Europeans/white settlers with privilege to remain insulated from the effects of colonialism, at least regarding power imbalances. It is as though they exist in a separate reality, in comfortable boxes with a cushion from the systems they benefit from. However, when the walls of the box start to deteriorate and they begin to see the world around them, feelings of fear, anxieties, guilt, and shame creep in that they have not been taught to deal with before (Carroll et al., 2020). Instead of addressing this, examining the ways in which they benefit from oppressive systems and attempting to change what is happening around them, some may retreat, or become defensive.

This retreat into the corners of their comfortable boxes allows for the continuation of the cycle of oppression—“the defensiveness of people in power creates an oppressive culture,” and thus the resilience of settler colonialism (Okun, 2000). Some settlers would rather remain sheltered than address what is happening and help in the effort to dismantle oppressive systems. Others may be unaware of the present-day impacts of settler colonialism and interconnected systems of oppression because of their privilege and power that allows them to be insulated from it. When this happens in academia, it allows

for the perpetuation of white supremacist and settler colonial logics even when educators are not intentionally reproducing these concepts.

It is possible that this fear, although it is something that has existed prior, has been exacerbated as white supremacist logics have become more openly accepted and tolerated since at least the 2016 election (Speed, 2019). Although these same issues existed pre-Trump presidency, they are possibly becoming more visible, at least to white Europeans/white settlers who were previously able to ignore them. However,

Because the United States is structured upon white supremacy [and settler colonialism], shifts in public discourse and policy, while significant, do not change the fundamental structures of power. While the forms that structural logics take over time are historically contingent, they remain as persistently present today as they were five hundred years ago. (Speed, 2019)

Therefore, while shifts in individual mindset are nonetheless important, they do not alone contribute to dismantling systems of oppression in ways that change the structural power imbalances present in the U.S. today. Further, these shifts may signify transitions between basins of attraction, rather than transformations out of the resilience of settler colonialism.

Thus, just as settler colonialism is resilient in our society, it is resilient in education systems. Addressing settler colonialism as it relates to sustainability education is just one such step at dismantling it. The resilient nature of settler colonialism increases its complexity and ability to exist and persist in every part of U.S. society. To foreshadow

a metaphor shared by a faculty member during interviews, it is as if we are submerged in water—addressing settler colonialism in sustainability education may dry parts of us, but we will not become dry until reinforcing mechanisms are resisted or blocked.

However, sustainability offers potential intervention points across many reinforcing feedback loops—including interactions with the land, connections to personal identities, economics, energy production, climate justice, and more. Each of these topics is influenced by settler colonialism and has the opportunity to address it, if people are willing. In the case of ASU’s School of Sustainability faculty, many are. As sustainability faculty and students engage with settler colonialism more seriously as it relates across disciplines, the water we are submerged in may dissipate. If the university, as a part of the settler colonial project, begins to restructure and dismantle white supremacy and settler colonial culture, it is possible that society will follow, but only if decolonization is taken seriously—and this goes well beyond land acknowledgements. Indeed,

Ending racial and gender oppression will mean real decolonization: the creation of societies not structured on Native dispossession and capitalist exploitation.

Decolonization is the only way to eliminate the racial and gendered logics that intersect inevitably to generate conditions of oppression and violence for

Indigenous women, and for us all. (Speed, 2019, p. 82)

The process of decolonization is unclear and incommensurable—not all people will agree on the correct pathway, and not all people will agree on the need to decolonize in general (Tuck and Yang, 2012). Settler colonialism remains resilient in part because

One of the notable characteristics of settler colonial states is the refusal to recognize themselves as such, requiring a continual disavowal of history, Indigenous peoples' resistance to settlement, Indigenous peoples' claims to stolen land, and how settler colonialism is indeed ongoing, not an event contained in the past. (Tuck, McKenzie, & McKoy, 2014, p. 7)

This is perpetuated, in part, through U.S. education systems, as will be discussed in more detail below. In fact, education creates additional reinforcing feedback loops and mechanisms that strengthen the resilience of settler colonialism in society. There are, however, ways to address the resilience of settler colonialism through weakening the variables in reinforcing feedback loops.

One such subset of education where these reinforcing feedback loops may be weakened is environmental or sustainability education, as well as place-based education specifically. By focusing on challenging settler colonialism, "land education calls into question educational practices and theories that justify settler occupation of stolen land or encourage the replacement of Indigenous peoples and relations to land with settlers and relations to property" (Tuck, McKenzie, & McKoy, 2014, p. 8). However, much of Western sustainability education does not yet meaningfully challenge settler colonialism in a way that would address these practices. Therefore, in the next section, I will provide background for and operationalization of sustainability education as it is used in this study.

## *University-Level Sustainability Education*

Historically, education systems in the U.S. have perpetuated settler colonialism through what is (or is not) taught, through the reinforcement of settler colonial and white supremacist logics and norms, and through the continued accessing of lands (Coulthard, 2014). Further, education systems broadly in the U.S. premise on perpetuating logics of the United States as a new society without challenging or referring to genocidal violence or past and present settler colonialism (Calderon, 2014). Residential schools, which premised on the assimilation and “civilization” of Indigenous children into Western culture, worked alongside mainstream U.S. education structures to reinforce settler colonialism. Although residential schools are technically no longer in operation today, their legacy is continued through the whitewashing of histories and social norms present throughout education systems in the United States. Indeed,

dominant discourses reproduce ideas of what is ‘normal’ and create hierarchies to ensure those in power remain in power through structures such as government, schools, housing, and so on. Discourses are simply “ways of constituting knowledge, together with the social practices” (Weedon, 1987, p. 108). They allow us to (not) say certain things, which reproduce power hierarchies with those who “consent [or] dissent.” (Britzman, 2000, p. 36; Carroll et al., 2020)

This discourse is thus reproduced into society as “education broadly [is a] means by which communities transmit knowledge intergenerationally and maintain social cohesion” (McCoy & Villeneuve, 2020). Although education is just one of many ways in

which societal norms are shared and reproduced, in the U.S., education systems are a large part of the resilience of the settler colonial project (ibid).

This colonial nature of schooling in the U.S. can be seen throughout all levels of education, from K-12 to the university level. As mentioned previously, Western education systems operate through many of the structures inherent to white supremacy culture including urgency, progress as bigger, quantity over quality, power hoarding, and objectivity (Okun, 2000). Therefore, even when education systems are broken down into sub-disciplines that may address or challenge settler colonialism, the structure itself is still inherently colonial. However, as mentioned, some disciplines may be better positioned to address settler colonialism at present than others, such as history, social studies, business programs, and environmental studies/sustainability. For the context of this paper, I will be focusing specifically on sustainability education.

Western sustainability education is a relatively emergent field. Conversely, more holistic, non-Western notions of sustainability are present in Indigenous teachings, practices, sciences, and knowledges, and have been for centuries. In this study I focus specifically on university-level sustainability education for two main reasons. First, sustainability education focuses intimately on land, people, the beyond-human world, and the connections between them. Second, as mentioned above, sustainability programs provide tools, such as resilience, for further understanding the reinforcing feedback loops and mechanisms that allow for the resilience of settler colonialism.

Settler colonialism is in every part of Western society, and therefore cannot be simplified to one manifestation or intervention point. However, it can be found both



explicitly and implicitly in Western sustainability education systems. Historic and ongoing manifestations of settler colonialism have shaped how Western societies engage with and relate to the Land (Liboiron, 2021; Reibold, 2022). The use of capital-L Land here follows Dr. Max Liboiron’s use of the word in their recent book *Pollution is Colonialism* (2021), specifically referring to how Land includes more than just conceptualizations of nature as “soil, air, water, animals, and plants”, but also “human people, events, memories, spirits, and obligations” (p. 47). However, these Western conceptualizations of land most often focus on small-l land, in which humans are separated from the land, unless land is to be used as a resource for human survival. For example, “the dominant Western ontology of land as something that can be owned and used for the benefit of humans is reflected in intensive agricultural land use and individual land-ownership systems” (Reibold, 2022). In these cases, current beings existing on the Land, as well as the ontologies they hold in relation to it, are removed from the space in acts of continued settler colonialism. These same Western ontologies that separate humans, epistemologies, and cosmologies from the land, allow for extractive and polluting practices to take place, often in the name of capital accumulation (La Paperson, 2017; Liboiron, 2021). Thus, settler colonialism can be tied to fossil fuel, commercial agriculture, mining, and more (Preston, 2017).

Many topics within sustainability education, whether on accident or on purpose, center these Western world views and act as reinforcing mechanisms for settler colonialism. For example, the conservation movement, which premises on keeping specific parcels of Land “pristine” and free from human extraction, hinges, in many

cases, on forcing Indigenous peoples from the Land in the name of environmentalism and is taught widely across sustainability curriculum (Bratman & DeLince, 2022). However, when conservation is taught in most introductory sustainability courses, white environmentalists and conservationists are often lauded, being thought of as leaders in care for the environment.

The settler colonial project in the U.S. was, and is, largely supported by the conservation movement (Kashwan et al., 2021). The history of conservation rests on the colonial mission of civilization and extraction, including extraction of human labor (ibid). Conservation on premise is often well intentioned, however, it ignores the relations and lives that existed on the Land prior to the first moments of settler colonialism, and even into today as park land and conservation space is expanded throughout the globe (ibid). Without a focus on the nuances of the history of conservation, as well as how conservation movements can act as a trojan horse for continued erasure of lives and ways of life, settler colonial notions may be unknowingly reproduced into society as conservation is taught in sustainability education.

In this example, portions of history are white-washed or left out, therefore painting a more wholesome picture of conservation than what would be found with a more nuanced perspective. While many students may be aware of the issues with conservation through their lived experiences, white students and students with privilege may be more likely to ignore or be unaware of the history of erasure that is associated with conservation, or other topics like it. This is not meant to put fault on the individual student for not learning the whole story, nor the educator for leaving out aspects of

history. However, the continuation of concepts of erasure in our education system aid in settler colonialism's resilience through reinforcing feedback loops. Therefore,

Since global conservation institutions and projects are marked by the ways that racism and colonialism “are etched in the dominant philosophy, models, and institutional apparatus” (Kashwan et al. 2021), educators have a crucial opportunity to scrutinize the ways in which environmentalism itself is implicated in legacies of forced labor, displacement, dispossession, and disenfranchisement... Giving recognition and making space for discussion of the legacy of colonial violence and white supremacy that underpinned much of the conservation movement of the nineteenth and twentieth centuries will allow for a more accurate and holistic environmentalism, while also highlighting the intersectionality of the field across gender, class, economic, and racial divides (Bratman & DeLince, 2022, p. 4).

This issue is made more complex when white scholars subconsciously “mis-represent Indigenous approaches to environmentalism in what ultimately become historically inaccurate and tokenizing narrations of Indigenous history” (Bratman & DeLince, 2022). To begin addressing this, Seawright (2014) argues for the understanding of white settler epistemologies and how those relate to the domination of Land, such that these ideologies are currently passed down from teacher to student for generations throughout Western education settings. These such settler traditions are not just in thought processes but embedded into ways of interacting, relationships, ethics, and the privileging of Western knowledges over other ways of knowing/being (Seawright, 2014).

There are other examples of erasure and continued settler colonialism that exist in prevalent topics in sustainability education, including some renewable energy technologies. These examples, again, are not inherently bad. In fact, they often provide visions and pathways towards a livable, sustainable future for many, however, they have the capacity to perpetuate settler colonialism, and aid in its resilience, if they are not taught and thought about in nuanced, critical, and holistic ways.

An example of this is solar powered energy. Solar power is an incredibly important technology for the shift away from fossil fuel production, and allows for many pathways towards a more collective, less extractive, and potentially less capitalistic society. Further, solar power has been used by many Indigenous communities and other marginalized groups to separate themselves from dependence on the U.S. government for resources and lean towards sovereignty. Many Indigenous communities fight and have fought for the ability to have solar production on their land and power their communities with it (*Tribes, Landowners, Groups*, 2018). However, the creation of solar panels and their batteries necessitates mining for lithium and other minerals (Corneau, 2018). In these instances, the questions become where the mining happens, who is making these decisions, and how are the decisions to mine adhering to the desires of the peoples whose land the mining would take place on. Specifically, this mining often takes place on Indigenous lands (all lands are Indigenous lands, but here referring to those that are officially recognized as such according to the U.S. Government), and often without their prior consent (Healy & Baker, 2021). This is not to paint the picture that Indigenous people do not have control over their own lands or are unable to speak for themselves about these issues, but rather details the way Westerners and many companies view the

Land as belonging to the human, particularly to the white male, and as openly accessible to them.

Concepts of land ownership, private property (land, spiritually, and intellectually) are deeply tied to issues of maximum resource use and connected to settler colonialism. Indeed, “today, the logics, techniques, and infrastructures (in forms from pipelines to policy) of maximum use of sinks uphold land as something that is not only pollutable, but properly so” (Liborion, 2021, p. 70). Property is considered a divine right to settlers, and thus “pollution is seen as a property right” (ibid). Although this quote mentions pollution specifically, I believe this same logic would stand regarding excessive resource extraction.

Particularly at the undergraduate level at ASU’s School of Sustainability, many graduates are heading into jobs in the consulting, nonprofit, or corporate sectors if they stay in the field of sustainability. It is thus important that those people headed into the world to make decisions, including potentially policies, surrounding land use practices and resource extraction, are made aware of and really, deeply understand the implications of the reproduction of settler colonialism. Without addressing these issues, sustainability efforts are being continually undermined by the very people who purport to be working to create sustainable futures. It is not as though there are people specifically tasked in society to reproduce settler colonialism, however, because it is so deeply ingrained into Western societal norms, settler colonialism becomes reproduced through the actions taken that inherently perpetuate the removal of people from their lands, the viewing of land as a resource, and the viewing of land as private property/something to be owned.

These concepts thus further entrench inequalities into our society regarding who owns land (and the fact that land can be owned at all), whose land is conserved, and whose land is taken over for natural resource extraction. Therefore, to address the deeply interconnected issues of sustainability and systems of oppression, it is imperative that settler colonialism is addressed and challenged in sustainability education.

Therefore, settler colonialism in sustainability education isn't just about recognizing histories or the fact that ASU sits on Indigenous lands (although this is a major part that I don't mean to diminish). It's also about recognizing how current structures, technologies, policies, and ways of interacting are inherently colonial and oppressive, and how they perpetuate colonialism in larger society. What the solar power industry, and to an extent educators who are teaching the next generation of people who may go into industries just like this, must grapple with is the very real question of relationships to land and people, and how both people and land are exploited in the current processes of mining in general, and even in the name of green, "clean" energy.

