



# DETECTIVE DENDRO THE DIAGNOSTIC SLEUTH

By Ellyn Shea

## The Case of the Palm's Perilous Predicament

"Please, please, Dendro, pick up!" Codit muttered as he paced nervously next to the truck, his head down and phone glued to ear. Dendro had gone off on an undisclosed errand earlier this morning and left Codit in charge for a few hours. The understudy was excited for the responsibility . . . that is, until he picked up the first voicemail message:

*Hello, Bob Bustapipe with the local utility here. We've got a situation. A repair operation's gone south. The water main broke and flooded the block, damaging structures. We're concerned about a broken planter box holding a tall palm tree. We don't know if the tree can be saved. Can you help?*

Dendro and Codit were in coastal California for a while, following up with longtime clients and their trees.

Seemed like there were palm trees in every yard around here. Codit struggled to remember his palm biology lectures from college. He'd been a bit . . . preoccupied, with a TA from the botany department that semester. Perhaps he hadn't listened as closely as he should have.

And now, standing under the tree in question, he was pretty sure it was a queen palm (*Syagrus romanzoffiana*), or was it? This was not a good beginning to a job, and Codit was getting nervous. He should have waited for Dendro.

OK, Codit thought. *Observe and document.*

The tree was about 30 feet (9.14 m) high and growing in one of the smallest planter boxes for a tree he had ever seen, five feet long by three feet wide by four feet deep, 60 cubic feet (1.7 m<sup>3</sup>). Was this all the soil volume there was for the roots? Bizarre! How was this tree even alive? And more importantly, what was holding it up?

The planter box was constructed of stacked, pre-formed pavers, mortared together. Now the pavers were dislodged



Codit's gotta think outside the box on this one. Heavy water damage has made more obvious this palm's perilous predicament, particularly the position of those pavers.

and pulling away from each other. The box itself was pulling away from the building. The whole thing looked like it had been built by a child who had lost interest about halfway through. And yet, despite its apparent flimsiness, this planter box *must* have once played a significant role in supporting the tree.

And now, with the box walls and soil around the roots compromised by the rush of water, how long before the tree would fail? Was Codit imagining things, or was the tree starting to lean more towards the street?

Codit was unsure, and the glaring California sun wasn't helping.

*Doesn't it ever rain here?*

He continued taking pictures and making notes, composing his face to look as calm and confident as possible. There was no sign of the client yet, thank goodness. Codit strolled back to the truck (the shaded side), and frantically dialed Dendro again. No answer.

*Think, Codit!*

Maybe the tree could be supported, somehow, while the box was being rebuilt. Codit remembered from school that palm trees had vascular bundles of phloem and xylem sheathed in strong, fibrous tissues and embedded in a matrix of parenchyma cells. Would a threaded rod or J-hook—typically used for cabling woody trees—hold in this kind of material? And even if they could, what would the tree be cabled to? The house? What part of the walls could support the weight of this palm tree? Should they consult a structural engineer?

Codit was still holding the phone, and the line was still ringing. Suddenly, Dendro answered, sounding strained, “Hello? Codit?”

“Dendro! Where are you?” Codit asked.

A slight pause.

“Well, the good news,” Dendro said, “is that MewMew is in fine shape after his ordeal.”

*Wait. What?*

Codit was speechless. His eyebrows flew skyward and his mouth hung slightly open. “Ehhhhhrrr...” was all he could manage to say.

“You remember Verdant Beautifolia?” Dendro asked.

*Oh, yes.* The beautiful rich widow in the giant house surrounded by rare trees and plants collected by her late husband. She spared no expense in hiring the best arborists and horticulturalists to care for them. Of course, Dendro was one of her go-to consultants.

“Well, her poor cat MewMew got stuck in the *Bauhinia*, and Verdie was so distraught—”

“Dendro, you’ve been . . . climbing?” Codit interrupted. After an auto accident, Dendro’s doctor had limited him to desk duty for six weeks. This was week five.

“MewMew’s very skittish, you know. He does best with familiar faces, and I have been going there for years.”

*Uh huh. And I’m sure playing the knight in shining armor for Verdie in distress had nothing to do with it.*

“I’ll be good as new soon,” Dendro went on. “I’m in the waiting room of Dr. Bonecraker’s office, Verdie’s personal chiropractor. But enough about me, what’s going on?”

Codit tried to keep the stress out of his voice as he explained the situation and texted his photos to Dendro.

His mentor listened attentively before responding. “It can certainly be beneficial to collaborate with other experts on complicated cases,” he replied. “But let’s come at the problem from a different angle. Think outside the box, if you will.”

*Turn to page 72 for the solution.*



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# WHAT'S THE SOLUTION?

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"Of course, I don't have to remind you of palm biology," Dendro said. "Most palm roots are in the upper 12 to 18 inches (34.5 to 45.8 cm) of the soil, forming a densely packed root mat close to the stem. These roots usually have a good capacity to resprout when cut, and the palm has the ability to produce new roots from the base of the stem, which makes palms—"

"Very easy to transplant!" Codit shouted. Of course! Self-doubt and fear had frozen his mind, and he'd forgotten one of the basics: *Understanding the characteristics of the subject tree is vital to solving the problem.*

"That's right," Dendro replied with a chuckle. "Call up TreeWalker Tree Moving Service to help out. Luke over there is the best in the business—I swear, he practically levitates those trees out of the ground. With his equipment and personnel, he can safely move that tree out of its perilous predicament. Meanwhile, that planter box can be totally dismantled. The tree should be planted in the ground between the sidewalk and the house—essentially in the same location. With the right aftercare, that palm should do just fine!" Dendro breathed easy, and there was a smile in his voice. "Good work, Codit. I have



When challenged with an unusual situation, Dendro advises Codit to stick to the basics (and don't be afraid to ask for help when you need it). Transplanting this palm from the old, dilapidated paver box will take some work, but it'll be worth it.



every confidence in you! Say, could you drive over and pick me up in an hour or so? Bring a sandwich, extra onions? It's been quite a morning, I'm starving!"

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*Ellyn Shea is a consultant in San Francisco, California, U.S.*

*Photos courtesy of the author.*

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