Evolution of Oneida Science Through Tsyunhehkw^ (Life Sustainers): A Look at the Oneida Nation in Wisconsin.

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ABSTRACT

The Oneida Nation in Wisconsin has exhibited place-based adaptation and resiliency, resulting from years of knowledge accumulated and now being shared throughout the community. The emergence of Oneida Science as a new and practical approach to protecting ancestral seeds and agricultural practices, Tsyunhehkw^ (life sustainers), has assisted the community in preparing for an uncertain future. Despite their removal from their ancestral home in New York, this community has used their Haudenosaunee beliefs to develop their own knowledge system. Additionally, the community has adapted and continued to evolve in Wisconsin, revitalizing their reciprocal responsibility to ancestral White Corn in an uncertain climate. Finally, it will address Oneida Nation's current government structure and the how the pursuit of a One Mind is necessary for moving forward with our new knowledge system. In order to protect this new knowledge system, the nation must call on their tribal government and community members to come together with One Mind and make decisions that prepare us for this future.

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To the Oneida community, first thank you for raising me and second, for welcoming me back after so many years. To the community members that participated in this research, your knowledge is so important and I appreciate each moment you shared with me. Also, thank you cheering me on and offering support as I repair my own relationships with my Haudenosaunee relatives, human and non-human.

To my parents, you instilled in me the values and work ethic that kept me dedicated to my journey. I thank you for your perseverance through your own struggles when you pursued higher education and acknowledge that your resilience allowed me to become the person I am today. And to my siblings, you each played a role in shaping my future and I value every moment we've shared together.

To my partner in life, Paul, there are not enough words to express how thankful I am that you have stood by my side throughout this journey. Picking me up when I had fallen, being my thesaurus when I got stuck, listening to constant ramblings about my course topics, and helping raise our beautiful daughters (two of which were born during this crazy journey). We celebrate this together!

Finally, to my daughters; Marley, Lennon, and Isley. This is for you.

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INTRODUCTION

Despite attempts to abolish and/or assimilate Indigenous culture and traditions, many groups have been successful in keeping their cultures alive through oral traditions, ceremonial practices, language revitalization, and traditional foodways, among others. Traditional foodways, in particular, have been increasingly important in recent years as more Indigenous communities are engaging in the fight to reclaim their food sovereignty. A vitally important right for Indigenous Peoples, food sovereignty acknowledges that much of Indigenous culture is interrelated with their traditional foods. Furthermore, reclamation of traditional foodways has led to cultural revitalization, community health improvements, and economic enterprises for many Indigenous communities; and so contributing to tribal sovereignty. While this issue is also becoming more popular in research and project implementation, Indigenous communities have been faced with a new threat, in the form of a changing climate.

The Oneida Nation in Wisconsin has a culture of resilience and has been noted for their political and agricultural achievements over the years. My research aims to tell a new story of resilience for the community through the development of Oneida Science; a story grounded in their ancestral knowledge of reciprocity and respect for all relations. The first objective is to determine how this unique community has used their Haudenosaunee beliefs to develop their own knowledge system, despite their displacement. The second objective will uncover how this particular community has adapted and continued to evolve with their relatively new environment in Wisconsin, paying specific attention to White Corn. This will address how traditional agricultural practices and harvesting methods changed throughout the years to address climatic changes, while still maintaining cultural connections through ancestral knowledge. The final objective will address Oneida Nation's current government structure and the how the pursuit of a

One Mind through traditional Haudenosaunee decision-making is necessary for moving forward with our new knowledge system.

Prior and current research on cultural resiliency of the Oneida Nation focuses largely on historical events told through the word of elders, capturing the stories of the community. Furthermore, prior and current research has been dedicated to the cultural significance of Haudenosaunee White Corn and the importance of the Three Sisters planting method. There is limited research that focuses on our current storytellers, regarding how the transference of ancestral knowledge has evolved into a scientific knowledge system specific to the Oneidas of Wisconsin. It was important to me that I help tell that story. Therefore, my first article, "Kaʔtshatstʌ́sla: "Strength of belief and vision as a people"—A case study of Oneida resilience and corn," which focuses on the displacement of the Oneida people from New York to Wisconsin and what that meant for our relationships with our ancestral seeds and agricultural practices. This article was co-author with Dr. Joseph P. Brewer II and published by the Journal of Agriculture, Food Systems, and Community Development.

The Oneida Nation experienced significant struggles and successes since their establishment in their new place in Wisconsin, developing a place-based knowledge throughout the years. The purpose of my next article is to argue that the Oneida Nation in Wisconsin has unintentionally created their own scientific knowledge system, what we refer to as Oneida Science, which is rooted in Haudenosaunee knowledge yet evolving through years of resilient adaptation in place. Focusing on how the climate has changed and is projected to change in Wisconsin, this article highlights how community members have continued to adapt new practices from ancestral practices to protect our ancestral seeds, while continuing our responsibility to those non-human relationships and community needs. It continues the resilient

story of this specific Oneida community's ability to adapt regardless of various removal attempts. This article, tentatively titled "Oneida Science: Nurturing Community Knowledge in an Uncertain Climate," was co-authored with Dr. Jay T. Johnson and is currently unpublished.

My original intention was to develop two articles that related to the Oneida community's struggles and adaptation to climate-related changes. During my research process, however, I began discussions with community members about the issues with current tribal government structures and the negativity that has become synonymous with our decision-making process. This can make it difficult to make significant and sustainable changes that will protect our ancestral seeds and agricultural practices. Therefore, I decided to author "Roles and Responsibilities: Providing a Space for Haudenosaunee Decision Making," a chapter for the Tribal Administration Handbook being published by Michigan State University Press. The handbook is a collaboration among scholars and practitioners from tribal nations, academics and non-profit organizations who are working together to develop practical and teaching resources in the field of tribal administration and governance. I collaborated with my brother and Oneida Nation Vice Chairman, Brandon Yellowbird-Stevens, to develop a chapter that analyzed our tribe's current government structure and proposed revitalizing traditional Haudenosaunee governance and decision-making that assigned roles and responsibilities to each clan, enabling valuable and well-researched participation.

Furthermore, we addressed the need for a safe space for our tribal members to conduct their research and provide recommendations free of social biases, workplace influences, and community hierarchy. This chapter was important to my research because while my tribe has been at the forefront of the Indigenous Food Sovereignty movement for many years, I have realized since moving home that our community is still very fractured. One of the most

significant examples of that fracture is exhibited during our General Tribal Council (GTC) meetings, where the majority of the tribal members in attendance are simply there to collect a $100 stipend. And while there are some members who participate, many display toxic behaviors that lead others to disengage in the decision-making process. I felt it was important to address this current structure, so that our tribe can make necessary changes and come together with One Mind as our ancestors once did.

Our place-based adaptation and resiliency has resulted in years of knowledge accumulated and now being shared throughout the community. Oneida Science is a new and practical approach to protecting our ancestral seeds and agricultural practices, our Tsyunhehkw^ (life sustainers), as we move into an uncertain future. In order to protect this new knowledge system, we must call on our tribal government and community members to come together with One Mind and make decisions that prepare us for this future.

KA'TSHATSTÁ SLA: "STRENGTH OF BELIEF AND VISION AS A PEOPLE"—A CASE STUDY OF ONEIDA RESILIENCE AND CORN

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Abstract

The collective nations of the Haudenosaunee are governed by their shared ancestral knowledge of creation. This storied knowledge tells of an intellectual relationship with corn that has been cultivated by the Haudenosaunee through generations and represents core values that are built into community resilience, for the benefit of future generations.The Oneida, members of the Haudenosaunee Confederacy, have been committed to this relationship since the beginning of time. The Oneida Nation of Wisconsin has been shaping resilience in the con- text of struggle, to work toward sovereign com- munity food systems. This particular Oneida community has been geographically divided from all other Haudenosaunee nations, and even from its members own Oneida kin, for nearly 200 years; however, this community was able to re-establish its relationship with corn after years of disconnect. Oneida Nation community-driven projects in Wisconsin have reshaped and enhanced the connection to corn, which places them at the forefrontof the Indigenous food sovereignty movement.

Introduction and Background

Often the words *Corn* and *Resilience* are formulated in the same sentences when considering their connective histories. This is a common misconception.While Corn, or at least the varying strains of Corn indigenous to the Americas, is biologically resilient,without understanding the relational context between Corn and Indigenous people the reality is that resilience is an incomplete story. Corn, or whatthe Oneida (an Indigenous tribe in North America and member of the Iroquois or Haudenosaunee Confederacy) call O·nʌ́stəʔ, is resilient. However, resilience in the context of Oneida lifeways is a byproduct of a relationship born from reciprocity. Without working to fully understand the relation- ship between Corn, more specifically White Corn, and Oneida people, *resilience* is just a term used to shape dialogues about abstract ideologies in geographies apart from Haudenosaunee communities. The Oneida have been thinking about and committed to their familial relationship with White Corn since the beginning of time. It is a relationship builton the core Haudenosaunee epistemologies of thanksgiving: a continuous reminder that Haudenosaunee are a part of, not apart, from all that sustains life. And while the reciprocal relationship between White Corn and the people is merely one example of these very old and productive cultural and intellectual relationships that the Haudenosaunee people cultivate with the ecosphere, this relationship represents core values that are built into community resilience, for the benefit of futuregenerations. Because of the spiritual relationship ofreciprocity with White Corn, both Oneida and White Corn are resilient, and a byproduct of that relationship—within the uncertain confines of modernity—is healthy food systems, or what scholars call food sovereignty. The Oneida remain committed to revitalizing important intellectual traditions that would help them repair their shared identities as Haudenosaunee.

Through the framework of the Oneida, or more accurately Onʌyoteʔa·ká· (People of the

Standing Stone), intellectual traditions of thanks- giving, this paper works toward shaping resiliencein the context of struggle, to work toward sovereign community food systems. This article will tellthe story of resilience in an Oneida context, how the Oneida Nation[1] of Wisconsin revitalized cultural and intellectual practices grounded in the relationship between o·nʌ́stəʔ[2] and Onʌyoteʔa·ká·. To appreciate the significance of cultural revitalization, we start this article first by highlighting key events in Oneida Nation of Wisconsin history that shaped current reality. Despite being geographicallydivided from all other Haudenosaunee nations, and even from their own Onʌyoteʔa·ká· kin in the Northeastern United States, this community was able to re-establish its relationship with o·nʌ́stəʔ after years of disconnect. We then go back to the beginning of Haudenosaunee creation with the Haudenosaunee creation story, when the spiritual relationship with o·nʌ́stəʔ was established, and describe how it has evolved. Next, we focus on how communal resilience was rediscovered and has continued to drive all Haudenosaunee, particularly the Onʌyoteʔa·ká· community in Wisconsin, through dedication to the preservation of o·nʌ́stəʔ. We finish by discussing how Onʌyoteʔa·ká· community-driven projects in Wisconsin have reshaped and enhanced the connection to o·nʌ́stəʔ[3], placing them at the forefront of the Indigenous food sovereignty movement.

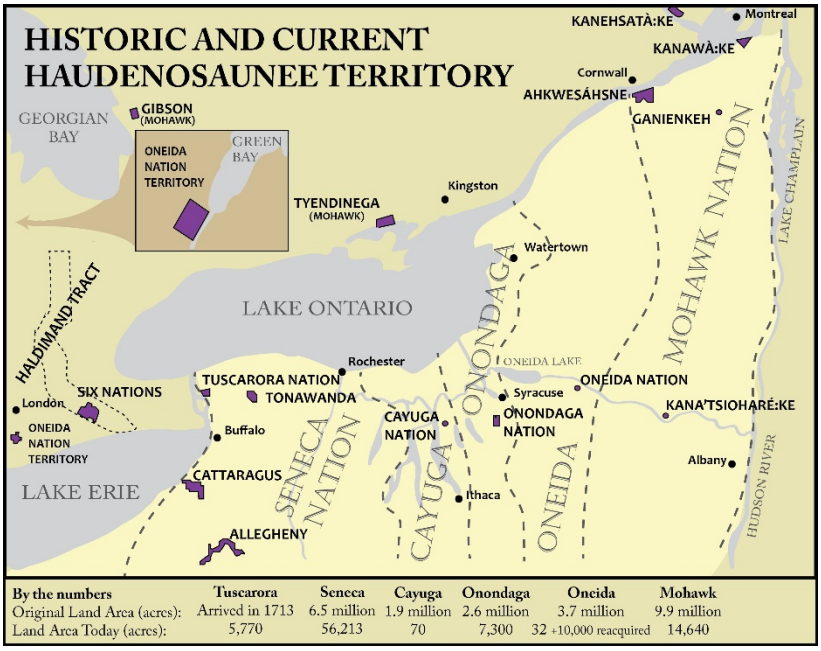
To better understand how resilience is inherentfor Onʌyoteʔa·ká·, we begin with their tribal history, one which separated them from other Haudenosaunee nations and strained their relation-ship with their cultural identities (Figure 1). The Onʌyoteʔa·ká· of Wisconsin were displaced nearly 200 years ago from their brother nations. The Haudenosaunee (People of the

[1] The term Onʌyoteʔa·ká· will be used when referring to the people or community, while "Oneida Nation" will be used to refer to the tribal aspect or entity located in Wisconsin.