The focus on settler colonialism's manifestations in the education system, and specifically as it relates to environmental and land-based education, is not a new question (Calderon, 2012; Carroll, Bascuñán, Sinke, & Restoule, 2020; Gahman & Legault, 2019; La Paperson, 2017; Lees, Tropp Laman, & Calderon, 2021; McCoy, 2012; Tuck, McKenzie, & McCoy, 2014; Tuck & Yang, 2014). These and others bring attention to how settler colonialism has shaped and continues to shape education systems in the U.S., but also formulate conceptualizations for how to combat this continuation through suggestions of land-education, place-based education, cultural competencies, value

assessment tools and more, while also highlighting the incommensurabilities that exist when attempting to decolonize Western university structures (ibid). This endeavor is particularly interesting in the space of sustainability education as the discipline is intimately involved with future thinking and specifically “treats land use, land management, and land ownership questions in direct ways” (Bratman & DeLince, 2022, p. 3). Further, as will be highlighted below in the analysis section, many faculty in ASU’s School of Sustainability have a specific focus on addressing issues of Justice, Equity, Diversity, and Inclusion (JEDI), but agree that there is room for improvement as far as addressing topics of settler colonialism.

In Western academic spaces, Eurocentric sciences are privileged and treated as foundational over nearly all other ways of knowing (La Paperson, 2017; Liboiron, 2021, McCoy & Villeneuve, 2020). The privileging of certain knowledges and appropriating of others, regarding imperial and colonial conquests, seeks to

make mini-Europes and Europeans through science. Imperialism and colonialism both involve the scientific appropriation of local and Indigenous knowledges, eaten up and digested to create dominant scientific knowledge. Historically, this included botany and the cultivation of economically valuable plants, an interest in climate and the expansion of agriculture, and the control of diseases such as malaria, all of which enabled successful settlement. (Liboiron, 2021, p. 52)

Dominant science was thus (and still is) used as part of the “civilizing mission” of colonizers (Liboiron, 2021). Therefore “Christianity, residential schools, and dominant

science were different techniques through which colonizers claimed to bring light to the darkness of primitivism while simultaneously maintaining a difference between the colonized and the colonizer” (ibid, p. 53).

While sustainability education itself isn't on the same colonizing journey as residential schools per say, it still sits within the larger colonial institution of the U.S. university system, and still appropriates and erases knowledges and ways of life in favor of dominant sciences (Bratman & DeLince, 2022; Calderon, 2014; Liboiron, 2021). Further, dominant sustainability science cannot, and should not, simply attempt to absorb Indigenous knowledges and ways of life, or the knowledges of Black people and People of Color, in the name of inclusion, and call itself decolonized (Liboiron, 2021; Tuck, McKenzie, & McCoy, 2014). Thus, a hallmark of colonialism is the appropriation of knowledges, and specifically the assumption of Eurocentric sciences and ways of knowing that all knowledge is accessible (ibid). Therefore, simply including Indigenous histories and highlighting Indigenous knowledges without other critical changes or land rematriation will not decolonize a classroom or university and in fact may simply move settler colonialism into the next resilient basin of attraction. Further, many

However, while educators may be contributing to the continuation of these topics and framings, it should be made clear that

people do not have to be jerks to maintain and reproduce colonial relations—they can have benevolent environmental goals. They can be working to solve important scientific questions. If land relations are colonial, the solutions,



initiatives, and studies that flow from those relations will also be colonial.

(Liboiron, 2021, p. 75)

From my conversations with faculty, which I will detail more below, of the subset I spoke to, the School of Sustainability faculty are a thoughtful group of educators who are thinking deeply about these topics and how to challenge them in their courses in meaningful ways. Overall, the faculty members I spoke with are also thinking about how ASU is shaped by settler colonialism but admit that there is room for improvement on individual and systemic levels. However, some faculty feel fear and anxiety around addressing concepts of settler colonialism due to worries of saying the wrong thing, offending others, reproducing stereotypes, or tokenizing/appropriating knowledges (Carroll et al., 2020). Therefore, the results of this paper show a handful of reinforcing feedback loops identified by faculty members, and some potential intervention points that may weaken the resilience of settler colonialism in ASU's School of Sustainability. In this next section, I will detail the methodology used in this study before moving on to the results section.

## CHAPTER 3

### METHODOLOGY

To explore how university-level sustainability education is dealing with and shaped by settler colonialism, in-depth interviews were conducted with Arizona State University's School of Sustainability faculty and staff. The study followed Kristin Luker's (2006), data outcropping model. Luker (2006) describes data outcropping as useful because

In some cases, we may either have prior knowledge to the effect that the thing we are looking for is not equally likely to be in all parts of the field, or, as often happens, we have actually found something, and don't exactly know what it is we have found. In either case, what we are dealing with. (p. 113)

In this case, because I am already embedded in the School of Sustainability at Arizona State University, I am aware of existing efforts towards inclusive teaching and incorporation of JEDI competencies across curriculum. However, questions remain regarding the extent to which settler colonialism is challenged by the school. Therefore, the data outcropping model is useful in gathering a sample of faculty at Arizona State University where my research questions can be explored.

I chose to conduct this study at ASU due to its School of Sustainability that focuses specifically on relationships to the land, extractive or otherwise, as well as its faculty members, many of whom challenge dominant ways of knowing. Arizona State University is also home to one of the biggest, if not the biggest, Schools of Sustainability

within a Western academic institution in the United States. Many students who attend ASU's School of Sustainability either go on to work in fields of sustainability, while others may continue to teach sustainability at ASU or at other institutions across the country and world. Further, due to my personal proximity to the school as a member, as well as the relationships I hold with faculty and students, I find this location to be an appropriate space to build on conversations regarding anti-colonial teaching, curriculum redevelopment, and decolonization of university structures.

The data outcropping in this study is useful because it contains faculty members across a diversity of age groups, personal and academic backgrounds, and job appointments who can share a range of information and perspectives on how ASU's School of Sustainability is challenging, but also shaped by, settler colonialism. This range of perspectives is important for two main reasons. First, individuals interact with and understand concepts of settler colonialism in different ways based on their personal and educational backgrounds. It is thus important to talk with a range of participants to have a more holistic understanding of how the School of Sustainability operates as a system to assess resilience. Second, relationships with land, people, and the beyond human world are conceptualized differently across sustainability disciplines. It is therefore similarly important to understand how different sustainability fields are understanding settler colonialism and its interactions with their work.

Ultimately, without understanding the School of Sustainability as a system, it is not possible to assess the resilience of settler colonialism in this space. Resilience focuses on measuring the interactions within a system; therefore, it is essential to gather data that

cover a range of perspectives across the School of Sustainability as it operates systematically.

### *Sample Selection*

The sample selection for this study includes non-tenure track full-time, tenure track, and tenured faculty, as well as clinical professors and dually appointed faculty in the School of Sustainability. These people are responsible for creating curriculum and designing courses, even if others may teach them. In addition, this sample size includes members of the administration, both past and present, from the School of Sustainability. I chose to focus on faculty in this research project because they are, in theory, responsible for delivering the information that may be reinforcing mechanisms in the resilience of settler colonialism. Further, faculty members themselves may identify both personal and institutional reinforcing feedback loops in the resilience of settler colonialism that help in the identification of intervention points in the system. Faculty members also may experience some of the feelings of fear, anxiety, and shame mentioned previously around addressing settler colonialism's resilience. Administrators were also asked to participate in this study due to their knowledge of the interactions of the university at large, as well as their understanding of and leadership around potential future directions for curriculum and the School of Sustainability as a whole.

For this sample, I filtered for faculty on sabbatical, and focused on the School of Sustainability itself. Therefore, this sample does not include any faculty from schools outside of the School of Sustainability at ASU, other than those who are dually appointed. The study also does not include those who are lecturers or instructors. Faculty

members on sabbatical were excluded from the study to respect boundaries regarding work/life balance and university pressures of time and productivity. The study excluded other fields and schools that exist at ASU because of the decision to focus on sustainability as a field that is intimately focused on relationships to land and the future. Finally, lecturers and instructors were not included in the study as I made the decision to focus on those faculty members who are responsible for designing coursework due to their knowledge of and experience with building curriculum, a key focus in the results of this project.

With these parameters, the sample size included 25 members of ASU's faculty and staff. Of the 25 possible participants, 14 agreed to participate in the study. Those who declined participation either did not respond, cited scheduling conflicts, or were disinterested in participating due to the topic. Those who cited scheduling conflicts referenced a lack of time to participate in the coming months, alluding to the pressures experienced through academia that have been mentioned in the literature review section and will also be revisited in the analysis. Those who were disinterested stated that they did not feel like they should participate due to their unfamiliarity with the topic, or because they believe the topic isn't relevant to their teaching or research.

### *Interviews*

Interviews were conducted during the months of February and March 2022 and consisted of approximately 1-hour long conversations over the Zoom video call platform. The interviews were recorded in audio-only format and the text was transcribed for later analysis. For this study, due to the small size of the School of Sustainability staff, it was

of utmost importance to keep strict confidentiality, therefore, demographic data was not collected. Further, names and other identifying features were removed from the record and are not used in the content of this write up or analysis. During the interviews, I asked a series of questions, shown below in Table 1. The purpose of these questions was to gather information on why and how people come to teaching, how they engage with settler colonialism and related topics (both implicitly and explicitly) in their teaching, and what barriers there are to change, if any. These interviews provided an important space for faculty to explain what they have already been working on, and to reflect on what changes they could make, or what changes they would like to see on a larger scale. Further, these interviews gave some faculty members time to explore these topics for the first time as they relate to sustainability or to their personal lives.

The interview questions were framed in a specific way to allow faculty to ease into the conversation, first asking about their experiences with and approaches to teaching, and then delving into the more emotional topics relevant to this research question. The questions included those below shown in Table 1. These questions allow for later analysis of resilience as key variables were identified and reinforcing feedback loops could be constructed, as shown in the analysis section.

*Table 1: Interview Questions*

1. How did you choose this career path?
2. How would you say you approach teaching? What inspired your approach?
3. To what extent have you sought to replicate or change how/what you were taught in college? What have you replicated or what have you changed?
4. What would an ideal approach to teaching, or an ideal teaching situation look like/involve in your mind? What would you like to see included in sustainability education? What techniques or strategies would you use? What resources would you draw from?
5. How do you engage with topics of justice, issues of race or racism, and white supremacy in your teaching and syllabi/course development?
6. Another area I'm interested in is settler colonialism. How do you deal with this topic in your teaching/how do you think about its interactions in the university generally? How do you see settler colonialism at work in your institution?
7. Do you have any long-term visions for how you would like to engage with these topics in your teaching or in sustainability generally? If so, what are they?
8. What barriers, if any, are there that you see to engaging with topics of justice, racism, white supremacy and settler colonialism in your teaching or sustainability education generally? What about any other similar topics?
9. Through your experiences and analysis of the situation, what might be some strategies for further embodying anti-racism and decolonization in higher education, particularly in sustainability? What, if anything, would you like to see that would make engaging with these topics easier?
10. Is there anything I left out or didn't ask that you would like to add to the conversation?

Prior to the interview, participants were made aware that no question is required to be answered and that they could skip any question or end the interview all together should they wish. No participant chose either of these options.

These interview questions and structure were chosen for the specific purpose to answer the research questions proposed at the beginning of this project. I began the interviews by asking questions about individual teaching experiences and approaches,

followed by asking the participants to reflect on their ideal teaching situation. These questions provide information for understanding what is currently taking place in the school of sustainability as well as what changes educators would like to see and what future strategies may look like for getting there. I then transitioned to asking questions about specific topics related to the research question including topics of justice, race and racism, white supremacy, and specifically, settler colonialism. These questions illuminated the ways in which this subset of ASU's School of Sustainability faculty are engaging with these topics, and how they think about these topics in relation to the University as a whole.

The reason for including each of these topics was due to their interconnections that allow for the resilience of settler colonialism as it evolves through time. Interestingly, many faculty members often conflated systems of oppression in general with settler colonialism specifically. While they are interconnected, it is important to call out settler colonialism as distinct from other systems of oppression, such as white supremacy. However, I believe that other systems of oppression were focused on, rather than settler colonialism, because many people find other topics more comfortable to discuss. This will be discussed more below in the analysis section.

The questions asked in the interviews also focus on a combination of individual and systemic associations of settler colonialism and allow for the analysis of both, although they are not mutually exclusive. Further, these questions prompt specific topics that aid in the resilience of settler colonialism through reinforcing feedback loops and mechanisms. Through these interviews, I am therefore able to conceptualize and diagram



such feedback loops in the results section of this paper. However, although some key concepts were prompted, the interview questions and structure were left relatively open to allow faculty to engage with these topics in whatever way made sense to them. This allowed for themes to emerge throughout the process and for additional reinforcing mechanisms to be uncovered.

### *Analysis*

This current study suggests that ASU's School of Sustainability faculty over time are expanding awareness of present-day manifestations and reproductions of settler colonialism at an individual level and are trying to address systemic issues at a college or university level. However, the study shows that faculty identify areas for improvement regarding challenging settler colonialism at all levels.

The field of sustainability simultaneously has tools for understanding settler colonialism (resilience) and is also shaped by settler colonialism as it is a structure that operates within the larger colonial education system, as well as in the way dominant sustainability science views relationships to the land and people. The purpose of the interview protocol was to understand systems traits related to ASU's School of Sustainability such that an assessment of resilience could be made by analyzing the results against prior research on resilience.

To analyze the interview responses, I used NVivo coding software. Due to the nature of these conversations, I chose to use a combination of manual coding based on specific themes I was looking for based on prior research of the persistence of settler

colonialism as well as emergent coding based on themes that came out from the conversations that I may not have previously highlighted. My desire for this to be a subjective, emergent process means that I must remain flexible in analysis, while still having an organized structure for gathering and analyzing information. The codebook used in this analysis can be found in the appendix on page 119 (Appendix A) of this thesis.

I used an iterative coding process. As codes were added to the codebook as interviews went on, I went back and re-coded past interviews against these new themes. Further, I continued interviews and the coding process until saturation. This is to say, I continued the interview process until I was no longer receiving new information as was relevant to the research questions in this project. In the next section of this paper, I will analyze the results found through the interview and coding process.

## CHAPTER 4

### RESULTS AND ANALYSIS

This study uses conversational interviews with faculty from Arizona State University's School of Sustainability to answer the questions: How is settler colonialism resilient in university-level sustainability education? How are sustainability programs in Western academic settings addressing, or how could they in the future address, settler colonialism? As mentioned in the methods section, these interviews allow for a more holistic analysis of the resilience of settler colonialism in university-level sustainability education through understandings of the systems complexities and potential reinforcing feedback loops and mechanisms. Throughout this analysis section, I will be building out a reinforcing feedback loop as additional variables are added through different themes and scenarios presented by faculty members' interviews.

#### *Current State at ASU*

At the study location, Arizona State University's School of Sustainability, faculty are deeply engaged with issues of climate change and specifically focus on relationships to the Land. Through the interviews conducted with faculty, it is clear that many are thinking about issues of Justice, Equity, Diversity, and Inclusion (JEDI) as it relates to curriculum development and course delivery. More hesitancy exists around thinking directly about settler colonialism in these same ways. However, it was stated multiple times that this research is well timed because it is something not only on the minds of educators, but also on the minds of students. This section will contain an analysis of the 14 people interviewed. The codebook (Appendix A) contained 36 codes in which the

content from the interview was analyzed to the point of saturation. Compiled here is an analysis of the most relevant and the most frequently mentioned elements that relate to this project.

