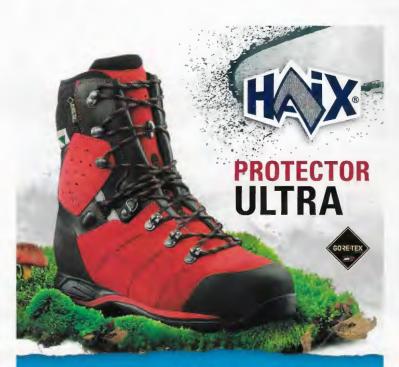


THE DIAGNOSTIC SLEUTH

By James Komen and Steve Nimz

The Case of the Flawed Floss Silk

I had found a break in the action between my assignments, so I decided to reach out to Frank, a friend of mine. Frank owned a small tree service company in town, and we had known each other from the regional ISA conferences. I'd been meaning to give him a call.



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As I looked up his number, I remembered being one of his judges at the most recent tree climbing competition. Frank was quite the climber. He was a young fellow with an athletic build and a positive attitude. He had secured third place in the competition, losing points because he had gotten ahead of himself and hadn't looked carefully at the tree before rigging his tie-in point. With a little more experience, I'm sure he could turn around and win it next year.

Frank picked up the phone after half a ring. "Is this THE Detective Dendro?!" he exclaimed, half sarcastic and half genuine.

That was the sense of humor I remembered about him. I couldn't help but smile. "At your service, Frank."

We chatted for a while and caught up on our experiences over the past few months. I told him about my recent travels abroad, and he told me about his crew's adventures and misadventures in town. Frank was especially excited to show off the trees on his latest contract. His bid had been selected to manicure the trees at the waterfront historic gardens---quite prestigious!

I was happy to have an excuse to visit the gardens again. The waterfront gardens were connected to an art museum, which served as the main attraction, but we were both more interested in the eclectic collection of arboreal assets. The gardens formed a living museum in their own right. A few hours later, we met for a brief lunch before beginning our tour.

As we walked through the park, Frank beamed, showing off each of the trees he and his crew had worked on already. We passed under a large mango tree (*Mangifera indica*), and Frank picked up a couple fruits off the ground. He pointed at a sign that read, *Do Not Pick the Fruit*, and chuckled at the loophole he found: "It doesn't count if it's on the ground! Plus, my crew will be cleaning all this fallen fruit up and throwing it out in a few days anyway." I looked up into the canopy of the mango tree with my binoculars. There was quite a fruit load up there! I had barely put my binoculars away before Frank tossed me a mango with a wink. Grateful, I peeled back the skin and took a big bite. The sweet mango nectar couldn't have tasted better.

We passed a number of large monkey pod trees (*Samanea saman*) and walked along a row of coconut trees (*Cocos nucifera*). But as impressive as all these trees were, nothing compared to what we encountered as we approached a large, open lawn.

Before us stood an incredible specimen of floss silk tree (*Ceiba speciosa*) growing in the center of the open area. It towered above us at about 85 feet (26 meters), with a horizontal span of about 70 feet (21 meters). Its full canopy of palmately compound leaves shaded the area below, rustling in the gentle ocean breeze. The tree's green scaffold branches reflected the golden afternoon sun in a picturesque way against the cloudless blue sky. A few spent pink flowers still clung to the branch tips from the earlier flowering season. The tree was something special to behold.

I wiped the mango juice from my chin and tossed the pit into a nearby trash can. "Frank, this is amazing!" I was both referring to the tree and the mango I had just devoured.