[2] The term o·nʌ́stəʔ will be used to refer to corn or White Corn in her spiritual sense, while "corn" will still be used to refer to products and/or plant descriptions.

[3] Through observation and lived experiences by one of the authors (who is an enrolled Oneida member).

Figure 1: Historic and Current Haudenosaunee Territory



Source 1: Two Row Wampum Renewal Campaign, n.d.

Longhouse) Grand Council originally consisted of five nations, with Onondaga, Mohawk, and Seneca making up the Elder Brothers and the Oneida and Cayuga refer- red to as the Younger Brothers. In 1722 the Tuscarora would join after fleeing from warfare in the southeastern U.S., creating the six nations. Before contact from Western cultures, the Haudenosaunee lived in what is now the state of New York, in the United States. Not unlike many Indigenous nations globally, the Onʌyoteʔa·ká· were coerced conversion to Christianity;loss of lands from theft, forced sale, and the construction of the American jurisprudence system; countless deaths due to diseases and warfare; loss of identity; and the physical separation from Haudenosaunee brother-nations (Hauptman & McLester, 2002; Lewis & Hill, 2005).

Beginning in the late 1700s, the Onʌyoteʔa·ká· were heavily influenced by Christianity. Countless missionaries and other pressures to convert to Christianity were constant, and after the newly formed United States established itself, the pressure to convert increased tenfold. With all of these colonial pressures, the people eventually found themselves at a crossroads: either stay in New Yorkand face further marginalization and hardship, or embrace Christian values and relocate. A portion of Oneidas chose the latter. Led by missionary Eleazer Williams and under

the guidance of OneidaChief Elijah Skenandore, a group of Oneidas choseto relocate to a new settlement in the state of Wisconsin. The first group of 448 people left New York in 1822, with small groups following through1840 (Hauptman & McLester, 2002; Lewis &Hill, 2005).

Onʌyoteʔa·ká· found themselves in a climate and on land in Wisconsin similar to their homelandsin New York: heavily wooded areas, fertile soil, large meadows, rivers, as well as contiguous tributaries and lakes (Cornelius& Metoxen, 2010). Localswere impressed with how the Onʌyoteʔa·ká· managed these Wisconsinlands, referring to them as"ambitious people" (Hauptman & McLester, 1999, p. 122). Although the Onʌyoteʔa·ká· were highly productive farmers, the vices of modernity often forced Indigenouscommunities into uncertain futures. The timberindustry, other employment opportunities, and U.S. wars would take the men and families away from the community. Federal policies, such as the Dawes Act of 1887, which took communal land away from the tribe and redistributed it in sections of 160 acres to heads of households (Hauptman & McLester, 2006), were created as "a mighty pulverizing engine to break up the tribal mass" (Roosevelt, 1901, para. 134). The tribe, and now individuallandowners, were losing surplus lands left after allotment, lands in default from bank loans due primarily to the demand to adapt almost overnight to a new ownership regime that included paying taxes, new jurisdictional issues, and so forth. This era of Onʌyoteʔa·ká· history in Wisconsin resulted in a loss of 95% of tribal land ownership (McLester& Hauptman, 2010; Webster, 2016).

The Onʌyoteʔa·ká· were again a fractured and nearly landless people. As Holm, Pearson, and Chavis (2003) found in exploring the contributingfactors to how Indigenous tribes endure colonial pressures and still maintain their identity, the key contributing factor to the Onʌyoteʔa·ká· survival as Onʌyoteʔa·ká· was their connection to their peoplehood (language, history, land, and ceremony), asis true for many Indigenous peoples. An inherent commitment to

remain resilient, is built into their language, history, land, and ceremony, with each cultural indicator reliant on the other for continuity(Holm et al., 2003). During the 1960s and ’70s, the entire nation was experiencing a spiritual, social, political, legal, and civil awakening, and IndigenousPeoples were no exception. The American Indian Movement (AIM), a militant group founded in 1968 by American Indians of various tribes living in heavily populated inner cities, followed a mission to promote tribal sovereignty and Indigenous peoples’ rights by protesting legal, political, and social issues of tribal peoples from a variety of geographies, spanning from reservation to inner- city communities (Doxtator & Zakhar, 2011). During the civil rights era, there was an intentional push by tribal peoples to reclaim and strengthentheir traditional culture and identity.

For Haudenosaunee, the revitalization of language, agricultural crops, and foods became a central focus of the civil rights movement, even to those who had been displaced (Mt. Pleasant, 2011).In conversations with Ernie Stevens Jr., Oneida Nation of Wisconsin tribal member and chairman of the National Indian Gaming Association, he recalls a story from 1971, when at the young age of12 he experienced his own cultural awakening (E. Stevens Jr., personal communication, 2018). AIM affiliates had helped to bring the White Roots of Peace, a group consisting of Haudenosaunee elders, to the Onʌyoteˀa·ká· people of Wisconsin with a mission to remind Indigenous groups of theimportance of traditional language, ceremony, and knowledge systems (*Indian Country Today,* 2003; McLester & Hauptman, 2010). For the first time inhis life, he heard Haudenosaunee songs, saw their dances, and listened to the language in a way he had never experienced. For Stevens, this one experience would result in an awakening that would drive a life-long commitment to his community, but for the collective community in Wisconsin thiswas a reconnection to their identity and the relationships that have always forged their

survival as Onʌyoteʔa·ká·.

The collective nations of the Haudenosaunee are governed by their shared ancestral knowledge of creation, which was solidified through the GreatLaw of Peace, delivered to them by the Peace Maker and Hiawatha. Haudenosaunee ancestral knowledge not only tells of how they came into existence as a people, but how these cultural and intellectual relationships came to be and how they evolved. These stories are intellectual traditions of the tribe, which continue to guide the people in ceremony, history, language revitalization, agricultural preservation, and everyday life. At the core of these intellectual traditions of the tribe is kanehelatúkslaʔ, or thanksgiving—not to be con- fused with the American holiday, which inaccurately celebrates the initial interactions between thefirst colonies in North America and Indigenous Peoples. This kanehelatúkslaʔ is a tribal conscious- ness recognizing all living things in the world that are a part of life: not just human life, but all life. Stories of o·nʌ́steʔ are stories of Haudenosaunee creation, they are inextricably linked, one does not survive without the other, it is familial in a way thatis well beyond the common practice of plowing, planting, harvesting, and preserving, toward the very existence of a people, since the very beginningof creation.

The birth of o·nʌ́steʔ is the birth of the Haudenosaunee. In the Haudenosaunee creation story, o·nʌ́steʔ is said to have grown from the body of the first woman born on Turtle Island (North America). The first woman gave birth to twins, the right-handed twin and the left-handed twin, and in the process of giving birth she was killed when the left-handed twin pushed his way through her side in competition to be the first born. The right- handed twin would go on to create mankind; we now refer to him as Shukwayaʔtísu. When the mother was buried in the earth, from her body grew tobacco, strawberries, wild potatoes, as well as o·nʌ́steʔ, beans, and squash, or what is commonly referred to as Three Sisters, Áshʌ naʔtekutʌhnu·téhleʔ. Other versions of this

creationstory tell of the o·nʌ́ste? growing from the mother's head or from her breast. These plants were interpreted as gifts of sustenance and medicine, as her body was returned to the land and she became known as Yukhinulhá Ohwʌtsya?, Mother Earth (Cornplanter, 1938; Elm & Antone, 2000).

Haudenosaunee follow a series of cultural practices conducted throughout the year to align with the seasonal cycles of winter, spring, summer, and fall. The cultural practices are associated with preparation, planting, maintenance, harvesting, andpreserving food crops. A significant part of the cyclical process is the annual renewal of relation- ships between Haudenosaunee and the Áshʌ na?tekutʌhnu·téhle? through ceremony. These include (1) Midwinter ceremony (normally in January, five days after our new moon); (2) Seed ceremony (normally held in May); (3) Green Bean ceremony (normally in July, when the beans are ripe); (4) Green Corn ceremony (usually in late August or early September when the o·nʌ́ste? is at its milky stage); and (5) Harvest ceremony (normally in October when the o·nʌ́ste? is gatheredafter it has matured). Other cultural practices are held to honor the life and life force of plant spirits. At the core of these cultural practices are a tribal consciousness of gratitude for the plants' ongoing commitment to provide sustenance and a giving of thanks for the bountiful harvest. While there are countless cultural practices that shape Haudenosaunee relationships to the universe, the sisters remain a foundational component of many of thesepractices. Not only are the stories of Áshʌ na?tekutʌhnu·téhle? told before many of these cultural practices can begin, e.g., in the Kanehelatúksla? (Thanksgiving Address), but there is a fundamental story told of how the practices themselves came to be.

Before time as human beings currently know itcame to be, the Áshʌ na?tekutʌhnu·téhle? lived in afield. The youngest, dressed in green, was so small she could not yet walk, so she

crawled along the ground. The middle sister wore a bright yellow dress and darted back and forth across the field. The eldest sister stood tall and straight and had yellow hair and a green shawl, while her body bent with the wind. One day, the sisters became very interested in a boy that wandered into the field. Ona particular day in the summer, the youngest sister suddenly disappeared. In the fall, the boy returned and the middle sister suddenly disappeared. The eldest sister still stood tall, but she mourned her sisters. Struck with grief, the eldest sister began to lose her vibrant colors, and her hair started to wither in the cold, as she would cry for her sisters. The boy heard the eldest sister's cries, so he pickedher up and took her to his home, where her younger and middle sisters had followed the boy and decided to stay. The middle and younger sisters explained how they could feel the cold winter coming, so they wanted to stay in the boy's warm and comfortable home, and in return for thehospitality the middle and younger sisters were making themselves useful to the boy and his family. The youngest sister kept the dinner pot full, while the middle sister, still in her yellow dress, dried herself on the shelf so she could fill the dinner pot later in the winter when sustenance was scarce. The eldest sister saw how happy everyone was and decided to stay and dry herself for the people (Eames-Sheavly, 1993).

This story shows how Haudenosaunee stories align the sisters with the agricultural cycle and coinciding ceremonies. The youngest sister, beans, leaves the field first because this is the time that she is ripe and can best provide for the people. Themiddle sister, squash, follows when she has fully ripened and has the ability to provide for the people. The eldest sister, corn, leaves last after she has fully matured and is able to sustain the people throughout the winter months. This story shows how the sisters are a part of ceremonial or cultural responsibilities; in addition, they are active contributors in the homes, being able to provide sustenance for the people throughout the year. An interesting point to be made here is that each sister indicates and teaches

the family that they have the ability and knowledge to preserve themselves by drying, to provide a kind of sustenance that is uncommon to find specifically during the winter months. Additionally, it shares nuances of how the sisters need the people just as the people need them, in order to care for them in a way that ensures they can keep returning to the fields every year. While this relationship is highly productive, it is also built on trust. In order to build and maintaintrust in any relationship, your responsibility to one another cannot be taken for granted; for the Haudenosaunee, in this relationship they risk losingthe sisters forever. The next story demonstrates how the Haudenosaunee nearly lost the Áshʌ naʔtekutʌhnu·téhleʔ due to colonial influences that occupied and therefore temporarily misplaced theirresponsibilities.

In the late 1700s, an affliction overcame the Haudenosaunee people. Alcohol was introduced tothe Haudenosaunee by European settlers, who pushed the substance on the people because of its trade profitability (Frank, Moore, & Ames, 2000). Without mechanisms to control abuse of this substance, it was not long before this affliction became an epidemic that overtook many Haudenosaunee communities. Alcohol abuse led men to abandon their homes, abandon their dutiesas fathers, uncles, and nephews, and commit wrōngdoings against their own people. Haudenosaunee stories indicate that this era in their history upset the Creator. One man in particular offended the Creator by singing and dancing to ceremonial songs while under the influence of alcohol; this Seneca man was known as Skanyatali·yó (Handsome Lake), and he lived in the community known as

Figure 2: Skanyatali·yó Approached by the Corn Spirit

Source 2: Finan, 2017

Ganondagon in present-day Victor, New York (Figure 2). As punishment, Skanyatali·yó was stricken with illness; he became so sick that all he could do was lie in bed. Unable to consume alcohol, he was able to think, see, and appreciate the beauty of the world again, at which point he started to give thanks to the Creator everyday for those things. In 1799, after four years of being bedridden, the Creator decided that Skanyatali·yó would be the one to deliver a message to the Haudenosaunee people, a message meant to remind them not only oftheir place in the world but their responsibility toYukhinulhá Ohwʌtsyaˀ (Mother Earth). This message is known to Haudenosaunee as the Code of Handsome Lakeor Kaliwiyo, the "good words" (Cornelius, 1999).

