DESIGNING BELONGING: CULTURALLY GROUNDED CAMPUS HOUSING FOR NATIVE AMERICAN STUDENTS

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ABSTRACT

Native American students pursuing higher education face challenges in environments primarily designed for a predominantly white, middle-class demographic, which often alienates students from diverse ethnic backgrounds, particularly Native American students. With Native American graduation rates among the lowest in the country, this exclusion continues to marginalize them from broader educational conversations, rendering their experiences invisible and undermining efforts toward equitable education. In contrast to the Western perspective of college as a time for young people to separate from their families and communities to discover adult identity, Native American students possess a deep sense of gratitude and connection to their people, community, and place. Their approach to individualism is rooted in communal needs, which significantly influences their academic experience. This communal bond creates challenges when transitioning to college, as being away from home fosters feelings of isolation, depression, and a deterioration in academic performance, due to the cultural importance placed on maintaining a connection with family and community.

Many academic institutions have begun to prioritize design spaces through architecture to challenge the long historical practice of institutions to assimilate Native peoples. Such spaces are important for fostering a strong sense of cultural belonging and community in what can often be isolating academic environments. These spaces offer a supportive atmosphere where students can connect through shared traditions, values, and experiences, helping to ease the transition to college life. They also play a crucial role in supporting academic success and retention, as students who feel seen, respected, and supported are more likely to thrive. Beyond serving Native students directly, these spaces contribute to cultural preservation by providing room for

language use, traditional practices, and community-building, while also creating opportunities for cross-cultural learning among the broader student body. Importantly, such housing addresses the lasting impact of historical injustices and systemic inequities, offering a concrete step toward reconciliation and institutional accountability. For many Native students, these spaces are not just housing — they are places of safety, identity affirmation, and empowerment. There are few universities and colleges that have begun to incorporate Native American architecture and design principles into their campuses. This study provides a design example and methodology that demonstrates how culturally responsive design can be a pathway for healing, empowerment, and offering Native American students a place not just to live, but to be fully seen, culturally supported and ultimately celebrated in their pursuit and attainment of higher education.

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CHAPTER 1: INTRODUCTION

1.1 PROBLEM STATEMENT

Native American students experience the worst rates of post-secondary success among any ethnic population in the United States. More specifically, of the two million bachelor's degrees conferred in 2021-2022 academic year, only 0.5% were awarded to Native American students (National Center for Education Statistics, 2022). The Postsecondary National Policy Institute (2025) has reported "*Native American students are often excluded from postsecondary data and research due to their small sample size,"* highlighting the need for more inclusive demographic reporting. Numerous factors contribute to the challenges Native American students face in higher education, including historical mistreatment, systemic oppression, and poverty-stricken living conditions (Brayboy, 2015; Tachine, Cabrera, & Yellowbird, 2017).

Native American students are among the most disadvantaged in primary and secondary education with some of the lowest educational outcomes of any ethnic group. According to the National Indian Education Association (2019), Native American students represent only *1%* of the entire U.S. *K-12 public school population.* Of that student-body demographic, only 74% are performing or on track to graduate from the U.S. public school system or equivalent. In comparison, the next underachieving ethnic group are Black or African Americans attaining high school diplomas or equivalency at 81% (National Center for Education Statistics, 2024). The national average of attaining a high school diploma or equivalent is 87% (National Center for Education Statistics, 2024). Again, Native American students in the K-12 public school system experience the lowest graduation rates. Furthermore, the quality of education offered on tribal

lands is often poor, as both the Bureau of Indian Affairs and the U.S. Department of Education share responsibility for educating Native youth throughout the country.

Poverty among Native Americans is the highest among any minority group in the United States. According to the National Community Reinvestment Coalition (2022), data from the 2018 U.S. Census showed that *the poverty rate for Native Americans was 25.4%* – nearly 5% higher than the next highest rate in *Black or African Americans with a poverty rate* of *20.8%.* Minority groups across the nation have and continue to fight for economic equality, but Native Americans, in particular, continue to face enduring systemic barriers imposed by the U.S. Federal Government that have hindered economic prosperity since the era of colonialism and forced assimilation of Native peoples.

1.2 RESEARCH QUESTIONS

1. How will designing the built environment to accommodate Native American needs on post-secondary campus grounds impact the retention of Native students?
2. And will introducing culturally resilient housing for Native students require a native designer?

1.3 RESEARCH METHODOLOGY

Understanding the socio-economic disparities within Native American contexts and how they impacts post-secondary success required extensive background research. This included reviewing demographic reports, student retention reports, socio-economic analysis reports,

literature reviews, and legislative review. Additionally, my own personal experience served as a driving force to convey the underrepresentation of Native American experiences in academia. To illustrate the current impoverished living conditions on the Navajo Nation as an example of the broader Native American experience, I incorporated site visits, photographs, and Navajo demographic reports. I also sought to convey the complexity of Indigenous identity, navigating a world that perpetuates Western living while preserving an Indigenous worldview. Engagement with professionals in the AEC (Architecture, Engineering, and Construction) industry who have experience working on the reservation was critical to understanding and communicating the systemic barriers present in the design process on tribal lands. Precedent studies—including projects built on tribal lands, projects with programmed spaces for Native Americans off tribal land, and projects led by Native American or First Nations designers—were instrumental in establishing models for successful Indigenous student housing in university settings. Ultimately, I selected the site based on its close proximity to the Navajo Nation, its above-average Native American population, and the percentage of Native American student enrollment at the local institution, Northern Arizona University.

CHAPTER 2: BACKGROUND

2.1 WHO IS NATIVE AMERICAN?

This section will discuss the parameters of tribal citizenship and the political relationship all tribes share with the U.S. federal government. As a member of the Navajo Nation, I will elaborate on eligibility requirements and how to obtain tribal membership from the *Navajo Office Vital Records & Identification* (2025), the agency responsible for maintaining Navajo tribal records and issuing membership for the tribe.

First, the commonality all Federally recognized tribes share and enforced by the U.S. government, is that tribes must identify a minimum blood quantum for their citizens. Blood quantum requirements vary to tribe and are within tribal right to identity said blood quantum (Native Governance Center, 2025). In the case of the Navajo Nation, tribal members must have at least ¼ "Navajo" blood and one parent be enrolled as a member to ensure blood requirements are met per *Navajo Office Vital Records & Identification* (2025).

In 2021, Navajo Times reported, *Dine' population enrollment increased to 399,494* distinguishing the Navajo Nation as the largest federally recognized tribe in the United States (Becenti, 2021). Further, this means there are 399,494 individuals that met eligibility requirements outlined by the tribe and have at least ¼ "Navajo" blood and a parent that is an existing citizen of Navajo Nation. And in the case of individuals who have "Navajo" blood but less than ¼ or neither parent is not a member of the tribe. Simply put, the *Navajo Office Vital Records & Identification* do not acknowledge any lineage if the eligibility requirements are not met, and you are not given tribal status. Among the indigenous community, blood quantum

discourse always results in ethical questions being raised about who is to define one's identity. But that is the system that the U.S. federal government imposes on federally recognized tribes.

2.2 TRIBAL SOVEREIGNTY

Moving forward, I want to discuss two political terms that outline the relationship between Native Americans and the U.S. Federal government: *federally recognized Indian tribes* and *domestic-sovereign nations.* These are terms that are mentioned in legislative language regarding Native American identity and attaining familiarity with these terms will help with clarity in identifying contradictions that Native Americans experience every day. These contradictions are best told through a Native lens.

First, the U.S. Department of the Interior Indian Affairs (2020) provide a definition of *federally recognized Indian tribe* as "an American Indian or Alaska Native tribal entity that is recognized as having a government-to-government relationship with the United States" and "federal recognized tribes are recognized as possessing certain inherent rights of self-government (i.e. tribal sovereignty)" and which tribes are "entitled to receive certain federal benefits, services, and protections because of their special relationship with the United States." To clarify common misconceptions, these aforementioned benefits, services, and protections were not given freely; they were negotiated by tribal leaders' generations ago when the United States sought to resolve war conflict with tribal nations to protect U.S. military interests and citizens during western expansion. Treaties between the U.S. government and tribal nations are legislative documents that "set out the duties and responsibilities that the federal government owes to a particular tribe … and guarantees peace*"* between the two parties (Library of Congress, n.d.). The Library of Congress (n.d.) explains that treaties covered "issues such as land

boundaries, hunting and fishing rights*"* and that hundreds of treaties signed "between the tribes and the United States between 1778 and 1871," were enacted by the executive branch with senate approval. These treaties foreshadowed despicable historical negligence on Native American communities through U.S. policy. History about Native Americans are often misrepresented in academic or political institutions to suppress the horrid actions of the United States (Smiles, 2021). It is essential to understand that Native American people are processing the impacts of the stored historical trauma from colonizers' actions that included "the theft of land and the suppression of Native languages, cultural traditions, and lifeways", where were part of deliberate genocidal practices to *Kill the Indian and Save the Man* (Carlisle Indian School Center, n.d).

An ugly propaganda slogan used by white America in the 1800s sought to assimilate so-called *savages*. Captain Richard H. Pratt, founder of the 1st Indian boarding school, led efforts to "educate and rehabilitate" Native children by introducing the oppressive practice of taking the "savage-born infant to the surroundings of civilization, where he will grow to possess a civilized language and habit." When he established the Carlisle Indian Industrial school, it became the first of its kind institution where the United States weaponized the Church to commit crimes against Native children. Captain Pratt's radical method set standards for boarding schools across North America to execute a campaign of cultural genocide (Carlisle Indian School Center, n.d).

Every treaty agreement between tribal nations and the United States has been broken and continues to be broken. That is no exaggeration. In 1871, the United States halted the issuance of treaty agreements with tribal communities because "Congress ceased to recognize the tribes as entities capable of making treaties," which ensured no further commitments would be made to support tribal community recovery (National Archives, 2022). Again, there are hundreds of

examples where the United States retracted treaty agreements and exploited Native Americans to promote national expansion and impose a colonial agenda on Indigenous-America. Therefore, I argue that treaty agreements, past or present, have not contributed to the rebuilding of Native communities, or security as originally promised. Instead, they have served as enabling documents used to manipulate tribal leaders and gain trust for future exploitative actions.

Secondly, treaty agreements between tribes and the United States established a distinct political recognition for Native Americans known as *domestic-sovereign nations.* According to Cornell Law School (2022), this term is defined as: "Federal law recognizes a special kind of Indian sovereign - authority to govern themselves, subject to an overriding federal authority, Indian tribes by federal law to be domestic, dependent nations" meaning tribes have an inherent right to exercise their sovereign powers within the boundaries of their legal land-in-trust, or reservation. However, the United States maintains overriding federal authority over tribal self-governance as the colonizing power. Tribal sovereignty is also protected "from state regulation, intrusion, and overreach" although most tribes have delicate relationships with the state that inhabits their ancestral land (Cornell Law School, 2022). Only recently have treaty rights begun to shape a modern landscape where *domestic-sovereign nations* co-exist with the United States. Historically, U.S. treaty rights with Native Americans evolved from a series of land cessions and promises of protection into an ongoing struggle for sovereignty, cultural preservation, and justice. Native Americans and tribal leaders continue to assert their rights and demand recognition of the promises embedded in legislation.

Further, I will provide further insight into the seven legislative parameters the United States requires Native American groups to meet in order to apply and receive *federally recognized Indian tribe* status. According to the Code of Federal Regulations (2024) online

reader, "§ 83.11 What are the criteria for acknowledgment as a federally recognized Indian tribe?" list the following: a) Indian entity identification, b) Community, c) Political influence or authority, d) Governing document, e) Descent, f) Unique membership, g) Congressional termination. Definitions for these criteria are further provided by the Cornell Law School's (2022) large legislative library on American Indian law. *Indian entity identification* is defined as "The petitioner has been identified as an American Indian entity on a substantially continuous basis since 1900." And the petitioner refers to the Native American group in question. *Community* states the petitioner "comprises a distinct community and demonstrates that it existed as a community from 1900" until the present day. *Political influence or authority* states the petitioner "has maintained political influence or authority over its members as an autonomous entity…" from 1900 to current day. *Governing document* means the petitioner must provide "a copy of the entity's present governing document, including its membership criteria…" to the court. *Descent* requires that the petitioner's membership "consists of individuals who descend from a historical Indian tribe…" and may need to prove further documentation. *Unique membership* is defined as "Petitioner's membership is composed principally of persons who are not members of any federally recognized…" but individuals are able to apply for dual membership if you meet all required eligibility requirements. *Congressional termination* is defined as "Neither the petitioner nor its members are the subject of congressional legislation that has expressly terminated or forbidden the Federal relationship…" is our final parameter. The U.S. Department of the Interior Indian Affairs (BIA) is responsible for reviewing and determining whether petitioners meet the criteria outlined by federal codes and regulations. Most tribes that are federally recognized today were grandfathered into recognition through treaty agreements made generations ago. It is important to note that all branches of the U.S government have historically attempted– and continue to attempt to dismantle existing treaty

agreements in the past and present. Without the checks and balances system, Native American communities would likely have been stripped of all rights, and paper genocide would have eliminated Native existence altogether. Currently, there are hundreds of open legislative proceedings in which Native communities are fighting for their right to self-govern and to formally recognized by the federal government. Yes, it is the United States government that decides whether a tribe is recognized and hold the power to define which Indigenous communities within the contiguous 48 states are considered Native American or American Indian.

Beyond public discrimination and mistreatment, millions of Native Americans and tribal nations continue to fight to preserve their cultures in the present day. I must also acknowledge the persistent historical misinformation about my people, spread throughout the political and academic institutions representing the United States. Negative rhetoric about Native American communities was deliberately circulated to impose colonial models onto Native American societies. These falsehoods and stereotypes were essential tools in justifying colonization, land theft, and the suppression of Native cultures. The effects of these harmful myths persist, influencing the ways Native American communities must continually fight for their sovereignty, land, cultural rights, while simultaneously challenging the historical misinformation used to justify their oppression. European settlers believed North America was unoccupied and therefore felt they had the right to "take what was theirs" because colonizers viewed Native Americans as "savages" – a narrative that completely ignores the complex cultures, governance systems, and languages that existed long before colonial contact. What disturbed the colonizers most was the glaring difference in cultural and spiritual practices among Native peoples. Native American religions and spiritual practices were often portrayed as primitive or even threatening to colonial models and religion. The Doctrine of Discovery, published in 1493, established colonial models

that justified European colonization on behalf of religious institutions, like the church. This document provided European settlers with the self- validation to claim lands that they discovered, even if those lands were already inhabited by Indigenous peoples. The doctrine outlined the so-called "Indian problem" that the U.S. Federal government would later encounter and promoted the false depiction that Native Americans were incapable of surviving within contemporary Western society. In early America, the United States asserted it had the right to expand westward across North America. As expansion progressed, displacement became violent, and the U.S. Federal government strategically used colonial tactics to frame Native Americans as the villain – while framing European Americans as victims of violence who were peacefully seeking better lives. This deliberate spread of harmful misinformation became the root of the social and legal dehumanization Native Americans continue to face in contemporary America.

European colonialism, which ultimately formed the United States today, is responsible for "the spread of disease, the forced removal of Native children to boarding schools, cultural suppression, religious persecution, and federal policies aimed at the destruction of lifeways, including termination of tribal nationhood and sovereignty" and the literal murder of hundreds million Native American people. It is ignorant to not acknowledge the true history of tribal nations and the United States' role in attempting to assimilate and eradicate Native peoples. This history set the stage for the ongoing oppression of the original stewards of North America and continues to explain why Native American communities struggle to thrive in Western civilization.

2.3 SOCIO-ECONOMIC & HEALTH DISPARITIES

Moving on, I will discuss the contemporary challenges Native American peoples experience since the dynamic between the United States and tribal nations has been discussed, in both a historical and present-day context. Native Americans experience the highest rates of socio-economic disparities, and health disparities among any ethnic or racial group in the United States. Social determinants of health like, *poverty-stricken communities, high unemployment, homelessness, poor education attainment and success, inaccessibility to equitable healthcare, inaccessibility to resources, inaccessibility to basic human necessity* contribute to the disproportionate rates of health disparities that Native Americans collectively experience. Health disparities include, *extreme rates of alcoholism and substance abuse, obesity, diabetes, cancer, heart disease, kidney disease, chronic liver disease and cirrhosis, suicide, and homicide* (Indian Health Services, 2019).

Native American peoples' well-being is a controversial discussion, as it reveals systematic disadvantages and social prejudice. We know that the United States has consistently worked to misinform the world about Native Americans in order to hide its own historical atrocities. This leads to crude and unjust stereotypes to be placed on the Native American population. As a result, "pervasive myths and stereotypes that saturate K-12 education systems, media, social networks and more that lead people to believe one-dimensional ideas and stereotypes about Native American(s)…" manifest into a national narrative filled with racist bias. Few will acknowledge the social systems aimed to inflict struggle on Native American communities and reservations, while many continue to contribute to the degrading discourse surrounding Native American struggle. This is why representation within political and academic

institutions is required, to embody positive change, and reform the current narratives surrounding Native American peoples.

2.4 NATIVE AMERICANS & POST-SECONDARY SUCCESS

College enrollment has seen an increase in minority and ethnic populations representing the multitude of unique cultures, economic class, and vast diversity that exists around the world. But this trend of upward academic success by non-white students has not been experienced in the same capacity for the Native American student demographic. Of the Native American students that do enroll "they are less likely to complete their degree than their peers…" where only "39%" are expected to graduate, and "Native students have the lowest graduation rates of any group…" in post-secondary settings (Postsecondary National Policy Institute, 2025). Further, Native American societies are typically matriarchal, and this social construct is evident in post-secondary settings where "nearly twice as many Native American women earn bachelor's degrees than men." after the completion of high school or equivalency.

As stated in previous sections, Native American students represent less than 1% of student demographics in post-secondary settings. Academic institutions need to identify more ways to affirmatively support Native American lifeways and worldviews, to increase student-retention and success. Especially the universities that occupy historical ancestral lands of Native American stewardship. Moving forward I discuss the *whys* in what attributes to the poor post-secondary success, poor retention, poor graduation rates, and the struggle to transition from home to post-secondary settings, that is experienced by Native American students.

2.5 BOARDING SCHOOL TRAGEDY

The history of boarding schools is a topic in U.S. history that has left a lasting impact, one that Native Americans continue to be impacted by. First, Native Americans possess an inherent mistrust of institutions, particularly those that contributed to the assimilation of their communities, including academic institutions (Native American Rights Fund, 2019). *The Boarding School Era* was officially documented by the U.S. Department of the Interior's Bureau of Indian Affairs (BIA) in 1819, and the last functional boarding school closed in 1969 (Bureau of Indian Affairs, n.d.). However, within the Native American communities, it often said some boarding schools remained operating into the 1980s and continued their oppressive acts.

Historically, we know that the United States used the Church as a tool to punish Native children for not meeting imposed European social standards. To this day, the public doesn't acknowledge and/or is unaware of the brutality inflicted upon Native youth by the Church. These horrific acts, - physical abuse, mental abuse, sexual abuse, murder, and rape, were part of efforts to erase the lifeways of Native children to ensure Native youth behaved and adopted white-man's way of life. Children ranged in age from new-born babies to late teenagers (Bureau of Indian Affairs, n.d; Native American Rights Fund, 2019). While millions of Native youth disappeared at the hands of religious oppression, there are many survivors who are alive today to tell these experiences of the burden of the United States' policy to disembody *the savage and save the man* (Carlisle Indian School Center, n.d.). It is important to understand that Native American students today know this history. For many in pursuit of higher education, can feel redundant, contradictory, or even guilt-inducing, asking: Why participate in the institution that scarred, murdered, or harmed, my parents and grandparents? The relationship between the two entities is complex because academia was weaponized to belittle and dehumanize the identity of Native

Americans and that has not been taught in academia. I'd argue that the relationship between Native Americans and Academia is still open-ended, very delicate, and in desperate need of reform.

Native American students that take the step towards educational pursuits are undermined by a predominately white student demographic. Post-secondary settings and universities are structured to accommodate the experiences of the white middle class student. And the "institutional orientation" is alienating to students from ethnic backgrounds, and especially Native American students. We know that Native American student demographic rates are the lowest in the country and alarmingly, continues to exclude Native students from "education conversations and thereby rendered invisible" which negatively impacts equitable education that includes Native students in the United States. Western thinking views college as time "from their parents and home community" to discover adult identity.

In contrast, Native students have an overwhelming sense of gratitude for their people, community, and place. The approach to individualism is expressed through their communal need. This narrative needs to be inserted when discussing the Native American student experience in academia and the challenges transitioning into college settings. Native American students have difficulty in college because of their connectivity to their family and place. Native American culture instills ongoing "connection with home and family" to practice cultural reciprocity. Native students being away from their home and community foster intense feelings of isolation, promote depression, and these feelings will deteriorate academic performance.

To illustrate, I want to share my experience as an undergraduate student when I moved away from home and my family.

Arizona State University recognizes many Native American students struggle in their transition into higher education. To address this, an internal department called American Indian Student Support Services (AISSS) hosts a transitional program for incoming Native freshmen.. Each year, they organize an annual event called SPIRIT, or Student Preparedness Initiative Readiness Inspired by Tradition – an indigenous led free program designed to recruit Native students to introduce essential skills, and foster relationships with other Indigenous individuals within the ASU community, all in hopes of making the adjustment to campus life easier. My mother, who is a professor at Northern Arizona University, made a unilateral decision for me at 17 years old, I would move into the dorms before the start of the semester to participate in SPIRIT. My freshmen dorm was no bigger than a walk-in closet and I was overwhelmed by a flood of emotions. I was saddened to realize I had reached the chapter in my life where my parents expected me to leave the nest. I felt uneasy, anxious, and nervous about starting college, especially after hearing many horror stories of my own people's failed attempts in their pursuit of higher education. And in full disclosure I thought very little of myself in the classroom. I did not believe I was smart enough to be enrolled in college. My academic performance in high school was adequate, it was enough to get me into college, but I was no exceptional student. I credit my participation in sports as a key factor to my success in the classroom. Without this driving force in college, I feared I was not going to be successful. I know my parents were aware of my self-doubt. I know they felt my anxiety. In many ways, I believe my parents took a chance in supporting my academic endeavors, trusting that somehow, someway that I would find a way.

Following the conclusion of SPIRIT, I had established relationships with several Native peers, was assigned a Native mentor who was an upperclassman I trusted and had the opportunity to meet regularly with a Native American wellness counselor. I started my classes in

a determined, formidable fashion – attended all classes, turned in all assignments, did my best to digest the required readings. Yet despite my efforts, I struggled. Internal doubts and questions about whether higher education was truly the path meant for me began. Was architecture my path? Was college my path? Most of the men in my family were blue collar workers and that seemed like a more realistic option at the time. But then I had an epiphany. I reflected on how I had watched my father provide for our family at the cost of his health – so that his children would have opportunities he never had. I vividly recall watching my father return home from work every Thursday, exhausted. Remembering this sacrifice pushed me to continue towards excelling during my freshmen.

Further, I observed my western counterparts transitioning from home to campus life much more easily. In interactions with them, they often conveyed excitement in anticipating independence, it was a common sentiment. For many, leaving home and parents was almost a relief. This difference did not help the nervousness, or anxiety, that I felt that occupied my mental space. Despite these feelings, I found that practicing humility would also be a driver throughout my undergraduate experience. I reflected often on my identity, on the history of assimilation forced upon my people, and the trauma stored within my heart. I reminded myself that the intention of the United States' effort was to ensure I never sat in a university classroom, fostering my discipline as a student. I thought of my grandparents, parents, aunts, uncles, and my broader K'é—the Dine' word for kinship—who had sacrificed so much so that I might have a different future. My "why" for pursuing education extended far beyond personal ambition; it became a commitment to healing my community and honoring the resilience of my people.

I was not raised on the Navajo Nation and cannot speak to that experience directly. Instead, I grew up in a predominantly white community, which while isolating in its own way,

also gave me an advantage compared to some of my Native peers who came from the reservation. There was no need to learn western ways of living, I was already fluent. I spoke English fluently, had strong communication skills, I played sports, and I had no trouble talking to the *white man*, and I was confident. This is not the experience of all Native students. I was fortunate to have a strong support system. My mother, aunts, older sisters, had all attended or were pursuing higher education at the time of my first year in college. Through their mentorship and encouragement, I was able to persevere and eventually earn my bachelor's degree. Still, I recognize that my personal experience as a student does not encapsulate the Native student experience.

