Natural Restoration and Cultural Knowledge of the Yakama Nation

By
Emily Washines and Jerry Peltier[1]

Figure 1 - Beadwork by Stella Washines, photo by Emily Washines

Abstract

After a 70 year absence, the wapato (potato) returned to the reservation of The Confederated Tribes and Bands of the Yakama Nation (Yakama Nation). As a result of agricultural diversion, the water table was lowered and an imbalance in nature occurred. A shift in nature also contributed to a shift in the cultural foods and plants available. As students work through Part I of this case they will learn about the Yakama Nation and evaluate eating lifestyles. Student groups will be assigned one of the key roles of land restoration. Each group will create a storyboard to visually tell the actions of their respective role. In Part II of the case, students will explore the cultural knowledge of natural restoration and cultural foods. A video "The Return of the Wapato," accompanies this case. This case provides an opportunity to learn how the Yakama Nation restores tribal land areas to historical use and ultimately protects the resources for those not yet born.

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Part I: Historical Overview of the Yakama Nation

By
Emily Washines and Jerry Peltier

Long before the Europeans arrived to the American continent, the tribes were the farmers of nature. The Native peoples practiced long held beliefs in relation to fishing, hunting, gathering, and farming in ways that would ensure the continuance of resources through time. Before the arrival of Europeans, the Yakama were one of several tribes who lived on the Columbia Plateau of what is today Idaho, Oregon and Washington. Their economy was based on fishing, hunting, gathering, and intertribal trading of such items as fish, woven baskets, oil, white talc, basketry, skins, furs, dogs and horses (NWtravel Magazine, 2009).

With the changing of the seasons, the Yakama people would travel to different parts of the plateau to hunt, gather and trade. During the winter, the people would live in villages of tule-mat lodges along interior rivers, where they subsisted on dried foods. In early spring they traveled to root grounds where they camped and traded with neighboring Tribes. During late spring to early summer, the salmon would begin to travel up the Columbia River where the Yakama would move to the lower Columbia to catch and preserve the fish. In late summer to early fall, they traveled into the Cascade Mountains to pick berries and hunt while drying their provisions for winter. Due to their strong connection to the land, they utilized their traditional religious ceremonies of the Washat (sometimes called the Seven Drum Religion or Longhouse Religion) to pray and give thanks for the changing of the seasons and the arrival of new food sources (NWtravel Magazine, 2009).

Yakama Treaty of 1855

Originally, the people of the Confederated Tribes and Bands of the Yakama Nation resided on almost a third of what is now the state of Washington on some 11.8 million acres. They are the descendents of 14 tribes: Yakama, Palouse, Pisquouse, Wenatshapam, Klikatat, Klinquit, Kow-was-say-ee, Li-ay-was, Skin-pah, Wish-ham, Shyiks, Ochechotes, Kah-milt-pay, and Se-ap-cat. The Fourteen Tribes became federally recognized under the Yakama Treaty of 1855 where they ceded some 11.5 million acres to the U.S. government. The Yakama people reserved the right to hunt, fish, and gather roots and berries within all usual and accustomed places (NWtravel Magazine, 2009). The Treaty of 1855, between the Unites States and the Yakama Nation stipulated the following:

> The exclusive right of taking fish in all the streams, where running through or bordering said reservation, is further secured to said confederated tribes and bands of Indians, as also the right of taking fish at all usual and accustomed places, in common with the citizens of the Territory, and of erecting temporary buildings for curing them: together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land. (Hunn, Article III, p. 365, ¶ 2, 1990)

Historical Perspective: Native Peoples of the Americas and Agriculture

Since the beginning of time, the Indigenous peoples of what is now the Americas lived off the land. Many were healthy and flourished from the diverse diets they were accustomed to consuming. Before the arrival of the foreign invaders the Native populations practiced various forms of agriculture. For example, the Peruvians were very great agriculturists, understanding exactly which plant could grow in what condition, during what time and what altitude. They grew many potato variations that included those of different color: whites, reds, purples, browns, oranges and yellows, which included an assortment of sizes and textures. The potato has been cultivated for at least four thousand years, and has grown in the wild throughout the Americas (Weatherford, 1988).

Before the arrival of Europeans, American Indians had hundreds of cultural foods to harvest and gather. With the arrival of Europeans, we have long suffered at the hands of those that did not, nor do not care to believe in most of our cultural foods. For example, the federal government in the hope of controlling the American Indian decimated the great buffalo herds that had at one time lived free to roam across the Great Plains; along with the buffalo, many of our practices of growing, gathering, and harvesting of cultural staples were pushed aside for what was deemed as progress. In the end, we the Native people of the Americas would give to the world three-fifths of all the crops being cultivated today (Weatherford, 1988).

The *Sagittaria latifolia* or more commonly known to the Native people as the wapato (potato), once thrived on the land of the Yakama people. Wapato (potato) provided carbohydrates to the diet of the community. The range of the wapato is very diverse in nature, from the Pacific Northwest, down to the Southwest, up to the North into Canada, and East to the lands of the Anishinabe where these wapato (potato) were either boiled for an easy meal or hung to dry for later usage (Stevens, 2003).