Shukwayaˀtísu sent three messengers to help Skanyatali·yó deliver this message to the Seneca people, and the message soon spread to the rest of the Haudenosaunee communities. The Creator's messengers informed Skanyatali·yó that once he had delivered his message, a fourth messenger would appear to him and it would be his time to return to Sky World. The Áshʌ naˀtekutʌhnu·téhleˀheard of this and went to Skanyatali·yó to asked him for a favor; they wanted to go with him when he returned to Sky World, because the people had forgotten their responsibilities to them and had begun mistreating them as well as taking them for granted. Skanyatali·yó knew that if he took the Áshʌ naˀtekutʌhnu·téhleˀ with him, the Haudenosaunee would not survive. Skanyatali·yó convinced the sisters to stay until he could talk to the Haudenosaunee and explain the consequences if they continued to mistreat the Áshʌ naˀtekutʌhnu·téhleˀ. Once Skanyatali·yó explained,the Haudenosaunee quickly realized their error andbegan to once again care for the sisters and honor them through ceremony. This story acknowledges that the sisters are spiritual beings that rely on our support just as the people rely on them for sustenance. Haudenosaunee communities cannot expect the sisters to continue to

provide them witha bountiful harvest if they are not caring for them properly, physically, spiritually, and in ceremony throughout the entire year (Cornelius, 1999).

Methods

The case study presented here includes archival analysis of documents and published materials related to the history, displacement, farming, and first-hand accounts of Oneida life. The findings presented are a part of an ongoing study about the relational contexts the Oneida maintain to a community-based consciousness of their history, language, land, and cultural practices. The researchers collaborated with Oneida culture bearers to better understand the deep relational dimensions of their experiences (Kovach, 2006; Wilson, 2008). The researchers also relied heavily on anecdotal observations and experiences, both asinterested parties but more importantly because one of the authors is a life-long community member and Oneida Nation citizen. The study was guided by Indigenous research methods, specifically the adherence to diverse ontologies of Indigenous knowledge production, transmission, and acquisition (Kovach, 2006; Wilson, 2008).

Employing one of the author's anecdotal experiences and observations over a lifetime of living in and being an active community member, the authors were able to identify key themes of interest that assisted in the organization of all materials. Over the course of a year and a half we collected and organized literary materials from archives, journals, books, newspapers, biographies,and autobiographies. We organized our findings bycategorizing them by the Oneida (1) removal fromNew York to Wisconsin; (2) agricultural activities; (3) cultural and spiritual practices that reflected a relationship to food; and (4) community-based andnon-community-based Haudenosaunee scholars who write about culture and food. To accompany the literature, we identified and coded data collected from a larger study that fit key organizing themes created

at the onset of the study. When questions arose about the material or data collectedin the larger study, we were able to contact culture bearers and linguists to think through complex intellectual Oneida traditions, such as Oneida words and stories. Informed by one of the author'sexperiences and observations as an active community member, we were able to identify key themes of interest and proceed with a focused research agenda.

Case Study: O·nʌ́ste? Resurgence

When referring directly to food, John Mohawk, a Haudenosaunee leader, says that Haudenosaunee knowledge weighs the value of food in "life force,"not in dollars, but that understanding has shifted inmainstream society, turning foods like o·nʌ́ste? intoa corporate species driven by money (Nelson, 2008). Revitalizing this life force, the Oneida Nation is combating the corporate model through the creation and operation of the Oneida Com- munity Integrated Food Systems (OCIFS). OCIFS is founded on a mission to help families with dietary and food needs by housing a community initiative, which incorporates traditional foods to help create as well as reestablish a local economy that provides jobs and promotes and encourages long-term solutions to farm and nutrition issues onthe Oneida Reservation (Oneida Nation of Wisconsin, n.d.). This multifaceted component of the tribe consists of the following entities: Tsyunhehkw^ (an 80-acre organic farm), the Oneida Farm (bison and grass-fed beef herds), the Oneida Apple Orchard, Farmer's Market, 4-H Club, Oneida Cannery, and the Food Distribution Center (Stevens, 2014). OCIFS has helped bring a healthy community together by providing traditionally significant, organic, and sustainably farmedfood products. In addition, they have helped educate the community about the numerous health benefits of a traditional Haudenosaunee diet that will protect an Indigenous community from chronic diseases, such as diabetes and heart disease(Webster, 2018).

While every aspect of OCIFS is impactful andbeneficial, at the core of this tribal initiative is the tribe's reclamation and continuation of familial relationships to o·nʌ́steʔ. Dating back to Onʌyoteʔa·ká· origins, this reciprocal relationship is one that cannot be so easily forgotten. Regard- less of the struggles, the commitment to this relationship remains deeply embedded within the community's Haudenosaunee genetics. This relationship was revitalized on the Wisconsin reservation after years of communication-building between the Onʌyoteʔa·ká· in Wisconsin and otherHaudenosaunee communities in Canada and New York. Oneida Nation's organic farm, Tsyunhehkw^, harnessed the intrinsic power within the o·nʌ́steʔ after a visit to traditional Haudenosaunee homelands in the state of New York in 1991, which was prompted by many tribalmembers' awakening during the civil rights era.

Efforts made by Vicki Cornelius and Artley Skenandore to secure funding through the First Nations Development Institute reunited the Wisconsin Oneida community in 1991 with Indigenous seeds preserved by a Tuscarora farm in New York (V. Cornelius, personal communication, October 24, 2012). The base of Tsyunhehkw^ is unhe, symbolizing a genealogy that connects Onʌyoteʔa·ká· back to all life: it means "alive," so the word translates to "it provides us life," or simply, "life sustenance." Today, the farm lives up to its name by providing the community with life through the preparation, planting, growing, and harvesting of o·nʌ́steʔ. Tsyunhehkw^ has brought life to the community by taking on the difficult task of caring for their reciprocal relationship with o·nʌ́steʔ. While caring for o·nʌ́steʔ comes with an important ceremonial responsibility, it is also a very labor-intensive process from start to finish.

Traditionally, the seeds are soaked in preparation for sowing them, utilizing a mounded earthsystem, generally three to five feet apart. Haudenosaunee communities practiced Áshʌ naʔtekutʌhnu·téhleʔ mound planting by putting o·nʌ́steʔ seeds in every mound, squash seeds in

alternating hills, and beans between mounds (Mt. Pleasant, 2016; Parker, 1910). In this system, the beans take nitrogen from the air and deposit it intothe soil for the other plants to use; the o·nʌ́steˀ uses the nitrogen to grow a tall stalk that provides needed support for the bean's vines to climb. And the squash, otherwise known as the wild sister, shades the ground with her large and unruly leaves,protecting the soil and repelling herbivores. These intellectual traditions are knowledge systems pro- viding a number of things that contribute to successful and sustainable outcomes, such as enhancing the soil's physical and biochemical environment, minimizing soil erosion, improving soil tilth, managing plant population and spacing, providingnutrients in appropriate quantities, and, at the timeneeded, controlling weeds (Mt. Pleasant, 2006). The Áshʌ naˀtekutʌhnu·téhleˀ support each other in a way that is beneficial for the land as a whole, while at the same time allowing for the best harvestavailable to the people.

The harvest itself normally consists of two separate harvests. The initial Green Corn harvest, generally a short time during which the o·nʌ́steˀ is picked while still soft, referred to as "sweet corn" (Mt. Pleasant, 2016; Parker, 1910). The larger and more intensive harvest comes in autumn after the o·nʌ́steˀ has significantly hardened; this is known as the husking bee (Cornelius, 1999). At the husking bee, the community comes together to harvest, husk, and braid the cobs together into tall, beautiful collections that are a physical representation ofyears of resilience, imbued in the braids and community working together to create the braids (Figure 3). Historically, the braids were then hung from rafters in longhouses to dry. This method is still heavily utilized today by hanging the

Figure 3: O·nʌ́steˀ Braid

Source 3: Photo courtesy of Rebecca Webster.

braids in more modern-style barns. Onʌyoteʔa·ká· maintaintheir traditional harvesting practices by continuing these relational commitments, specifically by inviting the community out every year for their annual husking bee festival. This harvest provides a friendly, communal setting that encourages the transfer of knowledge, community healing, laughter, and enjoyment of the people, while they con- tribute to the overall well-being of the community. Also taking place during these husking bees are several information sessions, such as Corn Husk doll making, historical growing and cooking practices, as well as a Corn Soup competition. Tsyunhehkw^'s husking bee is open to anyone willing to lend a hand and learn about o·nʌ́steʔ. They also host various area school trips so that students, both Indigenous and non-Indigenous, have the opportunity to learn about sustainable agriculture through relationships of reciprocity.

Once the o·nʌ́steʔ has been dried and properly shelled, it is turned over to the cannery staff to be processed and packaged into several o·nʌ́steʔ products, such as dehydrated white corn, corn mush, and corn bread flour, as well as premade corn mush and corn bread. Along with the creation of the tribe's own natural health store, the Oneida Market, they have been able to grow, harvest, process, and distribute o·nʌ́steʔ products to their people, all within the boundaries of the Onʌyoteʔa·ká· reservation in Wisconsin. Demand for the o·nʌ́steʔ has steadily increased over the years, requiring the market to supplement its o·nʌ́steʔ stock with products from a Seneca operation out of New York, the Iroquois White Corn Project. Helping aid this issue is a group of Onʌyoteʔa·ká· families that were brought together by a mother and daughter duo, Laura Manthe and Lea Zeise, who saw a chance to contribute to their community. In the process, they formed a network of knowledge between members of the community that would allow for successful growth of the o·nʌ́steʔ, while also assisting with the rising demand for the product on the reservation (Webster, 2018).

In conversations with the daughter, Zeise, she talked about her mother, Manthe (Oneida Nation of Wisconsin tribal member), feeling distraught after a visit in New York. She learned that Haudenosaunee community members were purchasing o·nʌ́steʔ from a non-Indigenous farmer; this brought about many mixed emotions for Manthe (L. Zeise, personal communication, 2018). Soon after, Manthe began exploring ideas for growing her own o·nʌ́steʔ, and with her daughter's help they have made significant efforts toward providing a place for their Onʌyoteʔa·ká· community in Wisconsin to expand their traditional agricultural knowledge through the care of their reciprocal relationship with o·nʌ́steʔ. They have done this by bringing together eight families, securing funding through grants, utilizing very old but still intact knowledge systems in Tsyunhehkw^ staff members, and purchasing seeds from the Onondaga Nation in New York (Webster, 2018). This group of families call themselves Ohe·láku, which means "among the cornstalks." The group has focused on sharing knowledge and incorporating language and culture into their gardening practices by inviting more families to engage with the group, holding their own husking bee, and hosting other Haudenosaunee and Indigenous groups. The transference of this knowledge to the next generation is seen in two youth members, Orion and Lucia Stevens, shelling their o·nʌ́steʔ in the comfort of their home on the reservation (Figure 4.)

Figure 4: Orion (at left) and Lucia Stevens Shelling O·nʌ́steʔ in their Home

Source 4: Photo courtesy of Stephanie Stevens

Ohe·láku is a shining example of what Onʌyoteˀa·ká· women are capable of when they approach something with a good mind, find strength in their relationship with o·nʌ́steˀ, and dedicate themselves to their community. When referring to one version of the origin of Áshʌ naˀtekutʌhnu·téhleˀ, where o·nʌ́steˀ is said to have grown from the breasts of Yukhinulhá Ohwʌtsyaˀ, Katsi Cook says, “At the breast of women, the generations are nourished. From the bodies of women flows the relationship of those generations both to society and to the natural world” (Cook, 1997). When asked why she decided to grow o·nʌ́steˀ, active Ohe·láku community member Rebecca Webster talked about her personal responsibility to provide for her community, due to multiple years of corn shortages experienced by the tribe (R, Webster, personal communication, 2018). Additionally, she spoke of the reciprocal relation- ship between o·nʌ́steˀ and the Onʌyoteˀa·ká·, by saying she understood that the o·nʌ́steˀ needed her just as much as she needed it. One of Webster’s beautiful seed braids can be seen in Figure 5.

