

## “Roots of Reflection”: Spiritual Aspects of Plant Harvesting, Ethnoecological Practice and Sustainability for Indigenous Peoples of northwestern North America

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# “Roots of Reflection”: Spiritual Aspects of Plant Harvesting, Ethnoecological Practice and Sustainability for Indigenous Peoples of northwestern North America

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- 1 This paper focuses on the complexity of sentience, agency action and transformation in the cosmologies and classification systems of Indigenous peoples in northwestern North America, using edible root vegetables as an example of convergence of these factors. Broadly, it addresses the meaning of life. Plants are, of course, living, but often they are relegated more as “things” or “objects,” rather than “beings”—especially not sentient beings—in our perceptions.
- 2 Using edible roots and other underground vegetables as an illustration, I present a different perspective, one that many Indigenous peoples embrace and incorporate within their traditional knowledge systems. In a way, my title, “Roots of Reflection,” is a play on words. But it also implies thinking about roots – and the plant life that they are associated with – in a different way, as a reflection of cultural values and worldviews that diverge from those of mainstream society.
- 3 The paper is based on knowledge and observations I have experienced in my work as an ethnobotanist and ethnoecologist in western Canada. I first introduce the region where this work originates and discuss the nature of traditional ecological knowledge systems and follow with an overview of root vegetable species and of the different roles that these edible plants have played in the cultures of Indigenous Peoples of the region.

## Traditional ecological knowledge in British Columbia

- 4 Selina Timoyakin was an elder of the Okanagan First Nation in south central British Columbia. Many years ago, she shared her perceptions on how all of the plants, animals and minerals in her environment were organized, as a folk classification system, or folk taxonomy, which I will discuss later. She was one who harvested bitterroot and many other edible roots, and is typical of many of her generation, who shared their knowledge with me.
- 5 Most of my work has focused on the province of British Columbia and neighbouring territories, which I refer to as Northwestern North America (Turner 2014). All together, from the Yukon and Alaska to the Columbia River Region and east to the Rocky Mountain range, there are about fifty different Indigenous languages spoken, some, like those of the Salishan and Athabaskan or Dene languages, are related to each other, whereas others, such as Haida and Ktunaxa, are unique. We know that people have lived in this area for at least 12,000 years, probably longer, but at least since the ending of the Pleistocene (Meltzer 2009). These peoples have unique adaptations and approaches, reflected in their rich and complex cultures and languages.
- 6 Although they have changed in their lifestyles in many ways, especially within the last two hundred or so years since the entry of newcomers from Europe and elsewhere, some of their ideas and philosophies still remain, still endure and are still being passed on from generation to generation (Turner and Turner 2008). The local environment here and the geography are very complex, with about 20 major vegetation zones, numerous mountain ranges and a very convoluted coastline, with many fjords and islands. People travel a lot by water, in dugout canoes on the coast, and in the interior, dugout canoes and birch bark canoes in some cases. They have rich and diverse food systems based on the use of salmon and other fish and seafood, and game, but also a variety of plant foods, from a much wider variety of plant species than was previously recognised (Turner 1995; 1997).
- 7 The First Peoples are famous, especially those of the Northwest Coast, for their complex social structures and their equally complex ecological knowledge. Although they are generally defined as "hunter-gatherers" in the traditional anthropological classification, they are far from random pluckers and indiscriminate users of resources. They were astute managers of their resources within their territories. They had ways of maintaining and even enhancing the plant and animal populations that they used, from the seafood – clams, salmon and game – to the various plant foods and materials.
- 8 Berkes (2012: 8) provides a brief definition of traditional ecological knowledge from his book, *Sacred Ecology*: "a cumulative body of knowledge, practice and belief evolving by adaptive processes and handed through generations by cultural transmission." A good example of "cultural transmission" is in this photo of Helen Clifton of the Gitga'ata Nation, shown transmitting knowledge to her little granddaughter, Janelle.

Figure 1. Helen Clifton of the Gitga'ata Nation, transmitting knowledge to her little granddaughter, Janelle.



Photo: Nancy J. Turner

- 9 Helen is pounding dried halibut and Janelle, who has her own mallet, is happily pounding the halibut too, with her grandma. She probably does not even know that she is learning, but she is learning a very important practice of the Gitga'ata and other coastal First Nations.