Reservation Life

Once the Yakama people were moved onto the reservation, agents forced them to grow crops; yet, many resisted and continued to fish, hunt, and gather. During this time, the Yakama increasingly lost access to hunting, fishing, roots and berry grounds where non-native people started farms and ranches on ceded lands. Currently the 1,377,034-acre reservation is located in South-central Washington, along the eastern slopes of the Cascade Mountain Range (NWtravel Magazine, 2009).

By the early 1900s, nearly all tillable acreage was purchased out of the hands of the Yakama people. On lands purchased during the Allotment Era, the towns of Toppenish and Wapato were established. State, county and federal governments pushed for and promoted development that included railroad and road construction through Yakama territory. Non-native people wanting to restrict the movement of the Yakama people on the Columbia Plateau and on their lands sought official intervention thus further limiting their cultural practices of gathering (NWtravel Magazine, 2009).

The Health of Indigenous Nations

Exactly what does this change represent to the American Indian and Alaska Native today? Everything, our culture, our traditions, our lives and the future of Native people everywhere. Instead of using our traditions of hunting, fishing, gathering, growing and harvesting our own cultural staples in our traditional customs, we live a sedentary life style and drive down the road to the nearest fast food restaurant. We gave the world three-fifths of the edible crops and in turn, the world gave us fast food, microwaves and the 10 minute over-processed meal (Weatherford, 1988).

The forced change in lifestyle and eating habits has afflicted our Native people with a higher than normal prevalence of heart disease and diabetes as well as other health issues.

	AI/AN Rate 2000-2002	**U.S. All Races Rate – 2001**	**Ratio: AI/AN To U.S. All Races**	**AI/AN Rate 1996-1998**	**U.S. All Races Rates -1997**	**Ratio: AI/AN To U.S. All Races**
ALL CAUSES	1039.9	854.5	1.2	1070.8	888.5	1.2
Alcohol induced	42.1	6.9	6.1	45.0	7.3	6.2
Breast Cancer	16.5	26.0	0.6	19.8	28.9	0.7
Cerebrovascular	59.9	57.9	1.0	62.8	65.6	1.0
Cervical Cancer	4.5	1.4	3.2	5.2	3.2	1.6
Diabetes	73.2	25.3	2.9	77.8	24.2	3.2
Heart Disease	236.2	247.8	1.0	272.4	278.1	1.0

Figure 2 - Statistical Breakdown of Mortality Rates: Comparing AIAN to all races in the U.S. (Durkin, 2006)

Native people and Diabetes

We have witnessed what the Native peoples of the Americas gave to the population of the world, and in return they gave us fast food, a sedentary lifestyle and a higher than normal occurrence of diabetes. Various programming has been developed aimed at preventing and treating diabetes and at educating Native people. In 2004, Congress directed the Indian Health Service (IHS) to have more specific Diabetes Programs. These are five year grants that fund projects for prevention and the reduction of diabetic related diseases in American Indians. This IHS program funded 36 urban Indian health programs, Tribal organizations and Healthy Heart Demonstration Projects between 2004 and 2008, with $27.4 million per year. The success of these programs has guaranteed their funding through 2011. What has been touted as one of the key elements to the successful nature of these programs is that they emphasize local programming and priorities. Just as important to the local needs, these programs have helped reduce the level of blood glucose in Native communities by over one percent. The amount of money allocated to these kinds of programs has risen to $150 million per year; funding about 333 community programs, 36 diabetes prevention programs and 30 healthy heart programs (Austin, 2009).

The Special Diabetes Program for Indians Healthy Heart Demonstration Project at the Yakama Indian Health Service employs certain programming designed to get Native people moving. Part of the curriculum designed to foster a healthier lifestyle is the weekly Dance Away Diabetes class where diabetes and healthy snacks are on the agenda. The program employs community members to develop appropriate materials relevant to the people (Indian health service, 2010). Additionally, the Yakama Nation allows employees the option to have an hour and a half lunch to exercise at the Yakama Nation Diabetes Program.

There are a number of diabetes programs targeting AIAN populations in the U.S. One such program is located in Minneapolis, Minnesota called The Full Circle Diabetes Program. The significant difference of this program is that it takes the unique needs of the Native populations and then builds upon them to foster healthier lifestyles. It's a holistic approach to empower the American Indian participants; this strategy utilizes a number of culturally relevant programs. Programs that target four dimensions: body, spirit, mind and emotion. This holistic approach utilizes a circular model (Ramos, 2010). One of the many goals of diabetes programming is the need to help direct people with the disease towards healthier eating habits. The overall goal should be to foster more meaningful relationships between people populations and cultural foods.

Health Disparities

In the U.S. there are more than 560 federally recognized American Indian and Alaska Native Tribes. According to the bridged 2000 census, there are approximately 3.3 million individuals claiming Native ancestry residing in 35 states. Of those, 55 percent rely on 49 IHS hospitals or the nearly 600 IHS facilities. When compared to other ethnicities, Native people have experienced a lower status, lower life expectancy and disproportionate occurrence of disease. There are those that equate these lopsided disparities to inadequate education, poverty, cultural differences, and health service discrimination. When we compare health characteristics of the American Indian and Alaska Native to other races, it becomes obviously clear that something needs to be done to prevent the further demise of a proud people (Eliminate health disparities, 2002).