### *Themes through faculty conversations*

To analyze the resilience of settler colonialism as it relates to university-level sustainability education, it is useful to understand the current state of interactions and thought processes regarding the topic as well as barriers to change and future goals. The 14 faculty member participants were asked a series of 10 questions, as detailed in the methods section.

While the questions did not ask about the concept of resilience explicitly, the point of these interviews was rather, as mentioned, to understand the system layout, variables, and understandings of how settler colonialism works in sustainability education such that an assessment of resilience could be made. Through the information shared in these interviews, I identified specific systems variables and visualized the interview content through a series of tools offered by resilience, such as reinforcing feedback loops, basins of attraction, and the concept of panarchy, where relevant. This analysis will contain responses from individual interviews, as well as diagrams of feedback loops and other resilience assessment tools to aid in the explanation of settler colonialism as resilient as well as highlight potential intervention points.

While the participants were prompted at the beginning of the interview and made aware that the main research question for this project focuses on settler colonialism, the

specific topic itself was not brought up until question 6 of the interview protocol. The question reads: “How do you deal with settler colonialism in your teaching/how do you think about its interactions in the university generally? How do you see settler colonialism at work in your institution?” The question prompts participants to think about individual associations with settler colonialism in relation to their courses as well as systemic associations with the topic in relation to Arizona State University generally. All 14 participants had familiarity with the term to some degree, however, I offered an explanation as I understand it if asked. During the interview, I tried to provide a comfortable space for faculty to engage with concepts that may be emotional or bring up feelings of shame and guilt, which will be covered later in this analysis.

Interview responses in this analysis have been transcribed and transitional words such as “you know,” “um,” and “like,” have been removed. In addition, repetitions of words or phrases have been removed and replaced with “...” and additions of words for clarity and readability have been signified with square brackets. Throughout this analysis, faculty members often conflate concepts of Justice, Equity, Diversity, and Inclusion with topics of settler colonialism, as mentioned in the methods section. While, as mentioned, these are deeply connected issues, I try not to conflate them as the same throughout this analysis.

### *Lived Experience*

Faculty at ASU have a range of associations with the term settler colonialism based on their past education, life, and professional experiences. The analysis begins here

to identify initial variables and reinforcing mechanisms surrounding how lived experiences impact faculty members' awareness and perceptions of settler colonialism. All 14 participants mentioned that what they know about settler colonialism was not taught to them in a "formal" education setting, i.e. not in mainstream, Western/U.S. schooling. One faculty member mentioned receiving a degree in a similar topic, but that they have otherwise learned about issues of settler colonialism and other systems of oppression outside of mainstream Western education systems. One faculty member reflected on settler colonialism as it impacts aspects of our environment stating:

*As we're talking, I'm just thinking [about] how one could link settler colonialism and exactly what happened on the landscape and how that shaped ecosystems, and I'm not quite sure... how to tackle all of this.*

Because of lack of training, in school or otherwise, faculty members may be unaware of how to deal with settler colonialism personally or institutionally. Another faculty member, when reflecting on the question as it relates to their courses and teaching, stated:

*I probably don't point this out to the students anywhere near often enough, but pretty much everything that we teach in science, everything we've been taught in science, comes from the Western way of thinking about the world. And... we don't incorporate Indigenous ways of knowing... and I don't do that enough in the content I give the students. And partly because I don't know enough about it. And... I'm a product of a colonial education.*

This statement highlights elements that have been brought up previously in the literature review and other sections of this paper including the privileging of dominant, Western knowledge systems, and the coloniality of the U.S. education system. The faculty member here recounts their personal experience as a product of a colonial education system and what this means for the ways they teach and interact with concepts of settler colonialism, as mentioned in the literature review regarding how education perpetuates settler colonial norms and logics. However, it is important to note that this member, in this statement and throughout the interview, is deeply interested in learning and further engagement with these topics, inside and outside the classroom.

Other faculty shared their attempts to engage with settler colonialism in the classroom and through course development and syllabi by incorporating the topic of settler colonialism, not only in specific sections or modules throughout the semester, but in holistically throughout the curriculum. Some offered specific examples of class exercises where real world scenarios are used, such as the use of disease transfer as a tool of settler colonial elimination as a case for a modeling exercise. However, other faculty highlight the difficulties that exist within this space including issues with understanding what is and isn't erasure, and when to include or not include certain knowledges or ways of knowing.

For example, one faculty member recounts their use of circles in the classroom, as in having students sit in a circle for discussions, and questioning if not mentioning the prevalence of circles in Indigenous cultures is an instance of Indigenous erasure. However, the faculty member highlights that their past professional experience was

where the concept of conversational circles was first introduced to them. This highlights the complexities of the situation and potentially some incommensurabilities with identifying and combating Indigenous erasure, especially given the importance of not tokenizing Indigenous peoples or focusing on performative inclusions.

In another example, a faculty member shares a fear of incorporating Indigenous knowledges in a way that is tokenizing or appropriating, a concept brought up throughout this paper in the literature review section regarding how Indigenous knowledges are often inappropriately absorbed into Western knowledges. Throughout the interviews, fear of tokenization or appropriation was brought up by 5 of the 14 participants.

Another faculty member recounted their experience going through education systems in the U.S. stating:

*I realized that we never talked about land rights, for example, in my program, it was never part of my education program, but it needs to be part of my sustainability work. So that's where I'm learning the most. So I would say in the past, it's not been incorporated as settler colonialism into my work or my teaching or my research exactly from that level of land rights.*

In this vein, other members similarly mentioned the colonial nature of education systems in general in the U.S. One faculty member states:

*This whole education system is born out of it. We cultivate learners to go into the working world. That's what we do and we prioritize the analytical mind and the*



*mind is beautiful and we've created lots of beautiful things. It's also created lots of things that have us stuck in terms of environmental degradation.*

Another shares a similar comment stating:

*I think you can talk about settler colonialism and describe it and all that, and that's an important part because most people are not aware of this history, let's say. But the most important point for me is to realize that it's still active. I mean, it's... not something that happened in the past, something that we have gotten rid of. It's... more active now than it was 200 years ago, as it has just grown. We may have the impression that it's less significant or less active because of some of the consequences of it. I mean, the ugliest impacts..., or the ugliest manifestations have been repressed in our society through loss, through tribulations. But it's active in... our self, it's active in the education system, it's active in the job market. It's in... how we deal with it... under the carpet.*

These faculty members not only state the prevalence of settler colonialism in the education system, but also its manifestations in Western society largely, and how the education system, through colonialism, is structured to cultivate workers to fuel a capitalist economic system.

These described scenarios provide the initial variables for the reinforcing feedback loop I will be building on in this paper. I want to make clear these visual representations of the resilience of settler colonialism are just a part of the overarching and very complex structural and system issues associated with settler colonialism, inside

and outside the academy. In these diagrams, the uppermost box contains a reminder of *some* of the traits of settler colonialism that influence the U.S. education system.

In the first iteration of this feedback loop based on the above responses, faculty members acknowledge that the U.S. education system is colonial, due to the factors in the topmost box, among others. Because of this, many faculty are products of a colonial system and have limited “formal” education on settler colonialism or related topics. Therefore, it is only outside formal education spaces that faculty begin being introduced to these topics. As they become familiar, which likely happens through side conversations or through time taken for personal research, they begin being interested in challenging settler colonialism but are unsure of how to do so due to a stated lack of knowledge based on structural issues. Therefore, because of their uncertainty, some faculty have been less likely to challenge settler colonialism. in their work or in the classroom. This leaves settler colonial logics unchallenged and perpetuated which feeds back into the colonial education system. The initial feedback loop that will be built upon in this paper can be seen here in figure 4.

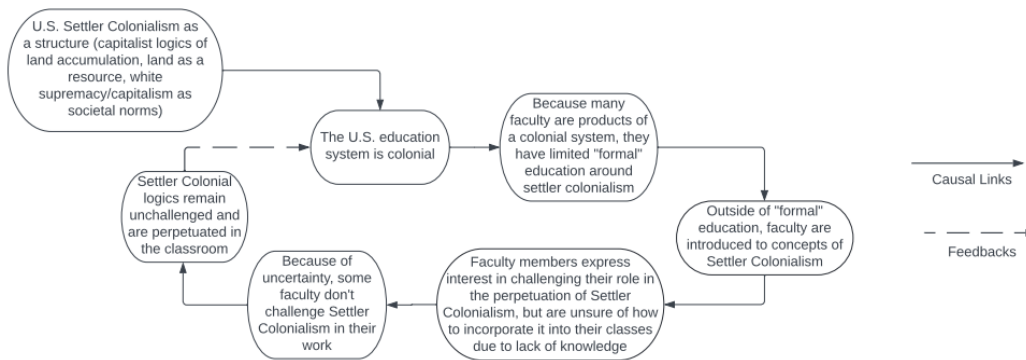


Figure 4: An initial reinforcing feedback loop visualizing the resilience of settler colonialism based on an initial set of systems variables.

Other faculty are aware of how settler colonialism shifts over time and are aware of its many historic and present manifestations but are wary of an overuse of the term colonialism as it relates to academia. Because colonialism has shifted and looks different from how it did in the past, it is harder to recognize as it is not manifested in the type of mass killings that were carried out a couple hundred years ago. However, the pain felt by continued settler colonialism is still very real in many Indigenous communities and still impacts how settlers and others interact with people and the Earth. In this vein, one faculty member states, “I think there’s a real danger in labeling things colonialism when they’re not” due to the potential for “labeling things that aren’t truly violent and oppressive with labels that are associated with those things [because it] dilutes the importance of the term.” The faculty member goes on to state:

*Some of the stuff that I have seen kind of come across in emails, whether it's at ASU or elsewhere, be described as colonialism, I think is a little bit of a mislabeling does a disservice to actually dealing with... true legacies of... colonialism as they exist. I think this is a really interesting topic at ASU because*

*we do have so many Indigenous students. And so that's actually one of the things I really like about ASU. I've gotten the opportunity to interact with and started to do research with several Indigenous students who were really focused on these issues. So I think ASU is in a good position as far as that goes and I've been... encouraged to see the focus or the emphasis on practical, real world kind of solutions like what are the problems? How do we identify them and how can we make them better?*

Although this statement about mislabeling was not echoed by many, I believe understanding differences in perceptions of the continuation of settler colonialism to be important when considering settler colonialism as it pervades societal norms and interactions and remains invisible. The question of settler colonialism's resilience is foregrounded by its ability to remain invisible in systems, but faculty also find it important to focus on the nuances of settler colonialism as to be careful about how it is presented and resisted.

Further, I believe it is also important to highlight successes and steps forward where they exist, as highlighted by the faculty members' comment. Indeed, this shows the ability for two things to be true at one time—successes can be happening in an institution where settler colonialism is still resilient and reproduced, thus showing possible shifts in basins of attraction. As such, one faculty member shared:

*So I know that I operate within an oppressive system that does two things at the same time, it's like two sides of the same coin that we know that education*

*liberates and that it reduces inequalities. And we know that education perpetuates inequality. And so those two realities, those two worlds exist at the same time.*

With these additional variables, the feedback loop becomes more complex. As indicated in green, this feedback loop shows that faculty members coming from a Western educational background are still receiving most of their education from outside of the U.S. education system. As they are introduced to settler colonialism, they become aware of how historical patterns of colonialism exist outside of academia, but because they see it as existing primarily outside of academia, they may be more hesitant to challenge it inside academia due to a fear of misattributing the term in ways that may dilute the efforts to address other aspects of colonialism that exist outside of academic spaces.

These additional variables are shown here in figure 5.

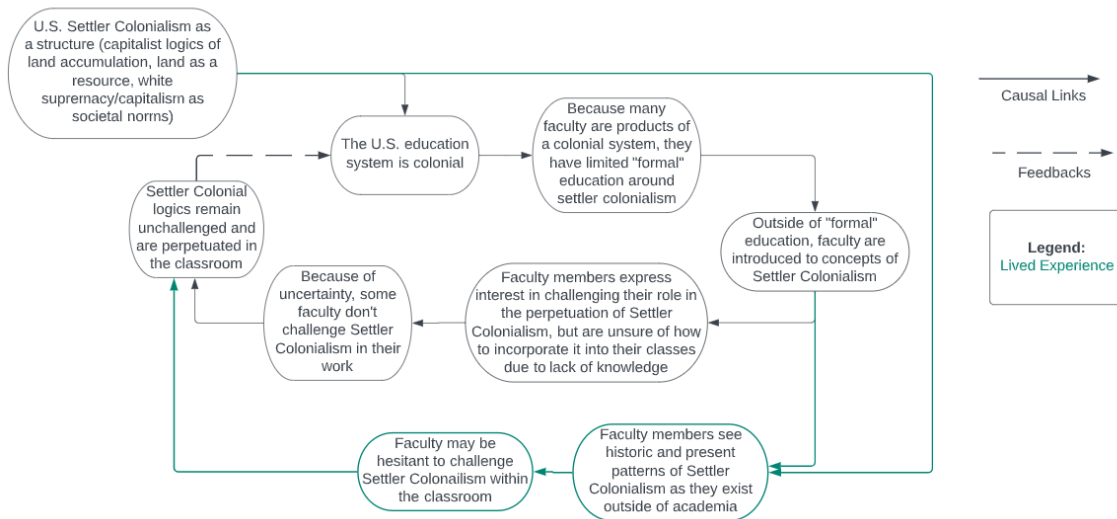


Figure 5: A visualization of the resilience of settler colonialism. This reinforcing feedback loop incorporates variables related to past education and lived experience based on faculty interviews.

Another faculty member also sees settler colonialism as existing in spaces outside of academia, but recounts how it impacts their academic work. This faculty member

states that settler colonialism from their perspective “applies in a strong way in that... policies... are implemented and are often developed without the feedback and some of the opinions of several community stakeholders.” They continue stating that even though this is

*not the actual definition of settler colonialism, in terms of how it applies to the research I’m doing, I think how it applies is for some people, certain policies have disregarded where Indigenous communities or where communities of color are being located and... certain policies tend to incentivize facilities to site in those communities without hearing feedback... we’re [now] hearing the voices of those communities. So as we study policies we need to be aware of how this concept of colonialism is affecting them and how our methods, without the proper consideration of these communities, could be perpetuating these injustices.*

Here an important issue is highlighted in regard not only to how settler colonialism may be resilient in the classroom, but also how it is resilient through research methods in the university, and policy implementation in the “real world.” Thus, this reinforcing feedback loop represents how Western conceptualizations of land, which are reinforced through mainstream U.S. education systems and Western ways of knowing, reinforce the resilience of settler colonialism through policies. However, this faculty member also highlights a potential breaking point where if the study and research of these policies is understood through the lens of how settler colonialism is resilient, opportunities may exist for breaking the cycle. This is shown in figure 6 in orange.