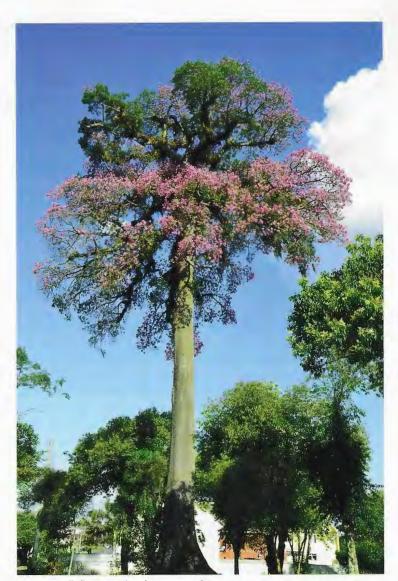
I adjusted the strap on my binoculars to slide them behind my back as I looked up into the broad canopy of the tree. The branch unions were well-spaced, and I didn't see a single codominant stem at all. There were a few dead branches nestled in among the living ones. They had a distinctive blackish-grey coloring that contrasted with the green bark of their living parent stems. Although the dead branches may have been about 4 to 6 inches (10 to 15 cm) in diameter, they looked like teensy twigs from my perspective on the ground.

The lawn looked heavily manicured and well maintained. The grass was short and dense, almost like a golf course fairway. There were large decorative granite pavers along the pathways that made for an exquisite walking surface. A fountain on either end of the lawn completed the scene. This was *my* kind of art museum.

Frank explained his scope of work. "We'll just be doing a little deadwood cleaning to manicure it for aesthetics. I wasn't planning any significant live wood pruning."

"Wow, that's quite the job," I commented, looking around at the varying surface materials on the ground. "You'll have to be careful where you place the outriggers on your aerial lift."

"Aerial lift? Why would I need to spend all that extra money? I was just planning on climbing up there myself. It may be a big tree, but I can handle it. There's no sense in getting heavy equipment if I'm just going to dance around the canopy and knock out a few dead branches. How bad could it be?"



Brazilian silk floss tree (Ceiba speciosa).

Uh-oh, Frank. Rather than tell him what was wrong outright, I decided to show him. Without even looking through my binoculars, I handed them over to Frank. He gave me a puzzled look, so I gestured with my eyes at the top of the tree, inviting him to look. Frank raised the binoculars to his eyes, following the trunk upward. It didn't take long for him to realize what I was referring to.

"Jeepers, Dendro!" he exclaimed. "I won't be dancing on those branches! I guess I'd better get an aerial lift for this one after all!"

What did Frank see? Turn to page 65 to find out!

WHAT'S THE SOLUTION? Continued from page 21



"Thorns!" Frank exclaimed. "How did I not see these from the ground? That would have been a *very* unpleasant surprise."

I walked over to the trunk. It was rough and grey, devoid of thorns. The dense smattering of thorns didn't become visible until about 40 feet up the main stem. It wasn't easy to see them from the ground with the naked eye. But further up the tree, the thorns covered every lateral scaffold branch Frank had planned

on climbing along, including the crotch he planned on tying in to. If he had anchored his climbing line there, his day could have ended very badly!

I gave Frank a little information about *Ceiba speciosa*: "In addition to its picturesque pink flowering, the floss silk tree is known for two distinctive features: green stems and thorns. Thorns appear to be an adaptive feature to deter animal damage while the trees are in their juvenile stages through early maturity. But on very old specimens, old bark can remain attached to the trunk before sloughing off years later. When this happens, the trunk does not maintain its outward green appearance. On older sections of the tree, the characteristic thorns can weather off over time. That might be why you didn't see them when you performed your initial visual inspection."

Frank realized his mistake, but he took it in stride. "Well, I didn't use binoculars to inspect the tree before I put together my work plan. Next time I work with a large tree like this, I'll spend some additional time taking a look at the upper scaffold branches with binoculars before preparing my bid. It looks like I'm going to lose some money on this pruning project. But paying the additional expense of renting an aerial lift is much better than working in unsafe conditions. I'll have to inform my client of the reason for the delay."

"It sounds like you've learned your lesson for the future," I said. "Not only is it a good idea to look up the characteristics of the species you'll be working with, but it's also a good idea to *look up* into the tree with a pair of binoculars too."

"You're right, Detective. Thanks for helping me catch this *thorny* situation," Frank replied.

I smiled. "I'm glad you got the point."

James Komen is a consulting arborist in California specializing in tree appraisal and risk assessment. Steve Nimz is a consulting arborist on the island of Oahu, Hawaii. He specializes in managing large trees during construction and development.



Silk Floss Sky View. Photo by www.flickr.com/photos/tinyfroglet.

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