

ANTI-GRAVITY



Our earth is full of miracles, and sometimes I am overcome when I think that most of us don't see those miracles any more. For instance. This morning, early, sat on my little porch watching the advance feelers of one of the passion fruit plants, a vine, that grows in the thick forest in front of me. Two days ago I saw two feelers find and twist around each other, thinking that must be making them stronger. It was west wind that day and there was a nice round curve to the right. I wondered where they would go because they are already at the top of the trees, at least 30 ft (10 meters) above the ground, and there are no higher trees anywhere near there. The next day the wind was from the east, and I saw the pair making an elegant double curve, first to the right then to the left. This morning, still wind from the east, the two had somehow separated and now the ends of the feelers — growing at least six inches a day, although from here it is hard to gauge inches — now the curve is more pronounced to the left, but the two ends have split apart.

I marveled at the power of that vine. It is seeking ever higher. How is that possible without any support, no branches to curl around as the vine does down below. What force makes those thin feelers stand straight up, twisting in the wind, always reaching higher. Fluid makes it stand up, gives it an erection, but capillary makes it go higher than 30 feet. I know that vine well; the plant makes an unusual kind of passion fruit, here called liliko'i (nothing to do with lily, it is pronounced leeleekoh-ee). There are many kinds of liliko'i, the most common has thick, hard, shiny yellow skin, and there is a kind with wrinkled purple skin. This one has a soft orange skin that feels like suede (the dictionary says leather with a velvety nap). It is a fiercely growing plant, obviously seeking the sun, up and on the outside of leafy trees. I planted one volunteer sprout on a neighboring clump of thick trees. Last year it made a bridge across at least 8 ft (2,7 meters) to the woods on the left. Now, a year later it must have found the ground on the left, and shot up thirty feet to the top and now is reaching another eight or more feet up in the air.

The hard yellow liliko'i has the same fiercely seeking sun, its roots may be underneath a dense tree, but the branches soon appear on the top and outside of the tree. The yellow kind has different flowers, it is the flowers that the English name came from: "passion" fruit— a cross in the heart of the flower.



The 'velvety' orange liliko'i has a smaller and quite different flower, blue, although the fruit, inside, looks much the same. The yellow kind is sour, the orange is sweeter.



There are, of course, many vines, all of them eager to go UP, yet all of them must rely on branches to curl to find support, but basically the up is capillary.

Well, yes, of course. Now that I understand that, I realize that all plants, and all trees, rely on capillary power to bring water to the top of even very high trees, feeding first branches and eventually leaves. But is that all? The veins in our legs have 'cups' that prevent blood from going down, and probably walking—muscle action—also helps blood go up to the heart. Do plants and trees have other, perhaps similar ways to grow so high? The hard wood keeps the tree up, of course, but the top and outside branches is where growth happens, so somehow water from the soil must be pushed up a hundred, two hundred feet up.

Truly anti-gravity!

Our earth is an amazing miracle, almost every day I discover something new.