## Kincentric ecology: a worldview in which "all things are connected"

- 10 Traditional ecological knowledge, or Indigenous knowledge, is sometimes called "traditional ecological knowledge and *wisdom*." A very important component of this knowledge system is the worldview, the belief system, the philosophies that underlie and are the foundation of people's lives and actions, of everything that they do. These frame and are framed by the practical knowledge about plants (e.g., which kinds are good to eat, which aren't, what seasons they're found, where they grow and how to harvest and prepare them), the weather and all of those things that people have to know to survive in a place, as well as the ways of passing on that knowledge, the social institutions that support the use of resources and living in a society, all imbedded within a timeframe that is very cyclical. It moves through the generations and seasons, tides and so forth.
- 11 I wish to stress the idea of philosophy or worldview a lot, because this is very important in the context of this colloquium: these Indigenous people have a fundamental belief that everything around them, everything in their environment, is a part of a big family,

a relationship. Not only do ecosystems give services to humans, but humans have a responsibility to serve the other species that provide for them. It's a system of reciprocity that is very much embedded in the belief system. Using salmon, for example, entails treating the salmon with great respect, celebrating the salmon ceremonially, making sure that the salmon are healthy, and ensuring that the families of salmon are able to continue their lives as well as providing for humans.

- 12 Dr Richard Atleo, a Nuu-chah-nulth elder and hereditary chief, talks about this philosophy in his own words here. He also holds a Ph.D. and is the author of two books on Nuu-chah-nulth philosophy, *Tsawalk* and *Principles of Tsawalk* (Atleo 2004; 2011). From his perspective, he says, "the Creator made all things one. All things are related and interconnected. All things are sacred. All things are therefore to be respected."
- 13 In food and food preparation, the spiritual aspects of life are very much ingrained in everything that people do around food, harvesting and preparation, including the First Salmon ceremonies (Claxton and Elliott 1994). There's a First Foods ceremony, for example, for this particular green vegetable, the shoots of the Thimbleberry *Rubus parviflorus*, a raspberry relative. The shoots are eaten in the spring but always with a special ceremony for some people (Turner 2005).

Figure 2. Thimbleberry (*Rubus parviflorus*).



Photo: Nancy J. Turner

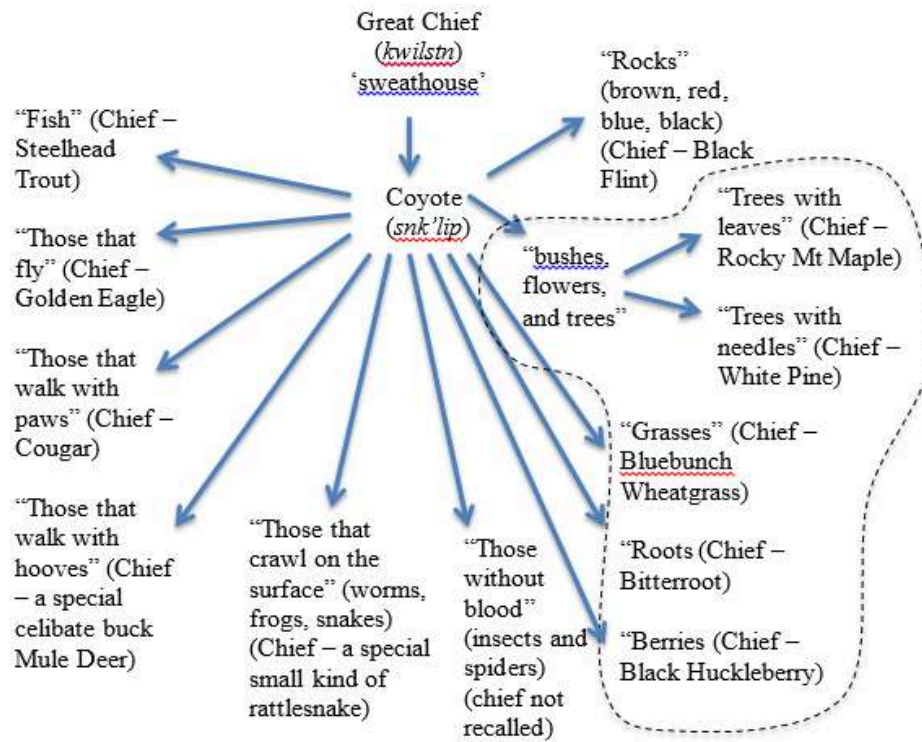
- 14 Another friend, Kim Recalma-Clutesi of the Kwakwaka'wakw Nation, sums up this perspective. "We believe that all life, whether it be animal, plant or marine, is sacred and is as important as human life. We are but one small part of the big picture in our food gathering practices and ceremonies remind us of that. And you could extend this to mountains and rivers and trees and everything, as well."

