LITURGY

- Prelude: Native Flute Solo
- Opening Words:
- In-Gathering Song: #247, Gather The Spirit
- Welcome: Board Member
- Chalice Lighting
- Song: Choir, Colors of the Wind
- Time for All Ages: Children's Story
- Children's Benediction
- Meditation / Prayer:
- Reflective Hymn: #123, Spirit of Life
- Offering Words
- Offertory: Native Flute Solo
- Sermon: The Democracy of 3 Sisters
- Closing Song: #346 Come Sing a Song WIth Me
- Extinguishing Chalice & Closing Words
- Postlude: Native Flute Solo

CHILDREN'S STORY

The Story of the 3 Sisters:

http://www.oneidaindiannation.com/the-legend-of-the-three-sisters/

PRAYER

Haudenosaunee Thanksgiving Address

https://americanindian.si.edu/environment/pdf/01_02_Thanksgiving_Address.pdf

SERMON

Did you know that there are at least two ways of knowing?

Maybe more. I think more that two.

Today's sermon draws heavily from Robyn Wall Kimmerer's book

Braiding Sweetgrass, Indigenous Wisdom,

Scientific Knowledge and the Teachings of Plants

Dr. Robin Wall Kimmerer is a Professor of Environmental and Forest Biology

at the State University of New York College of Environmental Science and Forestry.

Her interests include the restoration of plants of cultural significance to Native peoples

Dr. Kimmerer is also an enrolled member of the Citizen Potawatomi Nation,

and combines her heritage with her scientific and environmental passions.

I found something unique in Robyn Kimmerer's writing.

She wanders around in several different modes of knowing

She names two modes, but I think she also uses a third.

While Dr. Kimmerer is a scientist, a botanist and a native plant specialist

She is also a poet, and her writing is simply beautiful

Dr. Robyn Kimmerer intentionally compares and contrasts

Her scientific and indigineous ways of knowing

Robyn Kimmerer wrote of these two different ways of knowing:

Scientists use the intellect and the senses, usually enhanced by technology.

They set spirit and emotion off to the side and bar them from participating.

Often science dismisses indigenous knowledge as folklore — not objective or empirical, and thus not valid.

But indigenous knowledge, too, is based on observation, on experiment.

The difference is that it includes spiritual relationships and spiritual explanations.

Traditional knowledge brings together the seen and the unseen,

whereas Western science says that if we can't measure something, it doesn't exist.

Robyn notes that the scientific method uses experimentation

And tries to isolate one subject of study at a time

In order to really understand how something works, science says, we must exclude all else. We're not going to talk about relationships. We're going to limit ourselves to cause and effect. This notion that you can rigorously exclude all factors save one, and in so doing find the cause, is not part of traditional knowledge.

Robyn contrasts indigenous ways of learning that also study relationship

And you watch what happens to everything around it, too. The idea is to pay attention to the living world as if it were a spider's web: when you touch one part, the whole web responds. Experimental, hypothesis-driven science looks just at that one point you touched.

Robyn notes that both science and indigenous modes of knowing

Use data collection, analysis, and experimentation

She distinguishes between science and indigenous knowing

By noting that science uses a paradigm that seeks to isolate and control

Whereas indigenous knowing uses a paradigm that seeks to integrate and relate

The two methods of knowing and study are similar

In that they both use hypothesis, data and use the two to draw conclusions

But in terms of perspective, they approach using those tools differently.

Robyn goes on to say:

Another important difference is that science tends to want to make universal statements, whereas to the indigenous way of thinking, what's happening between two organisms is always particular and localized, unique in space and time. Take the example of a bee landing on a flower for a sip of nectar. To the indigenous observer, it's not some idealized Bee meeting some idealized Flower. There isn't an attempt to generalize to pollinator ecology, or to say that it's all being driven by certain physical principles. Those principles

may be real, but they aren't any more real than this bee on this flower at this time on this day with this weather.

(https://www.thesunmagazine.org/issues/484/two-ways-of-knowing)

Robyn is saying that while science and Indigenous knowing

Both use hypothesis, data collection, testing and draw conclusions

Science seeks to isolate, specify, control and generalize

Indigineous study seeks to connect, relate, recognize and individualize

his is not to say that one mode of knowing is better than the other

I want to ask you not to fall into that trap

By realizing that right now, in this world, the way we live today

Maybe this relational, connected, and identity/individual focused knowing

Sounds better because we are longing for things like

Connection, interdependence, relationship, respect and understanding.

Do not make the mistake of devaluing the scientific paradigm

Or if you subscribe to it, feeling devalued, please

I also would ask that you contemplate that science, like much of religion

Has been co-opted by forces of empire

Like colonization, exploitation, manipulation and re-education.