Figure 5: Ohe·láku Seed Braid

Source 5: Photo courtesy of Rebecca Webster

Discussion

While the world is subject to unstable and often unthoughtful industrial food systems with the intention of making food more accessible and convenient for humans, many people have lost access to their inherent right to safe, healthy food. As a global society, we have found ourselves here through a

process that takes resilience away from humankind and has "impoverished millions of peasants and Indigenous peoples by displacing them from the land, resulting in many of them being forced into wage labor to serve the global food economy" (Coté, 2016, p. 7). For Indigenous peoples, however, it is not simply about food security; it is about the right to grow the foods that signify their ancestral knowledge of relationships tothose foods, using the methods they deem important to cultural livelihood. Robin Kimmerer (2013) Indigenous scholar, says that we are bound to thesereciprocal relationships with human and nonhuman entities through a "culture of gratitude," or Kanehelatúksla? (p. 146). Indigenous Knowledge systems take food sovereignty beyond the right to our food and include the protection of ancestral relationships built into intellectual traditions that inextricably link all living things to humans.

For the Onʌyoteʔaˑkáˑ in Wisconsin, food sovereignty was never about using food systems to exercise power; rather, like a number of Indigenous peoples, they have an engrained history of respecting the power within our food, which reflects an understanding that the universe is alive and there- fore should be treated respectfully (Little Bear, 2000). And while the interconnected aspects of culture, heritage, politics, and place can make it difficult to define Indigenous food sovereignty for all Indigenous communities, the inherent power within oˑnʌ́steʔ represents something that goes beyond the concept of food sovereignty. It is a tribal consciousness that is acted upon, and while action indicates hard work, Deborah Bird Rose, an Aboriginal ecological ethnographer, speaks to this notion of work, saying "none of this work could be thought to rewrite the Anthropocene so as to give it a happy ending. But it removes us from that singular position of spectator; it acknowledges the truly tangled up quality of our lives, and suggests some modes of action in a time of on-going trouble" (Rose, 2013, p. 10). For Onʌyoteʔaˑkáˑ in Wisconsin, work, or the action of hard work, is relational; it is not only

expected, it is of paramount importance.

Carol Cornelius (1999) found that “corn emerged as a vital element of the Haudenosauneeculture on spiritual, philosophical, political, sociological, and economic levels” (p. 67). More directly, she calls o·nʌ́steʔ the “cultural center of Haudenosaunee way of life” (p. 91). O·nʌ́steʔ is atour cultural center because it encompasses so much of what it means to be Oneida or Haudenosaunee; however, it does not simply represent a reciprocal relationship. O·nʌ́steʔ has a living spirit. Through the stories above, we see that o·nʌ́steʔ hasthe ability to think and feel emotion. In addition, o·nʌ́steʔ is like the people: while each outer husk shares a resemblance with every other, each thread of the corn silk attaches to a single kernel, forming a unique entity. One member of the Ohe·láku group compared growing o·nʌ́steʔ to pregnancy, adding, “I knew things were coming, but I didn’t know what” (Manthe, n.d., “Results to Date,” para.4). Growing o·nʌ́steʔ is an intimate process, much like growing a child. We plant a seed, giving birth to a life, nurturing a living being the best we can, and giving it all the things it needs to grow, yet we do not know with certainty what the final result will be. Just like a child, each cob will have its ownphysical traits, its own personality, and its own way of communicating. Our job, not as parents in a paternalistic way but as partner, is to hold ourselvesaccountable to our end of the relationship, as our ancestors committed us to at the beginning of time.

Just as o·nʌ́steʔ has her own emotions, the people are able to transfer their emotions to her. This is why Manthe talked about the importance of starting out her group with good feelings, allowing for an atmosphere of laughter, good-natured teasing, and good food (Wisneski, 2016). In addition to ceremony, O·nʌ́steʔ needs to feel the good energy from the people in order to feel safe in returning every year. The Onʌyoteʔa·ká· call thiskaʔnikuhli·yó, openness of a good spirit or mind, often referred to as having a “good mind.” OneidaNation cannery worker Jamie Betters

echoes this idea by acknowledging the importance of kaʔnikuhli·yó when working with the o·nʌ́steʔ, because the cannery workers are the last ones to touch it before it goes out to the people (Herzog, 2009). Not only is this true in this relationship between Haudenosaunee and o·nʌ́steʔ, but westernscientists are finding that many wild plants and vegetative species are healthier when they interact with humans (referred to as ethnophytopathology).Consequently, the transfer of emotion is given back to the community after the o·nʌ́steʔ has been processed and packaged for use in every Onʌyoteʔa·ká· home. Their reciprocal relationship goes beyond sustenance and ceremony; it is a deeply emotional bond that lives its life out in the o·nʌ́steʔ itself.

The Haudenosaunee live by the seven generations philosophy, which tells us that we must live in a way that ensures the welfare of the next seven generations, just as the seven generations before us did (Lyons, 2003). In our ancestral stories, the Áshʌ naʔtekutʌhnu·téhleʔ are sometimes referred to as "our sustainers" (Cornelius, 1999, p. 71), so the Haudenosaunee understand that in order to ensure those futures we must continue to value relationship with our sustainers in every aspect of life on a daily basis. Oren Lyons (2003), an Onondaga Faith Keeper and renowned scholar, refers to the ideology that all spirits of nature are relatives to the Haudenosaunee people, and he continues by calling out to our generation to not fear these relationships, but to find strength in them as we look toward the future. This is exactly what the Onʌyoteʔa·ká· in Wisconsin have been doing for the past several decades. Not only have they found strength in their relationship with o·nʌ́steʔ, they have nurtured it through years of communal resiliency. All these things are interconnected and represented through their reciprocal relationship with o·nʌ́steʔ.

Conclusion

> *Others have taken the challenging path of believing thatwe can respect the values of our ancestors while being good American citizens, in a thoughtful, determined, proactive*

> *way. That is both our responsibility and our children's, and to achieve it we rely on the Indian commitment to family and community. This commitment has never been lost; nor is it dependent on the outside for its vitality. It is the ultimate link we have to our ancestors.*

—Ernest Stevens Sr., longtime Onʌyoteʔa·ká· advocate for Indigenous sovereignty and self-determination, and formerfirst vice-president of the National Congress ofAmerican Indians (Stevens, 2010, p. 251)

Indigenous food sovereignty has given Indigenous communities a platform to honor the importance of intellectual relationships with nonhuman entities. Resilience on the Oneida Nation reservation in Wisconsin is inherently built into their commitment to all life, and a prime example of this is how the people have maintained those relation- ships through the commitment to community by harnessing the power within intellectual traditions imbued in very old relationships with o·nʌ́steʔ. While this article relied on the term "resilience" to help frame our central argument, the reality is that at no time did we as authors feel the need to definethe term resilience to contextualize the Onʌyoteʔa·ká· or Haudenosaunee experience. Those intellectual exercises take away from whatresilience is for the Haudenosaunee: beautiful. Further, while the idea of decolonization has assisted in bringing cultural and linguistic practices back to Indigenous communities, there is unimaginable value there if left undefined; establishing parameters can also limit the possibilities for futuregenerations. Valid to this point is what Ernie Stevens Sr. believed, that it is possible to be active members in modern society while continuing to practice, respect, and honor our ancestors through tradition. Our ancestors trusted us to hold our- selves accountable to their commitments in order to build healthy communities that are inclusive of all life. The foundational underpinnings of these relationships are valuable knowledge, and with that knowledge we must make thoughtful decisions thatwill defend and protect the next seven generations to come. The evolution and innovation of traditional

agricultural practices by the Onʌyoteʔaˑkáˑ inWisconsin exemplifies how oˑnʌ́steʔ initiatives have become "*thoughtful, determined and proactive"* (Stevens,2010, p. 251; emphasis added) in modern society, while still maintaining a respect for that knowledge.

The Onʌyoteʔaˑkáˑ revitalized their reciprocal relationship with oˑnʌ́steʔ away from their home- lands in a relatively short amount of time, regard- less of their difficult history. Tsyunhehkw^ continues to see a steady rise in demand for the products each year, and the Oheˑláku group has been growing to include more families since its beginnings in 2015. The people are engaging with oˑnʌ́steʔ more and more by telling their stories, speaking their language, singing their songs, and dancing with the living universe. Oˑnʌ́steʔ for the Onʌyoteʔaˑkáˑ is not just a food item, it is not just a tall stalk for our beans, and it is not just a story. It is a connection felt by the people, it is a deep spiritual emotion, and it is a resiliency celebrated at every ceremony or community gathering. All with the smell of oˑnʌ́steʔ in the air.

ONEIDA SCIENCE: NURTURING COMMUNITY KNOWLEDGE IN AN UNCERTAIN CLIMATE

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Introduction

Each Indigenous community has a unique story to tell as it relates to their place in the world. Larsen and Johnson (2017: 1) state that place challenges us to live together with human and nonhuman communities in our "shared predicaments of life, livelihood, and land." Indigenous Peoples have experienced a series of place-based struggles that continue to impact their communities today. Daniel Wildcat (1999) describes these place-based struggles for Indigenous Peoples in regards to their forced removals, since first contact with colonizers through contemporary experiences. The first removal was a geographic removal at first contact when Indigenous Peoples were victims of the Doctrine of Discovery and Manifest Destiny efforts that physically removed them through genocidal attempts or continually pushing them from their land and further west. The second removal came during the boarding school era when children were removed from their homes and forced to assimilate to American culture. We correlate this social removal with the "Kill the Indian in him, and save the man" motto put forth by Richard Pratt (1892) in his policy of off-reservation Indian education within the United States. Wildcat (1999) refers to the third removal as a "psycho-cultural" removal, meaning that it took place on all social levels during the late 19th century, attacking the very identity of Indigenous Peoples in an attempt at cultural genocide. Each of these removals has shaped the identities of Indigenous People across the United States, resulting in place-based resiliency as we have continually adapted to our changing environments.

Regardless of these initial removals, Indigenous peoples have continued to survive, not just physically, but culturally. While many nations are still struggling with the effects of these removal attempts and the years of intergenerational trauma that followed, the fact is we are still here. Unfortunately, we are facing a fourth removal, this time at the hands of our Mother Earth, who can no longer take the pain the human race has inflicted on her. The fourth removal is coming in the form of an uncertain future due to what Wildcat (1999) refers to as "climate-burning" activity. These climate-burning activities are human activity that includes but is not limited to transportation, electricity, and commercial agriculture, and they have disrupted Mother Earth's balancing practices that have regulated temperature for millions of years. Greenhouse gases can no longer be absorbed and emitted at a steady rate, therefore our climate-burning activities are trapping heat and warming the planet at an alarming rate. Consequently, we have increased CO_2 levels by nearly 50% since the Industrial Revolution (Ades et al., 2020). This is evident in current climate studies that show our annual global temperatures have been increasing steadily since the 1960s (National Centers for Environmental Information, 2021). Furthermore, 19 of the 20 warmest years in this century having occurred since 2001, showing that these warming patterns are only getting worse without any indication that they will stop without significant mitigation efforts.

Shifts in our climate have been impacting Indigenous communities for years and this may lead to yet another removal from our current lands if we cannot adapt to these impacts. Indigenous communities feel the impacts of our changing climate at different levels depending on their geographic location, local economy, sociopolitical systems, and cultural practices (Norton-Smith et al., 2016, Marino, 2015). Our relatives in Alaska and on the coast are among the first to face climatic impact in the form of soil erosion, rising sea levels, and animal

migratory disruption (Norton-Smith et al., 2016, Marino, 2012). These events are creating vulnerable living conditions that are threatening the very identities of these communities that have cultural ties to their lands. The climate also threatens delicately balanced ecological networks that have sustained these communities for generations by affecting planting and harvesting times and reducing traditional species availability (USGCRP, 2018). While our changing climate will affect all of humankind in a multitude of ways, for Indigenous communities who have strong connections to their place and understand the importance of a reciprocal environment, the impact is on a much deeper level.

Marino (2015) implies that Indigenous vulnerability to climate is a result of systems of inequality and generations of colonial oppression. However, it would be unfair to label our Indigenous communities as "vulnerable," as it implies a community's inability to address certain impacts. Our communities are resilient and should be labeled as such. This article addresses one community's continued resilience in the face of removal, in all its forms. The purpose of this article is to argue that the Oneida Nation in Wisconsin has unintentionally created their own scientific knowledge system, what we refer to as Oneida Science, which is rooted in Haudenosaunee knowledge yet evolving through years of resilient adaptation in place. The Oneida Nation in Wisconsin has felt every aspect of each removal and through years of resilience the nation has developed ways to appropriately address concerns and needs that contribute to the overall health of the people. This article will discuss how the Oneida community is addressing the changing climate in Wisconsin by acknowledging how their connection to place strengthens their ability to adapt. Then, by analyzing existing climate data this paper will show how the Wisconsin climate has changed and is projected to change, further endangering the Oneida's ancestral seeds. Finally, it will discuss how this specific community is

being affected by these unstable conditions and how they are addressing current impacts as they protect their ancestral White Corn.