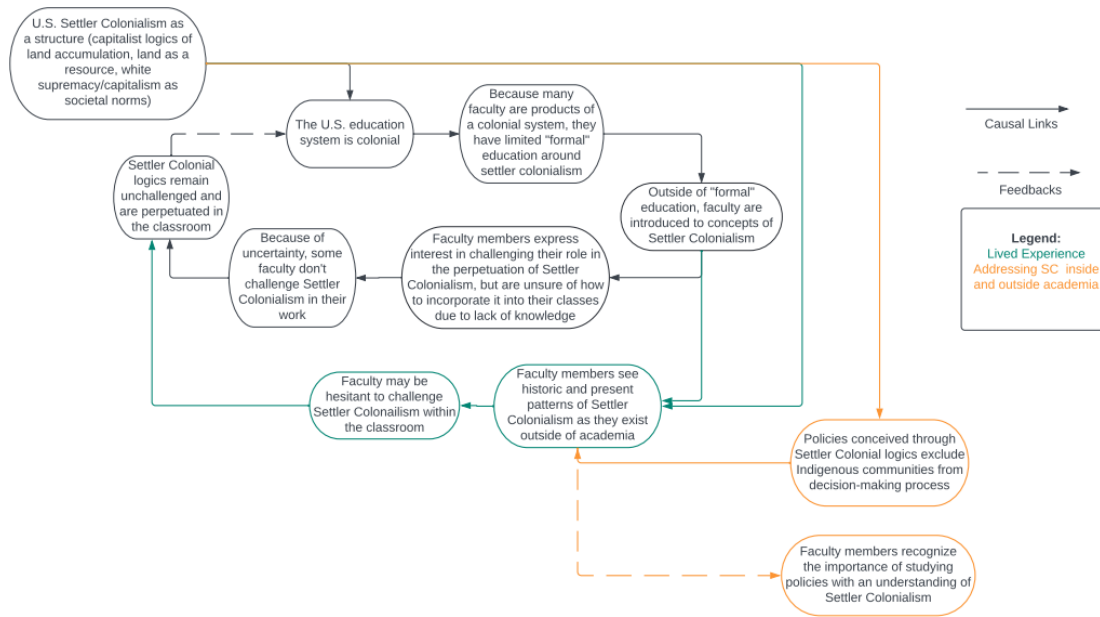


Figure 6: A visualization of the resilience of settler colonialism. This reinforcing feedback loop incorporates variables related to faculty members recognizing the importance of studying concepts through the lens of settler colonialism. Feedbacks are presented as examples of actions that may break the resilience of settler colonialism in a small subset of academia.

Other faculty members use metaphors to describe their perceptions of settler colonialism. Many faculty members understand settler colonialism as being all encompassing and in every part of Western institutions and systems. One faculty member spoke about their understanding of settler colonialism as if they were completely submerged in water, where bits of them may be dry where pockets of air exist (those parts being spots where they are addressing it), but they are still submerged in a system that is inherently colonial.

Overall, as mentioned, faculty at ASU's School of Sustainability are thinking about settler colonialism but are occasionally still unsure of how to address it because of their varying past education and lived experiences. Here, while there are feedback loops associated as shown above, there are also reinforcing mechanisms seen in how a lack of

education or trainings around handling these concepts reinforce feelings of inability to address their present-day manifestations. This will be brought up more so in a later section regarding barriers.

In addition to understanding current perceptions of and engagements with settler colonialism on an individual and institutional level, it is important to understand how these associations have changed over time at ASU's School of Sustainability. This will provide additional background for understanding the current state at ASU and context for how settler colonialism may transition across basins of attraction over time.

#### *School of Sustainability Change over Time*

This theme highlights changes over time at ASU's School of Sustainability regarding engagement with challenging settler colonialism and topics of injustice, racism, capitalism, and white supremacy, which are often conflated as mentioned above. This was an emergent theme that came out of the coding process as it became clear that there is a recent shift over the last decade or less regarding openness to engaging with settler colonialism, and even the understandings of it held by Westerners. For example, when sharing about their perspective regarding the role of Westerners in teaching themselves, rather than relying on BIPOC, LGBTQIA+, or other marginalized people to do the emotional and intellectual labor of teaching them, one faculty member stated:

*So [it was] my own personal journey..., I read a lot of books in the past two years and... I have had a lot of conversations and time getting to be more comfortable and understanding how to talk about these topics and include them more. But I*



*think in my research group... I feel a lot more comfortable. We address those [topics] a lot more head on. I think in the classroom, I have to say. I've been very cautious about why it's taken me so long to develop [course title removed to maintain confidentiality] because I want to be very cautious at every step and so I'm not just throwing on a land acknowledgment and having no idea what it means. So it's tough for me to wrap my head around the meaning and how it's perceived and I don't want to just give lip service to something.*

Regarding changes over time in topics of justice in academia, one faculty member shared their experience stating:

*Historically, economists have really focused on efficiency and only within the last few decades started to really think about... equity and justice implications of different ways of approaching environmental policy.*

Other faculty members referenced a change over the last 2 or 3 years regarding intentionally incorporating JEDI topics at least into their courses. One faculty member specifically referenced a shift after attending an event where students from a course on Intersectional Environmentalism and Sustainability within ASU's School of Sustainability gave a presentation on the importance of incorporating JEDI Competencies into Sustainability curriculum. Prior to the session, the faculty member would not keep the topics from coming up in class, but they were seen as not the focus of the course. However, their perspectives shifted after attending this event.

Others too have changed the structure of their courses. One faculty member describes shifts over the span of nearly a decade stating:

*Yeah, [settler colonialism is] huge because it's everywhere and everything, so it's actually hard to pin down. In the first version of my [course title removed to retain confidentiality] class that I co-designed with [name removed to retain confidentiality]... I do not think we had a single reference in there to settler colonialism, I could be wrong, I don't think we did. I know for sure we didn't have anything by an Indigenous author. And I don't think we explicitly talked about settler colonialism in that class. Now, I've been teaching the class for eight years. It's totally different. We do an activity where students have to track the history of their families and the different lands they've been on, they've used or experienced, or ever had engagement with. We watch documentaries that are focused explicitly on Indigenous land disputes. And I mean, Land is a capital-L land, not just physical pieces of land, but the larger relationality of it. We explicitly in that class now have sections on sort of relationally from an Indigenous perspective as a key philosophical contribution. We've... always had some of that. I've always included a little bit of it..., but not fully. That's much heavier in... the work... I don't think there's a single module that doesn't have some element of engagement with colonialism. And there's not a module about colonization, but it's built into every single module, even modules that you wouldn't necessarily expect.*

Regarding teaching approach, many faculty members referenced a change over time in teaching style. The education system in the U.S., as it is built on colonial and

capitalist ideals, has a focus on standardization, memorization, and regurgitation, with less focus on relationship building, collaboration, or emotional intelligence. However, this is something ASU's School of Sustainability faculty are interested in and engaged in changing. One faculty member stated, in reference to their experience going through college,

*it was all about memorization [and] regurgitation, and I want to be something different than that. And especially in sustainability, I think we have to open it up as much as possible.*

Another faculty member shared an experience regarding change over time as it relates specifically to settler colonialism stating:

*I think that things are changing very fast. Five years ago, if I... had said that the sciences [are] colonialist or academia [is as] an institution, [people] would have been completely disregarded or ignored or... [opposed].... Now I can say that and... it has become accepted, acceptable. To say this has become something like a fact... Of course, there are people still that may challenge that fact, but I think the consensus is that, yeah, it's in academia. These are colonial. I mean, it's so obvious that it was created during colonial times and all that. But there was always this notion of exceptionality, right, that people who are in academia are apolitical at the academic business.*

This example highlights that while there is change happening regarding the acceptance of the “truth” of settler colonialism, it is still ingrained in the structure of higher education,

thus reinforcing its resilience. However, this shows that an intervention point in the reinforcing feedback loops at points of education may weaken the resilience of settler colonialism by uncovering its invisibilities in some aspects of education.

Another faculty member directly references ASU's School of Sustainability regarding changes over time stating that:

*At least in the School of Sustainability, what we call JEDI issues have been very much at the forefront of faculty discussions and concern. I would say over the past two years. I'm not saying it was not an issue before then, but now very, very, very centrally. We have a JEDI committee.... And so we have been discussing a lot of... [these] things.*

Other faculty members referred to changes in their syllabi. For instance, one faculty member shared:

*I hadn't even thought there was anything controversial about teaching about justice. To me, it was just like, well, this is a justice issue. So, we're going to teach about it. And I was like, oh, wait a minute, turns out this is controversial [and] that was actually helpful because it made me think about why it was controversial and that in fact, to some extent, you can talk about justice and still feel insulated from the depth of the injustice, if that makes any sense... So, I was thinking about justice systems, and I was aware of the injustice, but I wasn't teaching about the injustice. I was sort of thinking about how does justice work. Why is this a justice issue? I was still trying to have the conversation, not why justice was relevant, not*

*so much, how it was relevant or what it meant that it was relevant. Over the years, that's become much more visceral to me. And so now I do teach it somewhat differently. Within that, the issues of both race and colonization and gender... and... also class, have become much more prominent for me within the academy, race in particular and anti-Black racism has definitely become a larger conversation in the last five years for really good reasons. I mean, we all owe an enormous debt of gratitude to the Black Lives Matter organizers. They've... done an immense service to all of us. And it has changed how I, it did force me to go, whoa, who am I, including my syllabi? How am I including them? So, I've changed the syllabi. I've included other authors. And that's been great. Same thing with thinking about settler colonialism and making sure that I was trying to avoid erasure and to the extent possible, building in stronger recognition of Indigenous contributions and ideas into how I think about justice.*

These comments highlight again that, within the School of Sustainability, there is heavy engagement with topics of Justice, Equity, Diversity, and Inclusion specifically, and in certain circumstances settler colonialism. Many of these stories reference the inclusion of knowledges within curriculums and the changing of mindsets that provide a foundational understanding of how ASU's School of Sustainability is evolving to challenge settler colonialism and to begin to open up some ideas for intervention points that will become more relevant in later sections. These are important changes at the classroom level, but in the next section I will detail some additional barriers to change seen by faculty members and how these relate to larger systemic shifts that need to be addressed to block the resilience of settler colonialism.

## *Barriers*

During the interviews, faculty members were asked to reflect on their perception of what barriers exist to challenging settler colonialism and how settler colonialism impacts their institution. The specific question asks: “What barriers, if any, are there that you see to engaging with topics of justice, racism, white supremacy and settler colonialism in your teaching or sustainability education generally? What about any other similar topics?” Although there was a specific question regarding barriers, the topic came up throughout the conversation with many faculty members, even before prompting.

Many of the barriers mentioned by faculty members through these conversations exist within 3 main categories - individual barriers such as closed minds, uncomfortability, and time, systemic barriers such as resources allotted by the university, administrative push back, the overall structure of the university, and again time, and psychological barriers such as fear and anxiety. These barriers highlight significant variables in reinforcing feedback loops that create additional ways for settler colonialism to remain resilient, but also highlight potential intervention points. Others shared that there have been no barriers placed on them regarding what could and couldn't be covered in coursework.

### *Individual Barriers:*

Regarding mindset, one faculty member when talking about the barriers stated:

*[The barrier is] closed minds. Entrenched minds. And... I'm kind of thinking of*

*that student that I mentioned earlier. And it's [some] students who... aren't willing to allow themselves to be put in uncomfortable and vulnerable... situations, right, and any time you have these conversations with students, you have to point out to them at the beginning that this is going to be uncomfortable for you.*

Another faculty member shared a similar comment about mindset, but regarding faculty members' ability to engage with topics outside of their comfort zones. This member stated:

*These are not comfortable... issues. But if something's going to change, faculty are going to have to decide how much of their comfort zone to leave behind. How much are we prepared to confront, to be uncomfortable, to speak honestly to the powers that be and... being a tenured faculty is a very cushy position... So I think there is a big question here about to what extent are faculty willing to form common cause with students to really engage with this seriously? And that I am... not going to make a prediction about.*

This faculty member brings up the important point that tenured faculty are often in a unique position where they may have more security, because of the power they hold, in pushing back against barriers to challenging settler colonialism. This also opens opportunities for collaborating with students and other faculty who may hold less power around challenging and dismantling systems of oppression including settler colonialism.

In the same vein, another faculty member shared:

*I mean, I think it's, now I want to say this in a way that's not egotistical or judgmental because I have this myself too. It's just our blind spots. It's like the blind spots we have and we have blind spots as individuals and we have blind spots as an institution and we prioritize old ways of doing things because they've worked well. And sometimes we get too attached to those things that we keep our blind spots there. And so for me, it's about, you can't possibly work in the space of colonialism without doing your own decolonial work, right, without without looking at your ego, without looking at your... attachments, without looking at the way that you think, the way that you feel, what you prioritize, how you treat others, how you interact. It's all part of the game. And so for me, that's kind of... that's always the work.*

These comments reinforce elements in the feedback loop seen in figures 4 and 5 regarding how mindsets and uncertainty may limit faculty members' comfortability with challenging settler colonialism. These statements also bring up elements that will be referenced again below in feedback loops related more specifically to psychological barriers.

These above statements have shown some of the ways faculty are thinking about individual and personal manifestations of colonialism, however, many faculty also highlighted institutional and systemic changes that are essential to understanding the resilience of settler colonialism.



*Systemic Barriers:*

One faculty member speaks about the issues present in the university due to the system being created on a basis of generalizability and objectivity, as well as being based on grade assessments. They shared:

*Well, I mean, the structure of universities is quite hard, right? So we're in a hierarchical institution based on Eurocentric knowledge and a process of knowledge, which is meant to be objective. So not only is knowledge meant to be objective, I'm meant to treat all my students objectively. ... You're all seen as kind of entities and I fill you up with knowledge, and then I check if you have all that knowledge and I'm taught to treat you all exactly equally. OK, so if we do that and I treat you all completely equally, what do I do about the student who comes to me who's like, look, I had a really hard time writing that assessment because President Trump just got elected and ICE is everywhere in my community and my grandparents aren't legal and they live with me. And... I'm also the main breadwinner in my family. And I just didn't have time to work on it, I say, OK, right? They're writing an essay about justice and I'm going to penalize them because of this. Well, what... do I do in that situation, right? That. Or the flip side student... who's by all many frames, fairly highly privileged, white, male, relatively wealthy, never thought about oppression for a day in his life, uses language like 'colored' in class, uses language around people who are identifying as trans in a variety of awkward ways. How do I deal with that? Do I penalize them for not knowing things that other students clearly know? I can't. It's not fair,*

*either. What I have to do is think about their learning and they are not going to end up in the same place as a student who's been thinking about race and class and gender for the last 10 years. They're just not. But that doesn't mean that they're not going to learn an immense amount, which means I can't treat every student the same. And yet the university insists that I do, so grading is a huge problem. How you grade is actually really, really hard because especially if you're trying to evaluate people's ability to puzzle through a situation. People's capacity to do that is shaped by what they already know and because you're treating people as whole people. Some people already know this because they've already been living it and everyone's living it, but some people are aware they're living it, and some people aren't aware they're living it. So they're already bringing it into the class.*

This response highlights several issues shared by faculty members, namely the issue of grading, institutional barriers with the structure of universities, and the desire to treat students as whole beings, understanding their lives and interactions as part of their learning journey, something that I will bring up again in later sections. This also brings back notions of objectivity as a feature of white supremacy culture. In this scenario, the structure of grading, which is deeply ingrained in Western education systems and concepts of success, premises on objectivity and a sort of standardization of people. Therefore, the university curricular standard of grading and objectivity is a reinforcing mechanism for settler colonialism's resilience at the systemic level.