Let's not dismiss science, or feel maligned

When we get into discussing its strengths and challenges.

I hope that we can let this be what it is;

A discussion of a paradigm's strengths and challenges.

I would argue with Robyn too, that while she discusses two modes of knowing

Her work introduces a third way of knowing

Robyn is also a poet

Her writing is artistic, full of beauty and grace

I myself would call this third way of knowing

An artistic knowing; a knowing that recognizes and describes beauty

Embraces it, seeks it, highlights it and synthesizes

So I am going to go with 3 modes of knowing, not two:

Scientific, Indigenous and Artistic

I like trilogies anyway. Usually better than the sequel.

And then also let me also say this about paradigm, perspective

It can be insidious

When you are wearing green lenses, well, everything looks green

Which is probably ok, mostly ok…

I guess unless you have to recognize an orange predator

Or blood. Would be hard to recognize blood if everything was green.

When I say perspective can be insidious that is what I mean

We all have it, and it affects what we are able to see…that makes it self-sustaining

Perspective colors what we see, and what we see reinforces perspective.

Maybe it is only when we get a chance to glimpse something beyond our perspective

That we get to kinda see what it excludes.

Take our choir song today; Colors of the Wind

The lyrics are beautiful, and speak of a powerful relationship to the land

Ideas that are integral and important for us to understand

Right now, before our planet becomes inhospitable to us

It might be good for us to remember that Disney does wear certain lenses

And those lenses say that stories ought to have happy endings

While the story of the movie Pohontas, while full of important messages and ideas

Like showing the settlers of the Americas in an unfavorable light

Or including music that talks about spiritual relationship to the land

THe movie also rewrote some of the history of a conquered people

To make a more pleasing story for mainstream

As one native writer wrote:

Nobody wants to feel like a settler. Disney's Pocahontas gives just enough of a flogging to the "real" bad guys to leave the non-native viewers coming away feeling as though they've done the good work of recognizing their own faults, while the pain of forced assimilation and erasure continues for the Powhatan Nation and others.

(https://www.theatlantic.com/entertainment/archive/2015/06/pocahontas-feminism/397190/)

I think my point here is that perspective is like this…

You can do something with a helpful agenda…like tell a story

Carefully to cast the role of conquerers and conquered in a new light

And from one perspective, you are being helpful

Yet from another, hurtful. Neither perspective is wrong.

They amount to different ways of seeing things.

And its normal for people to argue across such divides in perspective

That is what I found so unique about Robyn's book

She expertly wove together 3 modes of knowing, 3 lenses, 3 perspectives

Two of them intentionally, maybe the third was a means to weave

But to me they seem 3 clear perspectives; works for me, I like threes.

Robyn even documents starting to notice her own bias, her own perspective.

When she read the Potosatami word "Puhpowee" in a botany journal

Pupowee, which is just really fun to say, means:

"The force which causes mushrooms to push up from the earth overnight"

How cool is that?

A word for the "life-force" of mushrooms strong enough to burst through the forest floor. What an awesome word. And, seriously fun to say:

PUH-POW-WEEEEEEEEEE

Another word Robyn described and explored was "Wiikwegamaa"

The word for "Bay" as in a "Bay of water"

But "Wiikwegamaa" is a VERB not a NOUN...the water is "bay-ing"...

Hard to even explain in English. But yeah, its a verb, an action. Being a bay is.

Robyn points out, many might think, "Well that's dumb, a bay is a noun..."

Or is it?

Water could also be a stream, a river, a lake, or an ocean

The point of Wiikwegamaa is that water is acting...being...

Water is active, living, breathing, moving, changing.

Folks - just because the surface of a lake is placid

DO NOT BE FOOLED!

The water is just resting right now; it might jump up any moment

Tear downhill in a torrential river, flood over a big plain…

Especially if it's sister rain comes along in a big way

Wait…that example started funny…but you know what…

I wonder how our human settlements might change

Along major rivers, bays, areas of flooding

If the very word we used to describe that water, its very identity

Reminded us that the water was alive, only "being" a river at the moment

Would that thought incite us to imagine new ways to deal with its changes?

New ways to relate to our friend and family member - water?

Lets all just pause and think about that for a moment.

One of Robyn's graduate students, during a trip into the forests

Said that he thought having animate words like "Wiikwegamaa" or "Puhpowee"

Might really change the way people treat our environment

He wondered what it would be like if instead of cutting down a tree

One had to take a chainsaw to "sister maple?"

It is hard for me, who speaks only English and a bit of Spanish

To comprehend how deeply a change in such basic ideas

The very words we use to identify things

Might change my relationship to the world around me.

