Indralaya talk 1 - Water

Friday, April 29, 2022
5:09 PM

I'm so glad to be here with you.

Thank to Indralaya….thank you to MNW staff….to each person for having the courage and commitment to coming….financial….time….appreciating those at home holding down the fort…..thoughts on the opportunity and privilege of retreat…..Lummi nation and 10,000 years of coast salish stewardship. We are so lucky to be here.

And yes it does seem there may be a little challenge for us sitting still in a summer pavilion on cool cloudy day. Feel wear every layer you have, to bring a second blanket from your bed, maybe Indralaya is going to see a little run on their lovely sweatshirts - they are on the shelf just to your left as you come into the dining hall. And of course like everything we're in relationship to heat and cold so it really is a valuable thing to practice with whatever arises around it. All that within reason: if you have concerns about your health, come talk to us and we'll look for ways to work with the situation one way or the other. And probably plenty of us are doing just fine but if you're feeling challenged I want to acknowledge that.

First thing this morning I was sitting on the bench just outside the front door of the dining hall feeling grateful to be sipping coffee and being in this quiet space. I was amazed anew how much more time there is when I'm not rushing off to do my tasks or tuning into the usual busy-ness. Time to sit, listen, look, sip.

I was feeling the water all around me. The rain had stopped I think but the trees and bushes had absorbed plenty of moisture that was still dripping off them.

Covering a big trellis in front of me a big vine getting ready to flower. A clematis maybe.

And I started to notice the drops of water dripping from clematis. We don't really have a word for that do we: it's like rain, it comes after the rain, and during the rain, but what do we call the dripping of raindrops from the plants after the rain stops. Re-rain? Plant rain? Rain delayed? The motion of the drops was so compelling. Dropping here and there.

And then I started to notice that these post-rain drops were also not moving. I saw the jewel-like drops of water hanging from the bottoms of the trellis's wooden beams. The light of the rising sun behind them helping them to shine so beautifully.

I noticed that my eyes, my mind, had a little trouble staying focused on these still drops hanging from the trellis - the default seemed to be a softer focus the eyes flitting a bit left and right roughly tracking the falling drops. And that's fine but I had such curiosity about the hanging jewel drops.

It was interesting the larger ones had a kind of darker center, almost like the pupil of an eye. Something to do with the reflection of the dark wood refracted by the bent share of the surface I suspected. But as I found my mind traveling to vague memories of physics and optics I realize I wasn't tuning into the drops to I dropped that and just watched.

There was a group of 5 that seemed central to me somehow. They were arranged in two pairs and a 5th one off to the side. 5 shining jewels of water. So beautiful.

And of course I knew that this was a temporary beauty. I knew they would fall. I knew they would soon be gone.

I noticed that it actually was pretty challenging to hold my focus on the 5 drops and beautiful and interesting as I found them. I'm not sure why. Maybe, again, the way the eye is drawn to motion - the drops actively dripping from the leaves. Or I wonder now if there was something to the anticipation of that loss that seemed to make it harder

to stay focused on the 5 drops. I'd become instantly fond of them. A little protective of them. We don't want beauty to vanish again do we?

And so I didn't notice when the first one fell. It was the righthand drop of the left side pair. From my perspective one moment it was there, one moment it wasn't.

But then looking more carefully: a much smaller little arc of water - a droplet - was there in the same spot. Some water left behind? The beginnings of a new drop?

It's amazing to me how we have this word, this concept: water. But it means so many different things to us.

Waking up hearing the rain falling I felt a mix of the beauty of the sound of the rain drops on our cabin, then a moment of annoyance - darn it, a rainy day? - and then a moment of judgment that someone had told me during the lovely sunny afternoon that it was supposed to "be like this into Tuesday" - she was wrong I guess. And a musing about how rich and fluid our Pacific Northwest weather is. And back to appreciation again: we are so fortunate not to be in drought. Judith is here from the California foothills - so dry these new super intense smoky fires every year - and I spent 6 months in another part of California last year - there was only one real rainstorm the whole time. We are so lucky to have water.