Many of my Native peers struggled and most did not graduate or even make it past the first year of college. I witnessed students unable to navigate the college environment and bureaucracy because they didn't know how to ask the proper questions, know where to seek help. I saw peers unable to recognize depression as it quietly consumed their mental space. I saw phenomenal high school athletes question their identity in a competitive college environment. I knew students who simply could not process the pressures of being away from home and inflicting self-harm. Financial pressures also led to many peers to drop out of college because of the financial costs associated with higher education. These experiences left me feeling helpless at times. I yearned to be a resource for my peers, despite my own struggles, and share the knowledge I gained about navigating the western world and remind them why education matters to our communities.

I have previously discussed the socio-economic disparities that persist on tribal lands. Basic infrastructure such as access to clean water, electricity, housing, roads, schools, medical facilities, grocery stores, public leisure spaces, gyms, are critically needed. Experiencing such

desolate living conditions is something few outside Native communities can fully grasp. Most students who attend college have never had to build a fire to keep their elders warm during the winter, or travel 200+ miles one-way just to buy groceries, water, or clothing. Yet for many Native families, these responsibilities are placed on their youth, even while pursuing higher education. There were many times I dreaded going to the reservation because there was simply nothing to do and nowhere to go. I want you to understand: reservations are often associated with destitute living conditions, and no study, no statistics, no socio-economic report can fully convey this lived experience. No data can truly capture the sense of hopelessness felt on ancestral lands. Reservations are isolated from major metropolitan areas and infrastructure networks, creating another obstacle Native American students must overcome by simply existing on a college campus. The truth is that Native Americans were relocated to areas "not deemed desirable" by white populations. The United States selectively gave ancestral stewardship rights to Native Americans to establish geographical dependency. And the decision to move into metropolitan areas is required to find success for the Native student. This is an example of U.S. policy to oppress the Native student and keep the Native American communities uneducated. You can't have success without leaving your ancestral homelands, and when leaving your ancestral homelands, comes the implication that you need to sacrifice a piece of your identity as an indigenous individual. And most Native students do not take that kindly.

I am not seeking external pity for the Native student experience. I am here because my Native peers deserve to be represented properly. I know that college success within my community is a contemporary concern, but I refuse to let academia misrepresent Native college attainment rates through one-dimensional studies that fail to tell the entire story. There are deeper layers that exist. Issues that need to be resolved and require contemporary solutions.

Native students do not come from typical western livelihoods. I respect my Native peers who attended college, even if they did not complete their schooling, because they possess strength I cannot fully comprehend. Native students often carry a poor sense of internal worth in Western settings, shaped by how the world perceives them, and how they have been taught to perceive the world. The challenges my peers faced were not simply about transitioning into college, they are entwined with history, identity, and systemic barriers meant to oppress the Native student. The violent history Native populations experienced has left lasting trauma that Native students carry without a strong support system. And still they find the courage to attend college in hopes to find resolution for their community and themselves.

It is the responsibility of academic institutions to provide a genuine *sense of place* for Native American students who left home to attend college. Pursuing higher education often comes with the assumption that it is the student's responsibility to become "socially and academically" integrated into college settings. Yet this expectation is problematic for Native students because it implies students must adopt western ways of living, reject their cultural upbringing, and assimilate into society. Embedding Native cultural identity within college campuses challenges these historical narratives. Native American identity and Western education have long been cast as opposing forces that cannot coexist—a falsehood rooted in assimilationist propaganda. The racism, microaggressions, and stereotypes that marginalize Native students only reinforce this harmful division and sever connections to local college communities. Instead, providing recognition and affirming cultural integrity for Native students fosters a desire to persist in higher education—a key factor that many campuses fail to extend to students from diverse ethnic backgrounds.

A Native student's ability to perceive their cultural identity on college campuses serves as an anchor to attach themselves while being away from home. And the recognition of Native culture from academic institutions advocates representation and non-native students display respect and homage to non-white cultures. This recognition creates familiarity and a *sense of belonging* for Native students as they pursue higher education. It is the responsibility of academic institutions to educate their faculty on how to create safe, supportive learning environments for their Native students. I believe that providing a *home away from home* for Native students will reform the mistrust Native students have towards universities and will shift the narrative about Native Americans and accelerate the discovery of a new contemporary identity.

CHAPTER 3: REFRAMING NATIVE STUDENT SPACES

3.1: WHAT I DIDN'T KNOW I NEEDED: MY ACADEMIC JOURNEY AND PERSONAL REFLECTIONS

When I began graduate school at the University of Hawaii and was accepted into the Doctor of Architecture program, I started to reflect on what I hoped to achieve through my research. I began with what I knew: the alarming underrepresentation of Native students in academia, and the even more pronounced lack of Native designers in architecture. I knew this would be an underlying issue that would shape and inform my study.

I looked into the number of Native American architects registered in the U.S. by consulting the National Council of Architectural Registration Boards (NCARB) for demographic data on the over 100,000 registered architects. However, I found nothing. It felt as if no resource could provide the information I needed, and even the profession I was pursuing seemed to overlook my community. Eventually, I found small websites and blogs estimating there were fewer than 50 Native American architects in the U.S., which was a number that seemed accurate. This only reinforced my commitment to advocate for my community through my continuing pursuit of higher education, and that in the end as a Native American I can make a meaningful impact on representation in both architecture and academia.

At 20, during my third-year spring studio at Arizona State University's Herberger Institute for Design and the Arts, I encountered a pivotal moment. In class with Professor Darren Petrucci, we were asked to present a piece of architecture that had shaped us. My classmates shared elaborate projects from around the world, while others presented meaningful local examples, each one's "why" more impactful than the last. I presented a newly constructed casino

owned by tribes in Washington and prided on how it was structure that was owned by Native tribes in Washington, and it represented a win because of this ownership. Darren, being the mentor he is, kindly explained that while ownership was significant, the building itself was not a true representation of my people, nor did it meaningfully express my indigeneity. At first, I was shocked. How could a white man tell me about indigeneity and architecture? I didn't know how to process it. Over time, I began to understand Darren's insight. His point was to challenge the colonial barriers in my life, and I am thankful for that. He recognized that architecture and Native American populations do not share a healthy relationship, but he also believed that new avenues could be discovered. Throughout his studio, I discovered a passion in architecture that I could not yet identify. Later, Darren recommended that I reach out to Wanda Dalla Costa, a professor at Arizona State University who was pioneering a path for Native students in the field of architecture. Throughout his studio, I discovered a passion in architecture that I could not yet identify. Later, Darren recommended that I reach out to Wanda Dalla Costa, a professor at Arizona State University who was pioneering a path for Native students in the field of architecture.

After my third year at ASU, I took Darren's advice and contacted Professor Calla Costa. I shared that I was a Native student looking to make an impact and understand my place in the architectural world. Wanda was happy to connect me with Patrick Reid Stewart, a citizen of the Nisga'a Nation, an Indigenous nation in British Columbia, Canada, and a pioneering figure in Indigenous architecture in North America. In the summer of 2021, I interned with Patrick's private practice located in Vancouver, British Columbia. Working for Patrick was pivotal in my young career as I witnessed Indigenous design applied in practice—not in the form of a casino, but through decisions that challenged the status quo and imposed Indigenous ideals in

predominantly white spaces. I came to realize that Indigenous architecture does not always resemble historical archetypes, nor should it. The act of decolonizing the design process can be as simple as inserting an Indigenous designer, dramatically impacting the final architectural product. Patrick, the son of a Residential School survivor, reminded me that these schools were designed to assimilate an entire generation of Indigenous people, resulting in the loss of millions of Native children and generations of Aboriginal blood. From Patrick, I learned that simply existing in colonial spaces presents an opportunity to redefine the relationship between architecture and Indigenous communities. Indigenous architecture is not about winning awards or using a traditional western architectural language; it's about expressing lived experiences through any gesture defined by an Indigenous designer. That is why the profession of architecture is a living entity, always evolving.

I continued working for Patrick until the start of my final year at ASU. I wanted to apply the ideals I had observed to foster my growth as a student. At the same time, I enrolled in a class taught by Wanda Dalla Costa to further explore indigeneity in architecture and to properly introduce myself beyond virtual communication. The San Carlos Apache, a small tribe east of Phoenix, became a focal point in our discussions. One topic of interest was why the tribe faced infrastructure challenges despite being so close to one of the largest cities in the U.S. I learned about how American Indian policy inhibits development on tribal lands, including the Navajo Nation. Wanda, understanding these challenges, knew how to make an impact and anchored her class as an opportunity to collaborate directly with the tribe. The class was participatory and eye-opening for non-Native students, allowing them to experience the challenges of living as a Native American in Arizona. Wanda educated us without making anyone feel uncomfortable or guilty, I realized that people don't know what they don't know. It was inspiring to see an

Indigenous woman succeed in a field so dependent on colonial models. I began to understand the complexity of my passion for my community the more I engaged in this curiosity.

From this experience, I realized I had a unique opportunity to curate a community that not only supported my endeavors but also helped me understand and lead them. I decided to approach Wanda Dalla Costa, a member of the Saddle Lake Cree Nation, and ask if I could work for her. Wanda is a tenured professor at the Herberger Institute for Design and the Arts and the Del E. Webb School of Construction. She is also the principal-in-charge of Tawaw Architecture Collective. I saw this as an opportunity to accelerate my growth as a designer and student in a niche area of architecture that sparked immense curiosity and passion.

Wanda's practice focuses on supporting Native American presence in the field. She consults for firms worldwide, mediating relations between large architectural firms and Indigenous tribes seeking to develop infrastructure. Much like Patrick, her first step is to reshape the design process by imposing lived experience and communicating Indigenous ideals through academic and architectural practice.

It was through working with Wanda that I began to understand how architecture has historically been used as a tool for assimilation and colonization of populations across the globe. This realization troubled me profoundly. I couldn't look at the field of architecture in the same way without asking myself difficult questions: Can architecture and Indigenous America coexist?

These experiences of navigating architectural education and working alongside mentors like Patrick Reid Stewart and Wanda Dalla Costa, contributed firsthand in helping me understand the disconnect between Indigenous communities and the built environment. These realizations have

led me to explore how and where the built environment can serve as a catalyst for cultural resurgence and academic success

3.2 NATIVE STUDENT EXPERIENCES IN HIGHER EDUCATION

For generations, Native peoples have been subjected to the enduring impacts of colonialism—and higher education has been no exception. Historically, U.S. educational policies were explicitly designed to assimilate Indigenous peoples, systematically erasing their languages, cultures, and lifeways through institutions such as boarding schools. These assimilationist legacies are not confined to the past; they remain embedded in the structures, practices, and priorities of contemporary academic institutions (Brayboy, Solyom, & Castagno, 2015; Shotton et al., 2013). As a result, Native American students continue to be among the most underrepresented populations in higher education and consistently report the lowest rates of persistence and graduation (Shotton, Lowe, & Waterman, 2013).

What does this mean for Native American students on campus today? For many of us, the initial impression of college is a complex mix of excitement and uncertainty. Like many students, I was eager to take this new step—leaving home, family, and community for the first time. But that sense of anticipation was quickly overshadowed by feelings of disconnection. Within my first semester, I began to feel out of place—not just in terms of physical surroundings, but within the cultural atmosphere that permeated the campus. The buildings, the rituals, the way students and professors spoke in class—all of it felt unfamiliar. I was constantly reminded that I was one of the few, if not the only, Native student in the room.

This sense of cultural isolation is compounded by racial microaggressions—subtle, often unintentional insults or dismissive comments that Native students encounter regularly from both peers and faculty. These are not isolated incidents; many Native students experience them on a near-daily basis. What makes them especially harmful is how easily they are dismissed or

minimized, as though their impact is inconsequential. I recall a moment during one of my undergraduate classes when a professor casually referred to Native communities as "vanishing cultures." My heart sank. It wasn't just the statement itself—it was the silence that followed. No one questioned the comment, and there was no acknowledgment of its inaccuracy or its harm. I sat there unsure whether to speak up, worried I'd be seen as overly sensitive or confrontational. Instead, I walked away from that class feeling invisible and erased. Experiences like this are hard to explain to those who haven't lived them, but they are far too common for Native students.

Understanding the unique experiences of Native students is particularly important in the context of predominantly white institutions—spaces that were never built with Indigenous students in mind. Early on, many Native students recognize a deep cultural mismatch between their home communities and the academic institutions they are now expected to navigate. Higher education often centers values such as individualism, competition, and linear achievement—values that stand in stark contrast to Indigenous traditions grounded in relationality, humility, and collective responsibility (Schooler, 2014). This mismatch is more than theoretical; it plays out in classrooms, student services, and institutional policies. Native students are frequently caught between the expectations of their communities back home and the demands of academic life. For many, this balancing act is emotionally taxing. Maintaining a strong sense of tribal identity in a space that neither reflects nor affirms it can lead to homesickness, self-doubt, and a persistent feeling of being out of place (Shotton et al., 2013; Tachine, Cabrera, & Yellow Bird, 2017).

3.3 ABSENCE OF CULTURALLY AFFIRMING SPACES ON COLLEGE CAMPUSES

The absence of culturally affirming spaces on college campuses remains one of the most significant barriers to the success and retention of Native American students in higher education. While many universities have taken steps to promote diversity and inclusion, few have addressed the spatial and cultural needs of Indigenous students in a meaningful and sustained way. College campuses—often built on ancestral Indigenous lands—frequently lack physical environments that reflect Native histories, values, or identities. This absence reinforces a sense of invisibility among Native students, who are already among the least represented populations in higher education (Shotton, Lowe, & Waterman, 2013).

Culturally affirming spaces are not merely symbolic; they play a central role in shaping students' sense of belonging and overall well-being. These spaces can serve as hubs of cultural engagement, community gathering, ceremony, and academic support. According to McMillan, Jaeger, and Yilmaz (2024), Native Student Organizations (NSOs) often fill the gap left by institutions, creating culturally relevant environments that validate Indigenous identity. However, without institutional commitment to permanent, resourced spaces—such as Native cultural centers, housing, or classrooms informed by Indigenous design principles—many students are left without a sense of place on campus.

Museus and colleagues (2017) emphasize that culturally engaging campus environments are directly correlated with student motivation and persistence. Their research underscores how cultural validation and a sense of safety enhance academic success, especially for students from historically marginalized communities. In parallel, Brown (2019) calls for the creation of culturally safe learning environments that not only include Indigenous perspectives but are built

from Indigenous pedagogical frameworks and spatial autonomy. These environments enable Native students to bring their whole selves into academic spaces without having to compartmentalize or suppress cultural expressions.

The American Indian College Fund (2019) further advocates for the importance of visibility and spatial belonging in student success. Their report suggests that the physical absence of Native representation on campuses—through architecture, land acknowledgments, and Indigenous-centered programming—contributes to lower engagement, isolation, and ultimately higher dropout rates among Native students.

CHAPTER 4: DESIGN PRECEDENTS

4.1 TOPOGRAPHIC PRECEDENTS

Daebong-Dong Commercial Skip Floor

In Daegu, South Korea 2m2 Architects designed a small building capable of operating a fully functional cafe on a limited property lot. It is described that the client wanted a total floor area of "200m2" or around 2100 square feet of functional space with only about 2600 square feet of site area. local building ordinances allow only 1475 square feet dedicated to the building footprint of the selected site. The constraints are clear in that the site is small and restrictive but the client needs as much usable floor area as possible. 2m2 Architects decided that the best architectural intervention was to impose skip flooring to maximize total floor area and meet the needs of the client without compromising building footprint building.

I selected this particular project as a precedent because of the requirement to stay within a certain footprint. The project location has significant urban density and requires extensive site analysis of the existing conditions to remain. In my own study, I was required to extensively analyze the existing site conditions. As a result, I chose to preserve the clusters of Ponderosa Pine that exist on site and organize building footprints behind this gesture of mitigating tree reduction.

Further, 2m2 Architects introduced me to an architectural typology "Skip Floor" that creates multiple floors in a controlled vertical manner. And maximizing space. This typology was fundamental in developing my housing units by studying skip floors being applied in harsh topography.

Figure 1. Skip-Floor Cafe by 2m2 Architects, Daegu, South Korea

As described above, this image shows a compact, vertically organized building designed by 2m2 Architects to accommodate a fully functional café on a highly constrained urban site in Daegu, South Korea. As I described above, this precedent was selected for its relevance to site-sensitive design and the skip-floor typology, which informed the housing strategy in my own project, particularly in negotiating compact footprints and preserving natural site features such as Ponderosa Pine clusters.

Plumeria House - Student Center

In Indonesia, Luwist Architects designed the Plumeria House - Student House in 2017. The design of the building had two main goals: integration of the building into the natural surrounding landscape, and functionality. What is unique in character about this building is the relationship between the harsh topographic slope and the roof that is described to "have been dropped into the ground" where it almost mimics the slope of the site through an almost direct gesture. The building's primary program is to serve local students through multipurpose spaces. Plumeria House is 628m2 or 7200 square feet (Arch Daily, 2025; Luwist, 2024; Plumeria House, n.d.).

What I noticed most about this project is that the volume and spatial relationship of each program is defined through the vertical hierarchy that occurs within the topography. And again, in this precedent I saw similar themes of the "skip floor" on a much larger scale. Answering my own internal question of skip floor being applicable to a much larger form. But what is different from in this project was that Luwait had a very different approach to the entire form of the building while maintaining the micro spaces that occur when skip floors are correctly imposed. I am positive this gesture only works because of the scale of the project is much larger than the previous precedent. And this allows the interior volume of space to be much larger.

Figure 2. Plumeria House

As described above, this figure image depicts the Plumeria House, a student housing project designed by Luwist Architects in 2017, situated on a steeply sloped site in Indonesia. This precedent demonstrates how staggered spatial arrangements can function in larger forms while maintaining the micro-scale spatial efficiency typical of skip floors. It served as a valuable reference in exploring vertical circulation and spatial layering in my own project.

Nk'mip Desert Cultural Center Expansion

In Osoyoos, Canada Dialog Architecture designed the Nk-mip Desert Cultural Center Expansion for the Osoyoos Indian Band in British Columbia completed in 2006. This project was an attempt to properly represent the culture of the local indigenous group. But that is not why I chose this precedent in relation to my study. I was interested in the architectural gestures that occurred throughout the existing site (Arch Daily, n.d.; Dialog, 2006; Dialog, 2006b).

The primary building material in this project is rammed earth. Large rammed earth walls are integrated into the topography of the existing conditions - conveying an extrusion from Mother Earth into the built environment. Materials were sourced locally to promote land stewardship themes of the local tribal group. Throughout my project I continued to reference the large rammed earth walls that extend beyond the interior programmatic spaces. But into the surrounding the site - creating relationships to the form and massing of the building to the topography. Much like how tribal groups in the Southwest used Rammed earth in historical contexts.

I was able to understand the scale of how to properly impose rammed earth onto a site in relation to the overall square footage of the proposed building function. The Nk-mip Desert Cultural Center Expansion has 8,300 square feet of usable space - which references a similar scale to the library and computer spaces in my own study.

Figure 3. Nk'mip Desert Cultural Center Expansion

As described above, Figure 3 depicts the Nk'Mip Desert Cultural Center Expansion, designed by Dialog Architecture for the Osoyoos Indian Band in 2006. Situated within the arid landscape of British Columbia, the project integrates large rammed earth walls that appear to emerge organically from the surrounding terrain—an intentional gesture that symbolizes a connection between the land and the built environment. The precedent reinforced my approach to massing and material expression grounded in Indigenous land relationships.

Community Park - Guiyang

In Guiyang, China Guangzhou S.P.I. Design Company introduced a new community park that preserves landforms and represents the local Karst topography. Constructed in 2020 and the design area exceeds over 100,000 sq meters. This landscape design provides a “novel” solution for the local community with minimum intervention to promote resilience in the local environment being preserved. (Architizer, 2025; Guiyang New Community Park Residential, 2022).

The design intent was focused on providing users diverse leisure moments for the public to experience. There is a raised pathway that extends throughout the site to ensure the topography is addressed and preserved but the organic shape of the path is what I mostly resonated with.

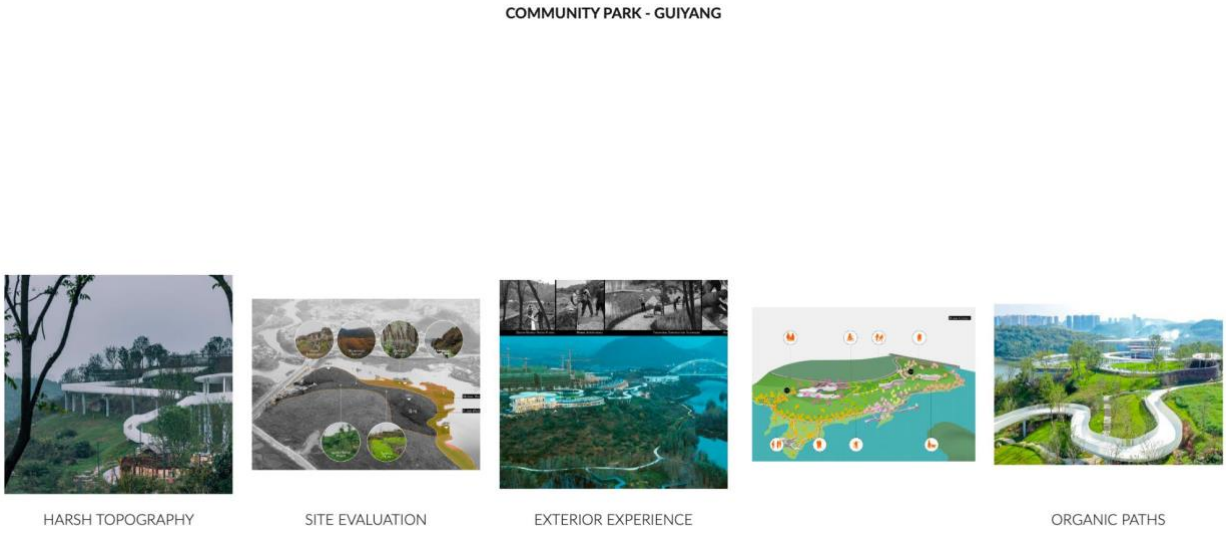

Figure 4. Community Park by Guangzhou S.P.I. Design Company, Guiyang, China

As described above, this figure showcases a large-scale landscape project designed by Guangzhou S.P.I. Design Company in Guiyang, China. This pathway's fluid geometry inspired my own design strategy, particularly in how circulation can engage sensitively with natural site conditions while enhancing user experience.

The Great Wall of WA

In remote Northwestern Australia, Luigi Rosselli Architects designed the Great Wall of WA. At 230 meters, or 750 feet, stands a large, rammed earth wall that meanders along the edge of existing sand dunes and enclosing 12 residential units. This precedent informed design decision making as I understood the interaction of the residential units to the topography of the site. Further, the architectural program aligned with Student Housing I aimed to include into my architectural program.

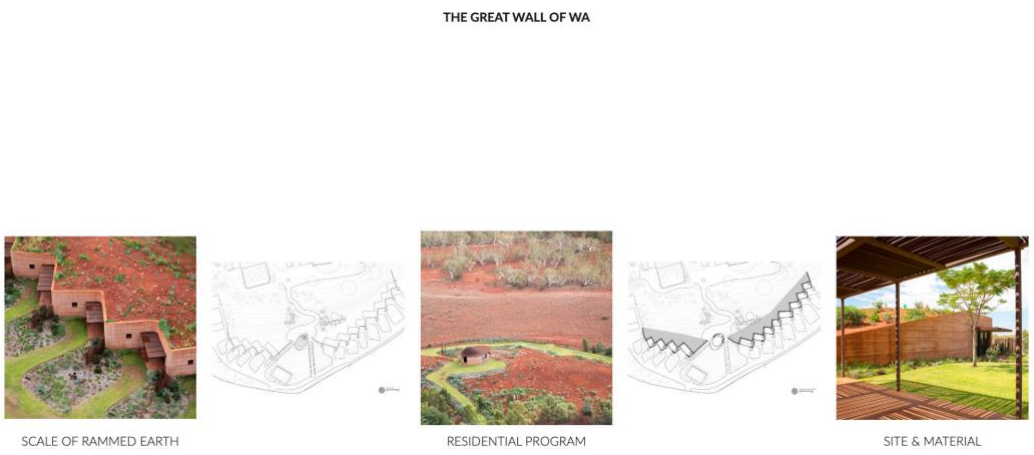

Figure 5. The Great Wall of WA.

4.2 CULTURAL PRECEDENTS

Indian Community School

In Franklin, Wisconsin, the Indian Community School of Milwaukee was designed through a collaborative effort between Antoine Predock, Chris Cornelius, and Eppstein Uhen Architects. Completed in 2007, the school serves the Native American population of the Milwaukee metropolitan area, which includes students from over 40 federally recognized tribes. The mission of the school is to nurture cultural identity and critical thinking by integrating Indigenous teachings within a distinguished educational environment. It is a space where Indigenous identity and Western education come together to shape Native American youth (Studio Indigenous, 2007).