Other faculty members highlighted additional institutional barriers including one faculty members' statement:

*University administration has shown great reluctance to engage with this seriously... And so I think at the university level, I think we have a lot of work to do. I understand that whenever a university administrator... takes steps towards addressing it, and has been honest about the past, it elicits a strong reaction. So you probably know about how complicated it has become for there to be a University wide statement acknowledging who was on this land?*

This faculty member highlights the reluctance on the side of the University administration to acknowledge settler colonialism and engage with it in a critical way, but also explains that, while there are students and faculty within the School of Sustainability pushing for this, there are many people in the University as a whole, and among the general public, who specifically push back and are angered by topics of settler colonialism and JEDI issues being included in education and acknowledged by Universities. Anger, like fear, often produces inaction towards change, or even counterproductive efforts that reinforce the resilience of settler colonialism in a purposeful way through acts of white supremacy and violence. While the psychological aspects of this will be covered below, the resistance from the University is shown as

added onto the reinforcing feedback loop in figure 7 in red.

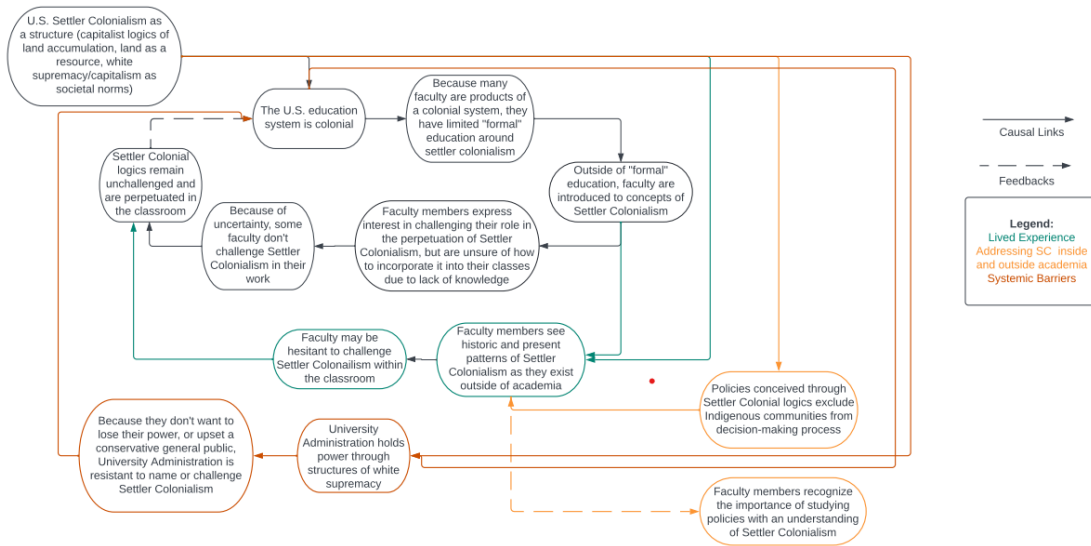


Figure 7: A visualization of the resilience of settler colonialism. This reinforcing feedback loop incorporates variables related to systemic barriers highlighted by faculty members.

Other institutional barriers mentioned by faculty members included the ASU's focus on business oriented, rather than people-oriented decisions.

*The number of students you have in classes [is a barrier]. So the desire to have bigger, especially undergraduate classes, that's what keeps the university running. This is amplified by asynchronous online education. I do not know how to do good quality asynchronous online education around issues of justice, anti-racism, white supremacy, decolonization, settler colonialism [in an online format]. I've been trying for almost 10 years, and pretty much... failed. The problem with asynchronous online education is... we're dealing with very large numbers of students. So each class can be anywhere between 30 and 60 students. You are never allowed to have any synchronous engagements. You can never*

*have a class where we're all in the class at the same time. How on earth do you have an in-depth conversation about the issues that are the hardest to talk about when you can never develop community?*

Others mention decisions, or lack thereof, on behalf of the University that additionally focus on progress over student and faculty success and well-being. One faculty member mentions issues regarding ASU's new School of Sustainability building opened in January 2022. During the construction of the building faculty, students, and the ASU's School of Sustainability JEDI committee had several meetings and conversations about what should be included in the building to make it an inclusive space for all students. However, it became clear to this faculty member that many of the issues brought up were being ignored from a business perspective. Here exists another reinforcing mechanism where capitalist desires for progress and growth, as shown in the top box in the reinforcing feedback loop, surmount student and faculty requests for safety and comfort.

As such, another association between white supremacy and settler colonialism at ASU's School of Sustainability highlighted by faculty is progress as equaling bigger/more and quantity over quality. ASU as an institution is focused on providing education to as many people as possible. While accessibility in education is incredibly important, it is possible that those admitted are not receiving a quality education due to ASU's focus on progress as growth and quantity over quality. This is exacerbated by ASU's expanding online presence. Faculty members mention difficulty with engaging with topics of justice, white supremacy, and settler colonialism in an online format where students can easily ignore topics they do not want to engage in. Outside of this, while

online courses increase accessibility, they decrease ability to create community. These elements can be seen added to the reinforcing feedback loop in purple in figure 8. It is thus important for ASU's School of Sustainability, to attempt to stop the resilience of settler colonialism at least as it manifests in the process of education itself, to focus on one-on-one reconstruction of curriculum in the short term, and an entire revisioning of the delivery of education in the long-term.

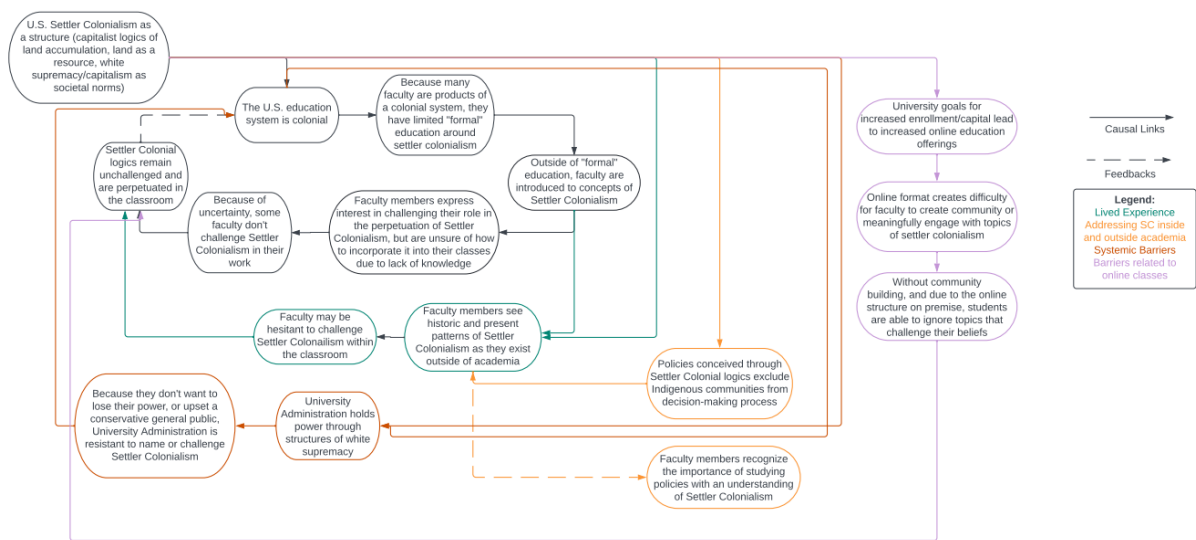


Figure 8: A visualization of the resilience of settler colonialism. This reinforcing feedback loop incorporates variables related to online courses highlighted by faculty members.

These comments highlight the myriad of barriers that exist at both individual and institutional levels.

*Time*

A specific barrier that was brought up by many faculty members both relating to individual and systemic barriers was time. Therefore, I will focus specifically on that here before moving on to psychological barriers. Many faculty members, regardless of the

extent to which they already challenge settler colonialism through the classroom, state constraints of time imposed by their jobs as something that gets in the way of their ability to continue learning about or engaging with topics of settler colonialism. One faculty member states:

*So one thing that I find challenging is time. And it's not because anyone's telling me how to use my time. This is actually one of the best jobs I've ever had in terms of my flexibility and freedom to do my own thinking. But the constraints of working in an institution that's... productive is, ... time. And so I have to really manage, how do I balance delivering courses that make me feel like I can sleep at night with writing research that's meaningful that gets out into the world that has an actual impact and changes anything?*

The faculty member continued speaking about the importance of doing work and research, without being told to do so, and stated that:

*So I think if everyone just... was intrinsically motivated to do their own work on learning about other perspectives that are beyond their... scope, it would be really good. But again, there's no time. People, they have families, they have all this stuff. So I don't know how to infuse it into the system.*

In the same vein, another faculty member stated:

*I have never been taught this. I've had to learn on my own and with the community and on the fly and that's because I've sought it out, but lots of faculty,*

*for lots of good reasons, are under immense pressure. Don't forget, we are under huge pressure to bring in tons of money, get grants, write papers, teach students, teach more students every year, do tons of service, run the universities. Do we have time necessarily to dedicate huge amounts of resources to digging up for ourselves all of this stuff? And it doesn't mean they don't care. It means that they're under an immense pressure and have very limited time. And if we don't bring in money with big grants, we also can't fund disadvantaged students. It is more complicated than just saying, oh, [someone] doesn't care. You have to understand all these pressures coming at people and limited time is right up there.... This is a period for compromise. There's not... going to be a pure way of doing this and accusing people of... not being decolonial enough without understanding what limitations they have and how they've tried to subvert, reinvent, push the limits as much as they can in their space within the confines of tenure and or lack of tenure, in many cases, limited time, limited resources. I think that's where it has to start.*

Another faculty member mentioned having to decide between physical/mental health and time at work. Faculty time, in the case of the university, equals money and progress. Faculty members referenced that their time is allocated in this way so that they can continue bringing in money to support students and projects for the university. However, this means, as mentioned, considering trade-offs not only in continued personal education, but also regarding physical and mental health.



Urgency, and thus time, are another element of white supremacy culture that create reinforcing mechanisms for the resilience of settler colonialism. Imposed pressures of time, as well as a sense of urgency “makes it difficult to take [space] to be inclusive, encourage...thoughtful decision-making, to think long-term, and to consider consequences” (Okun, 2000). The pressure to continue being “productive”, while also trying to learn, accommodate students who are all separate beings, and enjoy life outside of work creates a situation where faculty are forced to weigh trade-offs of where to allocate their time. Therefore, as well as a systemic reinforcing mechanism, time also contributes to reinforcing feedback loops in settler colonialism’s resilience. The issues related to time as a construct of settler colonialism and white supremacy can be seen here in figure 9. This is a slightly different reinforcing feedback loop than the one that has been built throughout this paper such that the systemic construction of the limits of time can be understood.

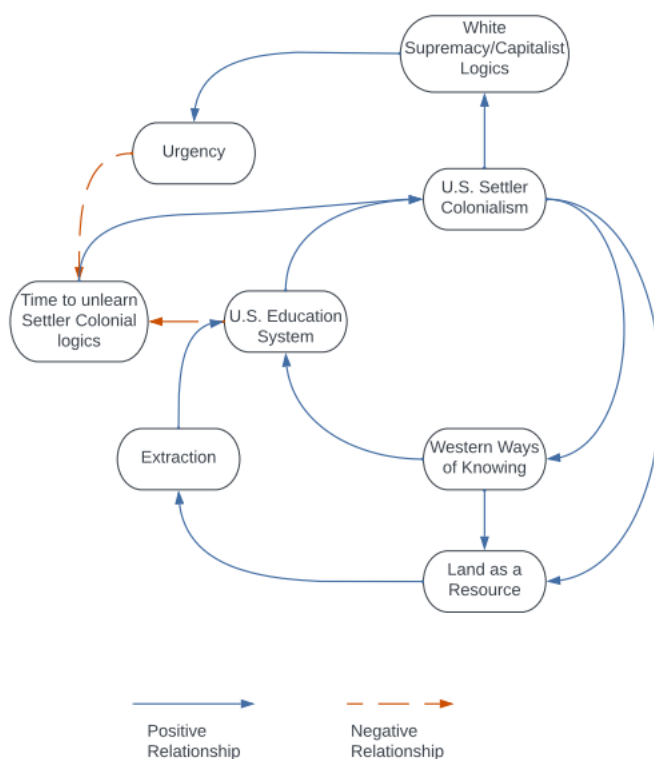


Figure 9: A reinforcing feedback loop visualizing the systemic nature of time limitations as related to settler colonialism, white supremacy, and capitalism.

Other faculty had personal reflections about their experience incorporating more elements of justice into their teaching, especially in response to the COVID-19 pandemic and the death of George Floyd, among other events of police brutality, in 2020. One faculty member stated:

*Well, to be honest, until spring of 2020, I didn't [incorporate topics of justice] at all. I don't think very many people who don't actually study that as part of the research agenda did. And so in [course title removed to retain confidentiality] we dedicate one week of lecture content to [Justice, Equity, Diversity, and Inclusion (JEDI)] issues... I dedicate a class to, I don't even call it JEDI, I call it systemic racism, white privilege and related issues.*

As mentioned previously in this paper, the opposite of colonization is not inclusion, and including a module about issues of justice, systemic racism, and white supremacy, does not solve the systemic issues we are dealing with, nor does it materially change the lives of those affected by systems of oppression (Liboiron, 2021). However, it is helpful to watch patterns in changing mindsets as Westerners engage with these topics in their daily lives. In fact, these anecdotes show potential shifts due to events in 2020, including the increase in personal time that was allotted to many people during quarantine brought about by the COVID-19 pandemic.

The resilience tool of basins of attraction is useful in this scenario, rather than a reinforcing feedback loop. The basin of attraction offers a visual representation of shifts between stable states. In this situation, as seen below in figure 10, the initial ball in basin exists in a situation where there is not much inclusion of topics of justice across the curriculum except for where deemed relevant by faculty members based on course topic. However, when the COVID-19 pandemic occurred, many people suddenly had more time in their schedules to do independent research and personal reflection, due to the suspension in capitalistic logics that constrained time. Therefore, with more time due to quarantine protocols, the ball drops into another basin of attraction where there is more inclusion of topics after faculty are able to spend personal time teaching themselves and engaging in different types of learning. However, the basin of attraction shows shifts between stable states and not total systems transformation because these shifts are happening on an individual level, rather than happening on a holistic curriculum level.