Our story today was about something that changed

The way I relate to the world around me; the 3 sisters

I am going to tell you about the 3 sisters with Robyn's words

Because well, I love her words, I think they are beautiful.

"Corn leaves rustle with a signature sound, a papery conversation with each other and the breeze."

What!?!

"a papery conversation"

Who here has listened to corn on a hot summer day?

It totally sounds like a "papery conversation" doesn't it?

Like sister corn is talking to someone, whispering.

Ah, I only made it one sentence before I got too enchanted to continue - let's try again.

On a hot day in July—when the corn can grow six inches in a single day—there is a squeak of internodes expanding, stretching the stem toward the light. Leaves escape their sheaths with a drawn-out creak and sometimes, when all is still, you can hear the sudden pop of ruptured pith when water-filled cells become too large and turgid for the confines of the stem. These are the sounds of being, but they are not the voice.

The beans must make a caressing sound, a tiny hiss as a soft-haired leader twines around the scabrous stem of corn. Surfaces vibrate delicately against each other, tendrils pulse as they cinch around a stem, something only a nearby flea beetle could hear. But this is not the song of beans.

What if you were a teacher but had no voice to speak your knowledge? What if you had no language at all and yet there was something you needed to say? Wouldn't you dance it? Wouldn't you act it out? Wouldn't your every movement tell the story? In time you would become so eloquent that just to gaze upon you would reveal it all.

Yes, what if you were a teacher who had no words to teach?

Plants speak in a tongue that every breathing thing can understand. Plants teach in a universal language: food.

Oh, well, that language I can speak. Food.

And you know the 3 sisters are amazing teachers

For millennia, from Mexico to Montana, women have mounded up the earth and laid these three seeds in the ground, all in the same square foot of soil. When the colonists on the Massachusetts shore first saw indigenous gardens, they inferred that the savages did not know how to farm. To their minds, a garden meant straight rows of single species, not a three-dimensional sprawl of abundance. And yet they ate their fill and asked for more, and more again.

The amazement of the 3 sisters does not stop at the surface of the plants

The corn is the firstborn and grows straight and stiff; it is a stem with a lofty goal. Laddering upward, leaf by long-ribbed leaf, it must grow tall quickly. Making a strong stem is its highest priority at first. It needs to be there for its younger sister, the bean. Beans put out a pair of heart-shaped leaves on just a stub of a stem, then another pair, and another, all low to the ground. The bean focuses on leaf growth while the corn concentrates on height. Just about the time that the corn is knee high, the bean shoot changes its mind, as middle children are wont to do. Instead of making leaves, it extends itself into a long vine, a slender green string with a mission. In this teenage phase, hormones set the shoot tip to wandering, inscribing a circle in the air, a process known as circumnutation. The tip can travel a meter

in a day, pirouetting in a loopy circle dance until it finds what it's looking for—a corn stem or some other vertical support. Touch receptors along the vine guide it to wrap itself around the corn in a graceful upward spiral. For now, it holds back on making leaves, giving itself over to embracing the corn, keeping pace with its height growth. Had the corn not started early, the bean vine would strangle it, but if the timing is right, the corn can easily carry the bean.

Meanwhile, the squash, the late bloomer of the family, is steadily extending herself over the ground, moving away from the corn and beans, setting up broad lobed leaves like a stand of umbrellas waving at the ends of hollow petioles. The leaves and vines are distinctly bristly, giving second thoughts to nibbling caterpillars. As the leaves grow wider, they shelter the soil at the base of the corn and beans, keeping moisture in, and other plants out.

Ok, are you hearing what I mean about her writing?

Oh my GOSH!

Ok, I need to get to the part of this that utterly blew me away.

Had me running to Sutton, my wife...with my usual enthusiasm

"Hey! Hon! We gotta do a 3 sisters garden in our planting bed this year."

The sisters cooperate above ground with the placement of their leaves, carefully avoiding one another's space. The same is true below ground. Corn is classified as a monocot,

basically an overgrown grass, so its roots are fine and fibrous. With the soil shaken off, they look like a stringy mop head at the end of a cornstalk handle. They don't go very deep at all; instead they make a shallow network, calling first dibs on incoming rain. After they've had their drink, the water descends out of reach of the corn roots. As the water goes deeper, the deep taproots of the bean are poised there to absorb it. The squash finds its share by moving away from the others. Wherever a squash stem touches soil, it can put out a tuft of adventitious roots, collecting water far from the corn and bean roots. They share the soil by the same techniques that they share the light, leaving enough for everyone.

But the integration, the interdependence of the 3 sisters goes beyond the structure of the plants, the shade the squash provides the soil, keeping moisture in, the strength of the corn as a beanstalk, the integration goes deep, right into the roots.