The school is located south of Milwaukee, on a 190-acre lot, offering 150,000 square feet of usable space. This unique academic institution became a key reference throughout my design process due to its thoughtful integration of cultural elements within the learning environment, which enhances the educational experience for Native students. Extensive collaboration with the local community ensured the final design accurately reflected the values and traditions of the Native American community, while still meeting the practical needs of a Western-style educational institution (Studio Indigenous, 2007).

One aspect that stands out in this project is the decision to include Chris Cornelius, a member of the Oneida tribe of Wisconsin, as a collaborating designer alongside Antoine Predock. Although I am unsure who made this decision, I believe that without Chris's design insight, the Indian Community School of Milwaukee would have risked misrepresenting the

local Native context. Chris, as a member of the community the school serves, brought essential cultural understanding and perspective to the project.

Throughout my paper, I explore the question of what makes Indigenous architecture authentic, and I believe that the answer is multifaceted. In this case, the involvement of Chris Cornelius, an "insider" from the local community, made the project successful despite Antoine Predock being an “outsider” to the community. Chris acts as a bridge between two communities—one rooted in Indigenous traditions and the other shaped by Western colonial history. Not only is Chris a member of the Oneida tribe, but his deep connection to the Milwaukee region through generations of local culture enables him to effectively communicate with renowned designers like Antoine Predock.

This unique collaboration is what allowed the architecture of the Indian Community School of Milwaukee to successfully integrate both Indigenous cultural values and Western educational models, creating an environment that fosters a positive educational experience for Native American children without compromising their cultural identity (Eppstein Uhen Architects, 2007; Indian Community School, 2025).

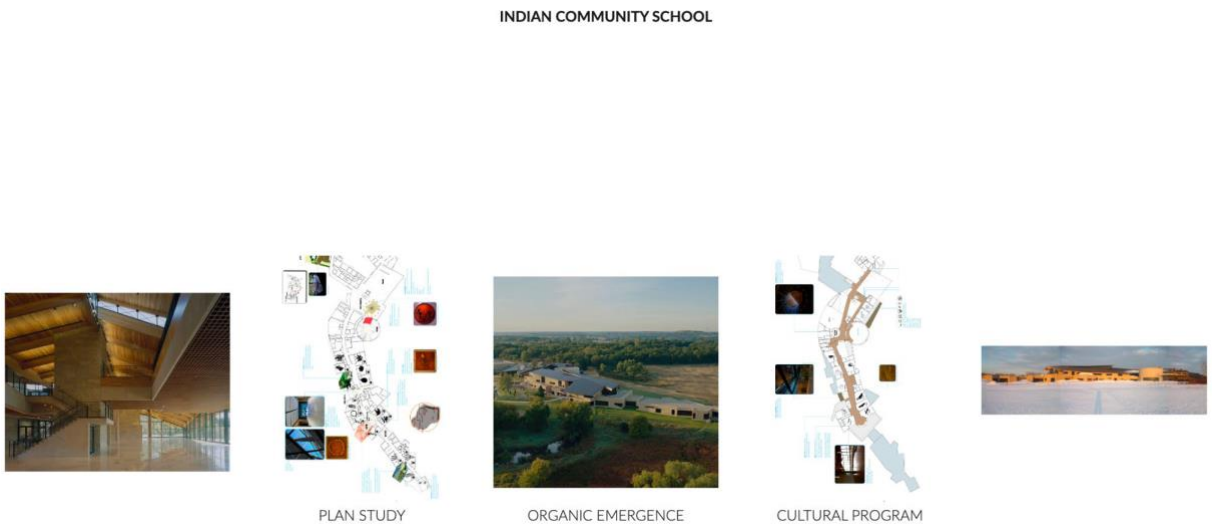

Figure 6. Indian Community School

Indian Residential School History and Dialogue Center

In Vancouver, British Columbia, Alfred Waugh and Formline Architecture + Urbanism completed the Indian Residential School History and Dialogue Centre in the heart of University of British Columbia's main campus. It serves as an important cultural and educational institution that is dedicated to accurately preserving the real history of Indian Residential Schools in Canada. In previous sections, I touched on the violent history that occured in the United States' attempt to assimilate Native youth through government-sponsored policy to eradicate Native culture, languages, and people. In Canada, identical methods were imposed on First Nations' peoples during the same time period. The Indian Residential School History and Dialogue Center serves as a space to reflect on the poor legacy of residential schools and their lasting effects on First Nations peoples in Canada (Arch Daily, 2017; Formline Architecture + Urbanism, 2018; Royal Architectural Institute of Canada, 2016; University of British Columbia, n.d).

Alfred Waugh, who is the founder of Formline Architecture + Urbanism, is the first Indigenous person to graduate in Honors from the University of British Columbia School of Architecture.

In the previous section, I stated that Chris Cornlius's involvement in the Indian Community School in Milwaukee is the reason why the project turned out to be successful. In the case of the Indian Residential School History and Dialogue Center I believe that this project is a success simply because the architectural program represents reconciliation efforts, prioritizes healing, forces reflection, and educates non-native people through a Native lens about the tragic history of assimilation efforts in Native communities. See in the United States these types of educational spaces that reflect on the real history of Native peoples rarely exist. And the failure to represent Native communities history appropriately means continuing to undermine the

existence of Native peoples in the United States. Whereas, UBC, a western institution, recognizes that First Nations' people are actively digesting historical trauma. Creating a landscape where Native students feel integrated into the academic setting of University of British Columbia. Further, in the City of Flagstaff and Northern Arizona University there is no educational space depicting the long history of displacement, violence, and genocide that occurred in Northern Arizona.

From this precedent I was able to define my architectural program within the contexts of the City of Flagstaff and Northern Arizona University. I recognized that this sort of programmatic typology was needed for a city that has a long history with the local Native American peoples in the region. And in doing so, I hope to highlight the shortcomings of academic institutions that do not provide this sort of safe space for Native American students in the regions where the violence occurred. Especially Northern Arizona University having Native student enrollment rates above the national average because of the close proximity to the Navajo Nation (Arch Daily, 2017; Formline Architecture + Urbanism, 2018; Royal Architectural Institute of Canada, 2016; University of British Columbia, n.d).

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Figure 7.Indian Residential School History and Dialogue Center

First Peoples House

In Vancouver, British Columbia, Alfred Waugh and Formline Architecture + Urbanism completed the **First Peoples House** at the University of Victoria in 2010. This project is a significant architectural landmark within the discourse of Indigenous architecture, as it serves as a cultural space for Indigenous students at the university. While similar to other Indigenous-designed projects in the region—both in terms of the Indigenous design team involved and the geographic context—the First Peoples House differs in its primary architectural function. It acts as a "home away from home" for Native students, fostering a sense of community within the academic environment at the University of Victoria. The building's design symbolizes not only respect but also partnership between the university and local Indigenous communities.

What makes this project particularly compelling is that the final architectural form is inspired by the **Longhouse**, an Indigenous archetype that is historically significant to the local region of the University of Victoria. In this case, the Longhouse serves as a powerful symbol of cultural continuity in a Western academic setting. The First Peoples House is more than just a physical structure; it is a space where healing, learning, and cultural identity are nurtured. It provides Indigenous students with an environment where they can thrive both academically and culturally.

A key aspect of the design that stood out to me was the integration of the **Ceremonial Hall** and its relationship to the overall architectural composition. In my opinion, Ceremonial Hall is the primary design driver for the First Peoples House, as Indigenous peoples' identities are deeply tied to spirituality and their connection to the land. The Ceremonial Hall allows

Indigenous identity to be expressed within the built environment, reflecting the cultural values and traditions that are central to Indigenous life.

The architectural expression of the First Peoples House is a powerful and appropriate representation of the local cultures, educational aspirations, and traditions. I continued to reference this precedent as I worked to understand how to express cultural elements in an architectural context. The integration of Ceremonial Hall in a way that respects Indigenous cultural components while seamlessly blending with Western models was a theme I aimed to explore in my own study.

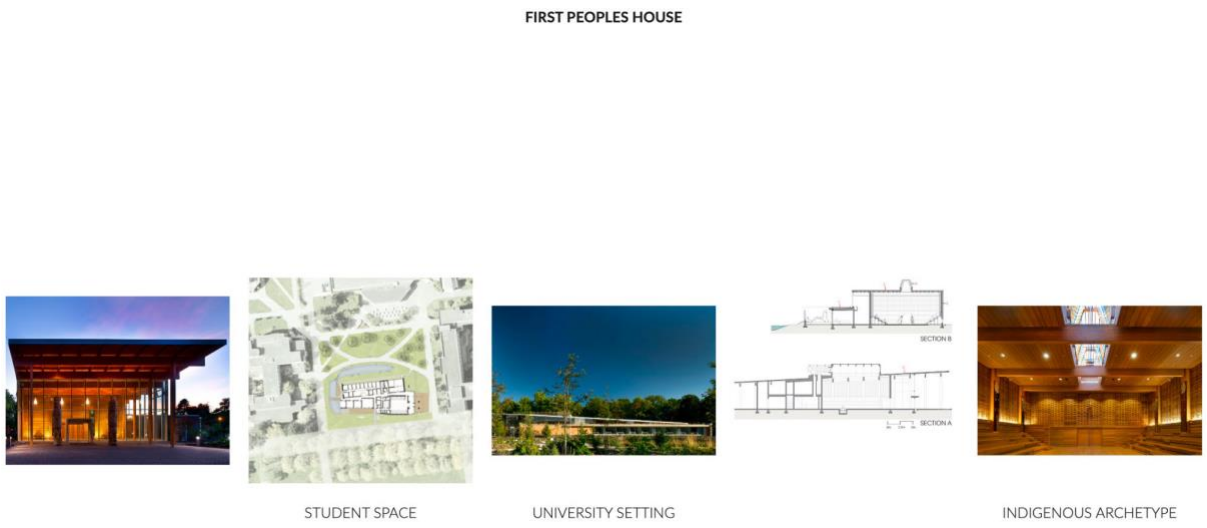

Figure 8. First Peoples House

CHAPTER 5: DESIGN RESEARCH & PROCESS

5.1 MATERIALS

Cross Laminated Timber

Cross-Laminated Timber (CLT) is an engineered wood product that has gained significant traction within the architecture, engineering, and construction (AEC) industry in recent years. As building practices continue to evolve, there has been a noticeable shift away from traditional construction materials such as concrete and steel toward more sustainable alternatives. Just as Native American communities have long strived to live in harmony with Mother Nature, architects today have the opportunity to embrace building practices that prioritize sustainability and environmental stewardship. Mass timber products like CLT have the potential to drastically reduce the carbon footprint of the AEC industry, a sector that contributes approximately 40% of global annual carbon emissions. A majority of these emissions are produced during the construction phase of new buildings. In this context, CLT emerges as an excellent alternative to help mitigate the environmental impact of construction.

But what exactly is CLT? Cross-Laminated Timber is composed of layers of engineered wood bonded together at perpendicular angles, providing structural integrity. This bonding technique allows CLT to perform comparably to concrete or steel in terms of strength when applied correctly. However, unlike these traditional materials, CLT is much lighter, which results in shorter, faster, and more efficient construction timelines. As mentioned earlier, the construction period contributes to a significant portion of the carbon emissions associated with a building's lifecycle, making CLT an ideal material for reducing this impact.

Numerous examples demonstrate the promise of mass timber construction as the future of architectural practice. Leading firms such as HDR Architecture and Gensler, SOM, have already incorporated mass timber into their expansive portfolios. Mass timber not only meets the structural requirements of projects across various scales, but it is also transforming architectural design by offering an innovative alternative to carbon-intensive materials. As engineering advancements continue to enhance the practical applications of wood, mass timber is poised to become a central material in reducing the AEC industry's carbon footprint in the future.

In addition to its environmental benefits, the potential for mass timber construction is particularly relevant to Flagstaff, Arizona. Located in the heart of the Coconino National Forest, which spans over 1.8 million acres and includes the largest Ponderosa Pine Forest in the world, Flagstaff is uniquely positioned to benefit from locally sourced timber. The U.S. Forest Service has long implemented preventive measures to manage tree density in the forest, reducing the risk of catastrophic wildfires. As part of this management, the intentional harvesting of Ponderosa Pine is a routine practice carried out annually before the hot, dry summer months. Given this context, why not incorporate harvested Ponderosa Pine into regional design practices? Historically, Flagstaff was founded as a hub for importing and exporting materials like Ponderosa Pine to Southern California for construction purposes, making the use of local timber a natural and historically aligned choice for contemporary architecture. By utilizing sustainably harvested, locally sourced timber, Flagstaff could bolster its economy while simultaneously reducing transportation costs and emissions associated with importing materials from distant regions.

Shifting to sustainable building practices in Flagstaff is not just an environmental decision. It can also be seen as a tribute to the local Indigenous identity. Native American

communities have long respected and lived in balance with the land, prioritizing the well-being of Mother Nature in their daily lives. Realigning the AEC industry with these values, particularly by utilizing local and sustainable materials like Ponderosa Pine, reflects the broader ethos of Native American communities and aligns with their historical and ongoing commitment to environmental stewardship.

The integration of CLT and mass timber construction in contemporary architectural practices is not just a technical shift but a cultural one. By utilizing locally sourced timber, architects and designers can contribute to both the sustainability of the built environment and the revitalization of local economies. In doing so, they can honor the Indigenous traditions of living in harmony with nature while shaping a more sustainable and responsible future for the AEC industry.

And as AEC continues to shift towards environmental stewardship in design methodologies – I want to talk about Rammed Earth and its relevance in contemporary architecture, and its history with local Native American people in Arizona.

Rammed Earth

Rammed earth is an ancient building technique that involves compacting a mixture of earth, gravel, sand, and clay to form structural elements, such as walls. Recently, it has been celebrated as a sustainable building practice due to its use of locally sourced materials, passive cooling and heating benefits, and aesthetic that challenges traditional Western architectural forms. Native American tribes across the southwestern United States, including the Navajo, Hopi, Zuni, and Havasupai, have long utilized earth-based materials in their dwellings, which often resemble the modern practice of rammed earth. These materials, still in use by some Native communities today, reflect a strong commitment to environmental stewardship, a value that is deeply rooted in Indigenous cultures.

In Arizona, many Native American tribes have historically used earth-based construction techniques as part of their cultural practices, which are inherently tied to a deep connection to Mother Earth. While I will not speak on behalf of other tribes regarding the use of rammed earth due to its spiritual and cultural significance for them, I can share my perspective as a Navajo. For the Navajo people, the **Hogan** is a sacred structure. These sacred dwellings are built partially below ground—two to three feet deep—and have a dome-like or igloo shape, making them appear to rise organically from the earth. The design includes a single entrance facing east, symbolizing the greeting of the sun or deities at the start of each day. The materials used to construct a Hogan, such as local clay and wood, are integral to the structure, blending harmoniously with the surrounding environment.

My father always emphasized that there are two types of Hogans—one for dwelling and the other for sacred ceremonies. These two distinct functions reflect the spiritual and cultural

significance of the structure. The architectural design of the Hogan, along with its materials, embodies a profound respect for the land and the interconnectedness between people and nature—principles that align closely with the values of modern rammed earth construction.

Now, in today's age, Rammed Earth has been widely recognized by the Architecture, Engineering, and Construction (AEC) industry as a sustainable building material, thanks to its environmental benefits, energy efficiency, and minimal carbon footprint. More importantly, it provides an opportunity to open a dialogue between traditional Native American wisdom and contemporary sustainability efforts. For generations, Native American knowledge and practices have been suppressed, often marginalized or erased by colonial forces. However, the increasing integration of Rammed Earth into modern architectural practices, particularly in Arizona, offers a way to bring Native American identity to the forefront of contemporary design. It gives a platform for the expression of Indigenous values in the built environment, particularly in a region with such a deeply intertwined history of Native American culture and displacement.

The history of violence and the trauma experienced by the Native American communities remains a significant part of the region's legacy. It is in this context that the inclusion of Rammed Earth structures, especially those designed to reflect Native American architectural forms, takes on an important role. These structures—reminiscent of traditional dwellings such as the Hogan—serve not only as functional buildings but also as cultural symbols. In Flagstaff, where much of the colonial violence occurred, the integration of Rammed Earth could act as a form of architectural reconciliation. It offers a means of reintroducing Indigenous cultural practices into the landscape, reasserting the presence and resilience of Native American communities in a space that has historically tried to erase them.

Ultimately, the use of Rammed Earth structures in areas like Flagstaff could serve as a powerful symbol of cultural resilience, environmental stewardship, and a step toward healing and reconciliation between Native American communities and the broader society. These buildings have the potential to transcend the painful past and create a future where Native American identity is not only acknowledged but actively celebrated through the built environment. The physical presence of these structures in the landscape offers a reminder of the strength and endurance of Native cultures, and serves as a call for continued dialogue, respect, and recognition.

5.2 UNDERSTANDING THE SITE

United States

According to the 2020 Decennial Census, the total population of the United States was 331,449,281. Among this population, 3,727,135 individuals identify as Native American, making up approximately 1% of the entire U.S. population. There are 574 federally recognized tribes in the United States. Of these, 377 tribes are located within the contiguous 48 states, commonly referred to as Native American tribes. The remaining tribes are based in Alaska and are classified as Alaskan Native. While Native American and Alaskan Native populations are distinct, they are often grouped together in demographic data due to their shared historical and cultural ties. This grouping can sometimes lead to generalizations, but it's important to recognize the unique identities and cultures of both Native American and Alaskan Native communities.

Additionally, though exact figures are difficult to pinpoint, it is estimated that around 20-30% of the Native American population resides in the Southwest region of the United States.

Figure 9. United States Population Map

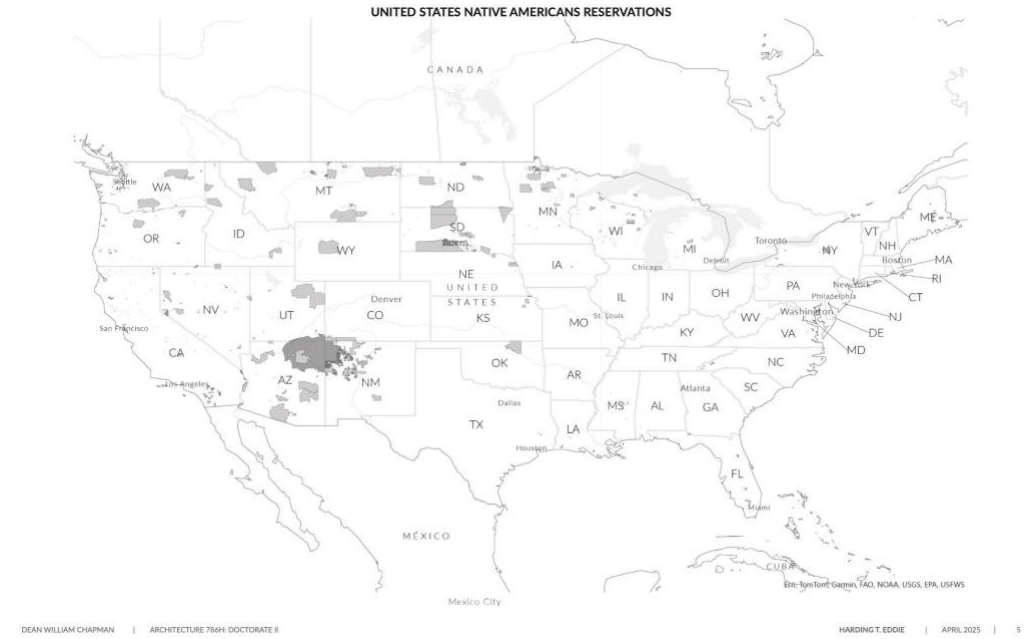

Figure 10. United States Tribal Location Map

Southwest: Four Corner Region

The Southwest region of the United States consists of four states: Arizona, New Mexico, Colorado, and Utah. This area is often referred to as the Four Corners region. According to the

2020 Decennial Census, the total population of the Four Corners region is 18,314,354. The major metropolitan areas in this region—Phoenix, Albuquerque, Denver, and Salt Lake City—account for a significant portion of the population.

There are 55 federally recognized tribes within the Four Corners region. As mentioned earlier, it is estimated that 20-30% of the population in this region identifies as Native American. According to the 2020 Census, 647,526 individuals in the region identify as Native American. However, it's important to note that tribal enrollment data, which is reported to the U.S. Census, can sometimes lead to discrepancies and inaccuracies in these figures.

As part of my study, I aim to highlight the fact that Native American reservations are often situated in rural, isolated areas, far from major metropolitan centers. This geographic separation has significant implications, as it results in limited access to essential services such as healthcare, education, employment, and infrastructure. The isolation of these communities not only hinders their ability to thrive but also perpetuates systemic oppression. By placing reservations in remote areas, far from economic hubs, there is a deliberate disconnection from the broader economic and social systems that could provide opportunities for growth and independence. This isolation can force Native American communities in the Southwest to rely heavily on the western world for survival, rather than allowing them to develop their own sustainable, self-sufficient systems.

Furthermore, this geographic segregation has broader cultural and political implications. The lack of proximity to metropolitan areas reinforces the marginalization of Native American voices in national and local conversations. In effect, the location of reservations is a means of controlling and assimilating Native communities, limiting their autonomy and opportunities for empowerment. By remaining separated from urban centers, Native Americans are often left with

fewer resources and less influence in shaping policies that affect their lives. This deliberate separation is a tool of systemic oppression that continues to affect Native American communities, making it more difficult for them to regain control over their futures and preserve their cultural identities.