Literature Review

While Christianity has been said to be the largest influence in the removal of the Oneida people, several other colonial factors that would contribute to the tribe's first removal from the state of New York to Wisconsin. First, the Oneida were included in 4 federal treaties that were designed to move all tribes west of the Mississippi, as a part of the United States Removal Policy. Second, the tribe was also included in 14 New York state treaties that reduced their land base from 5.5 million acres to just 32 acres by 1846 (Cornelius, 2013; Hauptman & McLester, 1999). And the final colonial impact that contributed to the Oneida removal was a land grab by Ogden Land Company, under the guise of the church's pursuit to "civilize" the tribe. Missionary Eleazer Williams would assist in orchestrating the removal by meeting with and accepting "handsome compensation" from Ogden Land Company (Cornelius, 2013). Being faced with federal and state government attack through treaty as well as land grab pressure from local companies, the church presented themselves with open arms and the promise of a large tract of new and fertile land in Wisconsin. Under the guidance of Oneida Chief Elijah Skenandore, a group of Oneidas chose to relocate to a new settlement in the state of Wisconsin. The first group of 448 people left New York in 1822, with small groups following through 1840, completing their forced geographic removal from their ancestral place (Cornelius, 2013; Stevens & Brewer, 2019; Hauptman & McLester, 1999; Lewis & Hill, 2005).

Oneida connection to White Corn is a relationship founded within the place-based practices of tribal farmers and based upon systematic methods of learning and teaching about the natural world, practiced for thousands of years. Whether these systematic methods for

understanding the natural world are called traditional ecological knowledge (Berkes 2017, McGregor 2005) or Indigenous science (Cajete 2000, Johnson & Murton, 2007, Johnson et al 2014), they are spatially localized and place-based practices, spanning short-term periods to extend on long-term observations, integrating an understanding of natural and human processes. The interrelatedness of human and non-human creates a 'reciprocal appropriation' by which we incorporate ourselves into our environment and receive nourishment and support in return (Momaday, 1976). This reciprocity is founded upon a sustainable resilience that requires Corn and Human to fulfill their natural role within this relationship (see Mohawk 2010).

This Oneida Science, constructed upon observations based within the tribe's original homelands in the Haudenosaunee Confederacy, became mobile with the removal of a portion of the Oneida Nation to Wisconsin. It adapted and thrived, as the people adapted to their new surroundings. This adaptation required new observations and understanding of the resilience of White Corn to this new homeland as well. As Deloria and Wildcat (2001: 2-3) note, "Familiarity with the personality of objects and entities of the natural world enabled Indians to discern immediately where each living being had its proper place and what kinds of experiences that place allowed, encouraged, and suggested." As the Oneida learned about their 'new place', they also learned how Corn fit into this place and its existing relationships, adapting their science to new surroundings. As climate change modifies the landscape, altering what has been known and observed; the resilience of Corn, people, and place is tested again.

Methods

This qualitative study utilized existing literature, semi-structured interviews, and participatory observation to gain a better understanding of the perceived place among the Oneida community. How that place changed over time and how contemporary corn growers are adapting

in that place were considered. Semi-structured interviews were conducted with members of the Oneida Nation in Wisconsin and others with community/familial links to Oneida Nation, who have specific knowledge regarding traditional and modern agricultural practices of Haudenosaunee White Corn in Wisconsin. Participation was utilized in community events surrounding white corn cultivation to gain a better understanding of the day to day operations throughout the summer and delve deeper into how the Oneida community in Wisconsin has created a scientific knowledge system through adaptation in place.

Analysis

Regardless of removal, the Oneida community has continued to thrive. As of 2021, there are 17,282 enrolled tribal members; with 4,460 living on reservation, 3,404 living in nearby counties, 4,495 living in the state of Wisconsin, and 4,924 living out of state (Danforth, 2021). For those living on or near the reservation, we must acknowledge that we are facing a new challenge as it relates to the protection of our ancestral seeds in our new place. The Oneida reservation in Wisconsin is experiencing significant change to their climate, much like many Indigenous communities across the nation, however, this particular Indigenous community in the lower 48 states may be more prone to climate impacts in the immediate future. Wisconsin's climate is humid-continental, meaning that the state experiences 4 distinct seasons with cold winters and humid summers. The state's climate is modified, in part, due to their close proximity to the Great Lakes, particularly Lakes Michigan and Superior (Moran and Hopkins 2002, Veloz et al., 2012). According to a report published by the Environmental Law & Policy Center, the Great Lakes region is warming faster than the rest of the country. Wuebbles, et al. (2019) tell us the temperature of the Great Lakes basin has increased 1.6 degrees in annual mean temperature between 1985-2016 over the average temperature between 1901-1960. This is compared to a 1.2-

degree increase for the rest of the continental U.S. This trend is the same for precipitation in the Great Lakes area, with an increase of 10% in the region versus 4% nationally, from 1901 to 2015 (Wuebbles, et al., 2019). It is clear these warming patterns will continue across the Great Lakes region, further impacting the 4 distinct seasons in Wisconsin. We must understand what that means for our White Corn and other ancestral seeds.

Wisconsin's climate has become more and more unpredictable, causing issues for farmers across the state. Current climate studies show a significant change over the past 60 years specific to Wisconsin, making the state warmer and wetter than ever. Since 1950, Wisconsin has experienced an average temperature increase of 2.1°F and annual precipitation increase of 15% (WICCI, 2011).The Wisconsin Initiative on Climate Change Impact (WICCI), a project of the Nelson Institute for Environmental Studies at the University of Wisconsin-Madison and the Wisconsin Energy Department of Natural Resources, was developed to identify the state's climate change impacts and strategies for adaptation (Wisconsin Initiative on Climate Change Impacts, 2011). Using 14 different climate models and 3 different greenhouse gas projections, the WICCI's original climate projections estimate an annual temperature increase between 4-9°F by 2050. Specifically, for the Oneida reservation projections show between a 5.5-7°F increase (Wisconsin Initiative on Climate Change Impacts, 2011). These projections may seem minimal when thought of annually, however, the Oneida community has already begun to experience the effects of the warming temperatures.

In addition to the 4-5° increase in temperature, the state of Wisconsin can also expect to see the projected change in annual precipitation to increase by at least 5% by midcentury. This has increased the length of the growing season, leading to a shift in the plant hardiness zones since 1950 by up to four weeks in some parts of the state. While this can provide an opportunity

for new plants to be grown in the area, it presents additional management concerns for farmers that need to address new pests and diseases. A more disturbing trend may be that while Wisconsin is projected to see approximately 4° temperature increase in the summer months and 10% precipitation increase in the winter and spring months, there is no projected increase of precipitation in the summer for most of the state. When combined with the increased length of the growing season, wet springs and dry summers create an unstable environment for plants by increasing chances of waterlogged soils in spring, more opportunities for drought in summer, and more diseases and fungi with higher humidity (Wisconsin Initiative on Climate Change Impacts, 2011). This instability and unpredictability for corn growers has created additional stress to our community members that are already taking on the essential task of caring for our seeds.

Climate models have been created in an attempt to address the unpredictability of the climate in Wisconsin and help various areas, like agriculture, better prepare. The WICCI report was originally published in 2011 and updated in 2018 with small changes to the original data, the most significant change being the incorporation of the Representative Concentration Pathway (RCP) 4.5 scenario. RCP models, adopted by the Intergovernmental Panel on Climate Change (IPCC) in 2014, are used to help us understand how our climate could change over time by predicting how human activity influences radiative forcing (RF) of the climate system at the year of 2100 (Collins et al., 2013). Of the 4 scenarios, RCP4.5 models total RF stabilized shortly after 2100 by requiring a significant shift towards renewable energy, as well as a mixture of electric, gas, and bicycle transportation (Thomson et al., 2011). For their new projections, WICCI used the RCP4.5 greenhouse gas emissions stabilization scenario, which projects climate trends IF society limits carbon dioxide in the atmosphere to less than 40% higher than it is today. Under this new scenario, the WICCI projections indicate an increase of 4-5°F in annual average daily

temperature for Wisconsin by 2041-2060 (Trends and Projections - WICCI, n.d.). These numbers are lower than their previous projections because they reflect possible societal changes at a more localized level.

The issue with this scenario is it assumes that climate policies are created and followed to achieve their goal. Furthermore, current emissions put us closer to RCP8.5, which could be considered a no-policy climate world where our climate continues to warm and sea levels continue to rise at a rapid rate (van Vuuren et al., 2011). It may be dangerous to assume our society, as a whole, has the ability to make a change. Wildcat (2007) refers to this change as a "cultural climate change," meaning we need to shift our way of thinking towards a more sustainable lifestyle. He argues that we can complete this shift by acknowledging and enacting Indigenous Knowledge (IK) systems that honor a symbiotic relationship with the environment. For Indigenous communities it is important to address these changes at the community level because data suggests that these changes will continue to increase considerably, further endangering their people and their culture. It is now time to shift from living for instant gratification from the environment to living with meaningful gratitude for the environment.

Discussion

The Oneida community in Wisconsin has been enacting their ancestral knowledge systems, fostering resilience to climate change that is threatening the use of traditional methods of growing and harvesting Haudenosaunee White Corn, chronicled through years of oral tradition. One program that has taken on the difficult responsibility if caring for our Haudenosaunee White Corn is Oneida Nation's organic farm, Tsyunhehkw^, which means "it provides use life." While the community experienced a significant loss to their cultural way of living after their removal from New York to Wisconsin in the early 1800s, their roots to their

Haudenosaunee culture would not be so easily forgotten. Efforts made by tribal members like Vicki Cornelius, Artley Skenandore and many more, helped to reunite the Oneida community in Wisconsin with Haudenosaunee seeds preserved by a Tuscarora farm in New York in 1991, which led to the creation of the farm (Cornelius, 2012, Stevens & Brewer, 2019). This 83-acre farm is a tribally-operated entity; however, it is driven by the resiliency of this Haudenosaunee community, and is powered by a handful of dedicated staff. An important addition to the farm is the Oneida Cannery, managed by Jamie Betters, which is responsible for processing the entirety of the farm's corn to meet community demand. Today, the farm is managed by Kyle Wisneski, who calls himself "the luckiest man in the world" to be in his position.

In addition to the tribe's organic farm, there is another group in the community who have revitalized their responsibility to Haudenosaunee White Corn with the help of Haudenosaunee relatives in New York, as well as the Tsyunhehkw^ staff. This group of families started out as a collection of backyard growers, who have already been growing or who were interested in growing Haudenosaunee White Corn on a larger scale. Known as Ohe·láku, which means "among the cornstalks," this group has focused on sharing knowledge and incorporating language and culture into their gardening practices by inviting more families to engage with the group, holding their own husking bee, and hosting other Haudenosaunee and Indigenous groups (Stevens & Brewer, 2019). This group was born out of a mother and daughter's dream to provide for their community, Laura Manthe and Lea Ziese brought together eight families to care for the corn, help provide for the community, and continue to educate the next generation. Ohe·láku breaks up their responsibilities into teams allowing them to demonstrate their individual strengths for a collective power.

Tsyunhehkw^ and Ohe·láku are now caretakers of our Haudenosaunee seeds and have

taken on the responsibility with grace. It needs to be acknowledged that caring for our seeds is a labor-intensive process that requires many minds and many hands. Furthermore, they are caring for our seeds during a very delicate time, when climate shifts have begun impacting agriculture in the state of Wisconsin in significant ways. Corn growers on the reservation concur that every year our climate seems to be different, making small but significant changes each year that may aid or impede the corn growing process. One common trend they are both seeing is the increase of precipitation with each year, in line with the historical trends and future projections. Speaking to the unpredictable nature of the climate, Manthe recalled their harvest seasons varying with each year; one-year corn growers would be harvesting in great October weather, with the sun shining, shorts and t-shirt weather; then the next year they are harvesting in “rain boots and winter hats, with freezing hands" (Manthe, 2020). Wisneski (2021) added to this by saying he has noticed the longer growing season has benefited the farm so far, but realizes that this may contribute to ecosystem instability in the future.

Climate impacts were most apparent for the Ohe·láku group from 2018-2019 when the harvest numbers dropped significantly. During 2018 the group harvested 10,000 pounds of White corn and were able to distribute over 300 pounds to each member of the group. In a drastic turn, the late planting and a very wet fall season led to the group only harvesting 1,000 pounds and distributing 62 pounds per member in 2019 (Manthe, 2020). During the 2019 season, the Ohe·láku group was not able to plant their corn according to the Planting Moon, which is generally late May-early June, due to low temperatures and heavy precipitation. The group was faced with a cultural dilemma in whether they should continue to follow the moon cycle and plant in May or listen to the climate and wait. Ultimately, they did wait and were not able to get seeds into the ground until late June. The decision was not made lightly and led Rebecca

Webster, one of Ohe·láku's founding members, to question whether she was underestimating the seeds, which have proven to be resilient from generation to generation (Webster, 2020).