- 15 This perspective has been called by Dennis Martinez, one of our Indigenous colleagues in the Society for Ecological Restoration, "kincentricity," or "kincentric ecology," which is the view that humans and nature are part of an extended ecological family, sharing ancestry and common origins and acknowledging that a healthy environment is achievable only when we regard the life around us as our relatives (Turner 2005).
- 16 My friend Dr Mary Thomas was remembering her grandmother on one occasion (Thomas 2001). Her grandmother passed away in her 90s, so this goes back to the late 1800s in some cases. Yet when Mary observed her, maybe in the 1930s: "My grandmother, I watched her when we were little. She went to gather medicine or some kind of edible. She didn't go tramping in the woods and just chop-chop or dig-dig. I could hear my little grandmother. She would be chanting a tune as we were going along and when she went up to a tree or a shrub she acknowledged that particular tree like it was a human being."
- 17 Mary's mother, Christine Allen, lived until she was 102. Even into her 90s, when she was given a gift of food of any kind she would always hold it up and say, "Kukwtsétsemc, Kukwtsétsemc, Kukwtsétsemc!" Thank you, thank you, thank you!" So, acknowledging the gift of that food, whatever it was.
- 18 The Nlaka'pamux (or "Thompson") have a philosophy that ties in very well with this, that the flowers and plants, especially the grass, are the covering, or blanket, of the Earth: "If too much plucked or ruthlessly destroyed, the Earth is sorry and weeps. It rains or is angry and makes rain, fog and bad weather" (Turner 2005; Turner et al. 1990). This shows the agency of the plants, which really do respond to human treatment, and which in turn affect human lives, in this worldview.

## Roots and worldviews

- 19 Root vegetables (including bulbs, corms, tubers, rhizomes and true roots) represent just one aspect of this system of belief. There are about 30 or 40 different kinds that are used throughout the region of my study, and in some cases they comprise up to 40 or 50 or even 60% of people's caloric intake (Hunn 1981). But often, these root foods, along with other plant foods, are not recognised as being as important as the salmon and the game for Indigenous peoples of northwestern North America. Usually, the roots were harvested by women, which may be another reason why not much attention has been paid to them. Roots were also very important as famine foods, as fall-back foods at times of food shortage when you couldn't get salmon or deer, because, unlike these animal foods, you could always predict where these roots could be found, and could dig them up, even in the winter time.
- 20 In the schematic diagram of the Okanagan domains that Selina Timoyakin shared with us, you can see the roots as part of a group of living things outlined within the dotted line. Each group has its own chief, and in the case of roots, the Chief is Bitterroot (*Lewisia rediviva*), a valuable starchy root of the interior sagebrush desert and semi-desert lands.

Figure 3. The domains and their Chiefs in Okanagan Cosmology (as contributed by Selina Timoyakin; from Turner 1974: 79).



Note: dotted line indicates those domains that, collectively, would be widely considered by most English speakers to be in the "Plant" universe. Some of these categories closely align with broad scientific taxa, whereas others (e.g. "Those that crawl...") include categories that are only distantly related

- 21 Roots have been used as food for thousands and thousands of years, and the archaeological record shows this. Some of the habitats where roots are found include estuaries of rivers and tidal flats and marshes, as well as freshwater wetlands, upland and montane areas, prairies and dry grasslands. For example, in the estuarine areas along the coast, there are four roots that are very important for the Kwakwaka'wakw and other coastal peoples: northern riceroot (*Fritillaria camschatcensis*), Pacific silverweed (*Argentina egedii*), Nootka lupine (*Lupinus nootkatensis*) and a native species of clover, *Trifolium wormskioldii*, sometimes called "Indian Spaghetti" because it has thin white rhizomes.

### The social significance and consequences of digging roots

- 22 Edible roots are often associated with animal use, and there are many stories that talk about animals such as grizzlies and black bears digging up these roots. People emulate the digging practices of these animals. Geese, swans and ducks are also associated with edible roots in the estuarine gardens. The growth and productivity of these root vegetables are often associated with moderate disturbance, and people, today, say that in many cases the roots are not growing as well anymore because people aren't digging them as much. "They need to be used. They need to be dug." That's what people say.

- 23 In many cases the patches of roots are owned by families, clans and lineages, and are passed from generation to generation, so the management of these root production areas is very important in sustaining them (Turner et al. 2013).