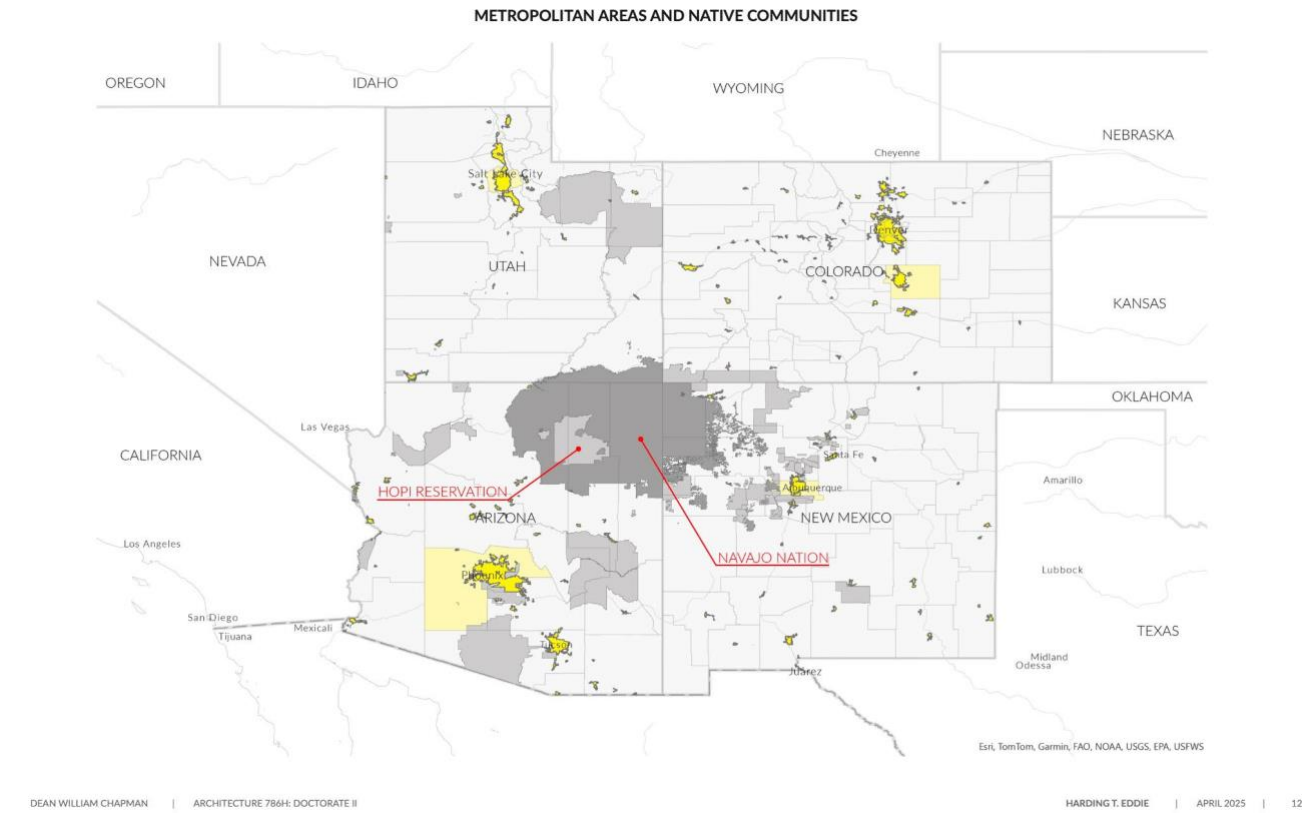

Figure 11. Four Corner Composite Map

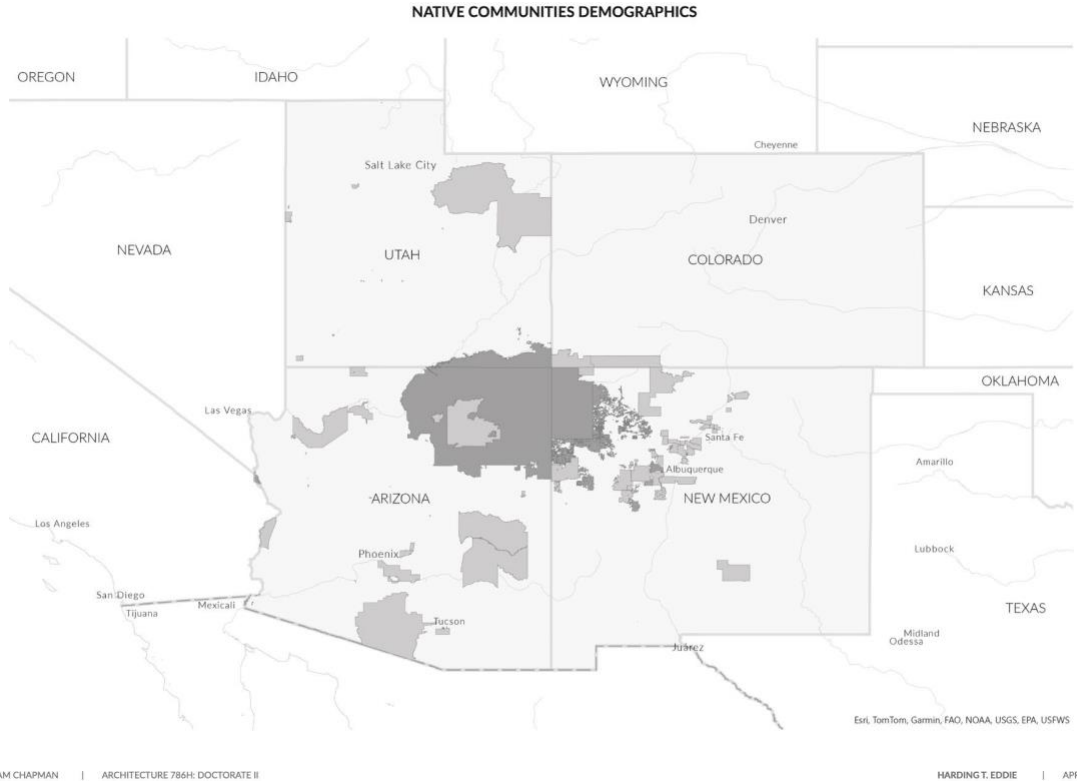

Figure 12. Four Corner Tribal Location Map

Due to geographic segregation, border towns like Flagstaff play a critical role in the survival and daily life of Native Americans who reside on reservations. In the case of the Navajo Nation, there are no other major metropolitan areas in Northern Arizona, making Flagstaff one of the few cities where Native American communities can access essential services, employment, education, and leisure activities. As a result, there is a continual influx of Native people traveling to Flagstaff for everything from basic necessities to cultural and recreational activities.

For example, Navajo residents who wish to visit Phoenix—a major metropolitan area—face a lengthy commute of around four hours one way, just to access the opportunities and amenities a larger city offers. This makes Flagstaff, located much closer to the Navajo Nation, a vital hub for both everyday needs and cultural exchange.

Flagstaff's role as a vital border town also provides a unique opportunity to introduce culturally competent architecture and urban planning. By integrating Indigenous cultural values and designs into the city's development, Flagstaff could become a more welcoming and functional space for Native American communities. The city's economy also relies on the Native American commuters who contribute to the local workforce and consumer base. As such, there is an inherent responsibility to ensure that the urban environment is both inclusive and respectful of Native cultures, fostering a more sustainable and supportive relationship between Flagstaff and the surrounding Native American communities. Ultimately, Flagstaff's position as a border town underscores the essential role it plays in bridging the gap between rural reservation life and the opportunities found in metropolitan areas, making it a critical site for cultural, social, and economic exchange.

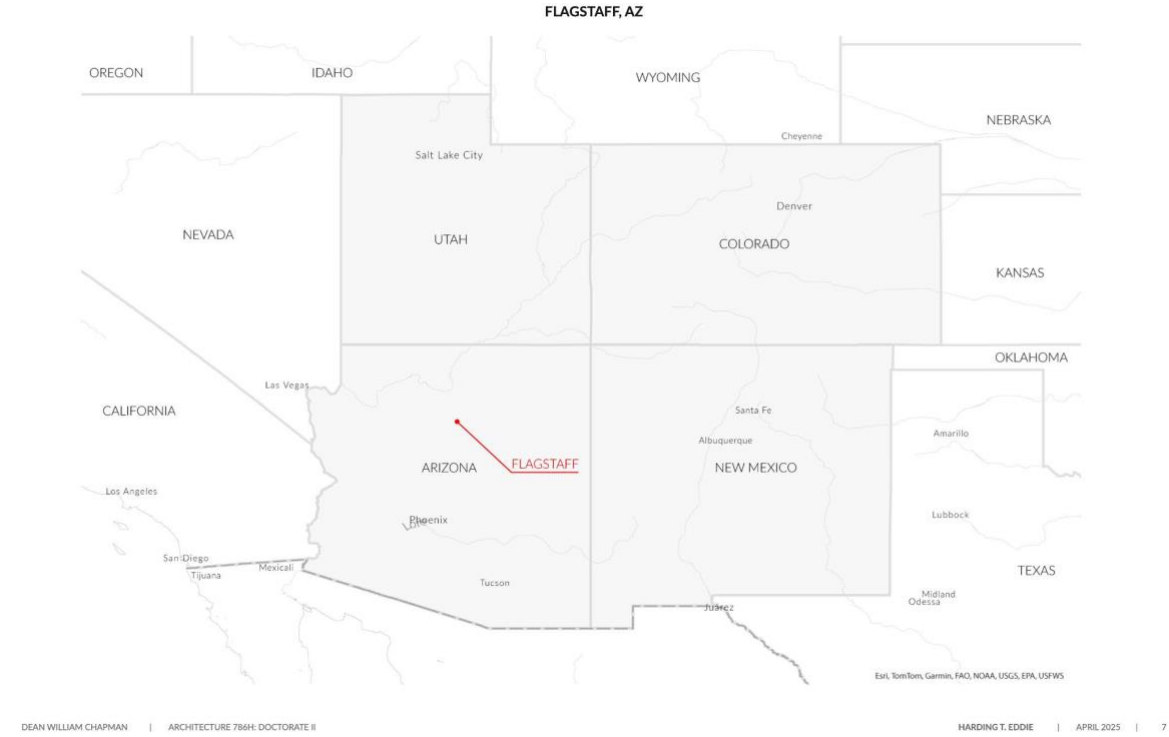

Figure 13. Four Corner Site Location Map

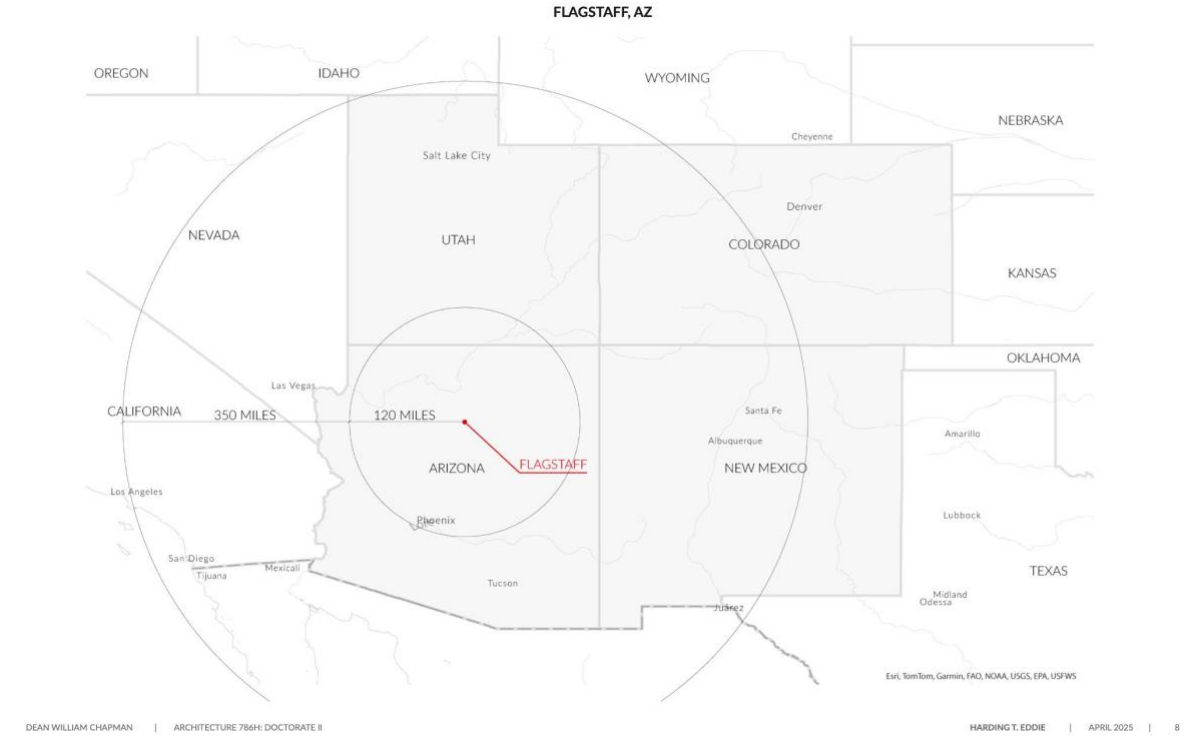

Figure 14. Four Corner Site Adjacency Map

Border Towns: Flagstaff, AZ

Border towns like Flagstaff, Arizona, occupy a complex and often contradictory space. Positioned between tribal lands and urban centers, they serve as both gateways to opportunity and reminders of dispossession. These towns offer proximity to institutions such as universities and hospitals, but they also reflect centuries of tension between Native and non-Native populations. Historically, border towns emerged from colonial trade networks and military control, functioning as zones where Indigenous autonomy was strategically undermined (Denetdale, 2018). Today, they remain sites of cultural collision where legal, social, and economic systems continue to marginalize Native peoples—on land that was once, and still is, considered their ancestral home.

Growing up in a border town like Flagstaff, I experienced firsthand the layered complexities of living between two worlds. Native youth in these areas often feel torn between their responsibilities to their communities and the expectations of Western society. We are expected to navigate classrooms, social spaces, and institutions that do not reflect our culture, while also preserving our traditional values and fulfilling tribal obligations.

This tension is intensified by the paradox of land and place. Flagstaff, like many border towns, sits on land that was taken from Indigenous peoples through displacement and forced relocation. Despite its proximity to Native communities such as the Navajo Nation, Native Americans remain a minority within the city. According to the 2020 U.S. Census, Flagstaff has a population of 76,831, of which approximately 8,615 individuals identify as Native American—roughly 11% of the city's residents. While this may seem substantial, it is disproportionately low considering the region's Indigenous roots and surrounding Native population.

Flagstaff's development has long reflected colonial frameworks that excluded Native peoples from urban resources, infrastructure, and representation. Even today, Native Americans in border towns continue to face systemic marginalization, often experiencing racism, stereotyping, and social exclusion. This reality undermines any assumption that these urban centers are inclusive or neutral spaces. Rather, they are built upon—and continue to benefit from—structures that historically excluded Indigenous people.

Despite this, Flagstaff also plays a crucial role in supporting Native communities through two major institutions: Flagstaff Medical Center and Northern Arizona University (NAU). Both serve as critical regional hubs for healthcare and education, particularly for Indigenous populations in nearby rural areas and reservations.

Flagstaff Medical Center is the only Level 1 trauma center in Northern Arizona, serving as the most advanced medical facility for thousands of Native American residents who lack access to comprehensive care within their communities. Many tribal members travel long distances from remote areas of the Navajo Nation and other reservations to receive care that Indian Health Service (IHS) facilities, due to chronic underfunding, cannot consistently provide. In this way, the hospital fills a vital gap, though it also underscores a troubling disparity in healthcare access rooted in systemic neglect of Native communities.

The presence of these institutions highlights a deeper paradox. While they provide critical services to Native communities, their very necessity reveals ongoing gaps in tribal infrastructure and persistent dependencies created by colonial systems. Native students who transition from border towns to higher education often do so through environments shaped by centuries of exclusion, disconnection, and cultural suppression. This makes the journey toward academic success uniquely difficult.

Yet, there is also transformative potential in these spaces. Border towns like Flagstaff can become sites not just of tension, but of healing and reconnection—if institutions commit to culturally affirming practices, equitable partnerships with tribes, and the inclusion of Indigenous voices in decision-making. Transitioning Native students back into their ancestral homelands—supported by academic spaces that honor Indigenous worldviews—offers an opportunity to bridge the disconnect between education and culture. Through land-based learning, community-centered support, and relational approaches, universities like NAU can help restore what colonization tried to sever.

But such transformation requires more than symbolic gestures. It demands a collective reckoning with the historical and ongoing harms faced by Native peoples in border towns, and a willingness—by both Native and non-Native communities—to reimagine these spaces as places of shared responsibility, truth-telling, and meaningful change.

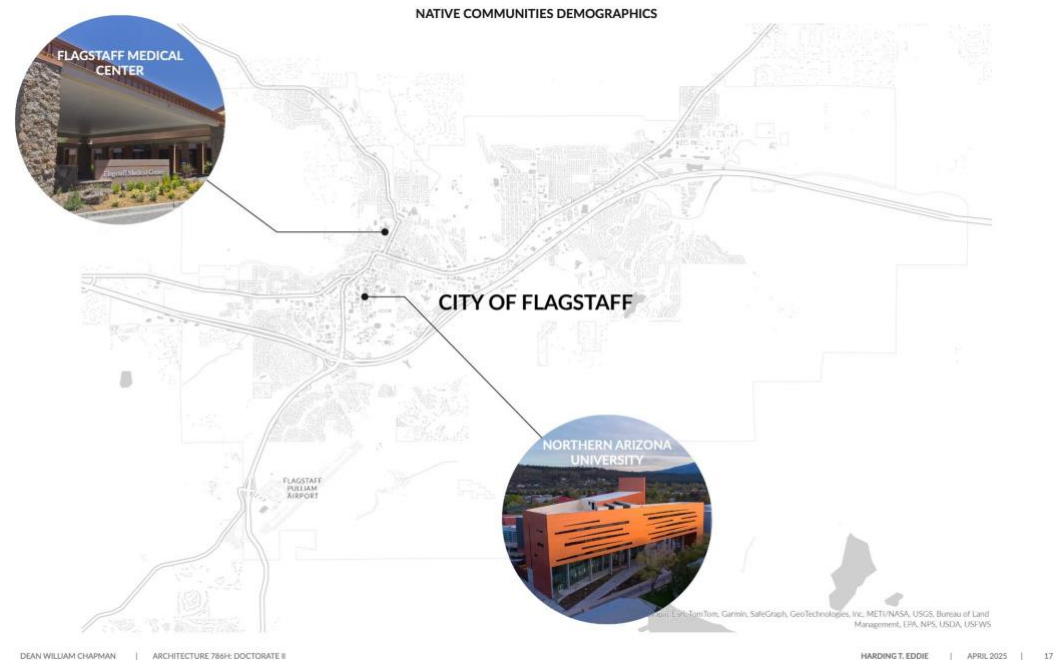

Figure 15. City of Flagstaff FMC & NAU Location Map

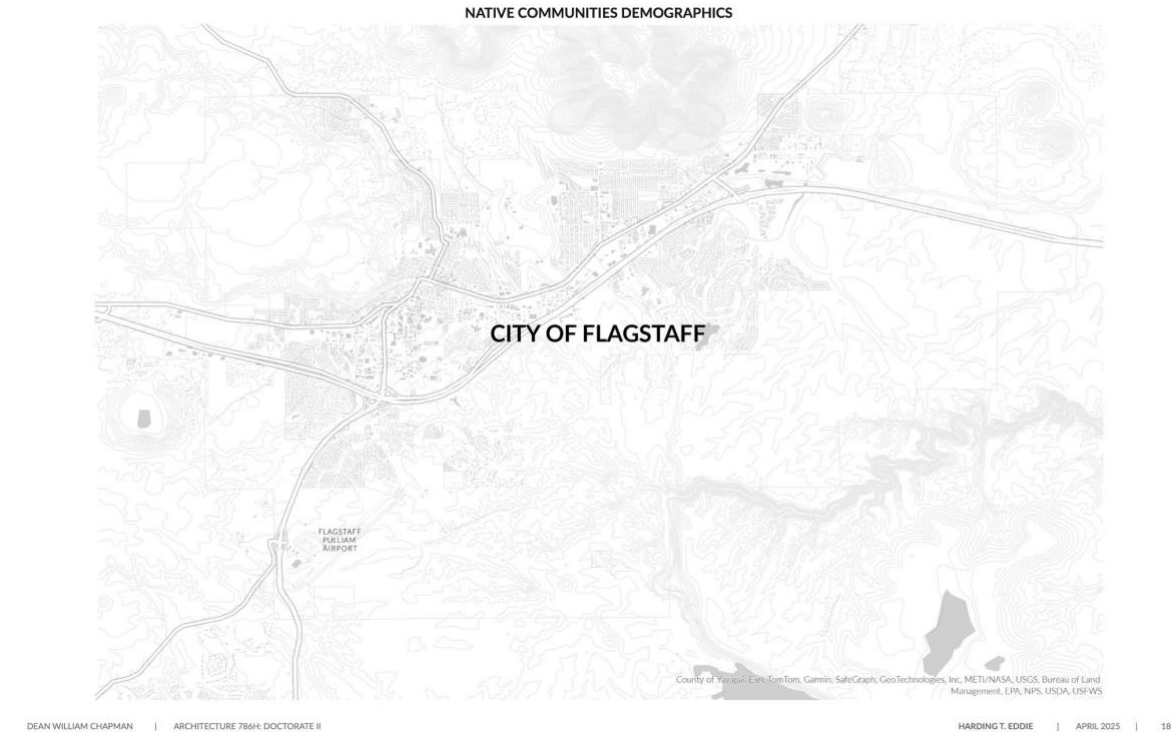

Figure 16. City of Flagstaff Urban Density Map

Northern Arizona University: Design Site Location

Northern Arizona University (NAU) plays a significant role in shaping both the educational and cultural landscape of Flagstaff and the surrounding Native American communities. With a sizable number of Native students enrolled, NAU is uniquely positioned to serve as a bridge between Indigenous knowledge systems and Western academic frameworks. Through programs such as the Native American Cultural Center, scholarships, and outreach to rural communities, the university has made strides toward fostering cultural inclusion. While these efforts are commendable, they exist within a broader landscape marked by historical inequity and systemic underrepresentation. NAU offers promise and access, yet it also serves as a reminder of how rural Native communities have long been denied direct access to quality education and infrastructure.

Since its founding in 1899, NAU has expanded significantly in size, infrastructure, and academic offerings. Today, the university operates 20 campuses across Arizona, with its main campus occupying over 600 acres in the heart of Flagstaff. The campus includes more than 100 buildings totaling over 6.8 million square feet, and recent development has transformed Flagstaff's urban fabric to accommodate NAU's growing student body. As a major economic and cultural driver, NAU's influence is deeply interwoven into the city's architecture and planning—serving not only as an educational institution but as a powerful force in regional development.

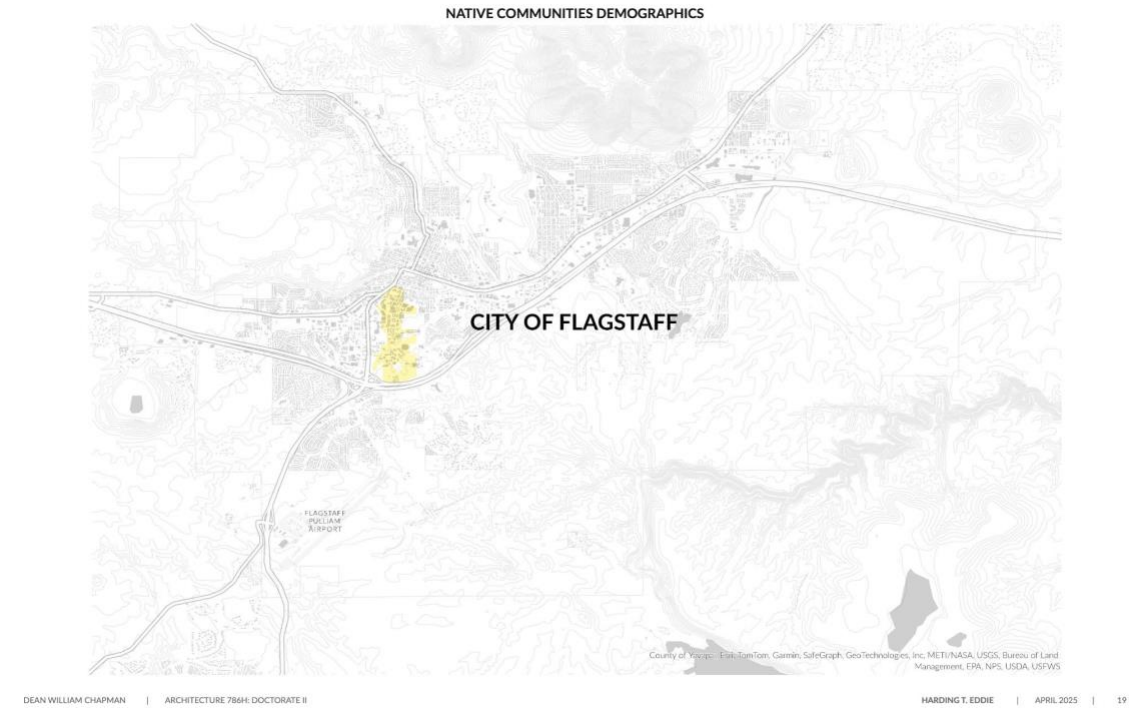

Figure 17. City of Flagstaff and NAU Campus Boundary

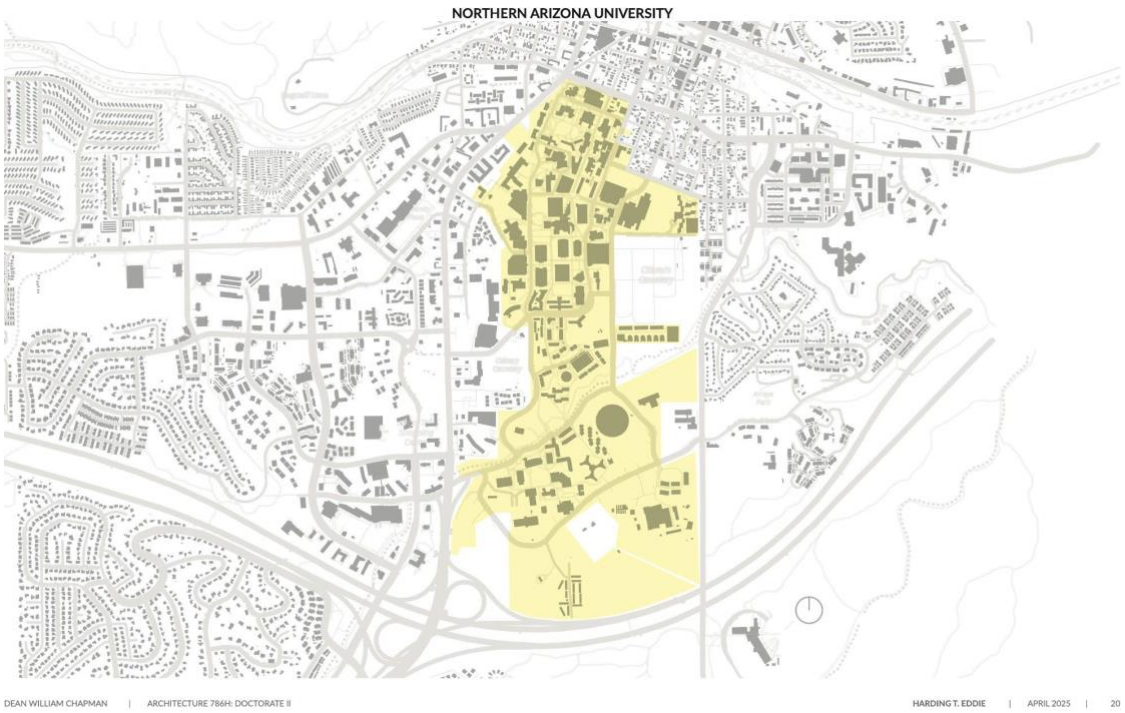

Figure 18. NAU Campus Boundary Map

There is a rich architectural history preserved on NAU's primary campus. One of the most prominent buildings is *Old Main*, located on the northern edge of campus. Constructed in 1894 and designed by the architectural firm Brown and Fisher of Los Angeles, *Old Main* introduced the Richardsonian Romanesque style to Flagstaff. The building was constructed using locally sourced materials like Moenkopi sandstone, creating a distinctive regional aesthetic.