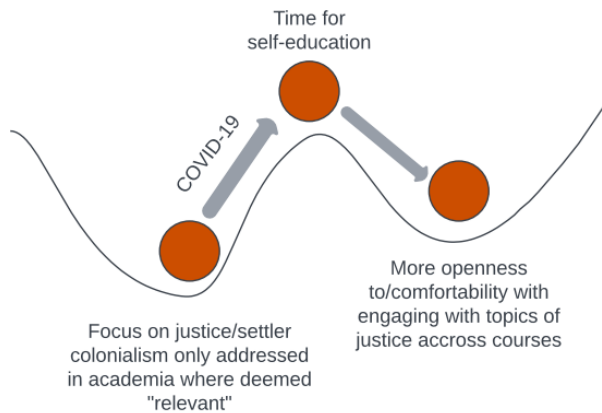


Figure 10: A basin of attraction diagram visualizing shifts in faculty's ability to engaging with topics of justice throughout their courses due to an increase in time brought on by COVID-19.

With limited formal education and no time to train themselves due to university structures, some faculty may be uncomfortable with having conversations around settler colonialism and related systems of oppression because they are afraid to say something wrong, to offend someone, or to accidentally appropriate or tokenize knowledges. Therefore, because some faculty are uncomfortable with these topics, I found that they may be less likely to engage with the topics holistically across the curriculum, but that doesn't mean they aren't interested in learning more to be able to challenge settler colonialism more holistically. However, within these categories exist important psychological variables that create additional barriers to challenging settler colonialism

### *Psychological Barriers*

It is not uncommon for educators, or students, to feel uncomfortable when addressing concepts that they are unfamiliar with or those that they deem controversial. In these circumstances, educators may “not want to offend others, feel embarrassment from teaching incorrect information, or [be afraid to] be reprimanded by those in

positions of power for teaching outside of the dominant discourse” (Carroll et al., 2020, p. 11). As mentioned previously, educators may also feel anxiety around accidentally offending others, saying the wrong thing, tokenizing/appropriating language or knowledge, or teaching concepts they are unfamiliar with (ibid). Regarding uncomfortability, one faculty member mentions how topics of settler colonialism can bring up emotions for Westerners as they are made to confront how they are benefiting from systems of oppression:

*When you talk about these topics, particularly when you do it in this embodiment, experiential way, for some people, it's threatening. It's a lot different from what they are used to doing, so... in a way it's stressful right? It creates a lot of anxiety, and even though they agree... there are all these emotions that come up and to manage these emotions is something that I don't know. I mean, how can you train people to be [comfortable]? I do it, and I take risks by doing that and I'm not trained in that. So I use my intuition. And it can take some [time].*

Another faculty member recounts on their experience with vulnerability around these topics:

*As for me, and... I suspect for many of the faculty, we are not the experts and students have thought about it more, have been actively working on it, learning and researching, engaging, understanding then the faculty. So it's often difficult to have conversations in which, as... in a classroom setting, in which you're introducing subjects from a point of ignorance or in particular because these...*

*can be emotional topics. It's scary to bring these up. I know that, I think that many, [and] myself for sure, know that we say things wrong sometimes or... imperfectly. And these conversations about racism, about sexism, about gender fluidity, about these types of topics, it's really easy to misspeak. Or to say things that can be offensive. And that's really scary.... It's a topic that many are uncomfortable with and then it's exacerbated by the situation. And that's assuming you're going in with good faith, right... and I was saying that mainly from the faculty perspective, of course, it's also that way for the students. And then how do you handle a situation where a student says something... offensive, intentionally or not? And how do you handle that and how do you deal with the dynamics that come with that and foster a sense of inclusivity and in a safe place to share thoughts and very few faculty have any training in that. To the point of conflict mediation and in wanting to be able to foster conversations, I think that those are all really challenging... for faculty. But starting with this,... going from being an expert on topics to being... the novice and then somehow still facilitate and lead the discussion is not an easy thing to do.*

Regarding this sense of uncomfortability and emotions around the topic, another faculty member stated:

*I think it's important to acknowledge the emotions in this space. This is a place where a lot of shame and guilt rests and lies, and there's a lot of deep, heavy emotions here that are avoided. And this is why it can be such an uncomfortable*

*subject for people, whether you've been oppressed or are the oppressor.*

*Everything in between both of those things, it's really, it can be uncomfortable.*

These feelings of guilt and shame, as well as avoidance, are pathways for the resilience of settler colonialism to entrench in societal norms and ways of being. In addition to the previously mentioned reasons, white Europeans/white settler-descendants with privilege benefit from these systems and hold power in them, they may be reluctant to have conversations about them because of a fear of losing their power or privilege, subconsciously or not. White people with privilege are also often hesitant to talk about settler colonialism and systems of oppression because they do not want to see themselves complicit in these systems. One faculty member talks about this by saying:

*That's something I don't think we do particularly well in sustainability. I think there's efforts to change this, there are a few people who are taking it really seriously, but I don't think as a whole. We've not fully taken on board the social, psychological and emotional weight of what we are exposing students to. There's a reason that people have tried to not see forms of oppression, especially ones that they're benefiting from, because it's very heavy. And if you're suddenly asking people to take on the history of colonialism and the history of capitalism, all of ecological destruction, the history of plastics, the history of fossil fuels, the history of mobility, at every point they're going to at some point have to face the facts that what they're doing is fundamentally unsustainable and that their own lives are implicated... This is really hard to do. So I do think sustainability needs to deal with that.*

This faculty member went on to mention a way that they attempt to deal with this in their classes. They state:

*[There is] a TED talk that [Nikki Sanchez] gave at Simon Fraser University called Decolonization Is For Everyone. And it's one I really like, and one of the reasons I really like it is that I think she does a fabulous job of dealing with people's sense of [guilt], on one slide that she brings up that settler colonialism is not your fault, but it is your responsibility. And I think this is a very, very helpful framing because students tune out when... they think that you're accusing them of... colonialism, or you're accusing them of all of anti-Black racism. Right? "I didn't own anybody." No, that's true, right? But let's think about the larger system. And so focusing on whole systems and the history of systems is why I focus so much on that idea. That, and again, I think sustainability is a perfect place for this because it's all about systems. It's not about one person bearing whole responsibility, but it's also about nobody having no responsibility. You are in the system and of the system. And so this is how I've tried to do all of this as a way of both managing fear. Denial desires for innocence. And also being able to see agency because feeling like, oh my gosh, these systems are so evil and awful and I'm one useless, horrible person who doesn't even deserve to live is really not a helpful way forward. And so that's where I'm trying to manage it within my classes.*

These stories provide framings for additional reinforcing feedback loops around feelings of fear and guilt, but also regarding desires to hoard power. This is a very helpful framing



because, as will be mentioned in the discussion, although there are changes that individuals can make, these are complex, systemic issues that are not able to be fixed by individual changes alone. They require collaboration and relationality as well as understandings of the systemic and complex nature of systems of oppression.

Other interviews brought up issues with defensiveness, fear of open conflict, and power hoarding as elements that entrench systems of oppression and particularly settler colonialism in education largely. Some faculty members referenced the fear that exists in people with power when they believe their privileges may be removed from them, even if they are otherwise well-meaning. For example, one faculty member stated, “a future with less sexism means that some people are going to lose power, and usually people who have power do not give it up easily.” In this case, many white Europeans who benefit from settler colonialism in all contexts, students, teachers, and the public, fear a loss of power (Okun, 2000). This contributes to the fear of open conflict where “people in power are scared of expressed conflict and try to ignore it or run from it” (ibid).

This concept was shared in another interview where the faculty member referenced the University administration’s reluctance to make a formal statement on settler colonialism due to fears of conflict from the student body and the public. The choice to remain apolitical here allows settler colonialism to remain resilient not only in the education system but also in public spaces as many people outside of the student body interact with the University widely.

These elements all provide variables and linkages between other variables in the

final iteration of the reinforcing feedback loop. Elements related to psychological barriers are shown in yellow in figure 11. What is not included in this feedback loop due to the nature of the interviews is variables regarding those faculty members who are completely unaware of settler colonialism's historic and present manifestations, as well as those who deny its present existence. In these interviews, no faculty member completely denied the existence of settler colonialism. This will be discussed more in the limitations section regarding selection bias.

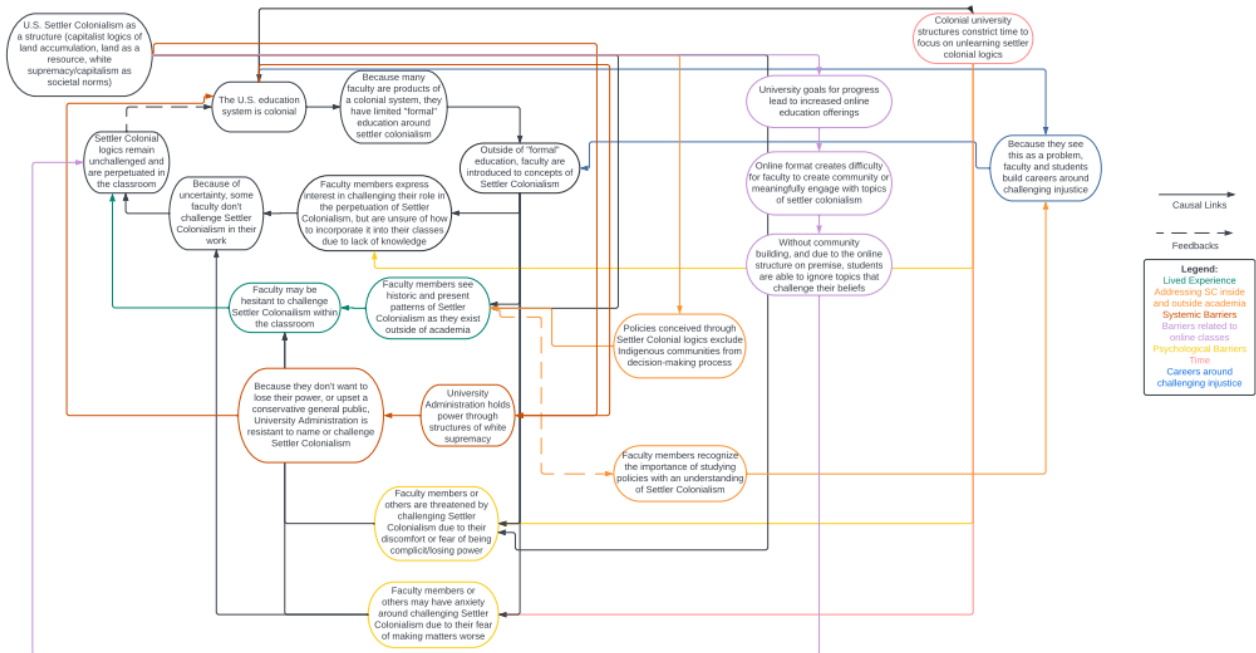


Figure 11: A final reinforcing feedback loop diagram that includes variables regarding psychological barriers based on faculty interviews. This diagram also includes systemic barriers related to time.

### Strategies, Resources, and Actions

After addressing barriers, faculty were asked to consider possible strategies, resources, or actions that may make it easier to engage in anti-colonial/decolonial teaching individually or as it relates to the School of Sustainability. While many

professors noted that this process is not easy, given the previously mentioned barriers, others pointed to a handful of potential areas for improvement. The elements in this section highlight potential intervention points in the above reinforcing feedback loops that may block or resist settler colonialism's resilience if implemented. One element that was brought up frequently was a holistic curriculum review. For example, one faculty member shared:

*I would like to convince the administrators to change the format of the curriculum. It should be one topic per semester. All the students working together, collaboratively with certain people to take inspiration from and to facilitate the processes and activities and experiences, and more more importantly, to involve students or to help them to engage with the outside world.*

This faculty member then states that the reason for this shift, in their mind is that:

*The way in which education is conceived [is] in terms of the transmission of... knowledge from the ones who know to this empty vessel, which are students on the banking model. So I think... that's a barrier because... you can have classes and you can include justice in the curriculum [and] have like a whole program being about justice. But that's not, in my view, the embodiment [of justice]... It will not transform our daily engagement with the world, which is what produces the injustice system.*

Therefore, what's needed here is an entire overhaul, not only in the curriculum itself, but in the education system overall, considering how reinforcing mechanisms like time and grading structure are also heavily involved in the resilience of settler colonialism.

However, to get to this, it is necessary to look at the curriculum holistically. Another faculty member shares:

*So thinking about [anti-colonial and decolonial methods] across the entire curriculum right now, it's hit and miss. It's not something we've built into the entire curriculum. So for instance... you could think about how you would take a more typical decolonial approach to the entire curriculum... the possibility [is] starting to emerge. But to do it... seriously, it would really require..., I've thought about this, basically, it would require one-on-one work in every single core course across the entire curriculum. We're not going to change the grade structure in a university. And [the School of Sustainability] has pushed back in various ways against the asynchronous mass-education model. We're always going to lose. There's no way the university is not going to budge. So... we have to not fight that fight because it's not a winnable fight right now. It may be over time. It's not right now. So what do we have control over right now? We have control over what's actually taught, especially in the core courses.*

Regarding curriculum, many faculty referenced the importance of relationality and community building, not only within the School of Sustainability, but throughout the region that ASU works in. Many faculty see a great importance in breaking down

structures of individualism in favor of building emotional intelligence and learning how to collaborate with others in meaningful ways.

In this same vein, other faculty members reference the need for constructive engagement regarding conversations about curriculum redevelopment to create change on an institutional level. This faculty member states:

*But if you suddenly, for me, if you frame it in this very critical theoretic way and tell me that my [course topic removed to retain confidentiality] class syllabus needs to be decolonized, I'm going to be resistant in a way that is totally unnecessary for achieving like 90 percent of the goal. So to me. And in fact, I've sort of reached out to folks and said, I think if we're going to take this seriously before talking about what we should do, we need to just have a dialog like as a faculty about and get on the same page. And so I do think there's a little bit of, because some folks like their whole careers focused on this stuff, there's an assumption that everybody's on the same page about the theoretical background, and I think just it's important to have like really good and broad buy-in from everybody, which I think is there.*

Therefore, in addition to trainings, some faculty members find it important to also have conversations surrounding these topics that engage the entire faculty community.