Beans are members of the legume family, which has the remarkable ability to take nitrogen from the atmosphere and turn it into usable nutrients. But they don't do it alone. My students often run to me with a handful of roots from a bean they've unearthed, with little white balls clinging to strands of root. "Is this a disease?" they ask. "Is something wrong with these roots?" In fact, I reply, there's something very right.

The glistening nodules that Robyn describes house Rhizobium bacteria
A nitrogen fixers; most plants cannot pull nitrogen out of the air, they need it in the soil

And so beans make room for the Rhizobium bacteria to make nitrogen.

For serious!

Know what else?

Rhizobium can only convert nitrogen under specific circumstances

Its enzymes don't work with oxygen, and since soil has 50% air space

Rhizobium cannot make much nitrogen in the soil.

It needs an oxygen free work-space.

And beans oblige; when bean roots meet a microscopic Rhizobium rod

They grab it up, and start to grow an oxygen free nodule in the roots

So that the Rhizobium can excrete nitrogen into the soil

In a format that all 3 sisters can use.

The 3 sisters work together, not only physically

By providing support, shade and moisture to each other

They collaborate in a complex chemical process to feed each other better.

I totally feel like dropping the mic up here right now.

Boom

Rhizobium nodules on the bean roots

Boom. Drop mic. Show is over.

Robyn says:

The way of the Three Sisters reminds me of one of the basic teachings of our people. The most important thing each of us can know is our unique gift and how to use it in the world. Individuality is cherished and nurtured, because, in order for the whole to flourish, each of us has to be strong in who we are and carry our gifts with conviction, so they can be shared with others. Being among the sisters provides a visible manifestation of what a community can become when its members understand and share their gifts. In reciprocity, we fill our spirits as well as our bellies.

Know what else?

The biochemical relationship between the plants extends into their nutrition.

Yes; all 3 sisters grow with more nutritional value

When planted together like this.

Plus...wait for it...Corn, Beans and Squash make a complete nutritional set

A people can survive on the 3 sisters alone.

These 3 sisters, when they come to dinner

They bring ALL the nutrition with them.

Robyn goes on to say:

In indigenous agriculture, the practice is to modify the plants to fit the land. As a result, there are many varieties of corn domesticated by our ancestors, all adapted to grow in

many different places. Modern agriculture, with its big engines and fossil fuels, took the opposite approach: modify the land to fit the plants, which are frighteningly similar clones.

Once you know corn as a sister, it's hard to unknow it. But the long ranks of corn in the conventional fields seem like a different being altogether. The relationships disappear and individuals are lost in anonymity. You can hardly recognize a beloved face lost in a uniformed crowd. These acres are beautiful in their own way, but after the companionship of a Three Sisters garden, I wonder if they're lonely.

I wonder if the corn is lonely?

Know what…

I have driven across the united states a few times

And one of the times, when I was younger, I stopped in Nebraska

I was running often in the mornings at the time,

And I went on a run through the cornfields in Nebraska

Anyone ever been between the long rows of corn?

It did, in fact, feel lonely to me.

And I only just realized that once I got some perspective

Into these 3 sisters.

And so now I wonder

If the natural world can build up such a beautiful, integrated, nearly magical system of physical presence, biochemistry, culture, values, history, relationship.

If corn, beans and squash can do this, were born to do this

Three entirely separate plants can live not only in harmony

But in complimentary relationship?

What then, is our problem? Exactly?

And what change in perspective will it take

For us to see that problem?

Closing Song

Extinguishing Chalice & Closing Words

CLOSING WORDS

In closing today I leave you with a few more of Robyn's words:

Of all the wise teachers who have come into my life, none are more eloquent than these, who wordlessly in leaf and vine embody the knowledge of relationship. Alone, a bean is just a vine, squash an oversize leaf. Only when standing together with corn does a whole emerge which transcends the individual. The gifts of each are more fully expressed when they are nurtured together than alone. In ripe ears and swelling fruit, they counsel us that all gifts are multiplied in relationship. This is how the world keeps going.

Go forth gentle people, bring new imagination and relationship

To help the world keep going.

RESOURCES USED

http://www.oneidaindiannation.com/the-legend-of-the-three-sisters/

https://www.esf.edu/faculty/kimmerer/

https://orionmagazine.org/contributor/robin-kimmerer/

https://www.thesunmagazine.org/issues/484/two-ways-of-knowing

https://www.theodysseyonline.com/the-message-behind-colors-of-the-wind

https://www.theguardian.com/film/2008/sep/10/pocahontas

https://www.stephenschwartz.com/wp-content/uploads/2017/05/Disney-Pocahontas.pdf