

INTERTWINED HISTORIES: Plants in their Social Contexts

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ISBN 978-1-77385-091-7

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coming into noticing

on being called to account by ancient trees

andrew s. mathews

walking, noticing, and wondering

Over the last few years I have been learning to tell stories about trees and landscapes in central Italy. These are landscapes that have been cultivated by humans for several thousand years. As in so many parts of the world, traces of former human use are omnipresent, if you pay attention. Ancient cultivated trees, old terraces, abandoned houses, drainage channels: traces of human presence are everywhere. One of my most important research methods is to walk slowly across a watershed, looking closely at details of tree and land form. Noticing gives rise to wondering, as I imagine the histories of encounters with forest fires, peasant¹ firewood cutters, or diseases that gave each tree its particular form. I wonder why each terrace was built; I look out across the landscape and try imagine the processes that shaped it. I take notes and photographs, and sketch particularly interesting trees. This kind of speculative noticing is a way of looking not only for the effects of humans upon trees and landscapes but for the effects of non-humans upon each other. The biographies of trees are recorded in their forms, as they respond to encounters with fire, disease, drought, and humans. Tree branches grow toward light; roots grow in response to soil, moisture, and human care.²

Walking, noticing, and speculating is a way of being pulled into telling stories about the pasts and futures of landscapes, of learning to be alert to surprises. This kind of speculative noticing is how many natural scientists come up with the questions that drive their research. Peasants and Indigenous people have always done this too. The farmers I talk to in Italy, and the Zapotec Indigenous people I worked with in Mexico, have always noticed and wondered.³

In this essay I will describe *how* I go about learning to notice, with the hope that this might remind you of how you already engage in such speculative noticing in your travels through the world. These practices of noting the relationships between long-lived plants and slow-moving soils seem to me to offer a suggestion about how we might advocate more hopeful environmental futures. Secondly, I am going to argue that speculative noticing can literally rewire your senses. Noticing can transform your experience of the world, as you learn to notice traces of plant disease, human care for plants, or emerging new relationships between plants and other beings. Once your senses are rewired in this way, you will come up with stories about the strange histories of plants, soils, and stones. These stories are accountable to your experiences of coming into noticing. Such stories are passionate and engaged, but also humble, a bit uncertain. These stories can move us to act to care for our local environment, from gardening to engaging in environmental politics.

coming into noticing

Let me tell you about how I came to tell stories that emerged from my noticing of tree stumps in the forest. First, consider this rather anonymous tree stump. It is large certainly, but what is there about it that might compel storytelling?

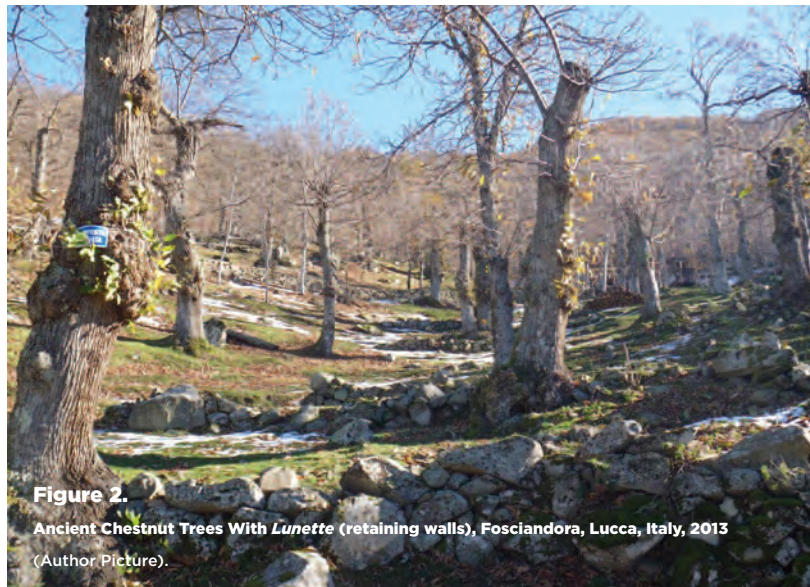


This ancient tree stump is the remnant of an entire civilization, a way of making a living that formerly covered these hillsides. It is an ancient chestnut tree that was converted from food production to firewood. Chestnut trees were formerly a principal source of carbohydrate food to millions of people across the Apennine Mountains of Italy,⁴ as in other mountains across the Mediterranean. Successive pathogen epidemics, and the decline of peasant agriculture, have caused the abandonment of most

chestnut cultivation. Nevertheless, the history of chestnut cultivation can tell us something about how humans are pulled into relations of care for long-lived plants.