However so, there are other real differences between AIAN populations and all other U.S. populations. This dissimilarity is attributed to a higher proportion living in rural areas and a younger median age due to higher mortality. What exactly does that mean? Although there are many forms of medical care on or around these rural areas, the cost of health care is staggering. Rural areas would tend to suggest lower health care costs. This is not the case in Native communities, especially due to the higher incidence of disease and other medical conditions; these have the opposite affects and raise the actual costs of health care in these communities. (Eliminate health disparities, 2002).

Below in Figure 3, when we compare the causes of death for American Indian and Alaska Native populations to all other races, the death from diabetes is close to 200% higher than normal when compared to all other races in the United States between the years 2000-2002.

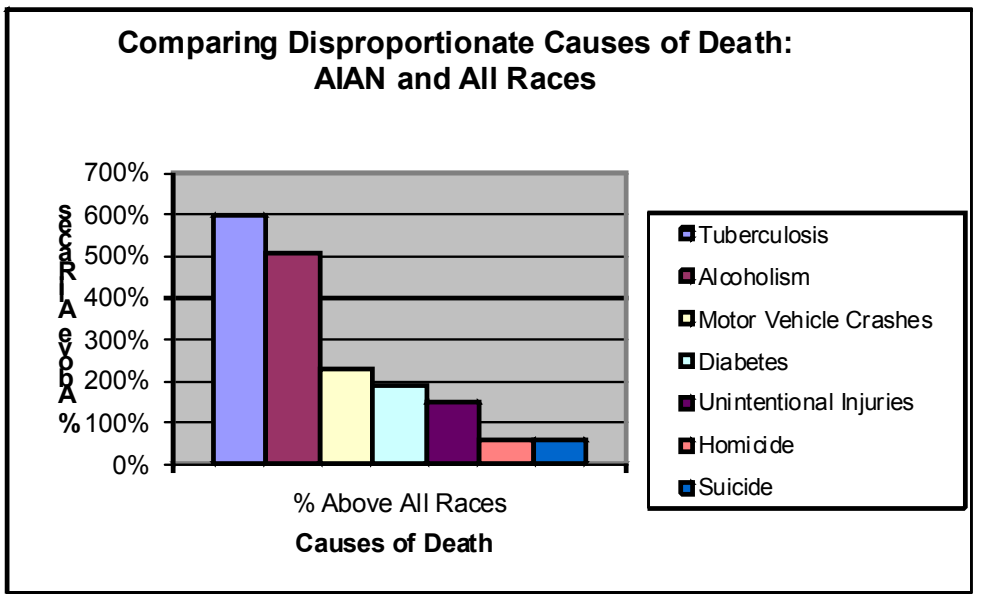

Figure 3 - Comparing Disproportionate Causes of Death **(Eliminate health disparities, 2002)**

The discussion concerning health disparities of Native people usually revolves around inadequacies of health coverage. It is also about whether to emphasize prevention vs treatment. Of course concerns about the inadequacies of coverage are significant, since the appropriated funding of Indian Health Services (HIS) only covers 55% of the necessary health services for American Indian and Alaska Natives (Eliminate health disparities, 2002). Could a change in IHS be part of the solution? Most definitely so, especially if the IHS system were more fully funded together with monies that target other healthy priorities, the possible outcome could be lowering diabetes and other deadly diseases. In other words, if more Indian Nations were to target cultural foods as a means to a healthier lifestyle, the need to visit area hospitals could drastically decrease. This is not to say that all deadly diseases can be cured if Native populations incorporated more culturally significant harvestable foods, but the possibilities do exist to decrease the mortality rates for AIAN populations.

With the changes in diet and changes in the land structures how can the Yakama Nation deal with the diabetes issue and ensure that their cultural foods are available and utilized?

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Part II: Natural Restoration and Cultural Knowledge

By Emily Washines

Cultural Knowledge

My earliest eating memories are of sitting at the table at the Satus Shaker Church on the Yakama Reservation. My *ala*, my paternal grandmother, would begin with a prayer for the food we would eat. As she prayed and sang with other members of the church, food would be brought out. Each food item was and continues to be brought out in a specific order. I would sit next to my sister and father and we would watch the food be placed on the table in front of us. When the food was all set out we would wait for another prayer, then we would "*choosh*," drink water. After this, we would begin eating. During this time people would speak about the food or make other announcements. Sometimes, my sister and I would listen to my father speak with relatives or he would tell us about the food in front of us. During this time, we were told to take care of the foods and they would take care of us. In that time, I also learned that our cultural food could be hard to find. I would later learn the term *scarcity*. My mind wondered about the differences of these cultural foods and the foods bought in stores. As I grew older I learned that the food sold in stores was different than the food our own people have gathered. I also learned that one of our important cultural foods had gone away from our reservation. That food was the Wapato (potato).

Many years later the tribe would move to restore the land to historical uses and I would follow this important step with my daughter. I decided to make a video about the restoration project. In that process I had much to learn.