And then walking to the dining hall realizing that the short route was across the grass which was pleasant enough yesterday afternoon but now was wet and me in my Birkenstock clogs, should have brough the Boggs rain shoes. Will my socks get wet? Will my feet then be cold? And look they left the ping pong table out, isn't it going to be ruined by the weather? Realizing that by "the weather" I also meant water.

Water as beauty, water as disappointment, water as a blessing, water as threat. All within a few minutes.

And it is water that's taking different forms or my mind that's forming different shapes around it.

It makes me think of a Zen story. Zen, like mindfulness, involves a lot of curiosity about the mind, about perception, about the nature of things. For sure these different waters is in there. This story, though, about the wind.

Two monks were looking at a flag up on the flag pole on a windy day. Watching and arguing: look said one, the flag is moving. No, said the other, the wind is moving. Along came a third monk who, we know will go on to become a great teacher later, the third monk says: you're both wrong, it's not the wind or the flag that's moving, it's your mind that's moving. The two monks are dumbfounded.

Pretty straightforward I guess: we think it's this or that but maybe it's all happening in the mind, how we relate to things. Water isn't a problem or a blessing, it's just water, we make it what we think it is depending on….depending on what? Our mood? Our perceptions? Our needs? What we're used to? What we expected? What we wanted?

Of course we also know that in this case water is life too. That we can't live without water. Mostly we don't experience this so directly: there's almost always good drinking water available to us. We can take water for granted. Even in the increasingly dry California you turn on the tap and out comes clean drinkable water - maybe a little bit tasty because of how it has to be treated to turn water from a half-full muddy reservoir into safe drinking water so people use filters and things on it but nonetheless safe drinking water. Where does it come from? Mostly we don't know. It's just there.

And why do we need to drink water anyway? We all know the body is mostly full of water - some big percentage of this body I call me is water - so are we just keeping our biological body-sack full of water?

I do have some background in biology and chemistry but I have to admit I looked this up and found a really great article by a PhD biology student at Harvard online. Here's a somewhat edited version of what Molly Sargen shares

with us about this: (https://sitn.hms.harvard.edu/uncategorized/2019/biological-roles-of-water-why-is-water-necessary-for-life/)

> Water makes up 60-75% of human body weight. A loss of just 4% of total body water leads to dehydration, and a loss of 15% can be fatal. Likewise, a person could survive a month without food but wouldn't survive 3 days without water. This crucial dependence on water broadly governs all life forms. Clearly water is vital for survival, but what makes it so necessary?
>
> Many of water's roles in supporting life are due to its molecular structure and a few special properties. Water is a simple molecule composed of two small, positively charged hydrogen atoms and one large negatively charged oxygen atom. When the hydrogens bind to the oxygen, it creates an asymmetrical molecule with positive charge on one side and negative charge on the other side (Figure 1). This charge differential is called polarity and dictates how water interacts with other molecules.

So in other words water molecules are little tiny little magnets. They stick together and like magnets if the same poles are facing each other they press apart, if the opposite are facing each other they stick together. And this also explains my beautiful water droplets. The is why surface tension happens. The outer layers of the drop stick together making a kind of skin. What a different thing water would be if it didn't do that. No drops.

She goes on to say this polarity - this magnet like quality of a water molecule has huge importance:

> Importantly, this bonding makes water molecules stick together in a property called cohesion. The cohesion of water molecules helps plants take up water at their roots. Cohesion also contributes to water's high boiling point, which helps animals regulate body temperature.

And:

> Furthermore, since most biological molecules have some electrical asymmetry, they too are polar and water molecules can form bonds with and surround both their positive and negative regions. In the act of surrounding the polar molecules of another substance, water wriggles its way into all the nooks and crannies between molecules, effectively breaking it apart are dissolving it. This is what happens when you put sugar crystals into water: both water and sugar are polar, allowing individual water molecules to surround individual sugar molecules, breaking apart the sugar and dissolving it. Similar to polarity, some molecules are made of ions, or oppositely charged particles. Water breaks apart these ionic molecules as well by interacting with both the positively and negatively charged particles. This is what happens when you put salt in water, because salt is composed of sodium and chloride ions.