The loops on the base of the image are the traces of several cycles of firewood cutting over the last sixty years. Each loop is the stump of a stem that was cut off at the base; it records the trace of an encounter between a tree and a firewood cutter. This practice of repeated cutting, known as *ceduo* (coppice), has been practised by European firewood cutters for several thousand years. From other walks and other encounters with tree stumps, and from conversations with firewood cutters and farmers, I knew that this unpromising stump had formerly had another shape entirely.

This is a well-maintained *selva*/chestnut orchard, in the high Apennines about twenty-five kilometres north of Lucca, in central Italy. The trees are well spaced out to favour fruit production, and are perhaps two hundred years old. They are well cared for: none have suckers at the base, and all have well-pruned crowns. The low stone retaining walls, known as *lunette*, keep soil around the roots of the trees. These walls demonstrate peasant farmers' willingness to work hard to attend to the needs of chestnut trees that need moisture. Finally, the orchard is clear and relatively grassy. This requires the work of sheep or goats who graze, and of a farmer to rake up leaves and burrs. What cannot be easily seen in this picture is the presence of graft scars, which are the physical manifestation of the long-ago moment when a peasant farmer grafted a desired domestic variety onto a wild rootstock/*portainnesto*. These enormous trees are in some sense the long-range echo of a centuries-old event, when a peasant farmer nudged a graft onto a wild rootstock, feeling with skill and imagination for the precise alignment of cambium layers in two small shoots. Trees, fire, people, soils, grass and sheep, have affected each other. I hope I have persuaded you that trees are wild creatures, shape changers who can be stumps that might sprout, ancient trees, or many other shapes entirely. To notice plant



Shoots respouting
from a stool, 2–4 years
since cutting.
Ceppo/polloni

form is to open yourself to notice the slow, sly, and strange shape-changing practices of trees. The figure below is what I call my chestnut bestiary, my menagerie of plant forms. All are chestnut trees, but each has a different name, a different history, and a different shape. Plants are able to respond to the world by drastic shape change. By attending to such shapes we can learn to imagine dramatic histories.

Figure 3.

A Chestnut Bestiary

(Author Drawings)



Twenty year old coppice,
suitable for firewood/poles
5–8 stems per stool.
Ceduo



Thirty year old coppice stems
have reduced to one per stool.
Curve at base of each stem is
sign that this was once coppice.
Vernacchia



Grafted fruit chestnut, perhaps two hundred
years old. The bulge at the top of the main
stem is the graft scar.
Castagno, Castagneto. The fruit variety is not
known but could be *Rossolina* or *Pillossora*

on rewiring your senses

Walking across the landscape and paying attention to plant form is a good way to begin to imagine the histories of human care, fire, and disease that have affected plants. I complement this by talking to farmers, foresters, and anyone who is interested in plants. Another way of opening myself to signs of plant/human/soil relations is to consult the dead. I look at legal and tax documents in the *Archivio di Stato* of the City of Lucca, searching for glimpses of changing human/plant relations, for some sign of forest fires or plant diseases. Sometimes, an old document will alert me to surprising details of landscape change and rewire my senses.

As long ago as the second century BCE, trees were being pruned and trained to support vines and used to divide up the Italian landscape into cultivated terraces, closed fields (*campo chiuso*), or irrigated pastures.⁵ In this image from a cycle of annual labours on the facade of the cathedral of Lucca, a peasant is pruning a tree so as to allow it to sustain a grapevine: this was known as the *vite maritata*. This cultivation form was formerly widespread across Italy, including around Lucca.

Figure 5, opposite, from the archive, shows poplars sustaining grapevines near flood protection levees around Lucca in the 1820s. The slow rhythms of trees, of more rapidly growing grapevines, of rapidly moving water and slowly moving canal banks, were maintained by the skilled choreography of peasant farmers who kept this system going.

