



Title: Working with the Element Air : Function of Leaves

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Transcript:

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Hello everyone welcome to part three of the synchronizing with the element of air. I'm Erin LaFaive herbalist and plant priestess with full circle herbals and the author of the learning herbalism workbook. So I'm here for part three of connecting with the element of air. One of the things I do as a plant priestess is synchronized with the nature cycles and synchronize with nature in general. And can do that through the the five the four the five elements spirit, earth, fire, wind or air and water. So I for this month I picked the element of air to use as a like a perspective of how to look at herbalism and plants in general. So today's topic is all about leaves talking about the functions of leaves in an herbalism and plant priestess lens looking at from that perspective. So in the last few in the last other parts, we talked about what the element of air symbolize, and also what what kind of plants are air pollinated plants.

So everything this month is all about the element of air. So I'm gonna get started here and just a couple seconds. It is definitely things are growing very well right now it's in the midst of summer it's very hot here 85 degrees plus Fahrenheit. So I wonder how it is where you are getting rain Are you getting? Probably not snow, but maybe if you're up in the mountains, how is it in your area for the growing season? Because we are in the midst of the growing season. And you know, it's interesting because the fall Equinox is you know, about two months wait 3060 days away or maybe about those times Hello from Texas. Hey Sondra See you all now popping up here saying hello.

So for the for the leaves the functions of leaves. It's an organ it's considered one of the organs of the plants. And they do many of functions. But if we look at it through the elements of air, typically leaves are the main photo synthesizer now there's all sorts of other parts of the plant that will do it as well. And some plants have very reduced leaves, but for them in general believes are doing most of the photosynthesis and most of the respiration. So there's a lot of exchanging of particles and gases and water vapor that are happening through the leaf. So we've is doing many things including photosynthesis, respiration, transpiration, but when we look at it through the element of air, the gas exchange for carbon dioxide goes into the leaf and it goes through this area that is called the stomata, the stow mates or the stomata plural versus singular. So the stomata are these openings, and they're regulated by a number of things, including the humidity. And there's these things called guard cells on each side. That will swell for various reasons, and when they swell it, it shuts that stomata it closes it off, and then when

they shrink, then it opens the stomata and there's many different things that that the guard cells are responding to. But the plant has stimuli that are happening around it to help it indicate when it should open and close the stomata so the pores in the leaf. They're typically on the underside of the leaf. Most of those stomata are on the underside. However, again, there are stomata on all parts of the plants. But in general, the leaf is doing a lot of the respiration and the stomata on the underside. exceptions to the rule for sure. And including like cactus spines and other thorns. Those can be reduced leaves that have evolved over time to curl up it really tightly, because they don't want a lot of surface area to gain access to the sun because they have a lot of access to the sun almost too much. So they've actually shrunk themselves down. And so I have leaves here. And sometimes we don't think of certain things as leaves like the cedar, the cedar, the column technically like scales, but that is a leaf.

Here's a lilac, this is what we typically think of as, as leaves. I think, like if you ever asked, you know, a kid in school, to draw a leaf, typically it's going to look like something like this. And then there are all the different shapes, sizes, colors, some have a lot of aroma, some are soft, summer, got edges on them, some have sharpness to them, there's like so many different kinds of leaves out there. And they've all been adapted for their particular environment, whether it be the type of humidity, they have the amount of sun, perhaps they are evergreen all year long. So they have to adapt to cold as well. All right, so yeah, waxy surface, this one is slippery, it's called glabrous, which means has no no hairs on it. So it gets it's just very, very waxy. Some leaves taste really good, because they have different kinds of plant constituents in them secondary metabolites, some are bitter, because that's the way they've evolved to be bitter to have things spit them out, and so on, and so forth, all sorts of different leaves there. So as as carbon dioxide goes in, eventually they need to release some of the gases. So then the oxygen comes out. And there's just this constant like, in and out. So we call it breathing, because that's what our lungs do as well. But they don't necessarily have an internal organ that does it, there's a lot of things happening that bring in and out gases and such. Now the problem with this, the challenge with having openings like this, where gas exchange comes in and out and water exchange is also micro organisms can get in so diseases can find their way into the plants in various ways. And stomata can be one of them.

So yeah, that's one of the things that leaves are doing is bringing in and out this gas exchange carbon dioxide and oxygen. And also what will come in and out is their water, the water vapor. And so if they're, they're exposed to a lot of heat, and a lot of sun, and their root system isn't able to suck up the water that they need to hold their structure, the leaf will droop because it's literally trying to make itself smaller. So that has less access to the sun. It's it's a solar dish, and it's it's some of the leaves are designed to capture as much sun as they possibly can. The whole plant itself is trying to catch as much sun as it can. And so sometimes, if that's too much, they will wilt which will help to close off those stomata and protect the stomata from having more gas exchange because, you know, if carbon dioxide comes up into the plant via the stomata, something needs to be done with it. And there's a whole process happening.

If there's not enough water, if there's not enough nutrients, then the plant is going to have a hard time taking in anything nutrients, water or air. So that's why it's important to have the leaves sometimes to droop. If there's not enough water coming through the roots and up into it, it's protecting itself. So if you ever see plants droop when they're really hot, sometimes they just do that to reduce their leaf surface and aren't necessarily lacking water, but they're just kind of hot

in there trying to protect their stomata from being exposed to a lot of a lot of the changes in the temperature and the humidity and they want to keep everything closed down. So lots of protective mechanisms that they do for themselves.