And that this enables water to help transport things around which is critical:

> Water's extensive capability to dissolve a variety of molecules has earned it the designation of "universal solvent," and it is this ability that makes water such an invaluable life-sustaining force. On a biological level, water's role as a solvent helps cells transport and use substances like oxygen or nutrients. Water-based solutions like blood help carry molecules to the necessary locations. Thus, water's role as a solvent facilitates the transport of molecules like oxygen for respiration and has a major impact on the ability of drugs to reach their targets in the body.

Blood is mostly water. 90% water it turns out. So yeah no water, no animals with circulatory systems. And no plants to create oxygen and form the basis of the food chain either right?

But it doesn't stop here it turns out, this was new to me, that water is also structurally essential in the body.

First she shares that water fills up cells - like tiny little water balloons, giving them shape and a flexible kind of solidity. That applies to all mammals and most plants. When cells get dehydrated the get all wrinkled and shrunken and can't function so well.

And she gets pretty technical about membranes. When's the last time you thought about how essential membranes are for staying alive. We think about mucus membranes in the nose some times maybe. Or the way somehow oxygen can move between the respiratory system and the circulatory system - jumping across membranes. But she reminds us that it goes deeper than that. I was going to just summarize this but let's geek out on the full story:

> Every cell on Earth is surrounded by a membrane, most of which are formed by two layers of molecules called phospholipids (Figure 3). The phospholipids, like water, have two distinct components: a polar “head” and a nonpolar “tail.” Due to this, the polar heads interact with water, while the nonpolar tails try to avoid water and interact with each other instead. Seeking these favorable interactions, phospholipids spontaneously form bilayers with the heads facing outward towards the surrounding water and the tails facing inward, excluding water. The bilayer surrounds cells and selectively allows substances like salts and nutrients to enter and exit the cell. The interactions involved in forming the membrane are strong enough that the membranes form spontaneously and aren’t easily disrupted. Without water, cell membranes would lack structure, and without proper membrane structure, cells would be unable to keep important molecules inside the cell and harmful molecules outside the cell.

There's a diagram in the article that helps: imagine the membrane as two layers of little sticks with a magnet at each end. Kind of a weak magnet so on their own these phospholipids don't make a very solid layer, they'd clump together in all kinds of ways and your cells would leak out. But with water on each side the magnet ends are attracted to the water and it's that interaction that helps the double stick magnet layer of phospholipids me stable. Stable and also helpfully permeable as she says: salts and nutrients and oxygen atoms and things can slip through them but they hold together well enough to keep other stuff out and give the cell a clear boundary and structure.

Then there's a whole section on how essential water is in the chemistry of life, like acid-base reactions and things. I'll skip that part but later on when we post my notes to the website along with the video - assuming the video my laptop is taking is worth watching - you can read about all of this if you want. Or just google "why is water essential for life?" it's the first hit. As it should be - what a great article. I was appreciating Molly Sargen's generosity in putting it together for us with such clarity but also getting into the real science. The internet is another thing that's wonder and terrible isn't it?

So why am I telling you all of this?

Because it just struck me this morning as such a great example of seeing the extraordinary in the ordinary. What could be more ordinary than water? And what could be more amazing than water in all of it's forms.

And you can think of so many more forms of water too can't you. Solid water - ice and snow. Gas water - mist and steam. The joy of swimming in water, and the threat of drowning in water. And that here we are on this island surrounded by water. On a planet's surface that's covered mostly with water. And yet we humans have also degraded the ability of the planet to provide us with the drinking water we need. Fresh water, dirty water, clear water, salt water. Bodies made of water. It's amazing.

And people have been study this for a long time. Here is a bit from Eihei Dogen, a 13th century Japanese Zen founder. This from his essay Mountains and Rivers Sutra. Sutra means a teaching, usually something the Buddha said in that context so he's being playful saying that mountains and rivers are also teaching us. Earth and water is also teaching us.

> Water is neither strong nor weak, neither wet nor dry, neither moving nor still, neither cold nor hot, neither existent nor nonexistent, neither deluded nor enlightened. When water solidifies, it is harder than a

> diamond. Who can crack it? When water melts, it is softer than milk. Who can destroy it? Do not doubt that these are the characteristics water manifests. Reflect on the moment when you see water of the ten directions as water of the ten directions.

