



dreams of Californication

Can Free Love Among
the Vines Enhance
Terroir Expression?

by David Pelletier

Randall Grahm's hole in the ground at Popelouchum, meant to be a rainwater reservoir, had been dug the previous spring, but it didn't look like much more than a puddle in July, as rain had yet to come and bless it. Popelouchum (poe-puh-loo-shoom), the latest project from Bonny Doon's "president-for-life," is an ambitious undertaking: a vineyard that will grow 10,000 new, unique grape varieties, obtained through cross-pollination of preselected parent vines, from which Grahm hopes to make a wine that shows an unmediated expression of place through elimination of varietal influence.



In the Mutsun dialect, Popelouchum is the word for “heaven,” which is how Graham feels about the place: “I was drawn to its peacefulness; there is a coherence, a quality to it, a feel that you don’t find anywhere else.” That esoteric connection is what convinced him to purchase this northeast-facing plot of land near San Juan Bautista in the first place. His idea for an ultimate wine of place came later. To finance it, Graham launched an elaborate Indiegogo campaign in August of 2015, raising over \$150,000 to get the vineyard off the ground. In order to attract more investment, he is seeking non-profit status for the project.

As climate change impacts growing seasons around

the world, many viticulturists are rethinking their allegiance to their given region’s traditional grape varieties. Researchers in Bordeaux are experimenting with touriga nacional as a potential replacement for merlot, which might not be able to withstand hotter summers; Alsace is planting syrah to assess its suitability for wines in the future. Most vintners are looking for solutions in the readily available pool of commercially significant grape varieties. Why would one embark on the demanding voyage of creating a new grape variety? (Or, in Graham’s case, ten thousand new grape varieties?)

Graham responds: “At the root of all new grape breeding, there is the need to fix a problem. But most people in the California wine business are pretty happy with the way things are and do not see a problem, other than the lack of water, perhaps. Plus, what we have been doing here is mostly derivative; there is nothing truly distinctive about what we make in terms of wine. How can one find their niche in this world? How can one make a wine that’s so compelling, so great and special that people will want to throw money at it?” He believes firmly that the answer lies in new grape varieties.

And where does this quixotic endeavour all start? “First, you have to find the proper parents,” says Graham. He’s selected parent vines with an optimal ripening window (early October), his targeted acidity and sugar levels, and characteristics he believes make these varieties particularly conducive to the Popelouchum site, sustainability and drought tolerance being at the forefront of his thoughts.

And grace. For parent material, Graham’s goal is to find grape varieties that ally finesse and drought tolerance, a rare combination. Among the candidates, he hopes rossese (also known as tibouren in Saint-Tropez, where centenarian vines still thrive) can meld dry-climate aptitude with the capacity to make beautiful wines. Picolit is also on his short list.

Graham understands that any expectations for well-behaved offspring grown from seed may be dashed: “More often than not, the seedlings of cross-pollinated, genetically identical grapevines will end up being inferior to the parent plants.” However, he believes that, regardless of the weakness of the offspring, complexity can still be drawn out of their heterogeneity. Graham is also willing to spend the time, energy and resources to identify the offspring that seem most suited to Popelouchum.

So far, Graham’s work is still embryonic compared to the progress made by Sashi Moorman in California’s Santa Barbara County. Back in 2006, he was making the wine for Evening Land Vineyards, with parcels that he and Rajat Parr have since acquired for their Domaine de la Côte. At the time, Moorman and Evening Land founder Mark Tarlov were working with Steve Price, an Oregon plant physiology expert and viticulturist who

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Randall Graham of Bonny Doon at Popelouchum.

was consulting on Evening Land's Oregon vineyard development. Price had been toying with seedlings in his own vineyard in the southern Willamette Valley, and was surprised at how readily vinifera seeds germinated into viable vines. The Evening Land team was intrigued by the idea of growing vines from seed, and the possibility of using seed-grown vines to identify a better selection of pinot noir, one that would not be so prone to mutation, as well as being suited for Central California's climatic reality.

Rather than seeking out multiple parent varieties, Moorman began by collecting seeds from isolated vineyards planted solely to pinot noir along the Sonoma Coast. (Isolation was key, to minimize the possibility that pollen from other vinifera varieties would contaminate the process.) Then, he sent the seeds to a nursery in Lompoc; once they were grown into vines, he whittled the selection down to 7,000 plants, keeping only the healthiest-looking specimens. His team planted the vines at Wind Harps Vineyard on the coastal edge of the Santa Rita Hills, where particularly harsh, gusty winds prevail. Moorman believes difficult growing conditions are crucial to the project, as the point is to find resilient vines. Currently, about 60 percent of the initial seedlings have survived. Some varieties are indeed black and do seem to show pinot noir character, and some are red, grey or white, which is in line with pinot's long history of mutation; others grow freakish, curled leaves that look like they have been attacked by some sort of virus.

Much like Graham's project, Sashi Moorman's quest for a pinot noir better suited to California seeks above all to achieve beauty, and he takes a long view: "First we had to find and flag the vines that we felt truly expressed pinot noir, with the right acidity, sugar and tannin levels. Then we'll have to allow these vines to grow proper grapes, then vinify those grapes, age the wine for some time, bottle the wine, then wait ten years to see if this can really hold up. I am young enough to hope to see this project be successful." But even at 43,

Moorman realizes that he will likely not witness just how far this can go. As for Graham and his 62 spring-times, in his own words: "Time is of the essence."

Graham and Moorman's field experiments are somewhat at odds with the more scientific grape development projects underway at research institutions. For instance, the VitisGen project, led by Cornell University professor Dr. Bruce Reisch, aims at mapping the DNA of prospective new grape varieties, in hopes of creating disease-resistant plants; the research team focuses especially on identifying genetic markers related to a vine's ability to resist certain diseases. Much of their current work has taken on resistance to powdery mildew (rather successfully), and Dr. Andy Walker's team at UC Davis is in the final stages of developing a variety that can resist Pierce's disease, the same plague that crippled Graham's original Bonny Doon vineyard in the Santa Cruz Mountains back in the early 1990s. Such controlled, rigorous genetic research leaves little to chance.

On the other hand, organoleptic appeal—the subjective matter of taste—while important in the context of grapes destined for winemaking, is not the top priority in this type of research, as it is difficult to assess in a scientific fashion. That raises issues of marketability for the new varieties.

"There is no glamorous name attached to our own research, and our real difficulty lies in marketing our varieties once they are field-ready," says Walker. "In that sense, when a household name like Randall Graham gets into it, he has the force and savoir faire to make this project marketable and viable." Graham makes no secret of the fact that he hopes Walker will consult on the genetic logistics of his project, and says he would be willing to offer guidance as to how to better market varieties that have been developed in a research context as a trade-off.

Given the struggles that even trained scientists face in developing and deploying new vinifera varieties, is there any hope that Graham and Moorman—comparative amateurs—will be able to harness their new plants into viable wines?

Nature's own body of work suggests that they could get results. The chance meeting of St. Georgener and traminer led to the birth of grüner veltliner, now the brilliant flagship grape of Austria; the love child of cabernet franc and sauvignon blanc, cabernet sauvignon, is globally renowned.

With the entire tangled history of *Vitis vinifera* in mind, these efforts begin to seem like audacious but not completely unreasonable bets. ■

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