NAU and the City of Flagstaff have implemented strong preservation measures to maintain the architectural integrity of *Old Main*. Although it has been preserved, *Old Main* continues to be a highly functional part of the campus. Minor interior renovations have occurred over time. Another historic building is *Taylor Hall*, designed by Millard and Creighton in 1905. Made from locally sourced red-fired brick, *Taylor Hall* initially served as NAU's first dormitory for women. In 1935, the building's exterior was covered with red brushed concrete to match *Old Main's* Moenkopi sandstone finish.

In 1930, *Gammage Library* was designed in the Richardsonian Romanesque style and built with Moenkopi sandstone. The library housed key spaces such as the Dean's office, Registrar's office, classrooms, and the library itself. Until recently, *Gammage Library* primarily housed administrative offices and support staff. *Cline Library*, one of the largest buildings on campus, was built in phases to accommodate the university's growing book collection. The first phase, designed by Terry Atkinson in 1966, offered over 66,000 square feet of usable space. The building was expanded by 30,000 square feet in 1980, and the final expansion, designed by Architecture One-Sasaki Associates in 1990, added 120,000 square feet. The full expansion of *Cline Library* cost $16.5 million. NAU's most iconic structure is the *J. Lawrence Walkup Skydome*, a massive multi-purpose space. Completed in 1977, it is the fourth-largest rigid domed structure in the world and features the largest laminated wood beam structure of its kind. Designed by Rossman and Partners in 1975, the Skydome's construction incorporated a natural stone amphitheater to help mitigate costs. The building covers 6.2 acres, spans more than 500 feet, and has a roof that rises 142 feet above grade. The project cost $8 million and can seat 15,300 people for events like football games, basketball games, graduation ceremonies, and more.

More contemporary architecture includes the *Science and Health Building*, completed in 2016. Designed by GLHN Architects and Richard Kennedy Architects, it received multiple AIA awards and was recognized with an honorable mention in the 2019 AIA Western Mountain Region Distinguished Architecture Awards. The building has 122,000 square feet of usable space and is LEED Gold Certified. The *Science and Health Building* houses lecture halls, classrooms, labs, and a central chemical distribution facility for the chemistry department, promoting interdisciplinary teaching and research at NAU.

The *Student-Athlete High Performance Center*, completed in 2024, is another recent addition. Designed by the DLR Group, this 72,000-square-foot facility sits adjacent to the *J. Lawrence Walkup Skydome* on the southern edge of campus. The design team preserved 70% of the existing Ponderosa pines and integrated the facility into the natural hillside. This new building showcases NAU's ability to introduce innovative architectural types to campus.

Finally, the *Native American Cultural Center*, completed in 2010, is a culturally relevant project designed by Studio Ma, Inc. in collaboration with the University of New Mexico's Indigenous Design + Planning Institute. The design incorporates four key themes—Ancestors and Emergence (Spiral), Natural Flows (Rivers), Time and Place (Spiral and Sun Path), and Life Journeys (Trail of Tears)—to honor Native American spiritual identity. With 12,295 square feet of space, it is LEED Gold certified and was created to provide a "home away from home" for Native students. Despite its participatory design process, I note that no Native American designers were officially involved in the project. I believe that Native spaces should be designed

by Native designers to fully embody their cultural significance.

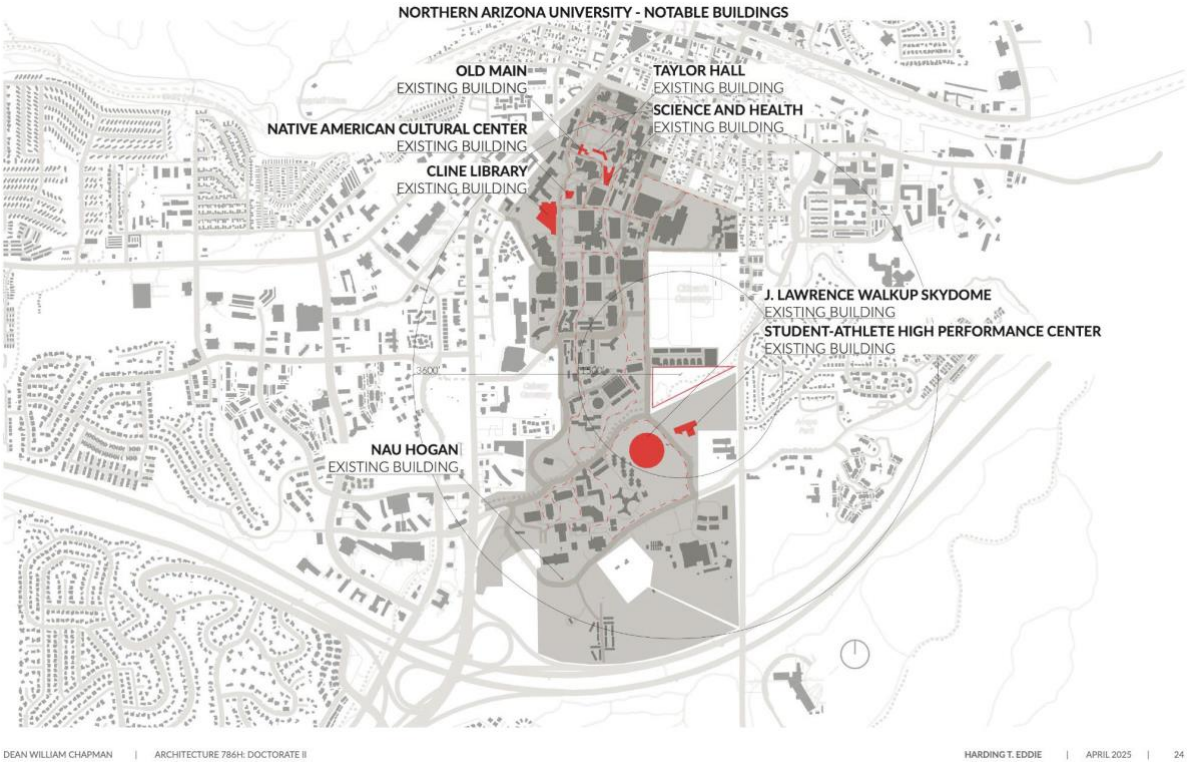

Figure 19. NAU Campus Notable Buildings Map

Despite these efforts and NAU's cultural relevance, Native students remain underrepresented. In Fall 2023, NAU had a total enrollment of 28,194 students. Of these, approximately 1,200 identified as Native American—just under 5% of the student body (Northern Arizona University, Department of Education Specialties, 2025). This percentage, while higher than some peer institutions, still reflects broader trends of underrepresentation and attrition among Indigenous students in higher education. By comparison, the University of Arizona reported Native enrollment at 3.7% in 2024, while Arizona State University—the largest public university in the state—reported Native enrollment at just under 3%, despite having over 4,000 Native students in its 180,000+ population.

NAU represents a dialogue between past and present, between settler institutions and Indigenous knowledge systems. Institutionally, it serves Native students through resources and infrastructure unavailable in many rural areas. Yet, like the city of Flagstaff itself, NAU embodies both the promise of opportunity and the legacy of exclusion. Moving forward, efforts to support Indigenous student success must go beyond inclusion and recognition. They must prioritize Indigenous self-determination, support Native-led design and planning, and affirm Native identities not as additions to campus life, but as foundational to the university's future.

5.3 SITE ANALYSIS:

My first step was to identify all of the existing housing accommodations at Northern Arizona University to gain a better understanding of the architectural composition and the demand for additional housing on campus. What I discovered was that most of the housing is concentrated in the center or towards the southern side of campus. While there are a significant number of housing units relative to the campus's overall size, it is clear that there is still a pressing need for more on-campus housing. Many students, in fact, are forced to live off-campus due to the lack of available on-campus accommodations. This off-campus housing demand further contributes to the overall population growth in Flagstaff, placing additional strain on the local infrastructure and resources. The gap between the need for more housing and the current availability highlights the challenges NAU faces in accommodating its growing student body.

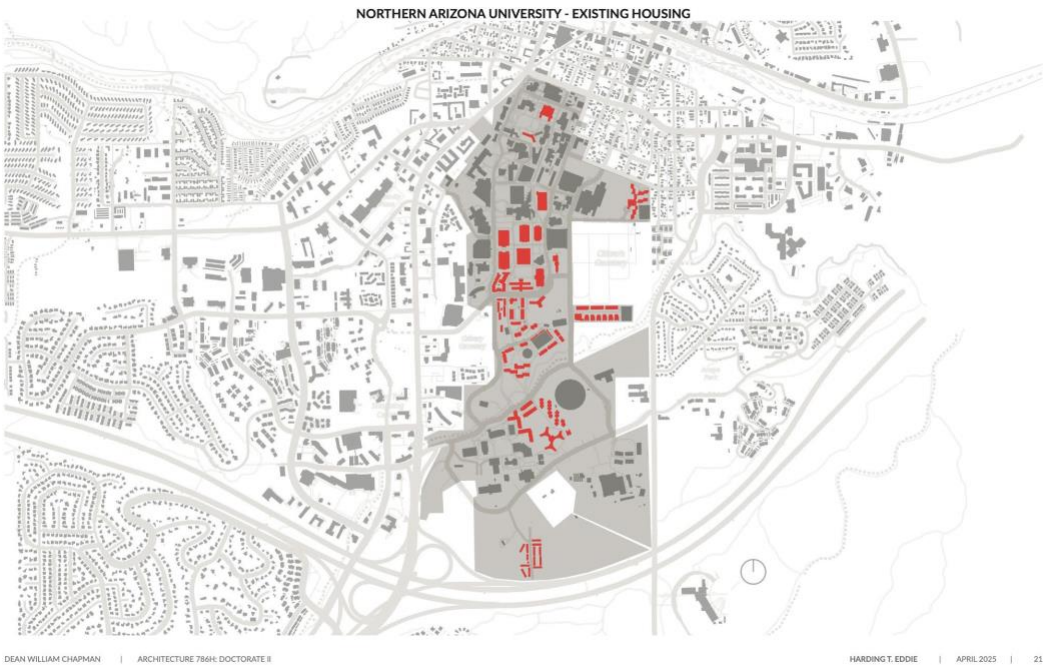

Figure 20. NAU Campus Existing Residential Buildings Map

Along with identifying the housing nodes within the overall composition of NAU's campus, I also examined the dining services available to students. During my investigation, I found that there is a critical need for additional dining options to adequately meet the growing demands of the student population. On my visits to NAU's dining facilities, I observed significant overcrowding and long wait times, which further highlighted the inadequacy of the current dining services. This issue is especially concerning given the size of the student body and the limited availability of meal options during peak times. Recognizing both the need for more housing and dining services reinforced my architectural approach to include these essential programmatic functions, ensuring that the design would address the broader needs of the campus community and not just the Native student. By incorporating both housing and dining into the overall design, I aim to create a more efficient and comfortable living and dining environment for the students.

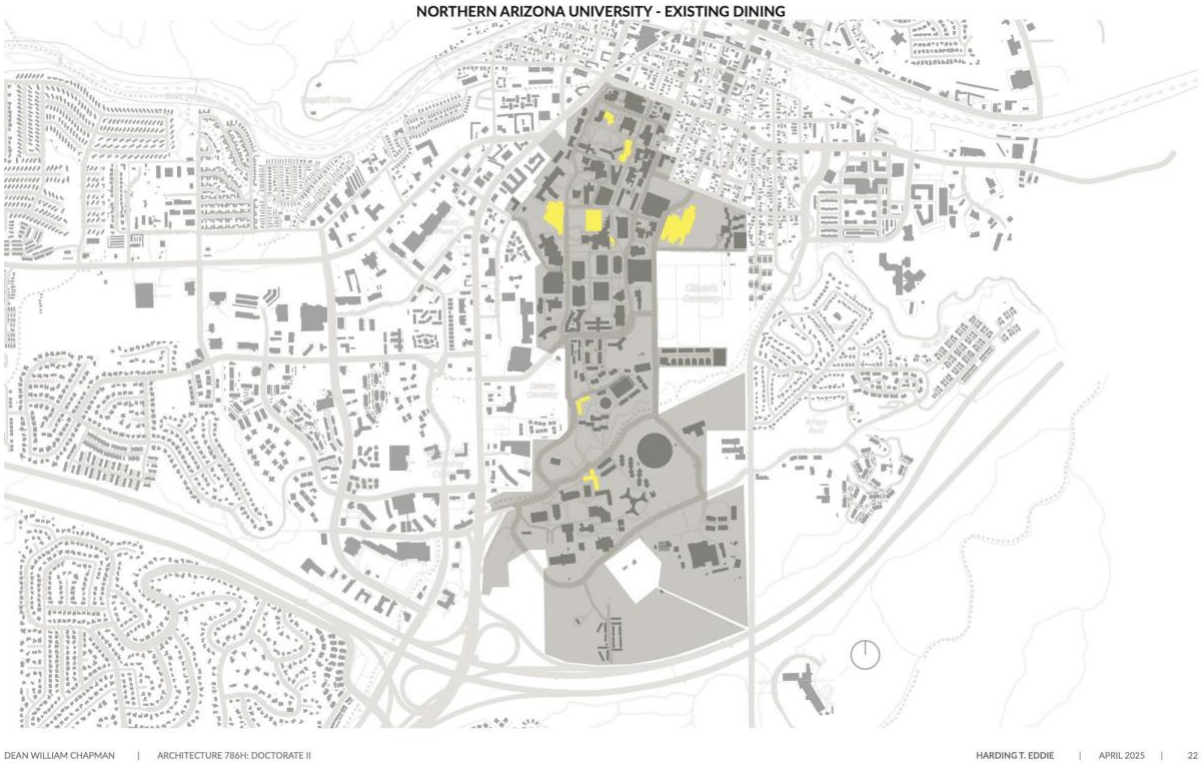

Figure 21. NAU Campus Existing Dining Services Map

In another area of NAU's campus, I closely observed the typical circulation routes that students take and noticed a clear pattern. The majority of pedestrian movement occurs along a central path running north to south through the heart of campus. This primary circulation route connects key areas, including housing and academic buildings, and is the most heavily trafficked path by students throughout the day. While I did notice a few smaller supplementary paths along the exterior sides of campus, they were far less utilized. My evaluation concluded that the main circulation routes are concentrated between the housing areas and the northern side of campus. This central route serves as the primary artery for students to move between their living spaces and academic or recreational facilities. Understanding these circulation patterns was crucial for informing my design, as it allowed me to consider the flow of people and integrate the necessary spaces in alignment with the most commonly traveled routes.

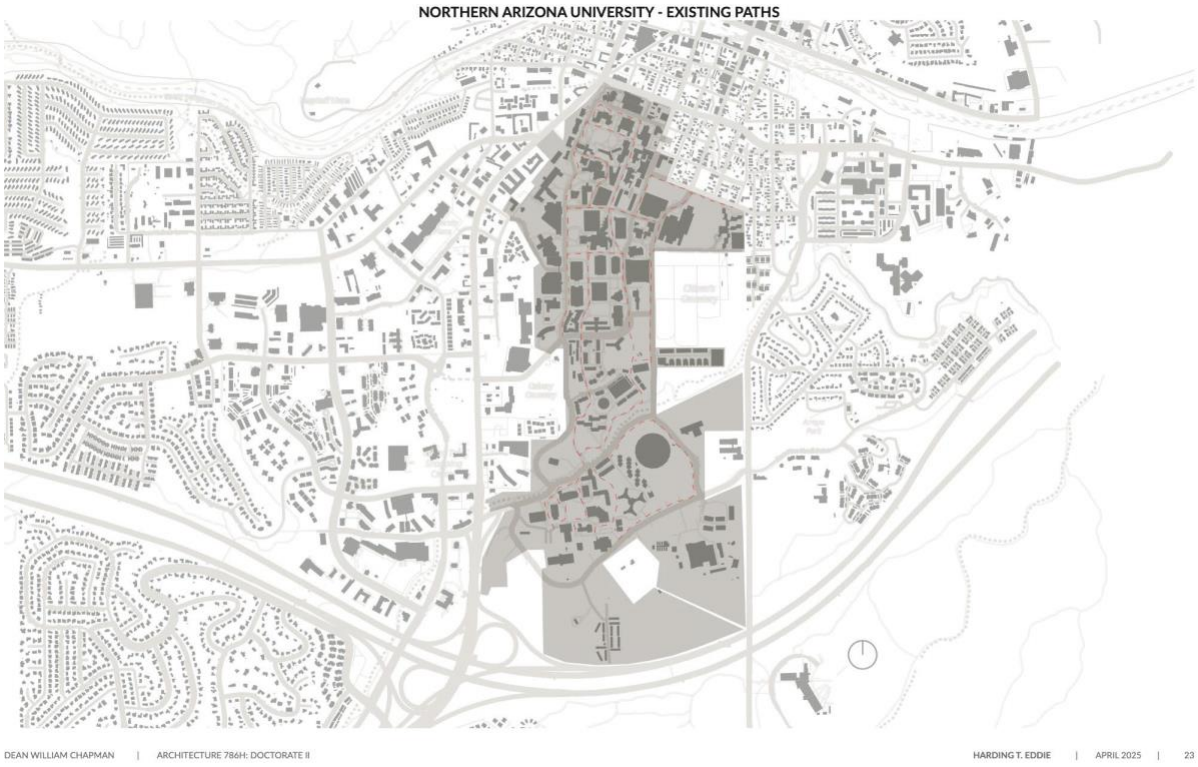

Figure 22. NAU Campus Existing Circulation Map

The geographic location of Northern Arizona University places it within the larger Colorado Plateau region, a vast area that brings with it a unique set of climatic conditions. These conditions create an influx of temperature fluctuations that present distinct design challenges not typically experienced in other regions. To summarize, the City of Flagstaff and Northern Arizona University both experience very hot summers and harsh, cold winters, which is characteristic of the temperate climate found in the area. This extreme temperature variation necessitates careful consideration in building design, particularly regarding materials that can adapt to such shifts. Given these challenges, the selection of materials is crucial for ensuring the durability, energy efficiency, and comfort of the spaces. For this reason, I chose to incorporate both rammed earth and cross-laminated timber (CLT) into my design process. These materials are not only sustainable and well-suited to the local environment, but they also offer thermal mass and

insulation properties that help regulate indoor temperatures and improve the building's overall energy efficiency.

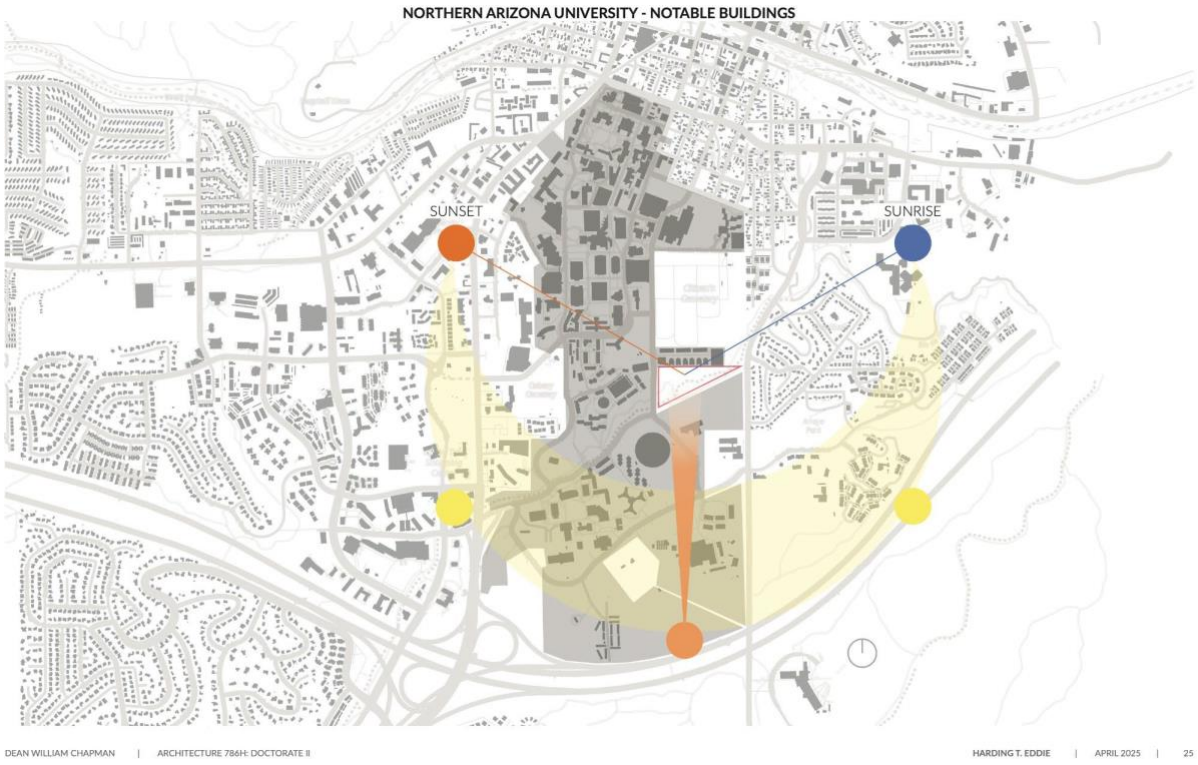

Figure 23. NAU Campus Existing Sun Study Map

After evaluating the broader circulation patterns across NAU's campus, the next step in my analysis was to focus on the more intimate, localized circulation routes that are directly adjacent to my selected site. I closely observed how students navigate the area around key landmarks, such as the NAU Skydome, the Student-Athlete Center, and existing housing complexes. I noted that many students naturally utilize primary routes near these facilities to move between campus areas. More importantly, I identified specific circulation routes that run through the site, particularly the path leading from the residential area on the east side of the site toward the central part of campus. This path, which sees frequent foot traffic, presented a significant opportunity for me to integrate into my design. By incorporating this existing

circulation route, I could improve accessibility and flow, while also creating a more seamless connection between the residential area and campus. This thoughtful integration of movement patterns was key to enhancing both the functionality and user experience of the site.