So another thing about working with leaves in herbalism and in plant priestessing is that leaves can lend themselves to other things like sound. So many I'm sure like the sound of certain leaves rustling in the wind. And on my Facebook page, Full Circle Herbals Facebook page, I said what you know, plant symbolizes air to you and people said, like quaking Aspen, because that makes that really great sound when they rustle, the leaves of the willow have a different sound, palm trees, all these things have different sound. So they have sound, and they have scent. Of course, we use leaves for all different kinds of scents. And they also have different tastes and different plant constituents. So we can use them for all of our senses, and be using them for scents, putting things on our body or an inner body. And leaves are also doing so many other functions too.

So hopefully, with this mini lesson, today, you're learning about what visual cues, some of your plants, your herbs, your vegetable garden, your, your flowers that you have growing, if you see them doing certain things, you'll realize soon that some of these things are just their mechanism to reduce their input and output. And not necessarily like they're super stressed, but they're just doing their regular function. And to think about your nature centered spirituality, through the lens of elements. So if you look at, like I said, air, you can, you can use the plants parts, for representing air. And it's many, many forms from the leaf because we know it does its gas exchange, the sound of certain leaves, some trees and plants and shrubs make a lot of noise in the wind, and some do not some of plants or create a lot of sent and sent to me is associated with the element of air, and some plants do not.

So we can use this, we can use the plant to represent the different elements in different forms. And sometimes during the different parts of the season. They have different parts of them that become symbolic of these different elements. For example, certain flowers have, there's a plant called smoke bush was what I call it. And some of the the flowers when the flowers come out, they're very wispy, and smoky, almost looking smoke tree. And so that at that time really can represent air. Liz says I never considered drooping leaves as signifying reduced leaf surface. Yeah, they're just and they're, you know, like trying to create their own shade. It's like an umbrella that's kind of deflating. You know, as you pull down the umbrella, then there's less surface area and everything kind of gets shaded on inside and is protected on the inside. They're doing all sorts of things for themselves.

So yeah, leaves and representing air, you may have noticed I mentioned water exchange is happening and gathering the sun. So the leaves could symbolize other elements as well. But I really think they lend well to the the elements of air because of their like I said their sense, their their gas exchange. And the majority in general, the plant organ most responsible for the gas exchange typically is the leaf. So I really love using that part of the plant as indicating the elements of air. And certainly, like I said, the sound of the plants could be your indicator that it's the element of air to cognita says I'm glad I know this because we're always quick to water. Yes, I agree that when I see something drooping, I really want to give it some water. Though some plants don't really seem to be necessarily in need of it. I've noticed that with my comfrey plants, my comfrey plant in the middle of the day when the sun is hottest on it, it will do a drooping

effect and look really limp. So it looks like it's really stressed but by the end of the day, when it cools off a bit, it will perk up and kind of come out and you know fluff up a little bit more. So if your plant doesn't seem to recover at you know few hours into the day after it starts to get a little cooler or the sun shifts and is not completely on it. And if it doesn't seem to recover then then that could be an indicator that it does need water. But if you watch your plants and they seem to kind of lift and droop and lift drooping, they just do the cycle, then it's just an indicator that they are, you know, bringing their leaf surface down and trying to make their own shade and cool themselves off.

So that's why it's good to just be aware of your plants. And even if you're not using plants for medicinal like purposes, or they're just not a plant that's used that way, just visiting them over and over at different stages of their growing patterns. And at different times of the day and of the season, you will start to see what kind of patterns they have and how they react to different stimulus that's happening in the environment around them, then you get to know them better. And it just creates this connection with the plants because you know how it's going to act. And it may seem like such simple information, because you just gradually acquire it, and it feels like everybody else seen would have that knowledge, like why wouldn't you know that the plant always does that, but each, you know, each plant, each area of this world has different fluctuations happening. So things respond differently in different areas as well.

So, you may also notice that plants have a stronger scent at different times of the day or different parts of the season. And that is also has to do with if their stomata are opening up and they're releasing oxygen and, you know, letting some of their their sense and plant constituents out as it's opened. That will lend itself to that too. It's just like when grass is cut, and you smell that aroma, things are being released through the through the opening the cuts that were once captured inside of it encapsulated in it, but the stomata are one of the ways some of this stuff will come through. So that's why I think you know, sitting next to plants are having them in your office or in your home. That that whole process that's happening like we are aware in some level that things are shifting, that plants are releasing, you know, different different plant constituents even through their own stomata.

Yeah. Alright everybody. I also wanted to let you know that next month I'll be doing another plant priestess exploration workshop, many of you have been through the workshop and some of you several times. So I just am going to start announcing the details of it slowly here. But I will say that one is happening in August and I'll give you those details as they start to develop but get it on your calendar that an August another plant priestess exploration workshop is coming so thank you for joining this mini lesson here on the live video podcast herbs which stands for herbs with Aaron remedies for body and spirit. And if you're watching live right here right now then just know that this is turned into an audio podcast on Spotify and iTunes and and we also put the video and the audio into a blog post on my full circle herbals comm website as well. So have a great time everybody. I'll see you next week where I will be talking about herbs for the lung system. So with the element of air, now we're going to use look at our own human body as what is symbolizing air and then add in plants that help with that system. So Alright everyone, take care. Bye bye