### The role of roots in rituals

- 24 Roots are part of the spiritual realm as well. It is necessary to follow certain practices and rituals if one wants to be successful in harvesting roots, and one can see all kinds of ways within the study region that roots feature in ceremonies and rituals and as actors in stories. In the Secwepemc language, the Meadowlark sings, "Don't steal my *q<sup>w</sup>eq<sup>w</sup>'ile* roots!" That's one of the edible roots in the interior. Both the bird and the *q<sup>w</sup>eq<sup>w</sup>'ile*, or desert parsley (*Lomatium macrocarpum*) are accorded actor status. In another story, the *q<sup>w</sup>eq<sup>w</sup>'ile* root is the father of a boy who becomes one of the leading Transformers of the Interior Salish world.
- 25 Roots are dug with this amazing implement, the digging stick, which is named in every language. There are many different styles, and these diggers go back a long way. Sometimes women had a personal name for their own digging stick. Beautiful baskets were made and used to transport and store the roots: these artefacts also have agency. They have a persona and they are often spoken to as a living being because they are part of the transformation of living material: bark from the birch tree (*Betula papyrifera*), roots from the western redcedar tree (*Thuja plicata*), or other materials.

Figure 4. Mary Thomas' black hawthorn (*Crataegus douglasii*) digging stick.



Photo: Nancy J. Turner

- 26 Digging stick handles were sometimes marked with designs indicating the spirit of the plant or digging ground, and some roots were part of the First Food ceremony.



Ethnographer Charles Hill-Tout commented that "...no one under penalty of a severe punishment could take a fish, pick a berry, or dig a root until after the Feasts of First Fruits had been held..." (Maud 1978: 46), and recognizing and celebrating these "first foods" was quite a widespread practice.

- 27 Some of the roots that were dug in the Interior and were celebrated as part of the First Food ceremony include riceroor or chocolate lily (*Fritillaria affinis*), desert parsley (*Lomatium macrocarpum*), onions (*Allium cernuum*) and camas (*Camassia quamash*). Edible roots were also important in puberty rights for girls. Women were given digging sticks at their puberty ceremonies and sometimes images were ascribed on the digging sticks, similar to those found on the images painted on rocks and in basketry as well.
- 28 Here's an example from James Teit, referring to Nez Perce: "Root digging and berry picking also signified important rites of passage for Nez Perce girls, and a girl's first basket of roots or fruit included a large tribal celebration and feast recognizing her transition into womanhood. ...a girl gave her first-dug camas bulbs away to someone important in her life, such as a grandmother, aunt, or tribal elder ...at the end of her puberty training, a young woman might have her face painted or have tattoos placed on her arms and wrists, signifying her new status as a harvester" (Teit 1930: 404).

Figure 5. Camas time, by Pakki Chipps



- 29 The image on figure 5 is a poster painted by Straits Salish artist Dr Pakki Chipps, and features camas, one of the quintessential roots on the Northwest Coast (the southern area of the coast), and into the Interior as far east as Montana. Again, people would have ceremonies and undertake certain rituals when they went out to dig camas or other activities. Just some work that's being done currently shows that burial cairns were 100% associated with digging camas-digging prairies on Southern Vancouver Island (Mathews 2014).

- 30 The processing and preparing of roots is an important part of all of this. The roots and bulbs were usually dried for storage, often after being cooked. Some roots are particularly tricky to cook and prepare. The main carbohydrate of balsamroot (*Balsamorhiza sagittata*) is inulin, a very complex sugar that's hard to digest, and has to be broken down by slow cooking into its component units of fructose (a sweet tasting, digestible sugar). So this root was looked on with particular reverence and a prayer was made to the root before you even dig it, and then the cooking and preparation involved more prayers or rituals. This is a roasting pit, in cross-section.
- 31 As mentioned, balsamroot was particularly difficult to cook, and so, to ensure success in cooking, women were told to abstain from sexual intercourse. They painted their faces during the cooking, and no men were allowed to come near the cooking pit. If the cooking was successful, sometimes they said that Coyote had urinated on the roots.
- 32 Bitterroot is also similarly a very important root with a lot of spirituality associated with it, and was often featured in the First Root ceremony. "That's expensive stuff," my friend Annie York said. They trade for it and there are phrases that indicate its persona. "The *lhk*<sup>w</sup>*'**épn* are sitting. The bitterroot." "They're holding hands." "They talk to one another." "They're hiding from you," and, they say to children if they misbehave, "you're going to make the *lhk*<sup>w</sup>*'**épn* upset." This root is also used as a love charm."