Overview of Land Restoration

In the 1970s, Yakama Nation Tribal Council members made decisions to restore land within the reservation. This decision may seem straightforward, however the factors making this a difficult decision were at the time were allocating funding for court room battles. Mitigation funds came as a result of the Yakama Nation demonstrating how dam ruined natural restoration within the ceded area. This decision making in the 1970s had a direct effect on the Zimmerman Property restoration project twenty years later.

Long-term planning for wetlands restoration matters to the Yakama Nation because it means that lands are returned to their historical use. The Bonneville Power Administration (BPA) changed the historical environment. The recent change is due to the Yakama Nation using BPA mitigation funds to purchase lands within the Yakama Nation. The Yakama Nation Wildlife Wetlands Restoration Riparian Project then worked to restore the land to historical use. Returning the land to historical use was a goal for the tribe in their court battles. "With no known Tribal precedent set for such a project of this scale, the implementation of scientific

methods in partnership with the knowledge of tribal elders was virtually unheard of" (J. Shellenberger, personal interview. May 10, 2010). Additionally, the Wapato and wetlands restoration shows the National Environmental Policy Act process in the works because wetlands benefit fish habitat by providing a cooler environment for spawning. The Wetlands Project started in the early 1990s and Zimmerman property was also purchased in the early 1990s. The Zimmerman Property is located within the Yakama Nation on South Lateral A and Marion Drain. It consists of 400 acres and is managed by the Yakama Nation Wildlife Wetlands Riparian Restoration Project. "Intensive agriculture had been the proscribed land use for over 80 years and included water diversion from Toppenish Creek in order to irrigate land…for crops. The manipulation of land and water left the tract in an unnatural state where native vegetation was stifled by agricultural activities" At the time of purchase the land was a wheat field. See figure 4 below. Today, the land is lush with natural plants and medicine. See figure 5 below. (J. Shellenberger, personal interview, May 10, 2010).

Figure 4 - Zimmerman Property 1980's, Picture Provided by Yakama Nation Wildlife Program

Figure 5 - Zimmerman Property today, Photo taken by Emily Washines

Emily's Account of Zimmerman Property

On the drive out to the property, you notice the farmland that is adjacent to the land. There are hops growing and other agricultural land. Nearby, there are also pasture land areas with cows. Across the street from the Zimmerman Property is a Yakama Nation Fisheries. Once I saw the adjacent agriculture lands, Yakama Nation Fisheries, and the Yakama Nation Wildlife Zimmerman property, the impact of the Allotment Era which divided up the properties among landowners was evident. A fractionated reservation land base makes natural restoration difficult , but the Yakama Nation Wildlife was able to carry out such an endeavor. The Yakama Nation Wildlife has locked gates on the Zimmerman property. I was able to coordinate a trip through the property because my husband, Jon Shellenberger, works at Yakama Nation Wildlife. The first time I got out of the car I saw a blue heron flying. See figure 6. What I also witnessed was lush green areas with water flowing in selected areas. This was a result of bringing water to the area again.

The Yakama Nation Wetlands Riparian Restoration Project uses rock grade-control structures that operates much like a beaver dam. Beaver dams used to be prominent on the Toppenish Creek and within the Zimmerman property. A basalt rock grade-control structure has a notch to allow for fish passage. There are three grade control structures within the Zimmerman property.

> The outcome of this was unexpected as historic stands of tule (*Scirpus acutus*) and wapato (*Sagittaria latifolia*) arose from the ground naturally without a seed planted. Today the Zimmerman Property produces one of the best stands of tule and wapato in the Yakima Valley and is annually open for tribal member harvest. Beavers have reestablished dams on the property. "The various restoration activities that have taken place…have produced results no one could have imagined; the ecological benefits of which staff are still learning. Fundamentally, these ecological relationships have been part of Yakama culture since time immemorial (J.Shellenberger, personal interview, May 10, 2010).

Return of the Wapato (potato) on Zimmerman Property

Johnson Meninick Director of the Yakama Nation Cultural Resources Program and former Yakama Nation Tribal Councilmember in the 1970's was interviewed. When asked about the decision to purchase lands within the reservation and the result of the return of the wapato, Johnson Meninick indicated that the goal was to get back natural plants. He indicated his grandmother's home on Lateral C, the Meninick home, was three miles west of the Zimmerman property. He indicated that as a child, his grandmother brought home Wapato (potato). This was different that the high country Indian potato called anipásh (Yakama Ichishkíin language). He agreed that the return of the Wapato (potato) was an unknown benefit. Regarding plants and cultural foods Johnson believes that we must, "Take care of them, they become a light in your life. Young kids take heed to it, it will help you. If you take care of these foods you will walk strong, live strong. That's going to save your life in the future" (J. Meninick, personal interview, May 24, 2010).

Figure 6 – "An interdisciplinary approach was applied and included a team of wildlife biologists, archaeologists, geomorphologists, engineers, and tribal cultural resources specialists to create a management plan….this included the placement of basalt rock grade-control structures…that would emulate the role of beaver dams…by lifting Toppenish Creek up, resulting in the rise of the water table."