Encountering this beautiful and haunting image made me remember something I knew but had allowed myself to forget. When I was a teenager, there were still many ancient field maples with remnant branches sustaining grapevines in the fields. Most are gone now. Alerted by the archive, and by our shared memories, my collaborator Fabio Malfatti and I began to look out for remnants of this ancient cultivation system. On a chance, we returned to the location of that beautiful early nineteenth-century line drawing, to see if anything remained of that precarious choreography of human, soil, water, poplar, and vine. Because this was the intersection of two rivers, we were able to find the location precisely. What we found there was a kind of out of control jungle. The former choreography of tree and vine had fallen apart. The poplars were there, and the vines

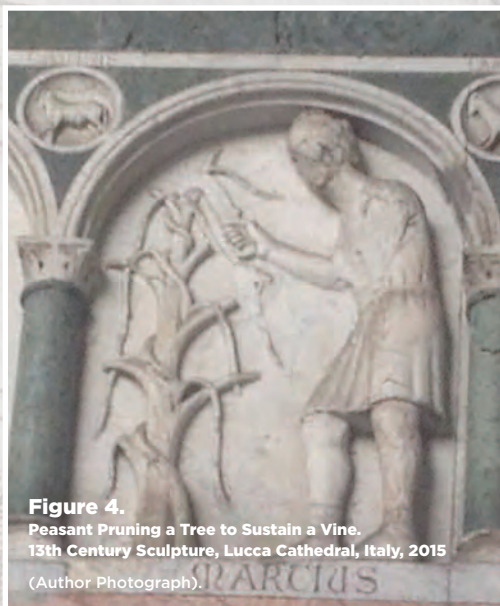


Figure 4.
Peasant Pruning a Tree to Sustain a Vine.
13th Century Sculpture, Lucca Cathedral, Italy, 2015
(Author Photograph).



Figure 5.

Vite Maritate. Grape vines trained across poplar branches alongside the river of Vorno, Lucca. Section from ink drawing on paper.

Commissione delle Acque e Strade 1701-1800 (c.1820). Courtesy of Archivio di Stato di Lucca on authorization of the Ministero Per i Beni e le Attività Culturali.

were there, but the peasants were gone, and the vines were growing wild across the trees in the searing summer heat. Here you see the sudden emergence, in flaming hot pink, of the pattern that I sensed on that hot day. It was a moment when my senses became attuned to the particular glossy green of grape leaves.

Just as the drawing from the archive woke my memory, the encounter with the wild vines woke my senses. Once your senses are attuned and awakened to a particular pattern, texture, colour, it is hard to switch them off again. In car parks, in empty meadows near supermarkets, Fabio and I could not stop seeing grapevines running wild across former peasant landscapes that had become abandoned suburban land. I tell this story to show you how your senses can be transformed by moving back and forth between archives, talking to experts, and re-entering landscapes and using your curiosity. In the end, you have to learn to notice what is in front of you, to see traces of centuries of peasant vine/tree care in a grungy parking lot. Perhaps you might learn to notice histories of human care and of plant disease in the landscapes that you move through in your day-to-day life. It is not only Italian landscapes that have deep histories of human/plant encounters.

Sometimes we anthropologists and social scientists are reluctant to trust our senses. We might think that our job is to focus only on the stories people tell us, rather than also trusting our own capacity to notice details about the world, and to tell stories that these details inspire. Certainly, I do plenty of listening to other peoples' stories. I learned to recognize ancient chestnut trees by talking to smallholders and biologists. Learning from others, however, does not absolve me from continuing to notice, to speculate, to wonder, to try to detect patterns across the landscape, and to tell stories about these patterns. This does not just apply to anthropologists. All of us can learn to trust our senses and our capacity to speculate about the forces that shaped a particular tree, a branch, a river bank, or a mountainside.

In telling you a little bit about the how histories shape the forms of trees in Italy, I hope I have inspired you to notice the shape-changing capacities of trees in your own daily lives.