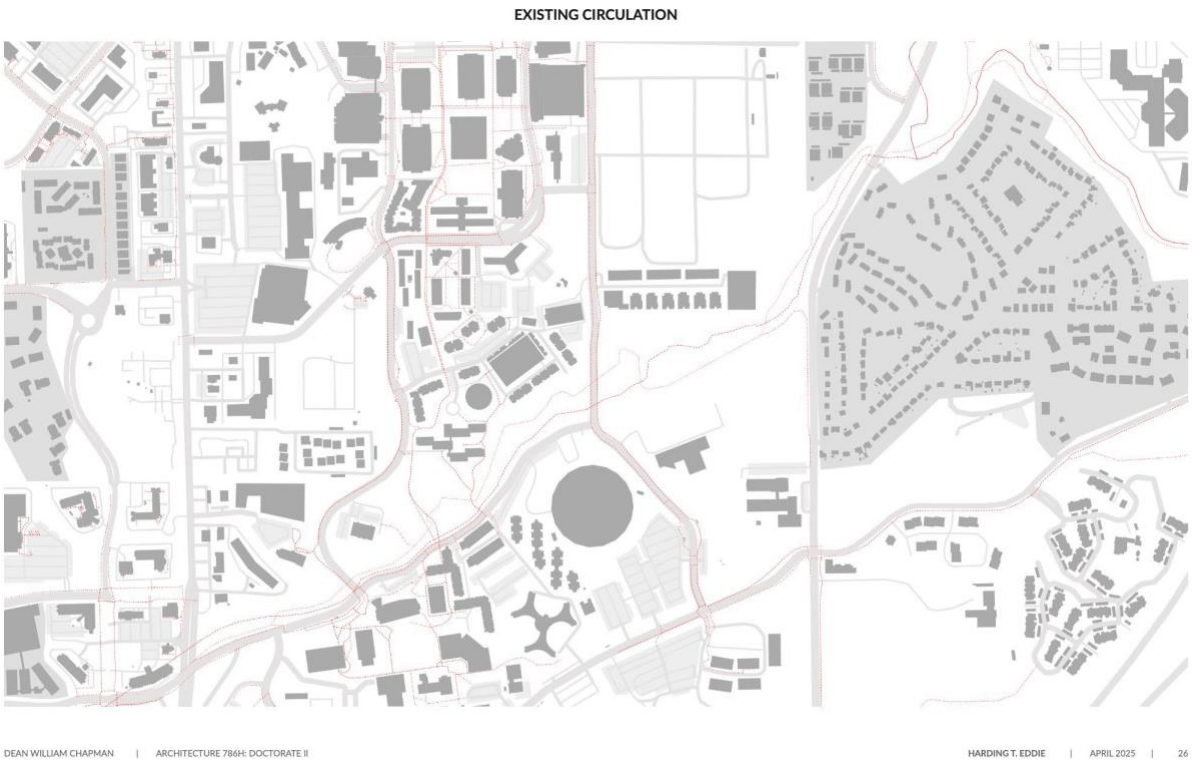

Figure 24. Selected Site Circulation Paths Map

During another site visit, I observed the immense size of the Ponderosa Pines in the surrounding area. While these trees are a significant feature of the site, I concluded that the primary design driver would be the harsh change in topography. The dramatic shifts in elevation and the natural contours of the land presented both challenges and opportunities, making it the central factor guiding my design decisions. The topography's influence on the spatial organization became the focal point of the design process. The Ponderosa Pines, while secondary to the topography, served as a supplementary design driver. Their size and presence added character to the site, requiring careful integration and preservation within the design. By

emphasizing the topography as the primary design driver and considering the Ponderosa Pines as a supplementary element, I aimed to create a design that harmoniously balanced the natural landscape with functional, site-specific solutions.

Figure 25. Site Visit Map and Site Visit Photos #1

Figure 26. Site Visit Map and Site Visit Photos #2

Figure 27. Site Visit Map and Site Visit Photos #3

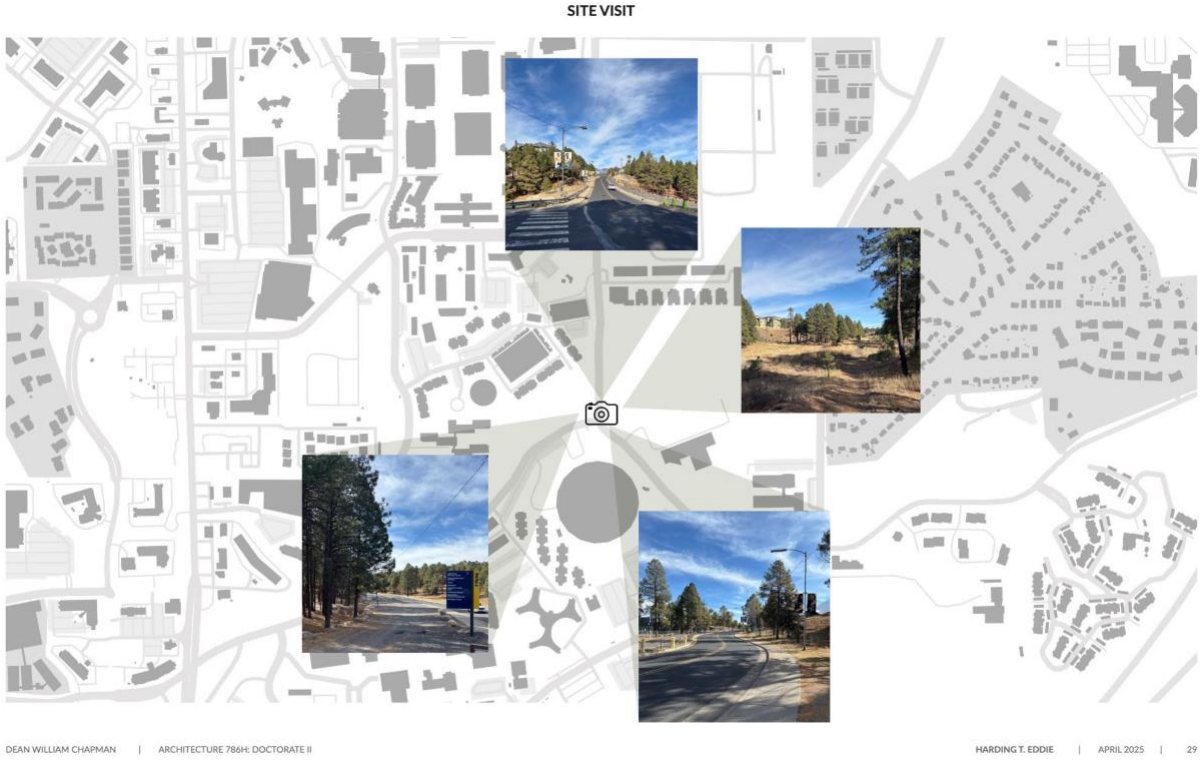

Figure 28. Site Visit Map and Site Visit Photos #4

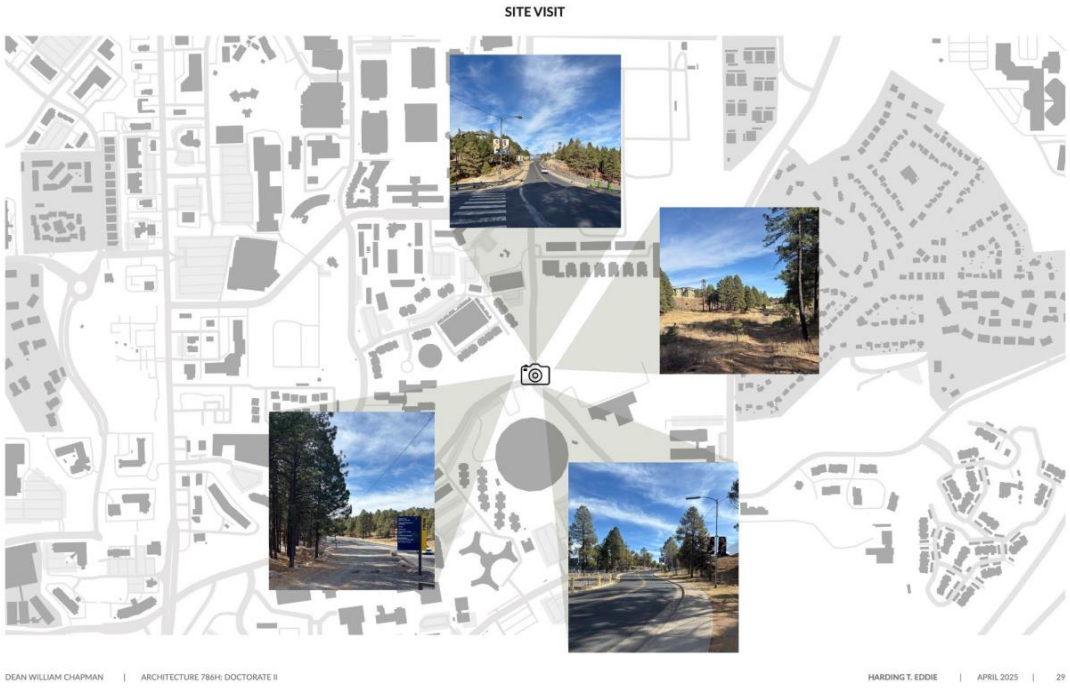

Figure 29. Site Visit Map and Site Visit Photos #5

Figure 30. Site Visit Map and Site Visit Photos #6

Figure 31. Site Visit Map and Site Visit Photos #7

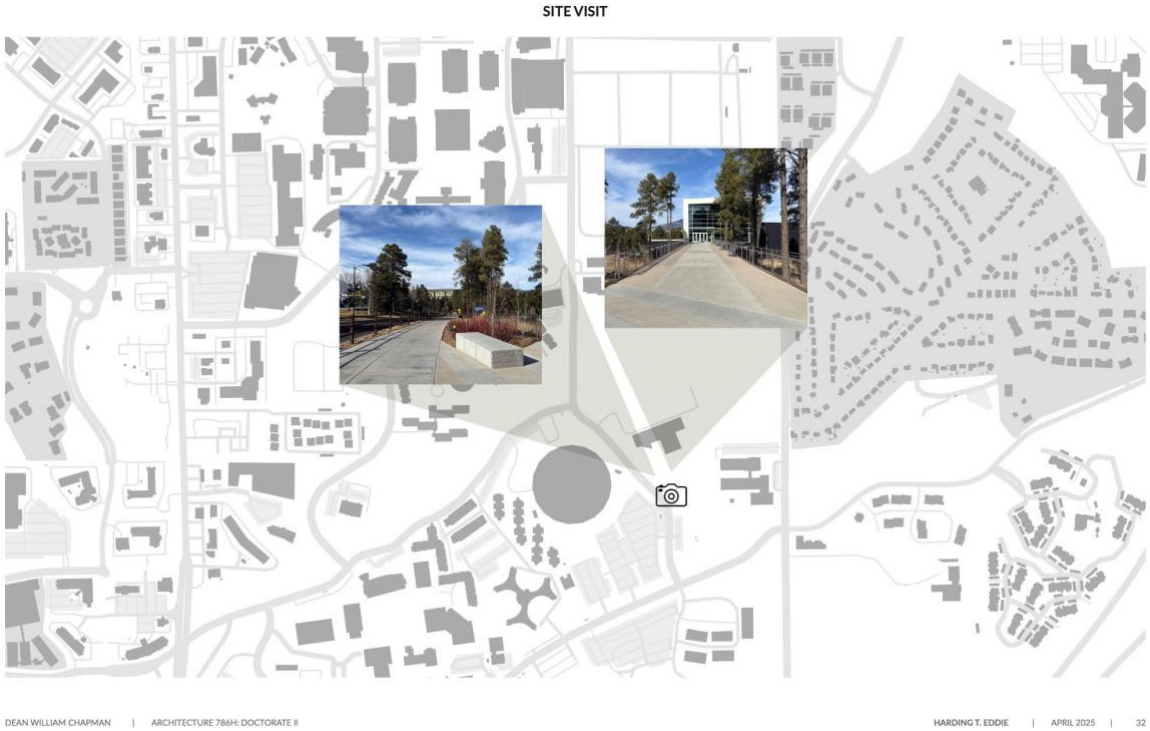

Figure 32. Site Visit Map and Site Visit Photos #8

Figure 33. Site Visit Map and Site Visit Photos #9

As I defined the primary and supplementary design drivers on the site, it became essential to understand the architectural program I wanted to incorporate. Northern Arizona University presented both opportunities and challenges in organizing the program, especially considering the unique site context. I identified the primary component of the design as providing additional housing for Native American students. These housing units would need to foster a deep connection to the surrounding environment, incorporating materials and design principles that reflect Indigenous archetypes of the region, ensuring the housing not only meets functional needs but also strengthens cultural identity.

Another key realization was that the selected site was somewhat isolated from the main academic functions of the campus, located on North Campus. This separation meant that, in addition to housing, I needed to integrate academic spaces into the design, ensuring convenient access to academic resources and making the site more self-sufficient and functional for its residents. Additionally, my site analysis revealed a significant need for dining services on campus, with existing facilities often overcrowded and causing long wait times. Incorporating dining services into the design became an essential part of the architectural program.

As my investigation evolved, my committee encouraged the addition of demographic diversity to strengthen the architectural intervention. Rather than focusing solely on Native students, we discussed promoting communal living—a concept rooted in Native American culture. This led to the inclusion of the elderly and Native youth in the planning. The elderly population often experiences isolation from younger generations, so creating spaces where they could engage with the community was critical. The design not only provides housing and communal spaces for the elderly but also fosters intergenerational interaction, allowing the wisdom of elders to be shared with younger generations, strengthening cultural ties.

Including Native youth in the design would also address local social issues such as domestic violence and sexual abuse. Creating a safe and supportive environment could offer a sanctuary for these vulnerable groups, providing refuge and a place for healing. This space would contribute to reducing systemic issues within Native communities by fostering resilience and well-being for all generations.

A central component of the design was the inclusion of a dynamic ceremonial space representing all Native American tribes in the Flagstaff region. This space would serve as the programmatic pillar, with all other spaces organized around it. The design of the site reflects the spiritual and cultural significance of this central space, ensuring the overall experience embodies the values of the surrounding Native communities. Prioritizing this ceremonial space honors Indigenous traditions and creates a place of cultural significance and belonging, celebrating and preserving the legacy and future of Native American tribes.

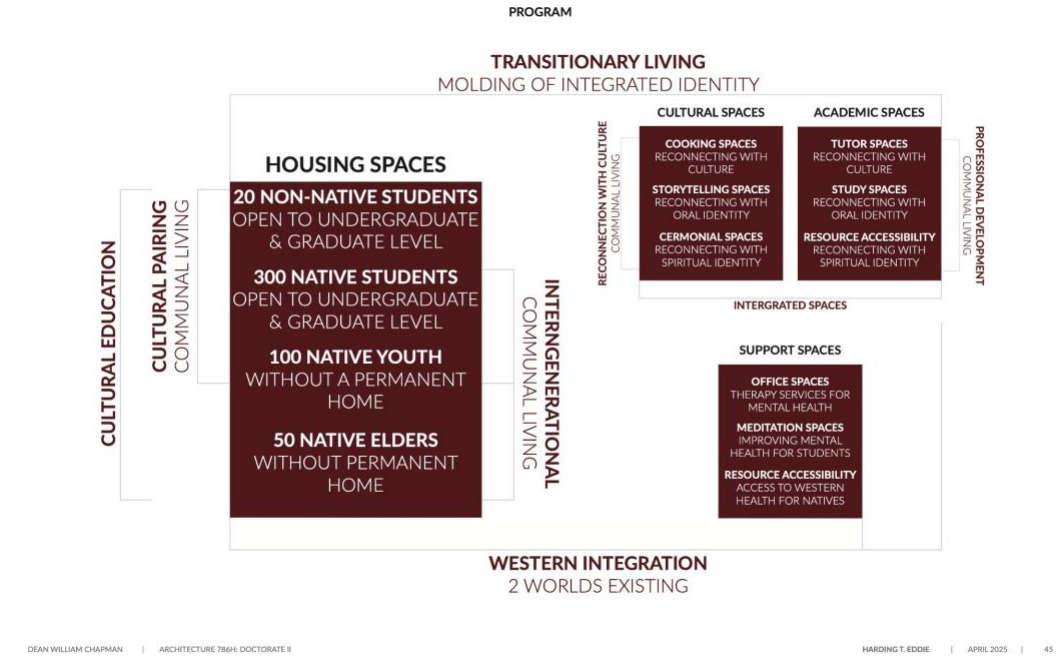

Figure 34. Conceptual Architectural Programming Diagram

In the design process, I followed a structured approach:

Step 1: Understand the Site (Land)

The first step was evaluating the existing conditions of the site, including its surrounding buildings, circulation paths, and key factors like the Student-Athlete Center. Understanding the spatial relationships laid the foundation for the architectural intervention.

Step 2: Identify Supplementary Support Spaces (Protection)

I then identified essential support spaces, including a library, elder space, computer lab, dining areas, and a cultural space. I realized that the cultural space would serve as the central unifying element, connecting all other functions while reflecting Native traditions and integrating academic, residential, and social spaces.

Step 3: Orientation of Housing Around Support Spaces (Mentorship)

Next, I focused on orienting the housing units around the support spaces, ensuring natural flow between residential, academic, and cultural areas. This configuration provided access to outdoor spaces, encouraged reflection and interaction, and promoted a sense of community and mentorship among students.

Step 4: Define Architectural Style (Identity)

As the program took shape, I defined the architectural style, choosing rammed earth as the primary material. This decision was influenced by a desire to connect with the land and honor Indigenous traditions. Using locally sourced materials reinforced the regional identity and cultural ties between Indigenous people and the environment.

Step 5: Tie the Site Together Through Circulation and Exterior Moments (Stewardship)

In the final phase, I focused on circulation, ensuring that pathways and exterior spaces connected the different components of the site. The design prioritized interaction with the environment, creating open spaces that encourage reflection and unity. Thoughtfully placed pathways and seating areas fostered a holistic experience, linking the built environment to the natural landscape.

This process ultimately led to the creation of a functional and culturally resonant space, addressing the needs and values of the Native American student body while honoring the site's historical and environmental context.