- *Jon Shellenberger, Yakama Nation Wildlife Archeologist and Special Projects Manager (J. Shellenberger Personal Interview, May 3, 2010)*

Figure 6 - Rock Grade Control Structure, photo taken by Emily Washines

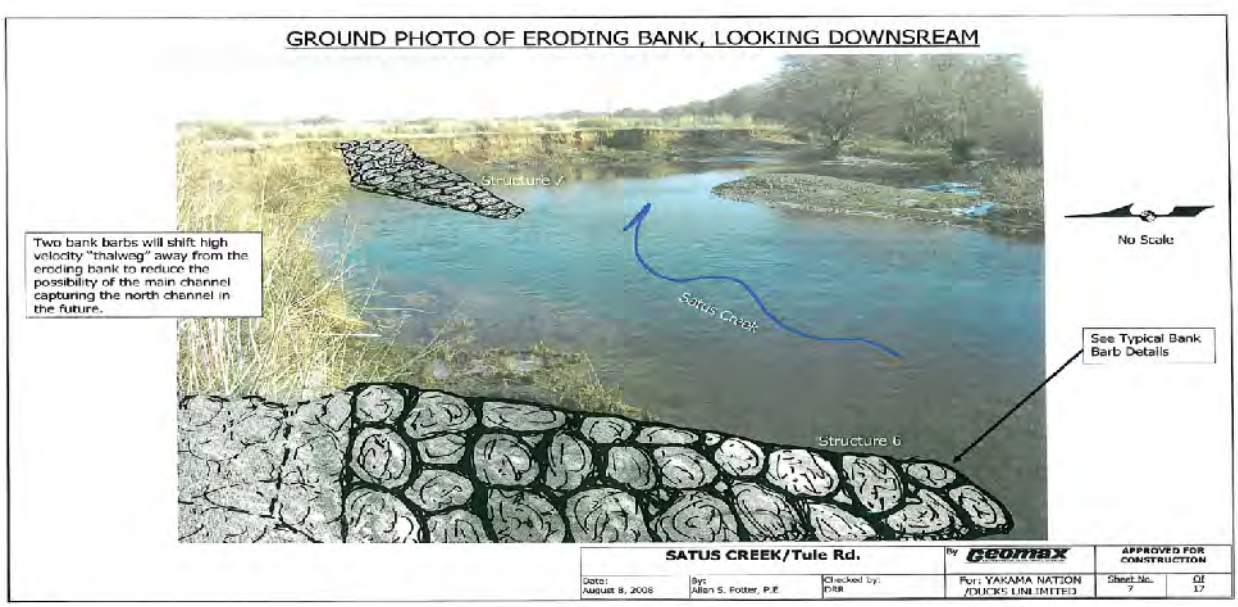


Figure 7 - Grade Control Plan, provided by YN Wildlife

Gathering Wapato (potato) – Emily's Story

I took what Johnson Meninick said to heart. It echoed things that my late alá (paternal grandmother) had said. My alá's maiden name was Meninick. Thus, by Indian relation, Johnson is my grandfather. In western society he is my great uncle.

My internal conflict was that I wanted to illuminate natural restoration and have sufficient cultural knowledge regarding Wapato (potato) that Yakama Nation members could use. I knew that the video I would make could shed light on the natural restoration. However, my research to date was two dimensional. This secondary research was written by people in far away states or by government agencies with flat and limited discussion regarding Native practices. My efforts to contact nearby people produced dead ends and delays. Then the day after I interviewed Johnson Meninick a book I ordered arrived in the mail called *The Forager's Harvest* (2006) by Samuel Thayer. I eagerly read the sixteen pages that were relevant to Wapato (potato) by 11:00 A.M. Three hours later, I was in the water collecting Wapato. See Figure 11 below.

I was nervous about going out and doing this. I said a prayer, because I knew that if I was meant to collect them I would. What I learned in the book *The Forager's Harvest* (2006) is there can be two seasons-- fall and spring-- for gathering Wapato.

The Yakama Nation Wildlife program loaned me equipment to use. I used leg waders. They were good, but I still ended up getting my upper legs wet. When I moved around the mud, the water rose up as I dug deeper. Overall, this was an exhilarating experience. Moving around in the mud took medium exertion and balance. Within a couple of minutes of swishing around in the mud, I noticed a Wapato (potato) floating on the top of the surface. Soon other Wapato (potato) began to float to the top. I felt like a little kid in a sandbox when I found a Wapato (potato) floating on the top. When I found these I exclaimed, "There's one and another one! " I could easily see how this is a family activity. After two hours, Jon Shellenberger and I collected seventy-six Wapato (potato) bulbs. Three Wapato (potato) were fully intact with their leaves and stems. The Yakama Nation Wildlife Program would press these three Wapato samples. We collected in an area that was 25 square feet (5 ft by 5 ft).