## Roots and narratives

- 33 Many stories connect root vegetables to the Sky Country, to stars and to spiders. It's very interesting. I cannot go into the details here, but there are many versions of a story called "The Star Husband Tales," where camas (*Camassia* spp.), mountain potatoes (*Claytonia lanceolata*), riceroot (*Fritillaria camschatcensis*), prairie turnip (*Pediomelum esculentum*) and other roots are associated with young women who go up into sky country and are digging roots there.
- 34 A Nlaka'apmux story tells how many kinds of edible roots were brought to Botanie Valley by Coyote's son, who was given these roots by the Spider People in Sky Country. He wondered what he should do with them, and they said, "Throw them to Earth for people." He did this and he carried them around. He had bundles of these roots and, finally, he emptied the rest of them that he hadn't distributed, out at the special root harvesting place, Botanie Valley, where they still grow today very plentifully (Teit 1912: 297).
- 35 As noted previously, the q<sup>w</sup>eq<sup>w</sup>'íle (desert parsley) root is the father of one of the Transformers, or culture heroes in Interior Salish folklore. There are stories about the Skunk Cabbage (*Lysichiton americanus*) root as a person who provided people with food before the salmon came along. There are stories about bracken fern (*Pteridium aquilinum*) rhizomes turning into snakes, and another story tells about the origin of the spiny wood fern, (*Dryopteris expansa*) whose rhizomes which were a crest for some people, that originated from an elderly woman jammed headfirst into a rotten log by her angry husband after she had inadvertently allowed her grandson to be kidnapped (Turner 2014).
- 36 There's also a ritual of scattering roots and seeds to help propagate them. A bereaved woman who lost her husband is told to go and scatter the older plants of the mountain potato on to the mountain in the Tsilhqot'in territory, a place called Potato Mountain.

In fact, it is quite likely that this practice or ritual was responsible for the proliferation of these root vegetables on Mountain Potato in that particular place.

- 37 So these examples are kind of a "take home" message: they demonstrate that edible roots have a strong role in Indigenous cultures of northwestern North America. Not only are they major sources of nutrients for people, but they have strong spiritual associations and they feature in and rituals, taboos and ceremonies that relate to their recognized sentience and spirituality. Their use, and the practices that relate to them, are probably very ancient. They are forgotten mostly today, but they are still important and are becoming more and more relevant as the rights of Indigenous peoples are being recognised and cultural practices are being revitalised.
- 38 Merci beaucoup.

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## ABSTRACTS

In northwestern North America, as in other regions of the world, Indigenous peoples have developed rich systems of ethnoecological knowledge, incorporating concepts of kincentricity (kinship between humans and all other lifeforms), and caretaking philosophies that embody responsibilities to sustain, and never to take for granted, those species that provide for humans. These ideas are engrained in traditional harvesting and use of resources, as reflected in people's ritual and ceremonial practices. In this paper, I present examples of how these philosophical approaches are reflected in human-plant interactions, particularly in relation to traditional food systems. Although in some Indigenous communities today the ritual aspects of food are not as strong as they once were, they are regaining importance as, with increased legal recognition of the Rights of Indigenous Peoples, many First Nations communities are revitalizing and renewing all aspects of their cultures, languages, and ties to their lands and waters. The past and present

role of camas and other traditional root vegetables in the region provides a good entrée for understanding the relationships between food use and worldview.

## AUTHOR

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Nancy J. Turner is an ethnobotanist whose research is focused on traditional knowledge systems and traditional land and resource management systems of Indigenous Peoples of northwestern North America and western Canada. She is Distinguished Professor and Hakai Professor in Ethnoecology in the School of Environmental Studies, University of Victoria, Canada. She has worked with First Nations elders and cultural specialists in northwestern North America for over 40 years, helping to document, retain and promote their traditional knowledge of plants and environments, including Indigenous foods, materials and medicines. Her two-volume book, *Ancient pathways, ancestral knowledge: ethnobotany and ecological wisdom of Indigenous peoples of northwestern North America* (McGill Queens University Press, 2014), represents an integration of her long term research. She has authored or co-authored or co-edited 19 other books, including *"Keeping it living": traditions of plant use and cultivation on the Northwest coast of North America*. She has received a number of awards for her work, including the Richard Evans Schultes Award in Ethnobotany.

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