Tsyunhehkw^ had experienced a similar trend from 2018-2020, with the climate also changing their harvest numbers drastically. In 2018 the farm was able to harvest 23,500 pounds, making the year their best harvest to date. The next year, however, the farm's harvest dropped by nearly 20,000 to 3,750 pounds, due to the extremely wet climate in 2019 (Wisneski, 2021). Tsyunhehkw^ normally tries to plant on May 15th of each year, however, much like Ohe·láku the farm had to push back their planting time and did not plant until June. Wisneski also credits soil temperature for the delayed planting in 2019. For successful germination, soil temperatures need to reach 56°F and they just never quite made it (Wisneski, 2021). The farm had no choice but to risk planting and hoping for the best. In another dramatic turn, the farm estimated that their 2020 yield increased significantly to 17,000 pounds. Just like Ohe·láku, the farm continues to put their trust in the seeds. While both groups saw a drastic decrease in yield in 2019, they have both acknowledged that the corn proved to be resilient during a time of great uncertainty and will continue to provide.

Along with the increase in precipitation, the increase in temperature has led to drought conditions. During drought conditions, the rate of evapotranspiration increases, causing the leaves to roll and the stalks to turn yellow starting from the bottom. Evapotranspiration is the combination of water lost from the soil surface through evaporation and transpiration; as water is pulled from the soil, through the plant, and released through the leaves into the atmosphere (Kimball et al., 2016). These functions are occurring simultaneously, making the loss of water more stressful on the corn plant during drought. During a late drought, a potential result can be the bottom of the plant becoming too weak to support the increasing weight of large cobs at the

top of the plant and they will start to tip over. Manthe discussed this situation taking place in 2017 when the group had to conduct "search and rescue missions" to save the fallen corn. In some instances, the group had to dig the tops of the stalk out of the frozen ground with ice picks when temperatures dropped suddenly (Manthe, 2020).

Commercial corn growers in Wisconsin were impact in 2019 as well, though not nearly as drastic. While the state maintained their status as a leading corn producer in the nation, the state was also impacted by the wet conditions during the planting and harvesting seasons. In 2019, the state set a record for number of unplanted acres of corn and completed planting 18 days later than 2018, due to wet conditions (USDA-NASS Upper Midwest Region, n.d.). In addition, they witnessed the second slowest harvest pace in the last 40 years, also due to wet conditions (USDA-NASS Upper Midwest Region, n.d.). For our Oneida corn growers and Wisconsin commercial corn growers, we are seeing an increase of production for 2020 due to much dryer conditions. These trends indicate that this climate instability may continue to impact corn production year-to-year, therefore contributing to overall uncertainty in adaptation. Nonetheless, the Oneida corn growers push forward.

Adaptation

Through each removal attempt, some more successful than others, the Oneida community has shown their ability to adapt and thrive in their new environment. The first removal took them from their homelands and pushed them onto lands that were similar but disconnected them from their ancestral place and Haudenosaunee brothers and sisters. The second removal took their children from their homes and put them in boarding schools, some just down the road, forcing them to ignore their families, culture, and language. My great-grandmother told stories of her times at boarding school on the reservation when she would see her father ride by and neither

were able to acknowledge each other. The third removal attempted to discredit their very identities as Oneida people and painted them as a stereotypical mascot in a headdress, seen at so many Wisconsin schools. Oneida are still here today. Still proving to be a resilient nation. This section will briefly explore how the Oneida Nation has been applying traditional Haudenosaunee knowledge learned through their specific place-based struggles to adapt to climate and other modern impacts.

Increases in precipitation during fall has impacted traditional harvesting practices. During harvest, corn cobs are gathered, husked to the point where only 2 or 3 husks are remaining on the cob, then the cobs are braided together adding a new cob every strand, until you have a strong braid to be hung from the rafters to dry. This method allows the kernels to completely dry without molding and creates a beautiful site. Unfortunately, in past years, corn growers were having trouble with husks falling completely off the cob or not being strong enough to hold a braid. This led one member of the Ohe·láku group to develop new ways to dry the corn by creating several types of drying racks for the cobs. The method that proved to be most effective and still hold onto traditional ties was the creation of a hanging device. A long piece of wood, with nails drilled down 4 equal sides, allowed corn to be fastened to the board and still hung from the rafters. While not as appealing to the eye as a braid, it is a sign of resilience and connection to important Haudenosaunee knowledge.

Ohe·láku has been open to researching growing methods since their inception. The group has focused on attempting different methods to see what conditions best serve the seeds. These methods include the creation of a conventional field and a conservation field, where they use minimal to no-till with cover crop (Manthe, 2020). Because precipitation impacted the corn so much in 2019, the group decided to attempt a 10-acre field with mounded rows, using machinery

to create raised rows and hand-planting seeds. This would allow them to plant during their desired date but keep the seeds high, in case of excess rainfall. This method allowed for the Three Sisters, corn, beans, and squash to be planted together, similar to the Three Sisters individual mound method. Haudenosaunee traditionally practiced this mound method putting corn seeds in every mound, squash seeds in alternating hills, and beans between mounds (Mt. Pleasant, 2016; Parker, 1910; Stevens & Brewer, 2019). In this system, the beans take nitrogen from the air and deposit it into the soil for the other plants to use; the corn uses the nitrogen to grow a tall stalk that provides needed support for the bean's vines to climb, while the squash shades the ground with her large and unruly leaves, protecting the soil and repelling herbivores (Mt. Pleasant, 2006; Stevens & Brewer, 2019). While the group maintains their Haudenosaunee foundations and responsibility to the corn they also understand that adaptation is important in maintaining our ancestral seeds into the future.

Adapting the Three Sisters mound method was a useful plan to address the climate issues the group has experienced, though they did not anticipate a new hurdle that is not climate related. The Sandhill Crane has recently made a significant comeback after their population was nearly decimated in the 1960s due to habitat loss and development. While their population increase has been applauded due to protection efforts, their resurgence is proving detrimental to corn growers all over the state, as these omnivores are particularly accustomed to planted seeds and migrate to the area during germination (Smith, 2020). In 2013 alone, damages were estimated at $1.9 million for Wisconsin farmers. For the Oneida community, however, we are not losing money, we are losing relatives. The Sandhill Crane's beaks are perfectly formed to pick each seed out of the soil in germinating corn fields. This was the case for Ohe·láku's 10-acre mounded field, where the cranes picked out so many seeds that the whole field had to be replanted (Webster,

2021). Even after replanting, the field still suffered in yield. It is still unclear how this impact will be addressed in the future.

One important aspect of the Three Sister mound methods that is widely adapted by farmers today is the practice of burying fish scraps in the mound to fertilize the soil. Haudenosaunee have been using this method for generations to feed the soil and raise stronger sisters. Rather than burying thousands of fish in their soil, both corn groups have adopted the use of fish emulsion. The process of making fish emulsion involves cooking the by-products of cleaned fish at temperatures in excess of 180°F, filtering it, and stabilizing it with an acid (*Traditional Fertilizer, Modern Applications for Iroquois White Corn*, n.d.). It can then be sprayed directly onto the plant once it has reached the three-leaf stage, rather than buried into the soil. Both corn growers have experienced remarkable success with this practice over the years. While this has been a long-standing practice for Tsyunhehkw^, in recent years Wisneski has noticed a growing struggle with deciding when to spray the plants due to sporadic growing conditions (Wisneski, 2021). It is important to acknowledge that while these two corn growing groups have adapted the practice to meet the needs of their large fields, there are still many Oneida families in the area that utilize the traditional practice by catching their own fish and discarding remains to decay in their small gardens.

Oneida corn growers are also dedicated to utilizing lesser-known traditional methods to assist the corn from more pests, moving forward. One method they have long been devoted to is the use of the Mayapple as a natural insecticide. Mayapple is an umbrella-like wildflower that shows up every May in damp woodland areas. The method of soaking corn seeds in Mayapple tea has been used for generations by Haudenosaunee and other tribes to help soften the kernel of the seed and deter insects. The leaves and roots have toxic chemical compounds that are said to

repel insects, especially worms (*Mayapple (Podophyllum Peltatum)*, n.d.). This method is practiced traditionally by Ohe·láku, as they have remained devoted to soaking the seeds in the Mayapple tea before hand-planting seeds, unfortunately though it does not keep the Sandhill Crane away. Tsyunhehkw^ has adapted the traditional practice. Since the farm uses a seeder to plant their seeds, soaked seeds would stick to the machinery. So, rather than soaking seeds in Mayapple tea, someone walks behind the seeder and sprays the tea on the seeds as they are planted (Wisneski, 2021). This is another prime example of adapting traditional Haudenosaunee methods to meet modern needs.

Like some farmers, Tsyunhehkw^ is trying to look at the bright side of the changing climate and recognizing that it does provide some benefits. In 2020, Wisneski observed that the farm had little to no issues with the European corn borer and corn earworm, which he theorized may be due to the temperature fluctuations in the soils or a result of their crop rotation method (Wisneski, 2021). While saying that there have been no real positive consequences regarding the warming and wetter climate, Manthe recognized that our climate is there to teach us a lesson. Webster added to this concept by saying that these lessons can be viewed as a positive, because the community is being taught to be resilient through the resiliency of their ancestral seeds (Manthe, 2020; Webster, 2020). Good or bad, the unpredictable climate is teaching the community how to prepare for the changing seasons; it is telling them to be prepared, it is teaching them how to adapt, and it is teaching them to be resilient.

Further Discussion

It is important to acknowledge that at the beginning of this research a global pandemic would test the resilience of the Oneida community again. The respiratory illness SARS-COV-2 or more commonly known as, COVID-19, had made its way across the globe after first surfacing

in Wuhan, China in December 2019 (*Wisconsin COVID-19 Coronavirus Information*, 2021). This severe acute respiratory syndrome can easily spread from person-to-person through respiratory droplets when someone sneezes, coughs or talks. While some may become infected and not experience any symptoms, others will experience flu-like symptoms at a more severe rate, especially those with underlying health conditions (e.g. diabetes, heart disease, among others). On March 11, 2020 the World Health Organization declared COVID-19 to be a pandemic, the Oneida Nation quickly followed by declaring their own Public Health State of Emergency and Safer at Home Policy on March 12 (Oneida Nation, 2021). On March 13 President Trump declared a National Emergency, on March 18 Governor Tony Evers of Wisconsin mandated a statewide closure of all k-12 schools, and on March 24 he followed-up by issuing a Safer at Home order for the entire state (*Wisconsin COVID-19 Coronavirus Information*, 2021). The schools would remain closed for the remainder of the school year and, for some, stay closed into 2021.

While the community experienced loss in great numbers during this pandemic, what was important to this research is observing how the community would continue to keep their ancestral responsibility to White Corn during unprecedented times. So, what did this mean for the Oneida community? It meant that the Oneida community of Wisconsin had to exercise their resilience and adapt, once again. Corn growers on the reservation rely heavily on community participation during several stages of the agricultural process. In addition, Haudenosaunee ceremonies are directly tied to our agricultural cycle and require the community to be in close proximity during prayer and dance.

Laura Manthe of Ohe·láku acknowledged the difficulties that would come with the pandemic, strongly stating that the group would continue to plant and grow together with social

distancing measures in place, as suggested by the CDC. They were still able to gather in smaller groups outdoors to adhere to their responsibility to the corn and other plants by maintaining 6 feet distance and wearing masks during planning, planting, weeding, and harvesting. Manthe added that should a member of the group become sick, other members would continue to work for them because during stressful and uncertain times, it is important to lean on one another, as "we are in this together (Manthe, 2020)." As for Tsyunhehkw^, the farm employees used the same CDC recommendations to continue to plant and maintain their crops. The tribe required each employee to complete Covid-19 training in order to maintain operation of the tribe. In addition to their regular plots, the farm and cannery also partnered to keep the community garden operational. While the pandemic did limit community participation, farm and cannery employees still maintained the garden with some volunteer help through the summer. Because of this, the farm was able to pass out fresh and organic produce to tribal members throughout the summer months. The staff even labeled the contents in the Oneida language, while this may seem a small gesture, for tribal members it was a reminder of the spiritual connection we have to our plant relatives. During such unprecedented times, we have to be reminded of the role our food has played in sustaining our people, land, and culture once again.

Conclusion

While the community has not been able to gather in large groups during ceremonies, the community's spiritual leaders are maintaining our ceremonial responsibilities in small groups throughout the year. It is not just the act of gathering that needs to be considered, it is every aspect of ceremonies that contributes to the identities of the people. The smell of the wood burning in the air, the sound of singers as they fill their lungs with the songs, the feel of the floorboards bouncing beneath your feet when you dance, the taste of the corn soup at the end

when everyone ate and recapped the joy of the day. These are the memories many cling to when they remind themselves of why we stay home, why we wear masks, and why we must continue to be resilient. The Oneida Nation has proven to adapt in times of hardship and will continue to do so in the future. Oneida Science has proven to be a valuable tool in keeping ancient Haudenosaunee knowledge systems alive as well as preparing our seeds for an uncertain climate. We refuse to be vulnerable. The seeds are resilient, the people are resilient, the land is resilient, and the community is resilient. We will always find a way.

