

Diagnosing trees and men



Trees are to be enjoyed, admired, worshipped, climbed on, cut down for pulp or furniture, or ground up to cure malaria and cancer. Their infinite variety and complicated taxonomy require the aspiring diagnostician to study them long and hard, along majestically lined avenues, on country roads, in green parks, and arboretums. Like reading Proust, you travel but never arrive. Like learning medicine, the task is never completed. You alternate forever between the ecstasy of an astute diagnosis and the crushing humiliation of a diagnostic blunder. Maples and oaks, willows and chestnuts are easy, stuff for beginners.

But there are treacherous trees that look like one thing and turn out to be another. What you take for a birch is actually a poplar. You mistake plane trees for liquidambars, ashes for rowans; you commit diagnostic malpractice with honey locusts; and who on earth has even heard of coriaria. You must keep on studying, at Kew, at the botanic gardens in Chicago, Sydney, or Montreal; above all, at the Jardin Botanico near the Prado in Madrid, where large signs (alas, in Latin) allow you to identify trees without scratching your face on prickly branches and brambles while looking for minuscule strategically hidden labels.

Medical students are often advised to learn from their patients during the day and read about their cases at night. Tree students also need to read, but their books, like medical texts, have limited value: descriptions are hard to follow, the pictures rarely look like the real thing. But how can you name something you have never seen and never read about, be it sambucus or ailanthus, or for that matter Turner's syndrome or Fabry's disease? And seeing an unmarked tree on the street leaves you high and dry, at the mercy of friends or algorithms, and suggests the need for an advanced course at the Jardin Botanico.

Fundamentally, trees are defined by the fruit they bear, not by their leaves. An oak is an oak because it bears acorns, not because its leaves are lobed. Some oaks indeed have leaves like maples or spines like holly, and there are maples with unlobed leaves, confusing as that may be. Deserts and tropical areas are even more disconcerting, with their mesquites and paloverde and jacarandas, their banksias and erythrinas and frangipani, so that the tree diagnostician may feel like a doctor from downtown Manhattan suddenly expected to practice tropical medicine in Sierra Leone.

In difficult cases an analytic approach may be tried, taking into consideration the leaves, their shape. Are they simple or compound, their edges smooth, toothed, or spiny? Are fruit present, or thorns, and how does the bark look? Even palpation may be indicated, especially for elm leaves, which have a rough feel. It is useful to remember that ashes, maples, boxes, olives, lilacs, viburnum, catalpas, and dogwoods have opposite (paired) leaves, whereas most other trees have an alternate arrangement.

But eventually, after many discouraging moments, it all begins to click. Then that marvelous gift of pattern recognition kicks in, so that we can tell a lime tree from a distance, a poplar from a moving train, effortlessly, without having to make out the details, just as we recognize a familiar face, a patient with Graves' disease, a person with cirrhosis, or now all too often the wasted face

of a patient with AIDS. It all takes time, patience, perseverance, and ultimately experience, which is why it takes so long to truly become a specialist in any field.