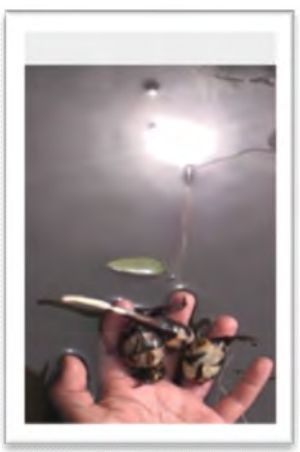
Preparation and Eating

"As a dietary source of starch wapato would have been a predictable and abundant complement to diets that were high in protein. Nutrition would account for its apparent popularity as a foodstuff and a trade item" (Spurgeon, 2001, p. 1). I noticed that Wapato (potato) has a peel similar to a potato. They are less dense than a russet potato. They are also smaller than a russet potato. This corresponds to what Johnson Meninick said, "Wapato was the size of my little finger, very small. They taste halfway sweet and halfway mild" (J. Meninick, personal interview, May 24, 2010). The seventy-three unpeeled Wapato (potatoes) equaled approximately four cups. After they were peeled they equaled three cups. I cooked the wapato (potato) by boiling them like I would potatoes. See figure 14 below. They were done when a fork pierced them easily. Wapato (potato) are light and crisp. Wapato (potato) taste similar to corn.

More Foods from the Cultural Diet

Through the book *In Defense of Food: An Eater's Manifesto* (2008) author Michael Pollan discusses the cultural diet. "It is often said that the last place to look for signs of assimilation…is the pantry" (Pollan, 2008 p. 174 ¶ 2). He pulls on case studies where doctors examined people who abandoned their cultural diets for the western diet. A western diet is one that mainly consists of white flour, sugar, carbonated drinks, with few fresh fruit and vegetables. The findings were that as the western diet took over the cultural diet a populations' cancer, diabetes, and cardiovascular rates increased. He argues that the knowledge we need about healthy food will not come from the television commercials touting the latest fad diet or food item. Rather, this information will come from our grandmothers and ancestors. The industry has worked hard to manufacture and create food which many great-grandmothers would not recognize as food. Additionally, there are limits within the field of nutrition. Although nutritionists know many of the nutrients that are in a particular food, it is very difficult to replicate those nutrients in a packaged food. One strong example of this is baby formula. There are over 100 ingredients missing from baby formula that have not been able to be replicated in mother's milk. A study of the Australian Indigenous population confirms the benefits of re-embracing the cultural diet over the western diet. In this particular study, Australian Indigenous who had diabetes and cardiovascular disease went back to their cultural diet and many of their health conditions improved after just seven weeks (Pollan 2008 pp. 10, 13, 87, 133, 142, 170, 179).

In reviewing the food choices by someone outside the Yakama culture, we also want to stress the message of Yakama Nation member, Johnson Meninick. "The resources don't belong to us, we belong to the resources. They are the ones that are hurting" (J. Meninick, personal interview, May 24, 2010). In this message he invokes a strong sense of responsibility to take care of the resources. This sentiment fits with the father of Western Medicine, 460-377 BC, Hippocrates who famously said "Let Food be thy medicine and thy medicine be thy food" (Silverstone 2009 p. 15).



From left to right - Figure 8 – Emily Finding Wapato, photo taken by Jon Shellenberger, Figure 9 - Emily holding Wapato floating in water, photo taken by Jon Shellenberger, Figure 10 – Cooking Wapato, photo taken by Emily Washines

Recognize Our Relationship with Food

Increasing cultural food choices for people deserves focused attention on an individual and community level. The health disparities and statistics call for refocused efforts on prevention and reversal of health diseases. In order to incorporate more cultural foods, Tribes need to have wild plants like Wapato (potato) available. For this reason, it is necessary to restore some land areas to historical use. "Everything is important on this land, nothing is unimportant" (J. Meninick, personal interview, May 24, 2010). When the land is restored, the cultural knowledge will follow. If we take care of our food our food will take care of us. This message illustrates the cycle some Yakama Nation members have with food. This relationship with food is embraced by others. Dr. Oz stated, "I have become convinced that the most overlooked tool in our medical arsenal is harnessing the body's own ability to heal through nutritional excellence" (Silverstone, 2009 p. 53).

We must take ownership of the individual responsibility and recognize our relationship with food. This includes making it a part of children's lives early on by attending and passing down the teachings learned from the land, our elders, at Shaker Church, or at the Longhouse. In figure 15 below, Emily shows her daughter Wapato (potato). In figure 16, there are three beaded dolls that are doing various activities. When Emily took her daughter Alice out to the Zimmerman property it was with the belief that she is educating the baby to be a caretaker of our foods and land.

Figure 11 - Emily & Alice with Wapato
Photo taken by Jon Shellenberger

Figure 12 - Beadwork by Stella & Emily Washines
Photo taken by Emily Washines

Allow Nature to Guide Land Restoration

Working collaboratively among different disciplines and cultural resource specialists, the natural restoration was able to have numerous benefits for the people, land, plants, fish, and animals. "Work continues on re-establishing natural flows to the Toppenish Creek watershed. Thus far, the Project manages over 21,000 thousand acres within the Lower Valley for the very purpose of restoration; a feat that has not only meant the revitalization of the land, but also that of human ecological understanding" (J.Shellenberger, personal interview, May 10, 2010).