Nine out of the fourteen faculty members mentioned the desire for more training on JEDI issues and settler colonialism to intervene in reinforcing feedback loops hinged on fear and shame from lack of knowledge. Settler colonialism, as mentioned, is

purposefully removed from, or whitewashed, in many Western education systems (La Paperson, 2017). Therefore, many faculty members do not feel comfortable with the topic or have fears of misspeaking and inadvertently causing harm to students. One faculty member mentions, regarding trainings and learning:

*For me, one of the challenging factors has been making sure that I handle topics with care and... appropriateness and so... bringing up these topics in... my research team... with partners, or in the classroom... I think we can all agree that it's important to be including them [and] to be talking about having these conversations. But I think a challenge is if... we haven't been trained and [if] we haven't had these conversations historically, we need more trainings. [But] there's trainings out the wazoo, right? So a lot of it is on each individual, obviously, to do their own learning, and it definitely should not be on... marginalized communities to be training everyone on [things like] what's it like to be queer?*

Others brought up training in the context of a potential strategy to remove barriers stating that the biggest challenge is faculty members' own knowledge about these topics. As mentioned, 9 faculty members believe they would benefit from workshops, seminars, or one-on-one, interactive sessions with students or others who are more familiar with these concepts. This member also mentioned that, although faculty members are often thought of as the ones holding the most knowledge, many have much to learn and they see themselves as students, too.

Another faculty member brought up not only trainings that would help with challenging settler colonialism's resilience in sustainability education, but also what style of training would be necessary. Many organizations in the past two years have begun trainings on white supremacy and anti-racism in the workplace. While starting these conversations is helpful, as the next quote mentions, it is all too easy for them to be ignored, and these trainings often do not bring about any material change, rather they become a performative task the organization can check-off and claim to have accomplished anti-racism. This faculty member states:

*There are a lot of things that you... can't cover, [you can't cover] enough ground in a 90-minute meeting or something. And when it happens once a month, these things just sort of drift off into the ether. And so for these things that require faculty consensus to set a vision, these long... concentrated sit downs can be really helpful. And... to me, it seems obvious that we should do that around gender issues, if only to like, really have a clear consensus on what our priorities are as a faculty. And we just... haven't done that. It's a time of crazy transition, right? With the new college and [Global Futures Lab] and all these things. So there's like a million other fires for administrators to put out. But I'd like to see sort of a sit down as a faculty to identify our strengths and our weaknesses in this area, because I do think we have a lot of strengths as well that maybe... not everybody appreciates them because they don't realize how different people's work touches these issues. So to me, that's the biggest thing.*

One faculty member, regarding the difficult role faculty have in regard to creating safe spaces in the classroom while also teaching and learning themselves referenced the importance of going beyond performative trainings and focusing on systemic change.

This faculty member stated:

*[Education] doesn't just have to happen in the classroom, what are we doing as a school to not just bring in speakers who are going to talk about equity or land reparation or whatever, but how do we, besides the lecture, how do we bring a community together and ferment debate and conversations that lead to epiphany that [allow people to] have recognitions that are not easy to have. I don't think we're there yet, I think we could do more.*

Another faculty member highlighted the importance of learning from teachers who are already challenging settler colonial and white supremacist logics in their classroom, and the ability to work together as a faculty to share knowledges and practices as a community. These comments all show an awareness that faculty members believe that trainings, beyond the performative type, may be helpful. Specifically, some faculty members find engaging with these topics uncomfortable, and believe that additional trainings and teachings would help, but others highlight the importance of relationship and community building as part of learning.

Other faculty offered suggestions for how they already attempt to make their classrooms more inclusive, related to systems of oppression in general. One faculty member explained ways in which they include very intentional introductions at the beginning of class, focused on sharing pronouns, backgrounds, and identities where



comfortable. According to this faculty member, Indigenous students have explained the importance of this activity as an initial framing to be able to introduce their connections to specific Indigenous communities and the Land. This faculty member shared some additional ways in which they try to make the classroom inclusive, some related to land acknowledgements. In this story, the faculty member is talking about a program in which students are tasked with working in different places:

*We'll have the students randomly assigned to one or two of those groups and then the first thing on their list is to try to figure out which particular website is the best to use... for land acknowledgement... [to] understand what the history of the people on the landscape is. And so that's... another way in terms of... looking through the content, and so I tried very hard to get a diversity of authors... and folks that we're reading. And then along with each of these different levels of biology that we're focused on bringing and speakers. And in this case, I'll have to [record] these interviews in advance, but they'll be folks that are working in the field and a diversity of job types and having a diversity of identities. And so my hope is... that most, if not all, of the folks taking classes can find somebody that they can identify with.*

They then shared some insights for continued engagement with settler colonialism, stating that land acknowledgements are a good starting point, but often make no material changes regarding land repatriation. Rather, focusing on elements Indigenous students are bringing to the front, such as providing opportunities specifically focused on the inclusion of Indigenous students in things like study abroad, among other ways of

support, is important. However, the faculty member referenced that more support was needed regarding how to appropriately make changes that go beyond performative actions.

Most specifically, faculty are interested in trainings and workshops that would teach about settler colonialism, decolonization, and how to process and more deeply engage with introspection and emotions. As mentioned previously, however, the main ideas for future change surrounded the goal of completely reimagining and re-building curriculum within ASU's School of Sustainability. Not only would this necessitate changes in the curriculum itself, but also in how the courses are delivered. In addition to holistic curriculum redevelopment, it is essential to focus on addressing time barriers experienced by faculty such that they may engage with these topics in a meaningful way. Overall, ASU's School of Sustainability faculty are engaging with topics of Justice, Equity, Diversity, and Inclusion, and that this is at the top of mind for many as they think about what the future of education at ASU looks like. However, settler colonialism specifically is less clearly addressed due to these barriers.

Another faculty member suggested ideas for addressing the need for trainings without adding to the previously mentioned time pressures present for faculty members. This member shared the idea of reallocating time spent between research, teaching, and service to dedicate to unlearning settler colonialism and learning anti-colonial and decolonial ways of being. They also provided suggestions for having service in the form of teaching others about these topics to count towards job requirements. However, importantly, the university, or the School of Sustainability at least, must seriously address

how time constraints impact faculty members' ability to meaningfully engage with these topics and teach students in a way that does not perpetuate settler colonialism into society, and especially into sustainability.

A focus on anti-colonial methods is essential as ASU's School of Sustainability faculty move forward with curriculum redevelopment. This process should also focus not only on inclusion of topics, but also on tangible changes that address shifts in mindset and the ways in which Western sustainability interacts with the environment. Further, this process should be collaborative amongst faculty, but also amongst students and community members such that hierarchies are flattened, and power asymmetries are challenged in reinforcing feedback loops that allow settler colonialism to remain resilient. This would not be an easy or a quick process, however, decolonization is not easy or quick. Ultimately, settler colonialism's resilience is antithetical to the goals of sustainability education. Without an understanding of and pathway towards dismantling settler colonialism, solutions to the climate crisis will most often be performative and perpetuate white supremacy and settler colonialism.

The resilience concept of panarchy is useful in bringing together the topics referenced in this section of analysis, as well as others brought up throughout interviews. As mentioned above, the concept of panarchy is useful for understanding how larger systems, such as settler colonialism, impact smaller systems, such as university-level sustainability education and vice versa. In these instances, both smaller systems are influenced by the larger system of settler colonialism but shifts in the smaller system of sustainability may undermine the resilience of settler colonialism.

This diagram shows elements of each linked system and also includes, on the sides, some examples of how ASU's School of Sustainability is already revolting against settler colonial structures as well as some of the ways that the university system and settler colonialism push back. However, as more interventions are added, the resilience of settler colonialism in this system may be undermined to the point that university structures shift and thus settler colonial structures within the university space are challenged.

Figure 12 shows that much work and activism is being done at ASU's School of Sustainability to begin to undermine the resilience of settler colonialism through the system. Some of these include the ways in which faculty are changing individual courses to focus on embodying justice, faculty and student activism calling out white supremacy within the University, and the continual creation of Indigenous lead spaces within the School of Sustainability. As intervention points are continually added, such as trainings, in new ways that focus on systemic change, it is possible that shifts may directly break some of the feedbacks in settler colonialism's ability to "remember" or remain resilient.

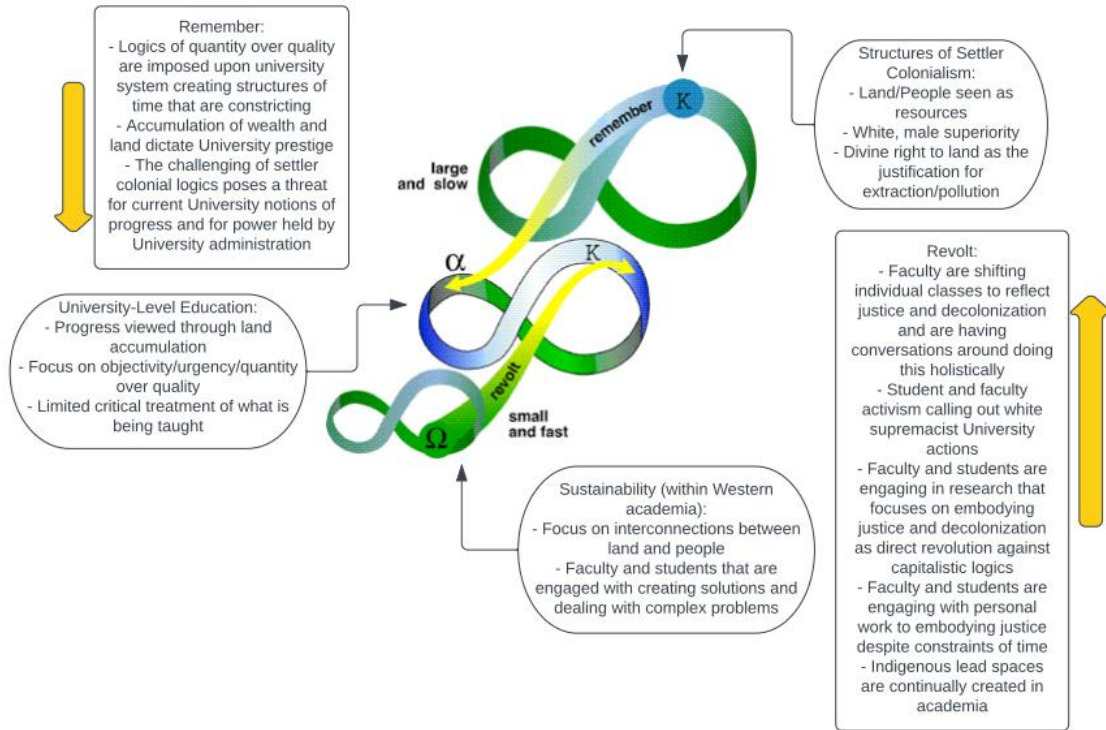


Figure 12: The resilience tool panarchy used to describe the interconnected systems of settler colonialism, university-level education, and sustainability within Western academia. This diagram shows the ways in which interventions in the small and fast system, sustainability, may undermine the resilience of the large and slow system, settler colonialism. Image adapted from (Gunderson and Holling, 2003; "Panarchy," n.d.).

## CHAPTER 5

### DISCUSSION

Resilience theory and frameworks provide useful assessment tools in measuring the resilience of settler colonialism in university-level sustainability education. This analysis highlights specific individual and systemic variables, such as shame, fear, guilt, time, and objectivity, that formulate reinforcing feedback loops and basins of attraction and thus aid in the resilience of settler colonialism. This resilience, however, can be blocked or resisted by facilitating non-performative trainings on settler colonialism, building relationality and community, engaging in critical work around emotional intelligence, and focusing on the breaking down of settler colonial structures within individual disciplines and academia in general.

This breaking down of settler colonial structures will include several concurrent and long-term processes such as redeveloping coursework to fundamentally center perspectives of Indigenous, Black, and People of Color and must be accomplished collaboratively with faculty, students, and the community. Additionally, psychological barriers must be addressed to challenge settler colonialism. The resilience of settler colonialism in university-level sustainability education is strong due to the impact of invisible and “normal” ways of being that most Westerners have learned through decades of education and socialization in a colonial system. While settler colonialism attempts to sever Indigenous relationships to Land, it premises on never teaching white settlers how to form those relationships in the first place. The absence of these relationships additionally impacts settlers’ relationships to others, the Land, and themselves, allowing

for the continuation of white supremacy culture and extractive relationships to land.

These interviews highlight that all 14 faculty members, within the sample, are looking for opportunities for unlearning settler colonial logics to better support their students and sustainability efforts. However, not all faculty members outside of this sample will be on board with suggestions for curriculum redevelopment or the breaking down of settler colonial structures due to their comfortability operating within the status quo, or their view of themselves as outside of the system in some ways. Thus, many faculty reference the need for compromise. While compromise may be necessary to see some changes, it is also important to understand that incommensurabilities are inevitable, and that for decolonization, or anti-colonial education, to be achieved, power dynamics must critically shift.

Notable in these interviews is the conflation of settler colonialism and other systems of oppression, but simultaneously the awareness of settler colonial interactions with the Land as related to sustainability. Faculty members are not intentionally reproducing settler colonialism, regardless of their understanding of its associations. However, by continuing to operate within a system that perpetuates settler colonialism, faculty are made complicit. It is thus important for administrators to listen to faculty and student desires for interventions, including critical examinations of power hoarding, that would address the resilience of settler colonialism for change to be possible.

Through these results and others found in the paper, settler colonialism can be seen as resilient in sustainability education, and in larger systems outside of sustainability. However, what can also be seen is the ways that students and faculty are

fighting back. Settler colonialism is incredibly complex and exists in all Western systems, therefore, the diagrams included in this thesis could be made ad nauseum. However, these are useful for highlighting some of the reinforcing variables in the situations presented as well as the interventions that are happening and those that could happen in the future.

With these results, I do not mean to create a binary as if to say you either are engaging with settler colonialism or you're not. Either/or thinking is another pattern of white supremacy logics that I often find myself falling into. These results show a range of situations where settler colonialism is resilient and offer some suggestions for intervention points that can be explored through further research.

There are two primary interventions that have been highlighted through the results of this study: trainings and curriculum redevelopment. First, it is clear that many faculty are interested in additional trainings and workshops that would allow them to unlearn settler colonial logics as well as to learn how to have uncomfortable conversations. These trainings, however, should not be standard trainings where participants are asked to watch videos or engage in superficial ways. These trainings need to take time to focus on critical self-reflection and the embodiment of justice, as well as the more cognitive process of unlearning settler colonial logics. It should also be noted that individual change must come with systemic change, therefore, it is essential that the university structure is challenged as well. However, the actual development of these trainings necessitates thoughtful collaboration and should focus on engaging with white settler communities to learn what they have currently internalized and find ways to allow them to unlearn and relearn.



The second main outcome shown in the results is the desire for curriculum redevelopment. This redevelopment would ideally occur in tandem with trainings and would happen through collaboration with students and administration. It is essential that Schools of Sustainability humbly but critically look at what is being taught and how, and not just at the classroom level but also at what is being perpetuated through research at the university. This curriculum redevelopment should also come with structural shifts that allow for more time to be focused on self-reflection so that faculty are not expected to add even more to their plate as no structural changes are made.