And he explores perspectives on water:

> Some beings see water as wondrous blossoms, but they do not use blossoms as water. Hungry ghosts see water as raging fire or pus and blood. Dragons and fish see water as a palace or a pavilion. Some beings see water as the seven treasures or a wish-granting jewel. Some beings see water as a forest or a wall. Some see it as the dharma nature of pure liberation, the true human body, or the form of the body and the essence of mind. Human beings see water as water. Water is seen as dead or alive depending on [the seer's] causes and conditions.
> Thus, the views of all beings are not the same.

There is a Buddhist cosmology reference of two in there. "Hungry ghosts see water as raging fire or pus and blood." Hungry ghosts are beings that are endlessly desirous and endlessly unsatisfied. They are icky looking creatures with big distended bellies and throats as narrow as pencils. They are constantly hungry - thus the name - but can't get food through their throats. I guess they can sip water but the experience of drinking is gross and awful, instead of water being cool and satisfying it's like raging fire. Or it's like pus or blood. Totally icky.

One way of looking at the cosmological system that hungry ghosts exist in is as a separate kind of level of reality that we can be born into if we do lots of terrible things. A kind of karmic punishment except it's not like someone is punishing us, it's a natural result of cause and effect. Do bad stuff and have a bad rebirth. Traditional Buddhist thinking rooted in traditional Indian thinking includes rebirth, re-incarnation. And I was reaching that when Theosophy was founded in the 19th century it's founders also felt that this must be true. I'm not sure how our modern day Theosophy friend here at the camp look at rebirth, maybe a bit like I do as a modern student of Buddhism: hmm, not sure. Can't see it or experience it so it's hard to feel confidence in it, on the other hand I know we've all had experiences that can't really be explained so it does seem logical there may be more going on than we can see or experience so who knows? Kind of rebirth agnostic I guess.

But a more valuable way for us to look at the idea of Hungry Ghosts in daily life - here at our retreat - might be that we all have our hungry ghost moments, sometimes they last for some minutes, hours, and days don't they - those times we are just so unhappy. We are not getting what we want. We can't seem to get what we want. And everything we try is so damn unsatisfying. And it's not fair. And so on and so on.

Luckily there are 5 other options besides being a Hungry Ghost but let's leave those aside for now.

Anyway I didn't mean to turn these talks into biology and chemistry seminars but I think you get the point: tune in. Notice more. Be curious. And perhaps you'll notice how amazing it as at times. Other times you won't. That's natural.

The ordinary is just ordinary. What's the point of that?

Well exactly, there is no point and that's the beauty of it: no-point is the point. It's right in front of us, all the time. Our amazing human life that we lose track of in the shuffle. Our gleaming radiance that we are so amazed by when we see it again - in the light of a loved one's eyes maybe - wow! And yet is must always be there right? Some of us have kids - grown or young or on the transition between those two - which is a powerful learning lab for this isn't it? What a miracle that human beings can somehow invite the emergence of new human beings into the world? And yet that also becomes the annoyance of how long it takes to get shoes on and get out the door. Or the fear that they won't graduate, or much worse things will happen. Ordinary fears with extraordinary beings in our lives.

And trees! Here we set in a gorgeous orchard of big mature apple trees. And grass! And clouds! And air! I'd better safe air for another talk eh? Clean air to breathe? Wow.

Why is it that every moment of every day we aren't utterly astounded, delighted, and amazed. How can we even move from one captivating spot of wonder and go do stuff like we do?

Here's a favorite poem by Mary Oliver about this called, so appropriately, Mindful:

Every day
I see or I hear
something
that more or less
kills me
with delight,
that leaves me
like a needle

in the haystack
of light.
it is what I was born for -
to look, to listen,

to lose myself
inside this soft world-
to instruct myself
over and over

in joy,
and acclamation.
Nor am I talking
about the exceptional.
the fearful, the dreadful,
the very extravagant-
but of the ordinary.
the common, the very drab,
the daily presentations.
Oh, good scholar.
I say to myself,
how can you help
but grow wise
with such teachings
as these—-
the untrimmable light
of the world
the ocean’s shine,
the prayers that are made
out of grass?

Thank you very much.