Figure 13 below is an original grounded theory model for restoring Tribal land areas to historical uses. This was formed by relating both data and oral history knowledge into ideas. This model exemplifies the author Emily's decision to gather, prepare, and cook Wapato (potato). It also concisely illustrates the Yakama Nation land restoration efforts. The oral history and the teachings of our elders have consistently stated two things: 1) We must protect the resources for those not yet born and 2) If we take care of our food, our food will take care of us. This model is able to use the oral history with scientific knowledge regarding restoring natural watersheds, by allowing nature to guide restoration planning.

The answer for revitalizing the cultural practices of the wapato (potato) stems from what is already a part of us. Just as the wapato (potato) was dormant, the knowledge to make ourselves healthier has been dormant, silenced by the television commercials and colorful packages. Balancing healthy lifestyles, land restoration, and cultural knowledge involves embracing the oral history or our tribes, recognizing our responsibility for the resources, and understanding our relationship with the land. *The pressing question is: How can cultural knowledge about the land and cultural foods be included in our everyday lives?*

Restoring Tribal Land Areas to Historical Use

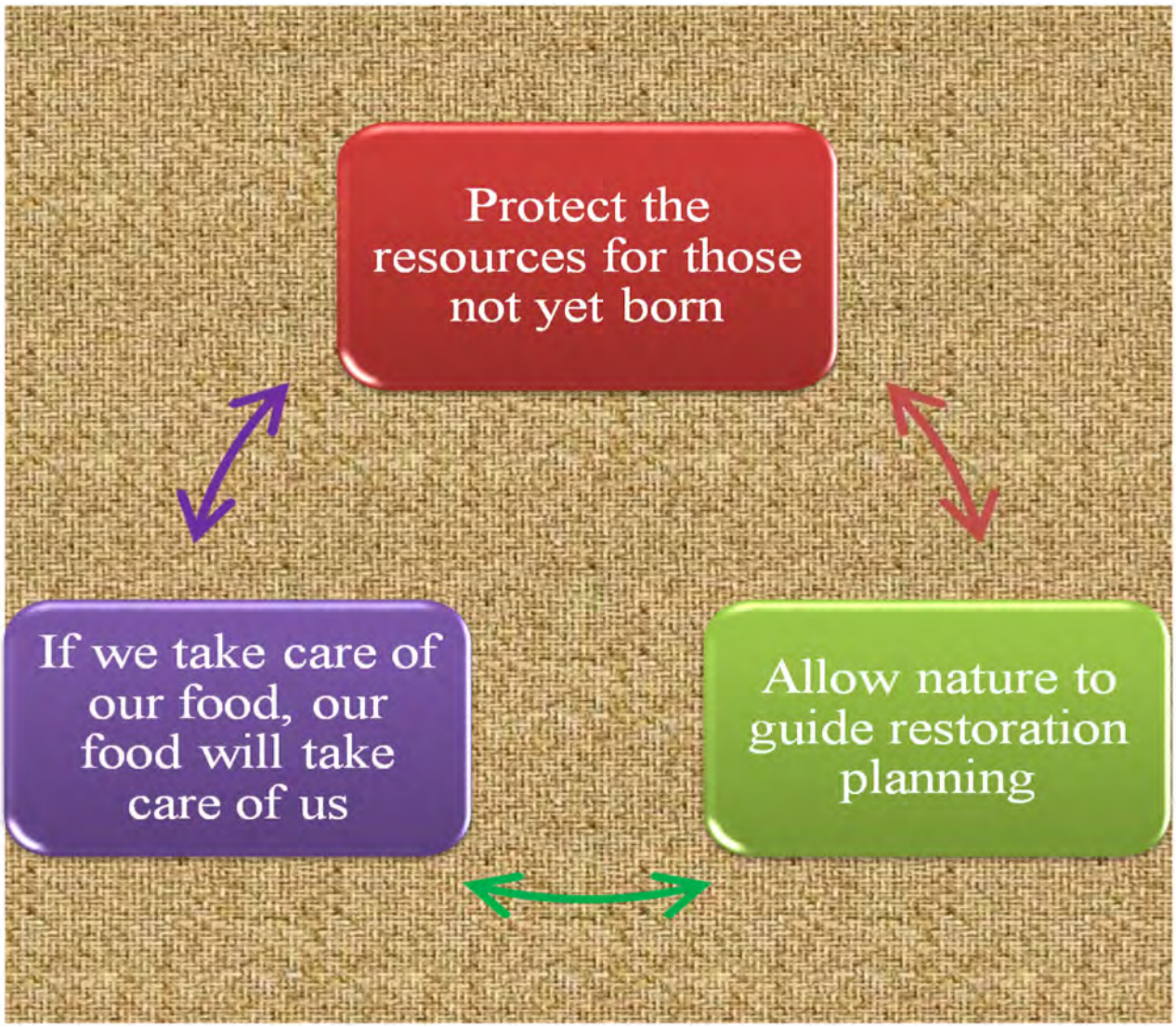


Figure 13- Restoring Tribal Land Areas to Historical Use – Grounded Theory Model by Emily Washines