Without dismantling systems of oppression and settler colonial logics, the climate crisis will continue as people are continually separated from the land and view it as a resource. These logics also damage identities and relationships between people and the land, as well as continue Indigenous erasure. Vulnerability and the ability to engage in meaningful self-reflection is essential to addressing the climate crisis.

### *Limitations*

There are a few limitations surrounding this project that I would like to address.

Positionality: First, I would like to address positionality. As I mentioned previously, I acknowledge that my positionality may cloud some of the results here. I am thus only able to analyze these results and make connections to resilience from my own position and through a lens based on my personal and lived experiences. In future iterations of this work, collaborative efforts may help to address this as well as the continued process of unlearning. However, I also believe that engaging in this work

allowed for my own forms of critical self-reflection and unlearning, a process that I am dedicated to pursue for the rest of my life.

Timeline and Sample Size: I am operating under a compressed timeline due to my transferring between programs in the middle of my Masters degree. Therefore, I have had to make some shifts in methods due to what I am able to accomplish in this shortened timeline. In further iterations of this work, I believe it would be useful to open the interview sample size to include additional dually appointed faculty members, instructors, lecturers, as well as to students to understand their perspectives.

For this study, I chose to speak with faculty because I find it important to understand how the people who are designing the coursework and, in theory, making decisions about the program, think about settler colonialism. To have a more holistic understanding of the problem, a wider sample size would be useful that includes faculty from various disciplines across the university, as well as faculty from other universities with similar programs. Further, in future research, it would be beneficial to also include student perspectives to more holistically understand how the resilience of settler colonialism is impacting not only those who are delivering the information but also those who are, in theory, receiving the information that reinforces the resilience of settler colonialism. However, I believe that for the purpose of answering this research question at this scale, the sample size I have used, along with preexisting information and independent research, is sufficient.

The last portion of this is the possibility for selection bias. Because of the above-mentioned constraints, I reached out to a subset of 25 faculty members from ASU's

School of Sustainability. Of those 25 faculty members, 11 turned down the opportunity to participate. Due to this, it is likely that those members who I spoke to in this process were those who were already willing to talk about settler colonialism, as well as those who believe in its present manifestations. A wider sample size may have encouraged more participation from those faculty members who deny settler colonialism's present existence as well as those who are unaware of settler colonialism as a concept. Conversations with these groups could have provided a richer understanding of the resilience of settler colonialism in this system.

Study Location: Another limitation that could be avoided in the future is the study location. This study focuses on speaking with faculty and staff from the School of Sustainability. Generally, sustainability scholars are relatively open to topics of justice, systems of oppression, and settler colonialism. While not all are familiar, it is more likely for this group to be preconditioned to and receptive to this kind of conversation. Therefore, it is relatively easy to continue a conversation in this space, although pushback is still prevalent. If this study were to be replicated in other schools or programs, the Business School for example, it may be more difficult, but also could be incredibly interesting and important. An analysis of additional fields and disciplines could open up further understandings of the resilience of settler colonialism in society, particularly in how settler colonialism manifests in real life, socio-economic systems outside of sustainability. For example, the inclusion of history as a discipline in this study could provide an analysis for our settler colonial logics and languages reinforce settler colonialism and imperialist thinking into society. A focus on Business Schools as a

discipline could provide an analysis for how corporations are perpetuating settler colonialism through the capitalist economic system in the United States.

Anti-Colonial Research Methods: In addition to the above limitations, I believe it is important to conduct future studies related to these research questions in an anti-colonial way, a concept I am still learning myself. This may allow for more meaningful results in terms of what concepts are able to be brought to the table by a variety of collaborators, but will also attempt to walk the talk, so to speak, with the aims of this research project as it relates to anti-colonial and decolonial education.

## CHAPTER 6

### CONCLUSION

This thesis addresses the questions: How is settler colonialism resilient in university-level sustainability education? How are sustainability programs in Western academic settings addressing, or how could they address, settler colonialism?

Conversational interviews with 14 faculty members at Arizona State University's School of Sustainability provided context for an analysis of settler colonialism's resilience in this space. Resilience, as used in this thesis, allows for an analysis of systems traits including how settler colonialism may shift between stable states over time after disturbance, as well as what reinforcing feedback loops aid in this imminent cycle of reproductions (Biggs, Clements, de Vos, Folke, & Manyani et al., 2021).

However, although it is possible to start to identify settler colonialism as resilient in sustainability education, this does not mean that settler colonialism cannot be changed. Faculty in this project have highlighted several interventions that would address the reinforcing mechanisms and settler colonialism's ability to shift after disturbance. These include additional trainings, one-on-one curriculum redevelopment, additional time to focus on personal learnings and emotional growth, and shifting of university structures around time, grading and objectivity. However, many trainings related to concepts of anti-racism and white supremacy tend to be performative and easily ignored. Therefore, these trainings would need to be atypical from what is normally seen in academic and organization settings around these topics. Trainings in this way should focus on unlearning of whitewashed histories that erase Indigenous ways of life, but also on re-

learning anti-colonial ways of being. This means not simply privileging intellectual growth, but also emotional growth by teaching faculty to view themselves as whole beings, just as they hope to view their students. These trainings should also facilitate reconnections with Land in ways that break down extractive relationships and reformulate thought processes of pollutability or limits of extraction and common pool resources.

In addition to the above, these trainings should also focus on providing faculty members with tools and interactive lessons on how to have conversations surrounding settler colonialism and other ‘controversial’ topics that may elicit a range of reactions in the classroom. The political setting in Arizona, and across the U.S., is such that classroom environments may become uncomfortable, or unsafe, surrounding topics that question white supremacy, privilege, and power. Therefore, faculty should be equipped to facilitate, but also engage in, these conversations in meaningful and constructive ways, while working to lessen their own power hoarding.

Further, many faculty referenced the ability to address settler colonialism without using the term explicitly. While this may be true, it is important to call settler colonialism by its name to pull it from under the rug and not allow it to remain invisible or conflated with other systems of oppression. Therefore, these trainings should focus on teaching faculty to feel more comfortable with this effort, and with connecting settler colonialism across sustainability disciplines, even where faculty may believe it is not located—it is in all Western systems.

In addition to trainings, a critical element of this research has been topics of holistic curriculum redevelopment to address course structures and topics that foreground the resilience of settler colonialism—such as examples brought up in the literature review of conservation. This curriculum development should be a long and collaborative process that centers Indigenous perspectives and focuses on the dismantling of settler colonialism, rather than the inclusion of Indigenous knowledges alone. This redevelopment should also include the changing of structures around grading and objectivity, as well as the holistic inclusion of anti-colonial research methods across the field.

There is much, much room for future research surrounding this topic. While this has been a topic of conversation for decades amongst the education community, it is relatively new in sustainability in Western academic contexts, and at Arizona State University. Therefore, this project just scratches the surface of what exists related to the resilience of settler colonialism. In future iterations, it will be important to engage with the interconnecting issues of white supremacy and capitalism more deeply and how those interact within and outside of the university. Further, projects could be accomplished that build out the trainings mentioned in collaboration with faculty, students, and community members. Additionally, future projects could begin the process of curriculum and program redevelopment in anti-colonial and decolonial ways.

With this, I recommend that faculty at the School of Sustainability are educated about settler colonialism and settler colonial logics, as well as how to spot them in their many forms. Further, I believe that more of sustainability education needs to address

settler colonialism directly. As seen throughout this paper, there are many ways in which settler colonialism manifests as related to sustainability education. An understanding of and education around these topics could have implications for addressing and challenging the resilience of settler colonialism in society.

As I have learned through my courses and from my classmates, nature connectedness is a strong factor in personal sustainability. By addressing the underlying causes of our disconnections, we can begin building connections that lead to richer lives and more deep connections with the planet that move beyond extractive relationships and let us see how we can build just futures. In future iterations of this project, I hope we can build ways to achieve an overhaul of the sustainability curriculum to identify these issues but not appropriate or absorb Indigenous knowledges. I hope that we can empower faculty members to feel comfortable unlearning settler colonialism and having difficult conversations in the classroom so that students can be empowered to do the same. I hope we can find truly sustainable ways to address the climate crisis that include the abolition of white supremacy and settler colonialism as the drivers of discomfort, harm, and unhappiness. I have hope in the future and that hope comes from the amazing work I see happening from my classmates and many faculty within ASU's School of Sustainability, as well as decolonial activism across the world.

Lastly, I would like to end with an echoing of Tuck and Yang's (2012) sentiments in *Decolonization is not a metaphor*. The challenging of settler colonialism in sustainability education will have major impacts on interactions within the field and hopefully conceptualizations of the future. However, decolonization will not happen



without the returning of stolen lands to Indigenous peoples, as well as the abolition of hegemonic power structures, including the government of the United States and capitalist economic systems. Further, decolonization is a process and should be viewed as such, rather than focusing on specific outcomes or colonial ideas of progress. Therefore, as an ending to this piece regarding the resilience of settler colonialism in sustainability education, a discipline intimately focused on connections to Land, I echo calls from activists across the world for the returning of stolen land in what is now called the United States, and globally, to Indigenous peoples.

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APPENDIX A  
INTERVIEW CODEBOOK



Name of Code	Description	Example
Change over time	Comments that address a person's experience of evolving to include topics of racism, justice, white supremacy, and teaching in their teachings and coursework; Changes over time in general public perception of the above topics; changes over time of curriculum itself	"Over the past 4 years I have changed the way I teach X class to include justice in every module"
Time	Comments that address a person's perception of time as a barrier to change/learning/incorporation of topics/personal growth/self	"I am not able to learn on my own about settler colonialism because I do not have enough time"
Hierarchy	Comments that address the existence of hierarchy in academia—positive, negative, or neutral	"I do not feel like I can speak my mind about these issues because I am a new faculty member"
Gender	Comments that address the ways in which gender is perceived in sustainability; Connections between gender identity and sustainability/connections with the earth; How facilitators deal with constructs of gender	"I don't think we really have any good ideas in this very important discussion of incorporating gender into the overall curriculum"
Sexism	Comments that address sexism as a system of oppression; Instances of sexism in higher education either programmatically,	"As a woman, I feel uncomfortable sharing ideas"
White Supremacy	As a system of oppression connected to settler colonialism; as it relates to texts and coursework given to students	"I am in the process of removing known white supremacist scholars from the reading list in my classes"
Racism	A system of oppression that exists in the classroom and through course readings/assignments	"I have a module focused on anti-racism in the course I teach"
Justice	Comments that reference justice as a concept taught in the classroom, as a concept they embody, or as a tool for change	"Justice is a focus in every module of the course I teach"
Land	Regarding the physical existence of the University on stolen lands; How land is perceived and taught in the classroom; How identities impact relationships to/mindsets surrounding land; How people are taught to view land as a resource	"Sustainability education focuses intimately on relationships to the land"
Curriculum	Comments that address a curriculum as a strategy for change; As a barrier to change; A person's perception of how curriculum can be	"So thinking about justice across the entire curriculum right now, it's hit and miss. It's not something we've built into the entire"
Relationships	Comments that address a person's perception of the importance of relationships to anti-colonial education; Comments that address	"Our students need to be able to build meaningful relationships with the land"
Collaboration	Comments that address a person's perception of the importance of collaboration to anti-colonial education	"Classes should focus on collaboration as a tool for building relationships and community"
Emotions	Comments that address the necessary sensitivity to people's emotions about the settler colonialism; People are not taught how to manage	"I am afraid to say something wrong and possibly offend someone, so I usually keep my mouth shut"
Trainings	Comments that address the prevalence of the request for trainings to further knowledge on topics related to settler colonialism	"Something that I think would help me feel more comfortable is if more trainings were offered on how to facilitate uncomfortable"
Learn	Comments that address a person's desire to learn about settler colonialism; a person's desire to learn from their students	"There is a lot I need to learn and unlearn about settler colonialism"
Knowledge	Comments that address a person's desire for more knowledge on settler colonialism; the existence of a wide swath of types of	"Western education often privileges western knowledge systems"
Support	A person's desire for more support in the process of learning about/changing settler colonialism; Comments that address support in the classroom between teachers and students as well as between faculty members and faculty members and administration	"We need more support from the administration if we're going to change the curriculum"
Administration	As a barrier to change; As a support for change	"Administration is thinking about these issues but is afraid to act"
Expert	Comments that address a person's awareness of whether they are the expert or not; the ability to become comfortable with not being the expert	"Even as a teacher, I'm not always the expert in the room about JEDI topics or settler colonialism"
Power	Comments that address power asymmetries between students and teachers and among facilitators and leadership	"People with power may be uninterested in change because they could stand to lose their power"
Settler colonialism	Comments that address settler colonialism as it relates to university level sustainability education	"I never really learned about settler colonialism when I went through school"
Teaching approach	Comments that address a faculty members philosophy for teaching a certain way or for taking a specific approach to education	"I approach teaching by understanding that my students are whole beings and by trying to make a space that is as safe as possible"
Vulnerability	Comments related to the ability for faculty members to be vulnerable, or the ability for students to be vulnerable	"These types of conversations are uncomfortable and can often make people feel vulnerable"
ASU's Mission	Comments that address the charter of ASU	"ASU's mission focuses on inclusivity"
Barriers	Comments that address barriers to addressing justice, race, racism, white supremacy, and settler colonialism in teaching and coursework	"There are many barriers to change in academia but also opportunities for growth"
Business Perspective	Comments that address a focus on financial/progress goals of ASU	"I've been surprised by ASU's decisions sometimes to focus on progress over people"
Co-production	Comments that address co-production of knowledge, or comments that address co-production of courses and curriculum between	"In my teaching I try to focus on co-production of knowledge as well as building relationships"
Comfort	Comments that address a level of comfortability with topics relevant to this thesis; comments that address the level of comfortability	"I don't really feel comfortable yet having these conversations in my classroom"
Community	Comments that address a desire to create community in the classroom; Comments that address the importance of community as a	"There are large communities of students who are trying to change the way academia works to be more just"
Compromise	Comments that address the need to compromise on tasks relevant to dismantling systems of oppression in sustainability education	"It's important that we compromise if there is going to be change"
Discussion	Comments that address the importance of discussion based courses that allow students to test new ideas	"Discussion oriented classes are the best way to build community"
Future Strategies	Comments that address ideas for strategies to embody anti-colonial/decolonial education styles	"Some ideas for redeveloping the curriculum would include working closely with students"
Grading	Comments that address grading as a system of oppression/as a barrier to operating in an anti-colonial/decolonial way	"I find grading to be a huge issue in regards to forcing us to think objectively about students who are inherently different from one"
Ideal Teaching Style	Comments that address a faculty member's preferred teaching style	"If I could have it my way, there would be no formal classrooms. All classes would be outside"
Online	Comments that reference ASU's online teaching platform	"The online format of some of ASU's classes really poses issues for building community and teaching about justice"
Students as whole beings	Comments that reference a faculty member's acknowledgement as students as whole beings	"First and foremost, students are full beings with their own personal backgrounds and knowledges. It's important to respect that"