If you look closely, traces of former human cultivation and care are everywhere around you, from the most apparently mundane street trees to the remnants of ancient cultiva-



Figure 6.
Vines Growing Wild across Poplar Trees, Lucca 2016
(Author Picture).

tion that stay on in the interstices of modern cities. At the University of California, Santa Cruz, where I teach, the campus is laden with histories of predatory capitalist logging in the late nineteenth century. Coastal live oaks at the edges of meadows are likely holdovers from the oak savannahs produced by controlled burning by Amah Mutsun Native American people.⁶ Perhaps similar histories of First Nations care are present in the forms of trees and pastures in and around Calgary.

conclusion

In this essay I have described how we might come to be partially attuned to the strangeness of long-lived beings that live at a different pace from us. To become attuned to the temporal rhythms of trees is to notice their gestures as they sense processes invisible to us. The form of branches and roots tells us of encounters with invisible nutrients and long-ago events. Think of trees as moving across the landscape, too slowly for us to notice. Dropping seeds, sending up new shoots. Gradually forests grow and change. People in Italy cared for individual trees for many centuries. I find it hopeful that humans do not always manage for the urgencies of the short term. Consider this ancient chestnut tree, high up in the Italian Apennine mountains, grafted perhaps six hundred years ago by peasant cultivators. In the mountains of the Mediterranean, the most ancient trees are grafted chestnut trees like this one. Without human care, this tree would not be here. The bulges, loops, and whirls that cover the trunk are the echo of the moment, half a millennium ago, when a peasant aligned the cambium layers of scion and rootstock into an unstable graft. Without repeated pruning of new shoots from the rootstock, the “wild” shoots take over and the cultivated variety dies. This ancient tree therefore shows not only past cultivation but ongoing care. I recount this story not only for its beauty and strangeness but because I think it helps us think about how to respond to the multiple crises and urgencies of our times. Slow and long-lived beings, in this case chestnut trees, have demonstrably been able to compel humans to take care of them for a very long time. The morphology of trees places a call upon us, to respond, to be responsible, and to care for them. Perhaps we can plan for the long term by attending to the shapes of trees.

Perhaps we can come to be passionately concerned with the strange, slow-lived beings that surround us, from trees to rivers to stones. These beings compel us, they call us to account, and they transform us, as when I come to notice grapevines running wild across abandoned fields. The stories we tell about the past and possible futures are a response to these beings. Such stories help us step aside from the stories of progress and environmental apocalypse that we too often are pulled into. Learning to notice the slow rhythms of trees presses me to tell stories about the past and the future. This is a demanding relationship, where storytelling is a matter of responding

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and of being responsible. The story has to be as right as I can get it. I have to respond to the obligation of the encounter, to the humans and non-humans who brought me there. These are the stories that I feel I have to tell, even while I know that each story is partial, limited, provisional.

It seems fitting to end with some element of doubt. I can tell stories about this tree, but I never fully know what it is or might become. As a forester, I know that trees often surprise you. A tree stump may send out new branches, or it may die. This ancient tree is hovering on the verge of life and death. At various times in the past it was a food source for peasants, a source of tannin for a nearby factory, an object of care for environmentalists concerned with local heritage. This tree is all and none of these things, it is still growing after the projects of all these humans have disappeared, it might grow on into another era. I find it helpful to remain passionately empirical, to remember that all of my perceptions, descriptions, and stories fail to fully capture what I describe. I remind myself that other stories and futures are possible.



Figure 7.

Ancient Chestnut Tree of Pratofosco, Lucca, 2016.

notes

- 1 "Peasant" is one of the most vexed words in the English language. I use the term to refer to the subsistence farmers who might have described themselves as "*contadini*." Present-day chestnut farmers might call themselves direct cultivators—"coltivatori diretti."
- 2 For a more complete description of this work, see Mathews, "Ghostly Forms and Forest Histories."
- 3 Mathews, *Instituting Nature*; Mathews, "Ghostly Forms and Forest Histories."
- 4 Giannini and Gabbrielli, "Evolution of Multifunctional Land-Use Systems"; Squatriti, *Landscape and Change in Early Medieval Italy*.
- 5 Sereni, *Storia del Paesaggio Agrario Italiano*.
- 6 Commissione delle Acque e Strade, "Disegno dello Sbocco del Rio di Vorno in Ozzeri." This drawing is undated, but was likely produced as part of repair works after a major flood in 1826.
- 7 Lightfoot et al., "Anthropogenic Burning."

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