Original Grounded Theory Model by Emily Washines

References

American diabetes association: Native American programs. (2010). Retrieved from http://www.diabetes.org/community-events/programs/native-american-programs/

Austin, B. (2009). Cardiovascular disease and diabetes targeted by five-year IHS grants. Indian Country Today, Retrieved from http://www.indiancountrytoday.com/living/health/40217267.html

Beavert, V., Hargus, S. (2009). *Ichishkin Sinwit:Yakama/Yakima Sahaptin Dictionary*. Toppenish, WA: Heritage University

CDC. (2009, December 3). *CDC: office of minority health & health disparities (omhd): american indian & alaska native (ai/an)populations*. Retrieved from http://www.cdc.gov/omhd/Populations/AIAN/AIAN.htm

Divina, F., Divina, M. and the Smithsonian National Museum of the American Indian (2004). *Food of the Americas: Native Recipes and Traditions.* Ten Speed Press: Berkely, CA.

Durkin, M. (2006). Indian health service facts on Indian health disparities. *Indian Health Service*, Retrieved from http://info.ihs.gov/Files/DisparitiesFacts-Jan2006.pdf

Eliminate health disparities. (2002). *Strategies for Public Health: A Compendium of Ideas, Experience and Research from Minnesota's Public Health Professionals*, *2*. Retrieved from http://www.health.state.mn.us/strategies/disparities.pdf

Ed. Devito, B. (1953). *The Journal of Lewis and Clark*. Boston, MA: Mariner Books.

Grim, C.W. (2006). Facts on Indian health disparities. *Indian Health Service*, Retrieved from http://info.ihs.gov/Files/DisparitiesFacts-Jan2006.pdf

Hunn, E. (1990). *Nch'i-Wana "The Big River:" Mid-Columbia Indians and Their Land.* University of Washington Press: Seattle, WA.

Indian health service: division of diabetes treatment and prevention. (2010). Retrieved from http://www.ihs.gov/MedicalPrograms/Diabetes/index.cfm?module=sdpi_pt_11

J. Meninick (Personal communication), May 24, 2010.

J.Shellenberger (Personal communication) May 10, 2010.

National Diabetes Education Program. (2008). Ten ways American Indians can prevent type 2 diabetes. *Small Steps Big Rewards: Prevent Type 2 Diabetes*, Retrieved from http://www.ndep.nih.gov/media/ten-ways-american-indians.pdf?redirect=true

National diabetes information clearinghouse: American Indians and Alaska Natives and diabetes. (2009, January). Retrieved from http://diabetes.niddk.nih.gov/dm/pubs/americanindian/index.htm

Nwtravel Magazine Online. (2009, February 13). *Yakama Indian Nation*, Retrieved May 20, 2009, from http://www.u-s-history.com/pages/h1588.html

Pollan, M. (2008). *In defense of food: an eater's manifesto*. New York, NY: Penguin Books.

Ramos, J. (2010). Holistic diabetes program for American Indians a success . *Suite 101.com Insightful Writers. Informed Readers*, Retrieved from http://american-indigenous-peoples.suite101.com/article.cfm/holistic-diabetes-program-for-american-indians-a-success

Roubideaux, Y., Zuckerman, M., & Zuckerman, E. (2004). A Review of the quality of health care for american indians and alaska natives. *The Commonwealth Fund*, Retrieved from http://www.commonwealthfund.org/usr_doc/roubideaux_qualityhltcare_aians_756.pdf

Schuster, H. (1975). *Yakima Indian traditionalism: a study in continuity and change*. Ann Arbor, MI: UMI Dissertation Services.

Silverstone, A. (2009). *The Kind Diet: A Simple Guide to Feeling Great, Losing Weight, and Saving the Planet.* Rodale: New York, NY.

Spurgeon, T. (2001). Wapato (sagittaria latifolia) in katzie traditional territory, pitt meadows, british columbia. *A thesis submitted to Simon Fraser University*, Retrieved from http://ir.lib.sfu.ca/retrieve/2485/etd2090.pdf

Stevens, M. (2003). Wapato: sagittaria cuneata. *USDA NRCS National Plant Data Center*, Retrieved from http://74.6.146.127/search/cache?ei=UTF-8&p=wapato+root&fr=ytff1-tyc&u=plants.usda.gov/plantguide/doc/cs_sacu.doc&w=wapato+root+roots&d=P0XF-e8_UxUc&icp=1&.intl=us&sig=iDvDtMvIR3_tX8f5AEkfFg—

Sturtevant, W.C. (Gen. Ed.), & Walker, D.E. JR. (Vol. Ed.). (1998). *Handbook of North American Indians: plateau volume 12*. Washington D.C.: Smithsonian Institution.

Thayer, S. (2006). *The Forager's harvest: a guide to identifying, harvesting, and preparing edible wild plants*. Birchwood, WI: Forager's Harvest.

Uebelacker, M. (1984). *Time ball: a story of the Yakima people and the land*. Toppenish, WA: The Yakima Nation.

Weatherford, J. (1988). *Indian givers: how the Indians of the Americas transformed the world*. New York: Ballantine Books.

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