ROLES AND RESPONSIBILITIES: PROVIDING A SPACE FOR HAUDENOSAUNEE DECISION MAKING

Lois Stevens (Author) and Brandon Yellowbird-Stevens (Practitioner) Publishing in *Tribal Administration Handbook* (2021) edited by Rebecca Webster and Joseph Bauerkemper

Executive Summary

The Haudenosaunee are often credited for being the inspiration for the United States governmental structure when the constitution was first penned. The Great Law of the Haudenosaunee had governed the people long before European contact and while many factions of our initial colonizers sought to destroy our way of living and nearly succeeded, they understood that our structure was successful. The purpose of this chapter is to first discuss the Great Law and its importance to the Haudenosaunee people. Secondly, looking specifically at the Oneida Nation in Wisconsin this chapter briefly examines the tribe's government structure, focusing specifically on the psychological biases associated with the decision-making process of the General Tribal Council and how this has contributed to the weakening of Oneida's commitment to One Mind. Finally, we will discuss how restructuring the process in a safe space can revitalize the principles of the Great Law and develop decisions that best serve the people.

Best Practices

- Incorporation of Great Law principles for more efficient tribal operations
- Address psychological biases in the tribal member decision-making process
- Discontinue financial rewards for negative behaviors
- Adoption of Ancestral Knowledge Systems to outline the roles and responsibilities of all tribal members
- Provide a safe space for compassionate and effective community engagement

Introduction

Operational management refers to practices that create the highest level of efficiency possible within an organization. The Oneida Nation is grounded on the values of "a good mind, a good heart, and a strong fire." These values were born out of the Haudenosaunee Great Law; however, the tribe operates under a governmental structure that is foreign to our ancestral knowledge system. I was once told that the more you try to define sovereignty the more it is weakened. So, I will not try to define this term, but merely express that sovereignty is enacted every time we make a decision. Tribal operations management refers to the policy and procedure aspect of sovereignty; that is, how a nation addresses and responds to the decisions of our people. Therefore, this chapter looks at the core of the Oneida Nation's decision-making process to address how the current government structure may be obstructing growth due to the lack of our Great Law roles and responsibilities in place.

Three Principles of the Great Law

One of the oldest and most important stories told among the Haudenosaunee is the story of the Peacemaker and his powerful journey to unify the people during a time of great conflict. This story has been told to Haudenosaunee for generations, reminding us of our history, our responsibility, and the peace that once unified the original Five Nations of the Haudenosaunee. There are many variations of this long and complex story, as it was passed down through oral traditions. In addition to its complexity, there is no "official[4]" written version of the Great Law to reference and convey its true beauty in limited words is difficult. Nonetheless, this section will attempt to break down three guiding principles interpreted through the overall message of unity and outline the roles and responsibilities that were assigned to the people (*Official | Definition of Official by Lexico*, n.d.). These three principles are often presented using different terminology such

[4] For the purpose of this chapter, the definition of official is "having the approval or authorization of an authority or public body."

as; peace, power, equity, reason, health, good mind, righteousness, etc. so for the purpose of this chapter we will be using the terms Righteousness, Power, and Peace with Oneida translations:

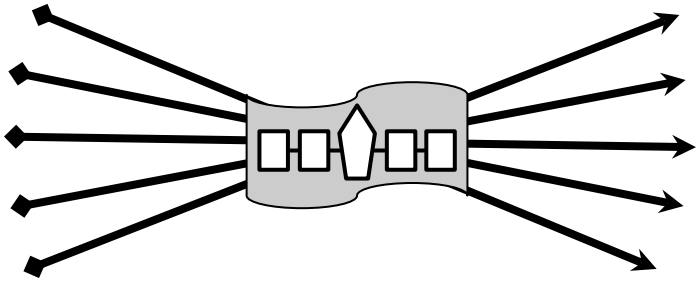
Kaʔnikuhli·yó – Righteousness

John Mohawk (1991) said righteousness refers to something akin to the shared ideology of the people using their purest and most unselfish minds. Kaʔnikuhli·yó translates to "the openness of the good spirit and mind" or "good mind" in Oneida. This principle tells us to put aside feelings of superiority, as we are all equal. This refers to relationships with all elements of the universe; human, animal, and nature. We are to exercise a reciprocal relationship so that all benefit.

Katsatstʌ́hslaʔ - Power

This principle refers to the power of those good minds to operate with reason and justice. We must use our minds to exercise a healthy path towards peace and to settle our differences without the use of force. Using five arrows to signify the power of unity, the Peacemaker referred to a single arrow being weak and easily broken, but when five arrows are tied together their collective strength cannot be broken (visually represented in Figure 6).

Figure 6: Strength in Unity



Source 6: Oneida Indian Nation, n.d.

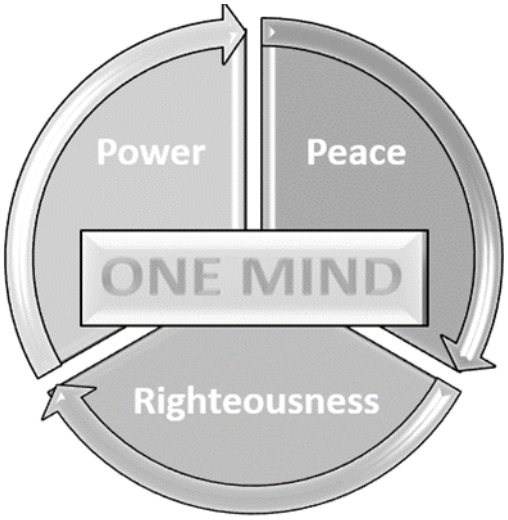
Skano – Peace

While this principle may be self-explanatory, it refers to peace among the people and an agreement to end fighting, bloodshed, and warfare. True unity means laying down your weapons and making decisions that best serve the collective. However, peace does not only mean the absence of war or violence. Peace also refers to our own internal or spiritual peace. Knowing ourselves and being able to peacefully engage in decision-making within the ideology of one

mind.

These principles began the unification of the Five Nations of the Haudenosaunee Confederacy, with Tuscarora joining later to form what is the Six Nations today. Another constant symbol is the circle,represented here by understanding that these three principles do not stand alone, but tied together in thiscyclical manner, continually complimenting each other through the pursuit of one mind (Figure 7).

Figure 7: Haudenosaunee One Mind Principles



Source 7: Mohawk & Barreiro, 2010

Oneida Nation

The Oneida Nation is the result of nearly two centuries of generational trauma founded on the displacement of traditional place and near abandonment of cultural self. Due to heavy Christian influence, the Oneida people were removed from their homelands in the state of New York to an area near what would become the city of Green Bay, Wisconsin. Christian influence meant this particular group of Oneidas abandoned much of their ceremonial and linguistic practices. This also meant the abandonment of Great Law ideology and adoption of hierarchical practices. Theirsituation was only aggravated with the Dawes Act of 1887, when allotments were created as a method to pulverize tribal land masses and led to the loss of 95% of Oneida land ownership (Hauptman & McLester, 2006). And even more so with Indian Reorganization Act of 1934, which stopped the allotment process but forced a mundane constitution, solidifying the loss of traditional Haudenosaunee governance (Webster, 2016).

Today, the tribe is governed by the Oneida Constitution, which was first adopted in 1936,

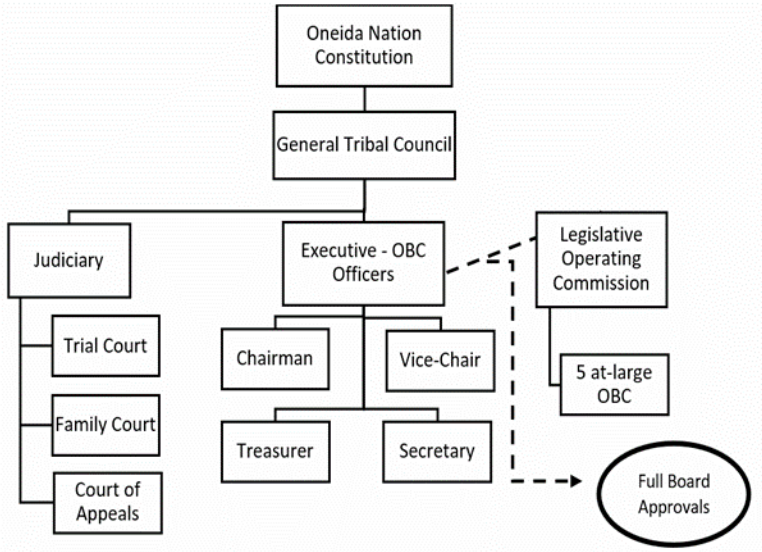
and states; “We, the people of the Oneida Nation, grateful to Almighty God for his fostering care, in order to reestablish our tribal organization, to conserve and develop our common resources and to promote the welfare of ourselves and our descendants, do hereby ordain and establish this Constitution (*CONSTITUTION AND BY-LAWS OF THE ONEIDA NATION*, 2015). The governing body of the Oneida Nation is referred to as the General Tribal Council (GTC) and is composed of all the qualified voters of the Oneida Nation, with all members 18 years and older being considered qualified voters (*CONSTITUTION AND BY-LAWS OF THE ONEIDA NATION*, 2015). The Oneida Business Committee (OBC) is an elected body of officials that govern the nation when the GTC is not in session and is made up of nine individuals.

Within the government structure, there are 3 branches; executive, legislative, and judiciary. The executive branch consists of the supervisory authority of the OBC officers (Chair, Vice-Chair, Treasurer, and Secretary). A subcommittee made of the 5 OBC at-large members is the Legislative Operating Committee (LOC), which represents the legislative body of the nation. The LOC was granted authority by the GTC through the Legislative Procedures Act with the purpose of drafting laws and policies and reviewing past and current laws (Oneida Nation, n.d.). Although new, being adopted in 2013, the judiciary operates as an independent branch of the Oneida Nation government entrusted by the General Tribal Council as a neutral forum for the resolution of government and civil issues on the Oneida Nation reservation (Oneida Nation, n.d.). The Oneida Nation’s current Chart of Organization honors the power of the people in the form of the General Tribal Council, yet lacks a proper separation of powers between executive and legislative. While the OBC members represent separate branches, neither can take independent actions without the full OBC approval (see Figure 8[5]).

[5] Figure 3: Chart of Organization. Chart is a general representation to illustrate lack of powers of separation, not all departments are listed.

According to the constitution, seventy-five (75) qualified voters shall constitute a quorum at any meeting of the GTC. In 2008, the Oneida Nation adopted the "General Tribal Council Meeting and Stipend Payment Policy," that requires the tribe to pay each eligible GTC member a $100.00 stipend for theirparticipation (*General Tribal Council Meeting and Stipend Payment Policy*, 2013). The original petition addressed the concern for low membership participation in meetings by offering compensation to members to cover costs associated with their attendance (Oneida Nation, 2007). While this petition effectively addressed the need for higher participation rates by tribal members, it also created an environment of negativity within the community. Currently, GTC meetings operate in a forum setting, with several OBC members sitting on a stage, with microphones below giving the community opportunity for discussion. There is also an "overflow" room, where the rest of the OBC officials sit in front of the individuals who could not fit in the large room. They watch the proceedings through live video feed but it can often be hard to hear the full context of the proceedings in this room. These conditions are not ideal for thoughtful decision-making.

Figure 8: Oneida Nation Chart of Organization



Source 8: In discussions with Tribal Officials

Psychology of Decision Making

In *Basic Call to Consciousness*, John Mohawk acknowledged the creation of the Great Law as the evolutionary recognition that "vertical hierarchy creates conflict," and to combat that

conflict, the Haudenosaunee dedicated themselves to a "complex organization of their society to function to prevent the rise internally of hierarchy (John Mohawk, 1991)." While Oneida Nation has given the power to the people, current governance has fostered the internal rise of hierarchy by perpetuating the negativity generated in the GTC meetings. This section will examine how the decision-making process associated with the GTC meetings has contributed to the rise of conflict among tribal members.

As individuals, we want to believe that we operate logically, yet our societal norms have much more influence on our decisions than we care to admit (Koger & Winter, 2010). Decisions are often motivated by the group, not the individual. Each of us has our own social reference group, a group of friends, family members, even neighbors; who inadvertently pressure us into conforming to their attitudes and beliefs, therefore maintaining the balance of said group (Koger & Winter, 2010). This social bias is readily on display at every GTC meeting held when and our votes are influenced by our closest family members and friends. This happens because there is a vast amount of information for us to process in a short amount of time, so we actually fail to do so and cast a vote that makes us most comfortable. At this point, we are not operating logically but aligning ourselves with the norms of your closest reference group.