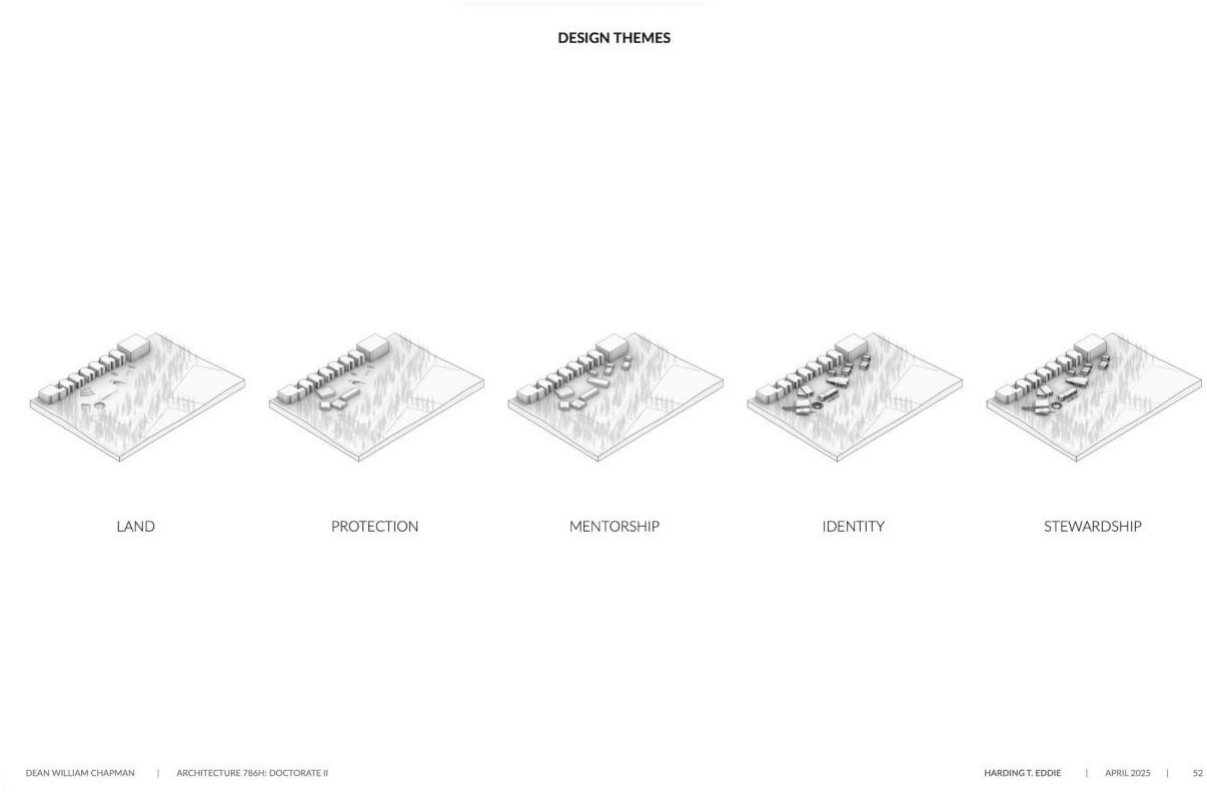

Figure 35. Evolution Diagram

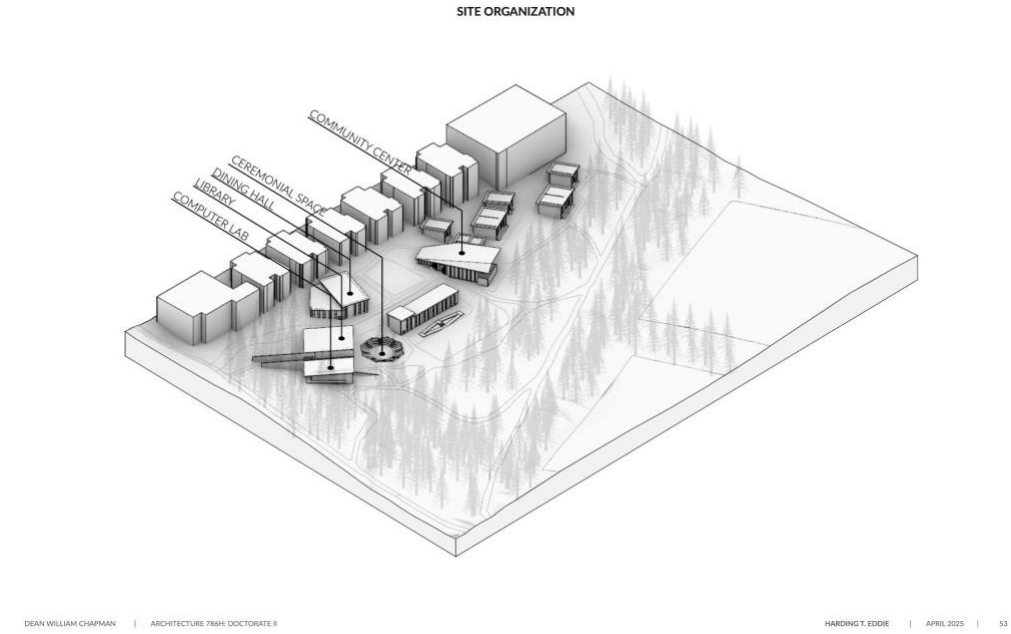

Figure 36. Site Organization Diagram #1

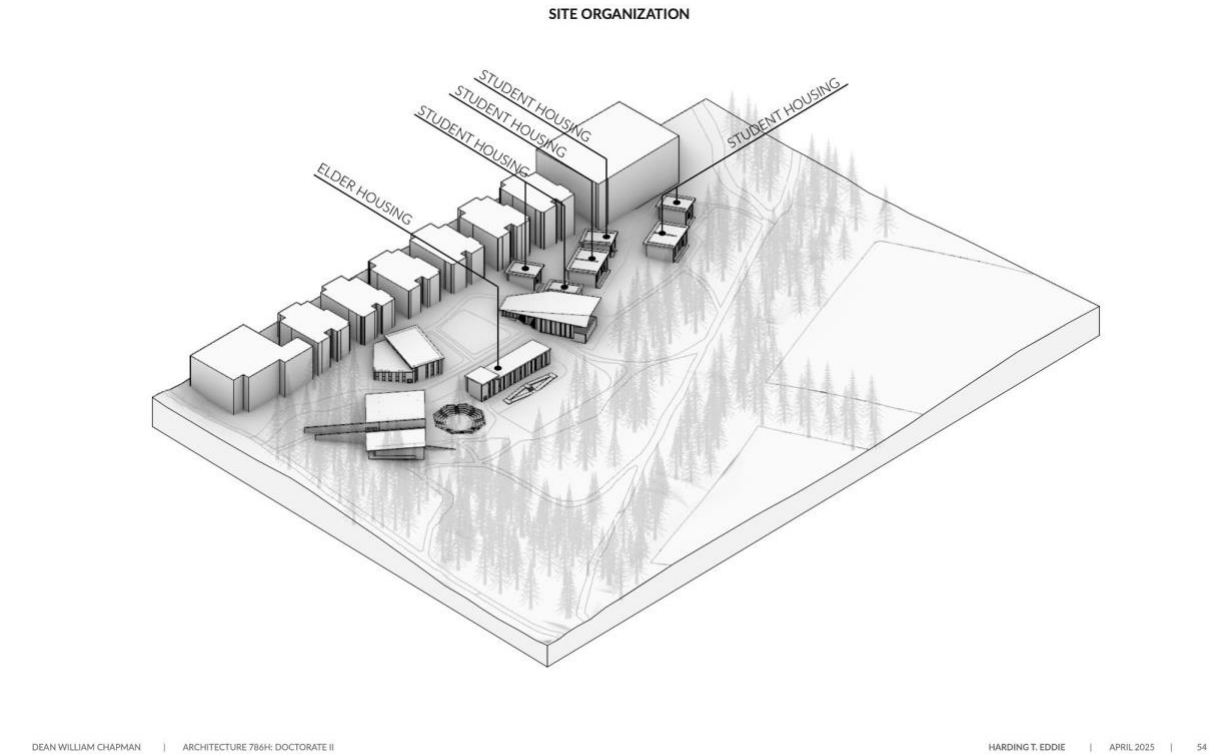

Figure 37. Site Organization Diagram #1

5.4 DESIGN DELIVERABLE

Figure 38. Overall Site Plan

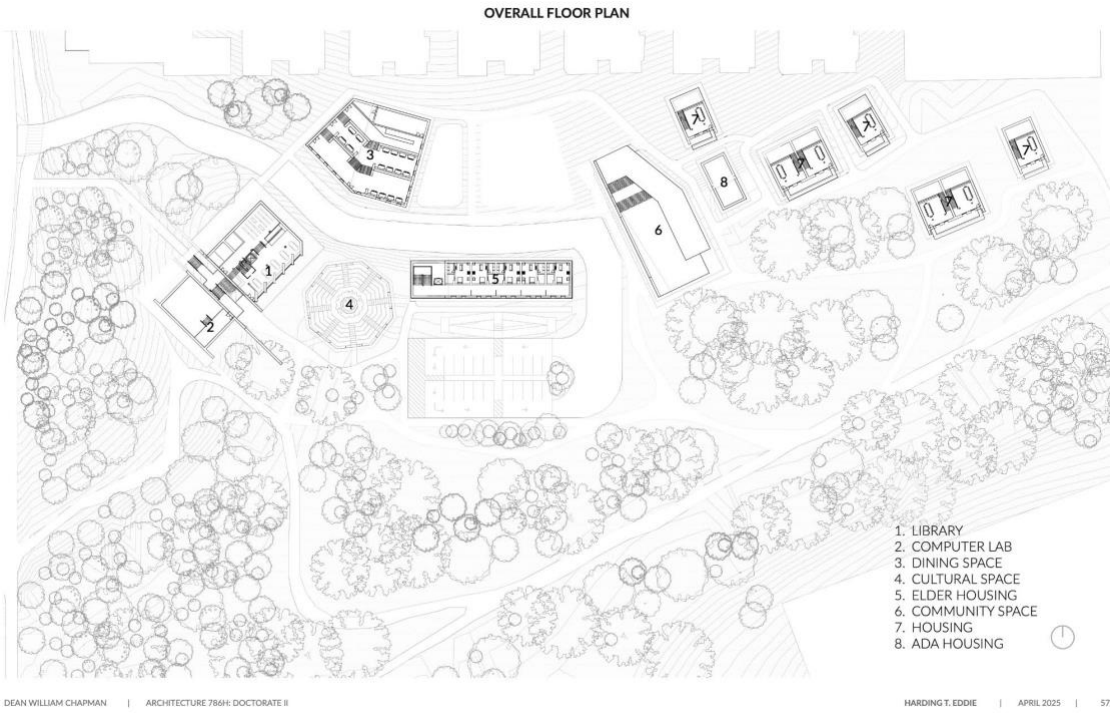

Figure 39. Overall Floor Plan

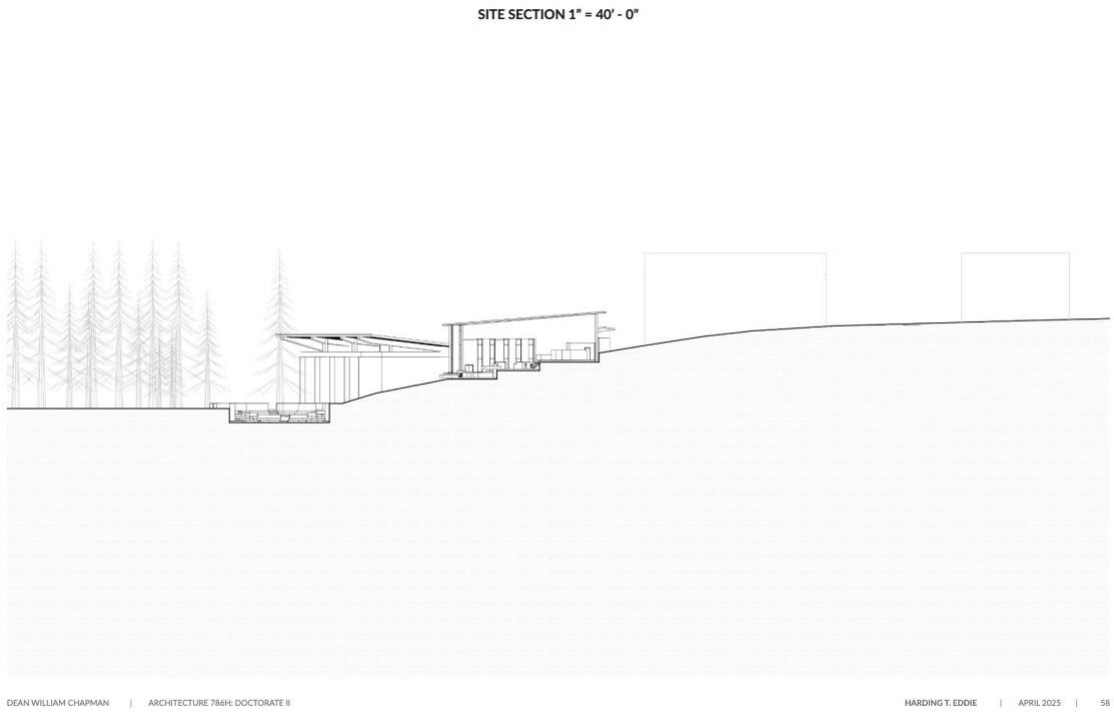

Figure 40. Site Section

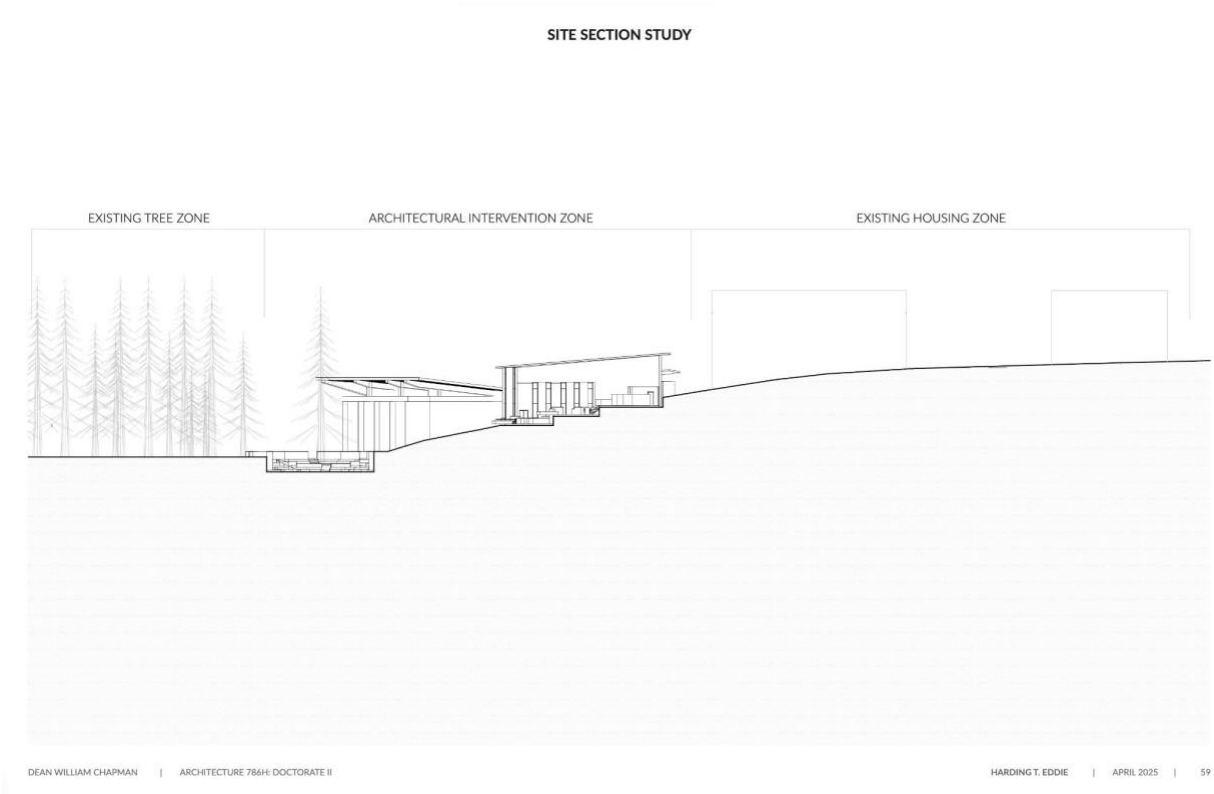

Figure 41. Site Section Diagram

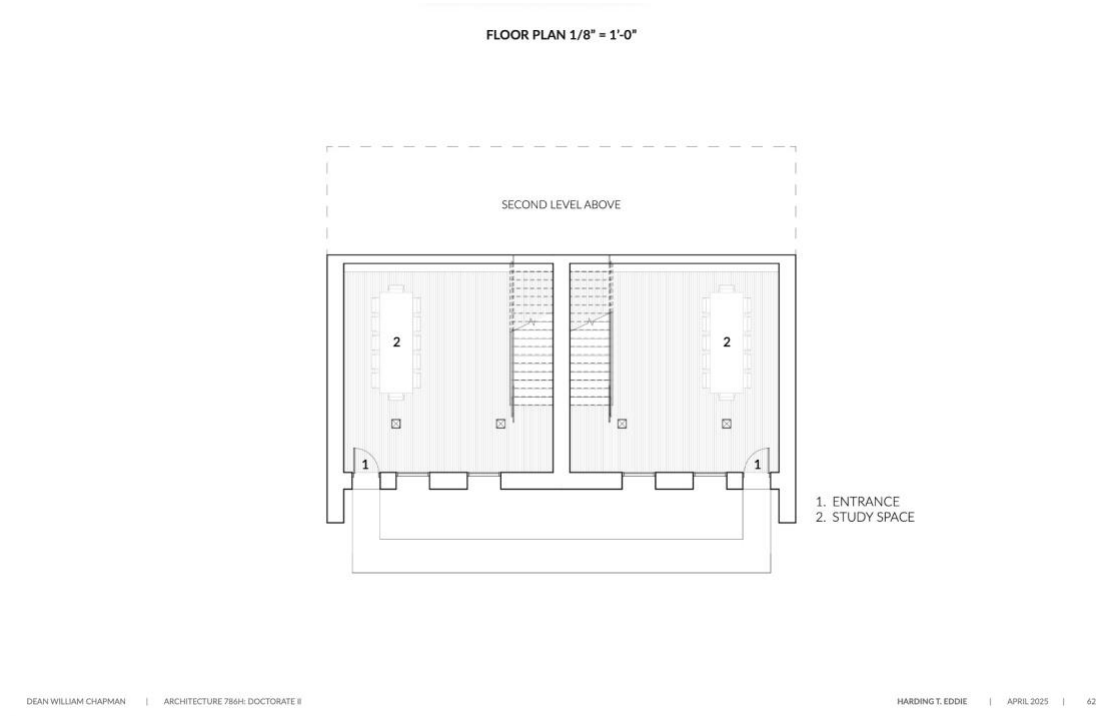

Figure 42. Housing Floor Plan Level 1

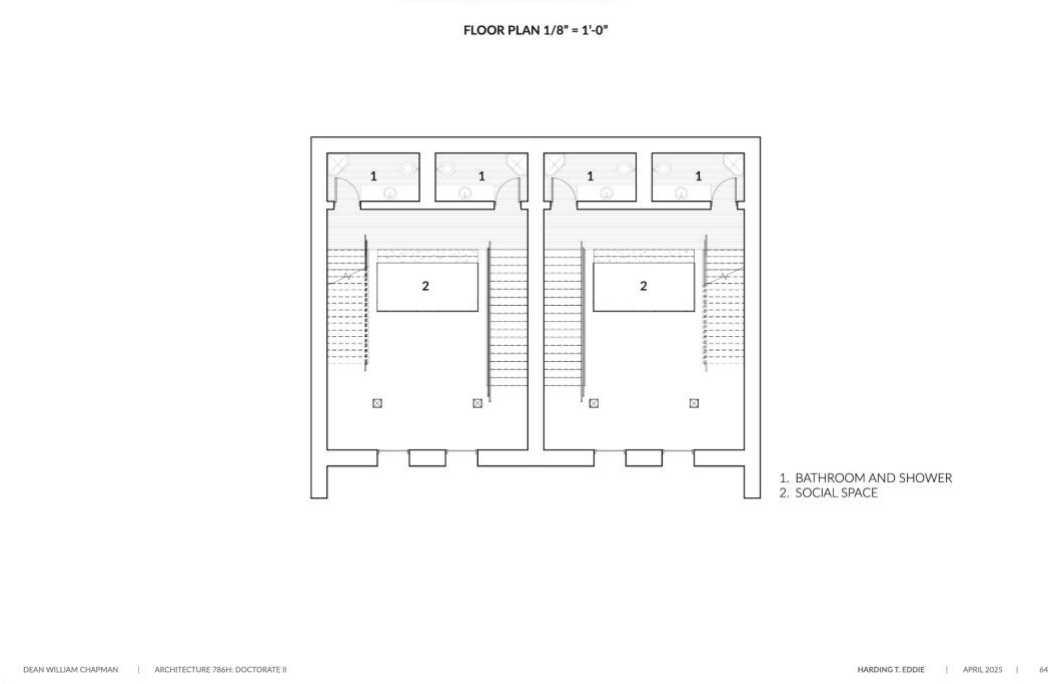

Figure 43. Housing Floor Plan Level 2

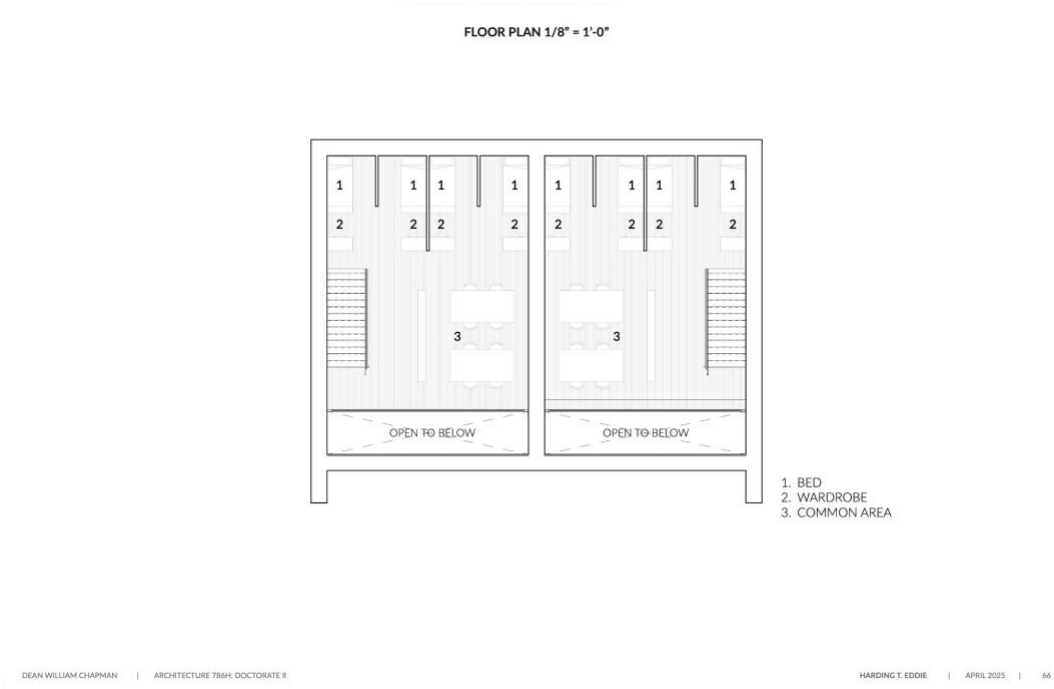

Figure 44. Housing Floor Plan Level 3

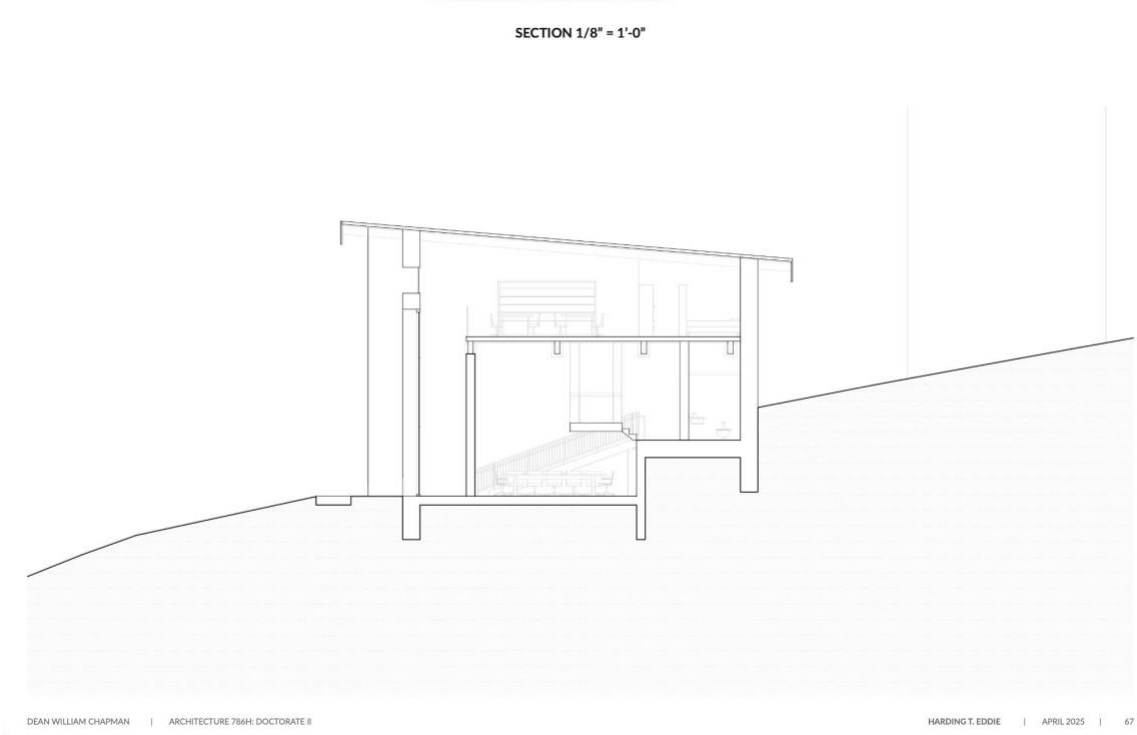

Figure 45. Housing Section

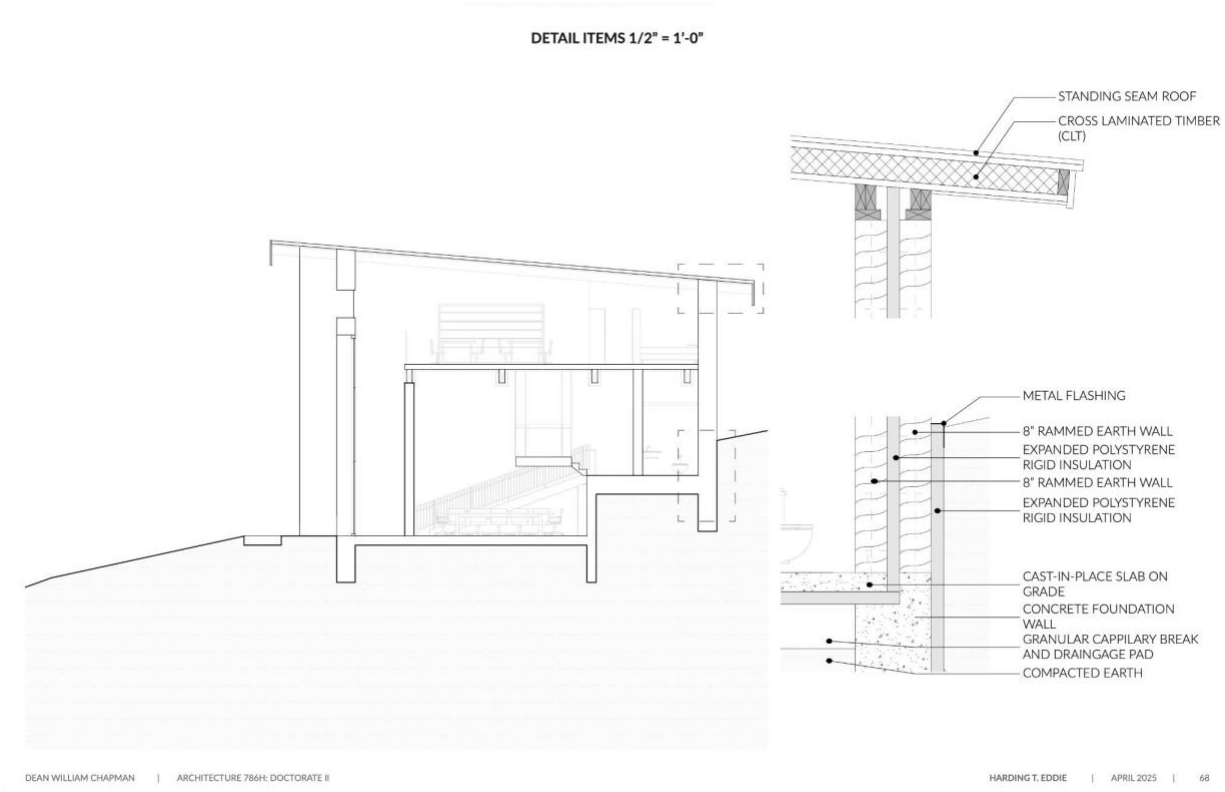

Figure 46. Housing Wall Details

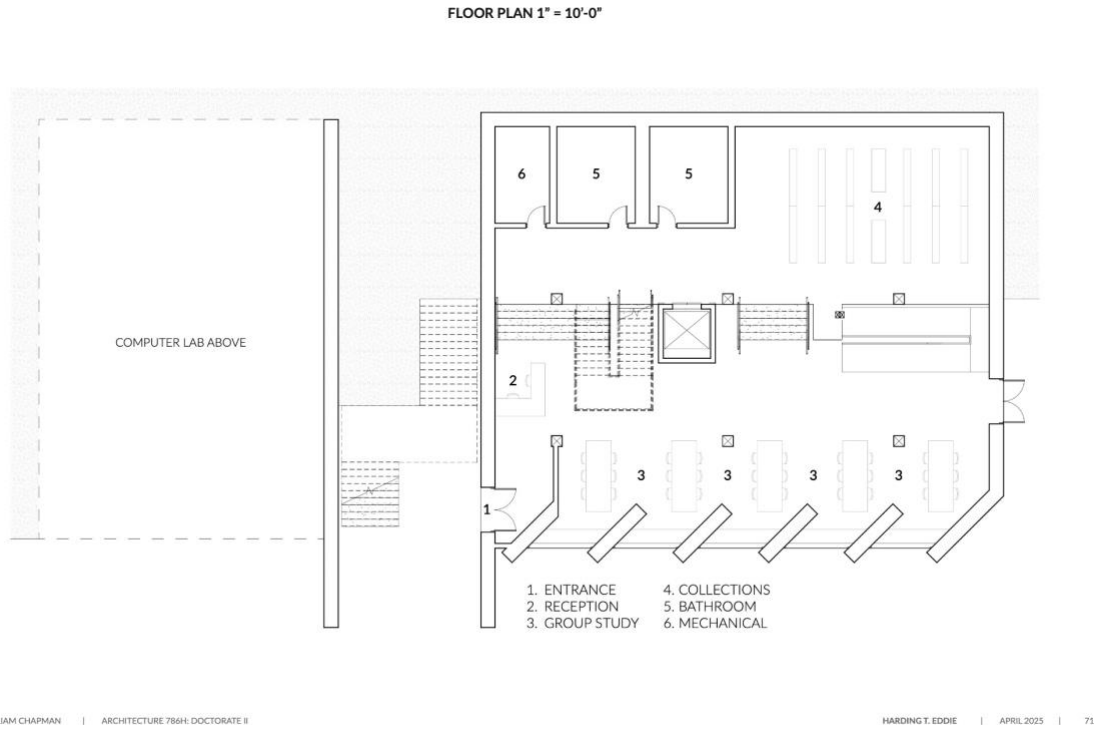

Figure 47. Library Floor Plan Level 1

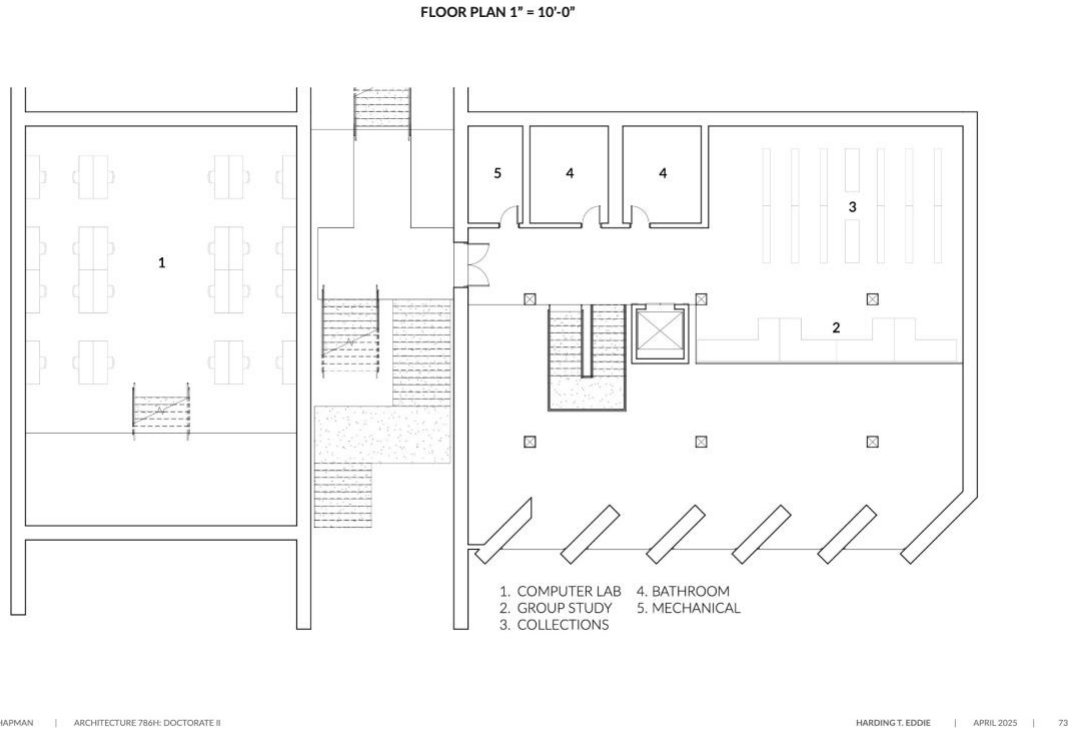

Figure 48. Library and Computer Lab Floor Plan Level 2

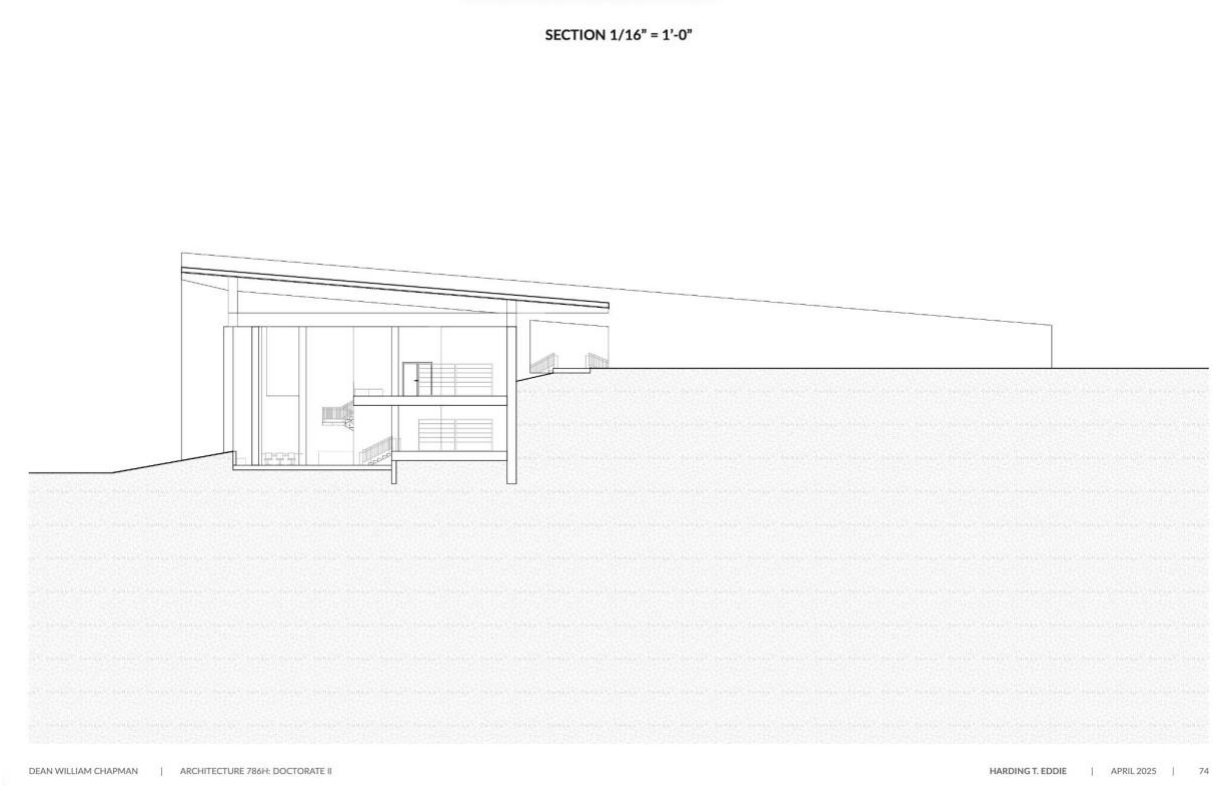

Figure 49. Library Section

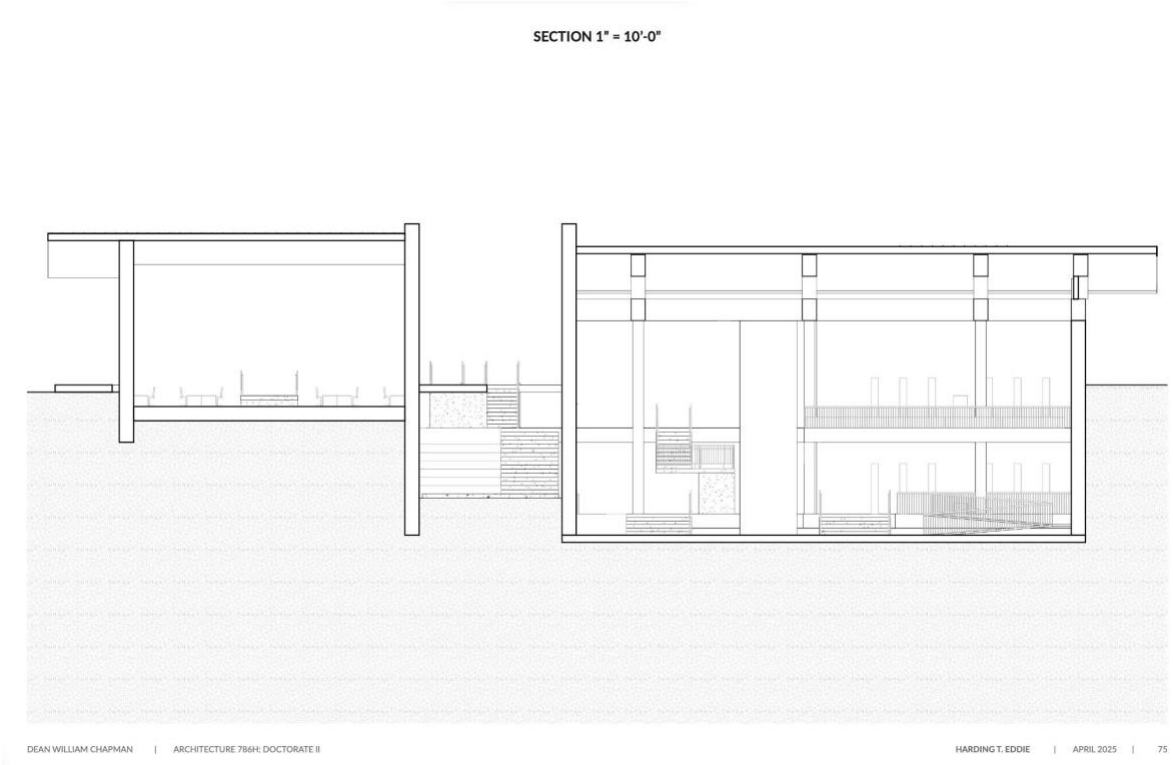

Figure 50. Library and Computer Lab Section

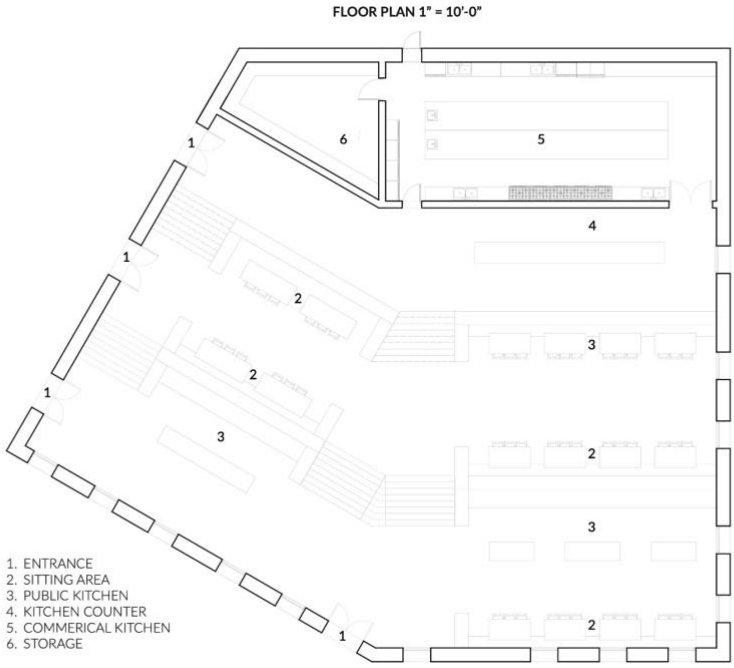

Figure 51. Dining Hall Floor Plan

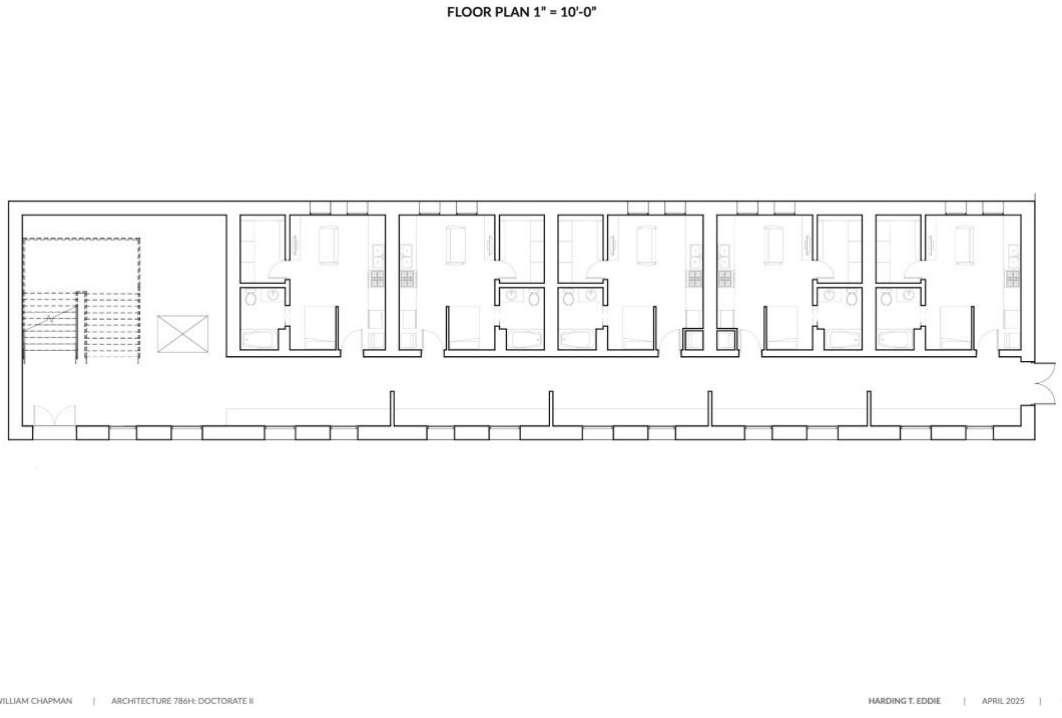

Figure 52. Elder House Floor Plan Level 1

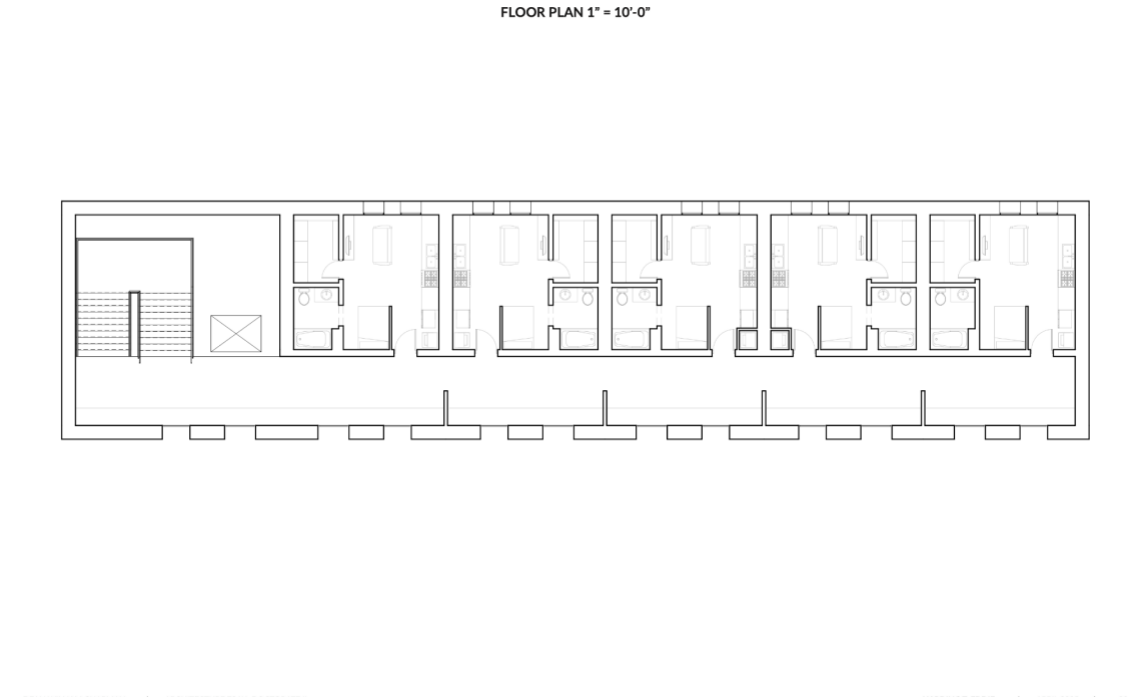

Figure 53. Elder House Floor Plan Level 2

Figure 54. Final Image #1

Figure 55. Final Image #2

Figure 56. Final Image #3

Figure 57. Final Image #4

CHAPTER 6: CONCLUSION

6.1 INCREASING NATIVE/INDIGENOUS REPRESENTATION IN ARCHITECTURE

I never imagined I would one day be pursuing a Doctorate in Architecture. Growing up, the idea of becoming an architect—let alone contributing to the academic and cultural landscape of the profession—felt distant, and at times, impossible. Not only am I a Diné (Navajo) person living outside the Southwest, but I am also navigating unfamiliar terrain as I work toward this advanced degree. Where I come from, we tend to stay rooted in the Southwest because of our deep communal and familial orientation, and our cultural respect for traditional boundaries—boundaries marked by the four sacred mountains: Blanca Peak, Mount Taylor, the San Francisco Peaks, and the La Plata Mountains. These mountains do not just mark geography; they hold our stories, our protection, and our identity. To live within them is to live within the embrace of our ancestors.

Yet here I am, living, learning, and working on the Hawaiian Islands—far from the sacred land I call home, but surrounded by another place deeply rich in culture and meaning. I carry with me the teachings of my homeland while being welcomed into a new one. It has been an immense privilege to experience another Indigenous land with its own stories, struggles, and strengths. I've met Native Hawaiian elders who remind me of my own grandfather, and I've listened as local people shared their experiences of displacement, cultural resilience, and the fight for housing justice. The parallels between our communities are striking. As I have shared in earlier sections, Diné people, we face persistent housing insecurity due to poverty, broken infrastructure, and systemic neglect. On the islands, I've learned of similar struggles—an endemic housing crisis that disproportionately affects Native Hawaiians. These shared

experiences have deepened my understanding of Indigenous solidarity and reminded me why I began this journey in the first place: to be part of a movement that creates secure, sustainable, and culturally grounded housing for our people.

This project has become much more than a degree requirement; it is a reflection of my lived experience, my values, and my unwavering commitment to my community. It represents a personal journey of resilience, identity, and reclamation. It is also my contribution to a growing movement of Indigenous designers who are reshaping the built environment on our own terms. Through land-based design, multi-generational living, trauma-informed approaches, and reverence for ancestral knowledge, I've worked to design a space that fosters belonging where too often there has been none.

This work contributes to Native American representation in architecture in ways that feel both urgent and long overdue. At its core, it responds to the absence of Native voices in both academia and professional practice—a silence I've felt throughout my own education. By designing culturally competent campus housing for Native students, I'm not only addressing a critical need in higher education, but also affirming that Native students deserve to see their cultures, values, and ways of being reflected in the spaces they inhabit. Architecture, for us, is not just about buildings—it's about relationships, care, and survival.

Importantly, this work is also about visibility. Native students deserve to feel seen and affirmed in academic spaces, and future Native architects deserve to see themselves represented in the profession. As a Native designer, I know what it means to carry the weight of underrepresentation. This project is one small but powerful step toward shifting that narrative. It declares that our spatial understandings, design traditions, and community wisdom matter—and that they belong in classrooms, studios, and construction sites alike.

6.2 DESIGNING FOR BELONGING: NATIVE STUDENTS, CHILDREN, AND ELDERS IN ARCHITECTURE

Throughout my architectural education and practice, I have come to realize that design is not just about form, function, or material—it is about relationships. For Native communities, architecture is not a neutral act; it is deeply tied to the values, traditions, and lived experiences of Indigenous peoples. As I reflect on my own journey and final design project, I am drawn again and again to three core concepts that shape Native American design in both theory and practice: place, kinship, and elders (Dalla Costa, 2018; Glenn, 2018). These values do not stand alone—they intersect and intertwine, informing not just what we build, but how we live, how we relate, and how we sustain ourselves across generations.

These principles are not things I learned in a lecture or textbook—they were instilled in me growing up. I didn't always have the words for them, but I felt their presence in everyday life: in the way my family gathered across generations, in how we cared for our elders, in our connection to the land we called home. As I moved through school and into studio culture, I noticed that these relationships were often missing from the spaces we studied and designed. It was as if the built environment had forgotten about us. That realization became the seed of this project—a desire not only to design for Native students, but to design with the values that have shaped my life.

Place

In many Indigenous worldviews, place is not a backdrop to human activity—it is a participant. It holds memory, spirit, and meaning. When we speak of "place" in Native design, we are referring to more than physical geography. We are referring to land as a living relative. In

