

VERVE

The Forest for the trees

29 June 2020

“I’m like an interested layperson.” That’s how Nirupa Rao describes her approach to her work. Despite having no formal training in art or botany, Rao combined an inherent talent and innate love for plants to become one of India’s leading natural illustrators.

Bengaluru-based Rao grew up in a family that included botanists as well as horticulturalists: her grand-uncle Cecil Saldanha had documented Karnataka’s flora in the ’60s, collecting about 14,000 samples across 5,000 species. So, for Rao, plants were always synonymous with adventure and discovery. As a young girl, she remembers going on picnics, or “expeditions” as the adults would sometimes call them, where the kids would collect berries and explore the wilds of the Western Ghats. Even her childhood drawings often included plants.

Until a few years ago, Rao didn’t even know that being a professional botanical artist was an option — she came upon her current job after obtaining a degree in sociology and completing a stint in the field of graphic design. Five years into her new career, she already has two books to her name, has illustrated the covers of a handful of Amitav Ghosh novels, and her work will be featured in an upcoming exhibition at Harvard University’s Dumbarton Oaks Research Library and Collection in Washington DC.

Her first book, *Pillars of Life – Magnificent Trees of the Western Ghats*, was published in 2018, and it was born out of a chance meeting with conservation scientists Divya Mudappa and T R Shankar Raman during a plant identification course in Kerala. Impressed by Rao’s skills, Mudappa and Raman, who run a rainforest restoration project in Tamil Nadu’s Anaimalai Hills, expressed a keen interest in involving her in the visual catalogue of trees they were working on. “It was difficult for them to collaborate with photographers, who found it tough to capture the trees that were too tall to fit the frame. The surrounding greenery was also dense, so it was hard to pick out a single tree. They saw my work and thought that maybe, the whole thing could be done through illustrations,” Rao shares. Her second book, *Hidden Kingdom – Fantastical Plants of the Western Ghats*, published in 2019, was something she conceived with her cousin Siddarth Machado, a botanist himself. It initially started as an idea to commemorate her grand uncle’s work by documenting the orchids of the Western Ghats, a flower he was fond of, before it evolved into a broader visual collection of regional flora that would appeal to children.

Rao’s work may appear anachronistic, but it is vital to the protection of our natural heritage. Botanical art and illustrations record the lives of species before they go extinct, especially due to threats like climate change. It also inspires people to protect what exists by spreading awareness. That’s not to say that photographs can’t do the same, but, as Rao mentioned, they do have their limitations. Also, as former executive director of the American Society of Botanical Artists Robin Jess once told the *Associated Press*, “An illustration can show various parts of a plant at the same time, something a photo really can’t. It can show extra details of the fruit, for example, and what it looks like bisected.”

Here, Rao discusses four of her chosen artworks, her methods, and the need to appreciate Indian flora.

Cullenia Exarillata



Cullenia exarillata, (Wild durian): Watercolour on paper.

How do you draw a 130-foot-tall tree? That's what Rao and her colleagues Mudappa and Raman had to figure out while working on the *cullenia exarillata*, or the wild durian. The tree is a keystone species of the region and central to the ecosystem, with primates like lion-tailed macaques eating its fruit (seen up close in the painting).

Rao recalls how the team stood at the base of the tree and "looked up but couldn't make out anything..." She further describes how "there are several trees that, because they are at the top of the forest canopy, have barks that are quite straightforward. There isn't a lot of branching: they just want to get to the top because they're shooting up above the other trees."

She drew the buttress first, making notes on the texture and colour of the bark and comparing it to those of the other trees in the area. Then she sought out an elevated perch to get a better view of the tree's crown. Eventually, Rao climbed up a nearby hill, which gave her a clear idea of what it looked like.

"You probably will never see this tree in its entirety unless you know the jungle really well. Seeing it in this drawing is one of the only ways you'll get to see a composite," she says, emphasising the vegetation's density.

Picking out a tree in a thick forest is no doubt demanding, but for most of us, even noticing one in our daily lives is a challenge; many of us probably see right through urban flora.

There's a term for this tendency to ignore trees and flowers around us — it's called "plant blindness", coined by scientists Elisabeth Schussler and James Wandersee in the '90s. Rao explains that plants lack certain visual cues because they don't move, which is why we don't perceive them as threats. What's more is that because of the amount and kind of visual stimulation our eyes are constantly receiving, they can't process everything. "Our eyes prioritise what they should focus on, and deprioritise what's not really going to be an issue, so plants just recede into the background," she explains. Given that our eyes are programmed to recognise differences, and plants are considered "mostly all green", we tend to straightjacket them together into a single category.

"It's a vicious cycle," Rao believes. "The less you know about them, the less you notice plants. And then the less you notice, the less you know. So if we break that cycle by getting people to learn more, they'll start caring."