In addition, those of us who may acknowledge that this is an accurate description of our decision-making process at GTC meetings, we may still be making psychological arguments in our heads that serve our own ego. Cognitive dissonance is the unsettling feeling that the world does not fit because we are trying to reconcile two or more contradictory beliefs or values in our minds and this may result in us painting a prettier picture of ourselves than is created by our actions (Lappé, 2013). For instance, as human beings we have a tendency to judge those who do not hold the same beliefs as ourselves. Therefore, when we witness others that are voting with

their reference groups or verbally supporting other reference groups we are quick to judge them for their fealty to that group and label them as the bad ones or the followers. We rationalize our decisions by defending the character of the elected officials or enrolled individuals within our reference groups. We are then judging others while letting ourselves off the hook because it is more consistent with our self-image. In an effort to reduce these contradictory beliefs we opt for a self-serving bias that holds ourselves in higher esteem than others (Koger & Winter, 2010; Stevens, 2014).

Even when we have all the information and we acknowledge dissonance, it may still not be enough to respond logically. Regardless of how much information we possess, we are still faced with the limited amount of time to process that information coupled with the limited choices given (yay, nay, or abstain), therefore information alone does not change our behavior on a rational level. Operant conditioning states that a favorable consequence from a past act imprints itself in our minds, while a punishment associated with that action stamps it out of our minds (Koger & Winter, 2010). While this paper does not recommend punishment, it is merely pointing out that in our current governmental structure, tribal members are consistently rewarded financially for their participation in the GTC meetings, no matter how much, how little, or even how negative that participation is. Therefore, those actions are imprinted in their minds. The good minds that are in attendance are poisoned by this negativity, leading to feelings of anger, resentment, and hopelessness.

This negativity is synonymous with Oneida Nation's GTC meetings when a tribal member can ignite anger with a microphone in a room full of unrest or with a simple social media post. While social media is a great communication tool, it can also create negativity when we have a platform at their fingertips. The creation of a Facebook group for Oneida Nation

members has the potential to be an online space for members to discuss current tribal issues and help develop strategies for change; however, this particular group has fostered negative emotions amongst the community. Attacking members of the OBC, tribal employees, and other community members because of their beliefs, actions, or familial ties has been a consistent trend. Kristofferson et. al. refers to the notion that once an individual has felt they have made a positive impression on a social media audience, they are less willing to engage again for the same cause. Meaning these quick online "actions" address our personal satisfaction, therefore, disrupting actual offline participation (Kende et al., 2015). So then, not only does this create feelings of unrest in the community, it could also contribute to community inaction in relevant settings. There must be a safer process.

Restructuring the GTC Process

The GTC Petition that called for the $100.00 had originally included an initial step towards bettering the GTC function, it requested the "establishment of an office of General Tribal Council to review/monitor all aspects of tribal operations." This office would consist of one individual to review issues requested by the GTC; taking assignments from GTC and reporting information directly to the GTC (Oneida Nation, 2007). The petition was headed in the right direction, there is a need for improvement in how the current GTC functions and there is a need for better processing of vast amounts of information entrusted to the GTC. The issues addressed in the original petition were valid, however, one major issue is it wanted to put this power into the hands of one person rather than into the hands of the community. For the community to better process information, it would be more beneficial for this information to be disseminated into smaller grouping/agendas that can be reviewed, discussed, and monitored by tribal members.

Perhaps the adoption of our complex clan system into the GTC structure would address this current issue in Oneida governance. Within the Oneida Nation clan system, each tribal member belongs to either the turtle, bear, or wolf clan and each clan has roles and responsibilities they must fulfill within the nation, as a whole. The role of the Wolf Clan is to be the Pathfinders and guide the people to live the way of life the Creator intended; the Bear Clan are the Keepers of Medicine, known as healers with the knowledge of medicinal plants; and the Turtle Clan are the Keepers of the Knowledge, who represent all of the environment and the cycles of the moon. Within a meeting setting, the clan system operates by breaking up responsibilities in a cyclical manner for each clan to develop a consensus. The responsibilities are as follows:

1. The Wolf Clan receives the issues, sets an agenda, and then sends the agenda to the Turtle Clan.
2. The Turtle Clan researches necessary topics and concerns according to the agenda and then sends the information to the Bear Clan.
3. The Bear Clan reviews the information and makes recommendations that establish a dialogue between the Turtles and Bears.
4. The two clans send a unified recommendation to the Wolf Clan, who then details additional concerns or ratifies the decision by establishing full consensus, and thecircle is complete (Oneida Nation, 2018).

The sole purpose of this system is to establish a decision-making process where all come to one mind and all are in agreement (Brown, 2013).

Safe Space for Community Action

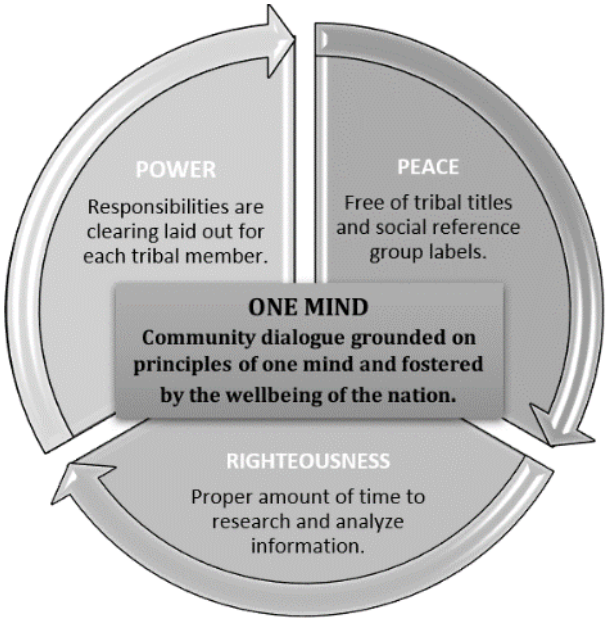
So then, we are faced with the true challenge in applying this ancestral knowledge system to our current government structure. Understanding how to bring our minds together as one is the first step, the next step is developing spaces where the community can make unbiased and

thoughtful decisions. During times of uncertainty, recognizing our shared values and aligning our decision-making process creates a safe space for discussion. This section proposes the creation of a safe space for such dialogue. Cree philosopher Willie Ermine refers to this as an ethical space; a place between two worldviews that offers the potential for new models of research and knowledge production co-developed through respect, yet guided by a community's past (Ermine, 2018; Bannister, 2018). We have already acknowledged Oneida Nation's place-based struggles that separated them from other Haudenosaunee Nations, for this reason, adopting the Great Law into governance will not be an easy task. However, providing the Oneida community with a safe space (separate from the OBC and other governmental structures) to research issues concerning the tribe will help the people take that first step in returning to one mind by developing viable solutions not heavily influenced by their reference groups.

When tribal members are broken into their reference groups they forget their place in the community as a whole. Bringing them together where they are giving and receiving support from other tribal members may rebuild that sense of community that was lost. But this space is much more than a shared concept, it can be a physical meeting place. The Indigenous Gathering Place Committee out of Canada brought this idea into fruition by creating an ethical space as a place where everyone can: "explore ideas, aspirations, and thoughts, and reconnect with traditions, protocols, and practices to define a new future and preserve the unique perspectives, cultures, language and ways of knowing and doing (Aaron Aubin Consulting Inc., n.d.)." Such places allow for a safe environment where people feel respected and valued through the expression of their shared place. Developing a sense of control over the whole process by exercising their voice in smaller settings within their outlined clan responsibilities allows their voice to be heard in a constructive manner.

The creation of an Oneida Nation Research Center would serve this need for a safe and ethical space by providing the community with a physical place to meet, explore ideas, researchproblems/solutions, and feel welcome regardless of reference groups or familial ties. This centerwould fit into the three principles of the Great Law and provide needed change for the GTC process for the following reasons (see figure 9):

Figure 9: Practice of One Mind in a Safe Space



Source 9: Author interpretation

1. Roles and responsibilities are clearly laid out for each tribal member.
2. Proper amount of time to research andanalyze information.
3. Free of tribal titles and socialreference group labels.
4. Creation of dialogue grounded on principles of one mind and fostered bythe wellbeing of the nation.

Conclusion – Next Steps

According to the Haudenosaunee clansystem, the people were entrusted long ago with research responsibilities to best serve thecommunity as a whole. The creation of these safe spaces is essential for all Indigenous communities, this chapter goes further in suggesting that the creation of a physical place for the Oneida Nation would assist in adopting the principles of the Great Law by helpingthe community fulfill their clan responsibilities outside of the OBC and GTC influence. Movingforward, the Oneida community must think of the next seven generations and how we will leavethis earth in a better state for their survival. The people have much work to do, however, if our history has taught us anything, it is that we are a resilient People. We will continue to this resilience by revitalizing our true Haudenosaunee selves by first putting our

minds together as one, then exercising our inherent role as researchers, and finally accepting our responsibility to make decisions that demonstrate Peace, Power, and Righteousness for our community.

Practitioners Notes: Brandon Yellowbird-Stevens, Vice-Chairman, Oneida Nation

In the current state of the GTC, it is paramount to provide a safe environment for every GTC member to participate in their government. Transitioning to a traditional system may be uncomfortable and take time, however, we should consider the time it took for us to lose our knowledge of that system to begin with. Only when our own biases, on all levels, are set aside can a true One Mind be possible. One Mind decision making creates an environment where all ideas are thoroughly vetted through a traditional process. While a similar process does exist now, one where each member has a chance to share their ideas, the current environment does not provide a setting conducive to openness, while being void of negativity. Since the inception of the $100 GTC stipend in 2007, there has been a significant increase in attendance, but not an equally significant increase in valuable participation. In the years previous to 2007, there were 11 meetings per year with an average of 102 members in attendance. Post GTC Stipend, the average attendance rate has easily surpassed 1,000 members per meeting, however, the number of actual participants in the meetings are still drastically low. From 2013-2020, the Oneida Nation spent $10.2M on GTC stipends alone. This practice needs to change. The goal should be to propose how ideas are first accepted, then nurtured with thoughtful consideration through our traditional way. This process of introducing a new, yet traditional, structure would be best done in a slow manner and broken into many steps. With careful attention to detail, communication, and listening to the story of our history will we unwind generations of deliberate disconnection and return to our ways brought back to us by the Peacemaker.

CONCLUSION

During my dissertation process, I decided to move home to Wisconsin because I needed to fully understand and appreciate the knowledge systems I would be writing about. To do so, I had to revitalize Haudenosaunee relationships and responsibilities within myself and my home. I had to be among my human and non-human relatives and contribute to my community in an intentional manner. It was also my responsibility to allow my daughters the opportunity to grow up surrounded by their language and culture, just as I did. Shortly after moving home, a couple of occurrences impacted my research process. First, the Covid-19 pandemic began in March of 2020, putting a halt to all community gatherings and in-person interviews. This directly impacted my research plan; however, the experience strengthened my appreciation for my community's knowledge and their ability to continue sharing regardless of this pandemic. Second, I began my position as Assistant Professor of First Nations Studies and First Nations Education Doctoral Program at the University of Wisconsin, Green Bay. This indirectly impacted my research because it took up much of my time to prepare and teach at the university-level, especially when all universities are trying to adjust to teaching during a pandemic.

This research has given me a better understanding of how our climate has impacted our ancestral seeds and agricultural practices. It has also given me a greater appreciation for our Mother Earth and how she is speaking to us through these climate patterns. In addition, it has motivated me to call upon our tribal leaders to address the current negativity in our government structure and begin planning for necessary change in our GTC decision-making process. Moving forward, I have personally devoted myself to growing some of my ancestral seeds, repairing relationships within my community, and revitalizing my linguistic practices. Professionally, I plan to continue my studies of the climate and its impact on our community, so that we may

develop more ways to heal the environment. I also hope to study how the revitalization of our traditional Haudenosaunee roles and responsibilities can have a positive impact on generational healing in our community.

In my move home, I have realized many things. Our community is not perfect, our people struggle, they abuse, they corrupt, they are far from perfect. Our government is not perfect, it is influenced by an oppressive system that does not properly encourage community participation and valuable change. Our climate is not perfect, our Mother Earth is telling us it is time to change; to adapt. We are not perfect, however, when faced with adversity, our community has the ability to come together and lift each other up. We have faced several hardships in these most recent years; the opioid epidemic, Covid-19, police shooting, public shooting, among others. Yet, since I have returned I have witnessed our community stand up and support each other over and over again and I am proud that my family is now a part of those acts of resilience. I am proud to stand with my relatives, human and nonhuman, as we face the future with all the knowledge we have gained and devote ourselves to One Mind so we can leave behind a better world for the next generation. As an Indigenous mother to this next generation, I hope that my children can continue to develop new knowledge in their new place.

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