my project, place was the first design input, not the last. I chose to locate the intervention in Flagstaff, Arizona—not just because it is home to Northern Arizona University, but because the land itself carries generations of Indigenous presence. The San Francisco Peaks, sacred to numerous tribes, rise in the background. This is not just a setting—it is a place of cultural reverence.

Respecting place meant analyzing more than zoning regulations or topography. It meant listening—to the land, to the wind, to the trees. It meant preserving clusters of Ponderosa Pines and shaping the architecture around them rather than through them. It meant aligning circulation paths with natural contours and designing openings to invite the sun in from directions that have spiritual significance. My architecture professor once said, "Let the site tell you what it wants to be." For me, that meant recognizing that I am not designing on the land—I am designing with it.

The use of local materials also became a way to root the design in place. Inspired by projects like the Nk'Mip Desert Cultural Center in British Columbia, I explored the use of rammed earth as a material that quite literally rises from the land. These walls are not decorative—they are gestures of emergence, reinforcing the idea that the architecture is not separate from the earth, but a continuation of it.

Kinship

The concept of kinship is perhaps the most foundational principle in Native cultures. Kinship is not limited to bloodlines; it extends to clan systems, community networks, and even to non-human relatives—animals, water, plants, and land. Kinship is a way of being in the world that recognizes interdependence and shared responsibility. It challenges Western notions of individualism and instead asks: How do we care for one another?

In my design, kinship shaped everything—from site layout to room arrangement. Instead of isolating functions, I designed shared spaces that encourage gathering, collaboration, and support. Communal kitchens and dining areas were central, not peripheral. Study spaces were not silent, impersonal rooms, but adaptable environments for peer-to-peer learning and tutoring—because learning in Native communities often happens through relationship.

One of the most important decisions I made was to include spaces for children and youth, particularly vulnerable populations like Native children in foster care. In many tribal cultures, children are sacred. They represent the continuation of the people, the carriers of language, ceremony, and story. They are to be protected, nurtured, and guided. Including space for them wasn't an afterthought—it was essential. Too often, systems fail our most vulnerable youth, placing them in environments where they feel unsafe, disconnected, or invisible (National Indian Child Welfare Association, 2024). Elders, placed in close proximity to these spaces, play a vital role in offering kinship care, further supporting children's sense of safety and cultural grounding (Burke, 2023). This integration not only reflects Indigenous values, but actively creates space where children can feel seen, supported, and sacred—just as they are.

Designing for children also required me to grapple with the idea of dual belonging—the reality that many Native youth live between multiple worlds: tribal and non-tribal, traditional and contemporary, familial and institutional. These overlapping identities can be both enriching and difficult to navigate. While architecture alone cannot resolve these complexities, it can acknowledge them. It can offer a sense of grounding, stability, and cultural affirmation. Through thoughtful culturally grounded design, we can create spaces that provide continuity, safety, and care—something every child deserves, and which is especially vital for those carrying the weight

of displacement, loss, or disconnection. In honoring our children through space, we honor our collective future (National Indian Child Welfare Association, 2024).

Elders

In every Native community, elders are central. They are the carriers of knowledge, language, and tradition. Their wisdom is not only respected—it is essential to the cultural and spiritual health of the community (Burke, 2023). This project was not only shaped by the guidance of my elders, but it was created in tribute to them. I am incredibly fortunate to still have both my maternal and paternal grandparents with me. Even more profoundly, my 90-year-old great-grandmother is still with us, though she now faces the challenges of dementia and Parkinson's disease. These family members—and so many others—have shaped me. I grew up listening to aunties and uncles sharing stories, learning from grandparents who modeled humility, generosity, and care.

The reverence for elders is reflected in the final design. It was important to create dedicated elder spaces, not as isolated lounges or offices, but as active parts of the community. These spaces are situated centrally, encouraging daily interactions with students. They are places for storytelling, for ceremony, for rest. Just as importantly, they offer opportunities for intergenerational learning—where youth and elders can come together, exchange knowledge, and maintain continuity across generations. Including elders in the design was also a political statement. In Native communities, elders are visible, engaged, and respected. Their presence is not symbolic; it is vital. Designing with elders in mind is not only an act of cultural respect—it is a commitment to cultural survival. Our elders are the living libraries of our people, and their wisdom must be preserved, honored, and centered in the spaces we create.

This project is more than an architectural design —it is an offering. A way of bringing together the values of **place, kinship, sharing knowledge, protecting our future (children)** and **elders** into built form. These concepts are not design trends. They are ancestral teachings that guide how we live and relate. In many ways, this project has been my way of returning to those teachings, and of asserting that they belong in architecture, not at its margins, but at its core. Designing this project has shown me that architecture can do more than house—it can heal and restore harmony and beauty, also known in the Navajo culture as *Hozhó* (Kahn-John & Koitan, 2015). It can reconnect us to land, remind us of who we are, and help us care for one another. By centering Native American principles, we don't just build different structures—we build different systems, different relationships, and different futures. Further, by offering Native American students a place not just to live, but to be fully seen, culturally supported, and celebrated, we create the conditions for them to thrive in higher education and beyond.

As I continue in this field, I carry with me the responsibility to honor these teachings—not just in theory, but in every drawing, conversation, and decision. This is the kind of architecture I want to practice—one rooted in relationality, reciprocity, and respect. One where Native students, children, elders, and families not only see themselves reflected—but see themselves leading.

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