



# Out of the Hot-House

*Zinfandel's roots and arrival in California, the travails of travel for a Vine.*

Edited by Morgan Guy Twain-Peterson from an article originally written by George Vierra

This history of wine, in many respects, is a mirror of human development and expansion across landmasses now known as Europe, Asia, and America. It is a creation of nature, that, parallel to the advance of man's treading grounds across the realms of greater consciousness has developed, equal always, to the evolution and refinement of man's tastes. Through the rise and fall of civilizations, religions, and myriad rulers, the vine and its derivatives has truly been man's best friend. Those who carried it aloft through war, famine, drought, and at least one really big flood have always been offered just reward for their labors.

Today, using the tools of technology that human's quest for knowledge has wrought, we are able to delve into the murky labyrinths of man's early flutterings and pull forth new data that aids in shaping and making better sense of our own world. The story of a grape now known as Zinfandel in California, and Primitivo in Italy, is testament both to the intricacies and complexity of human history and the seemingly ineluctable ability of science and human understanding to make sense of that past.

The oldest evidence of wine production are residues found in ancient Neolithic wine jars (amphora) found in the Iranian Zagros Mountains and dated to about 5,000 B.C. Later, the ancient Phoenicians settled on the rim of the Mediterranean and on Cyprus and Sicily and planted the vines they had used at home. The Greeks made their influence felt on the Island of Cyprus by 1,000 B.C. From about 350 B.C., the Dalmatian coast in present day Croatia was used as a Greek passage. The Greeks

also settled in other parts of the Adriatic Sea and in Southern Italy. The Romans moved into these Greek territories around 165 B.C. and brought back for cultivation hosts of fruits and vegetables. From 830 AD until the 19th century, Croatia was dominated or controlled by the Franks, Byzantines, Hungarians, Venetians, Hapsburgs and finally the Austro-Hungarians. The Phoenicians, Greeks, and Romans, as did these newer infiltrators, always brought their grape vines with them to their new territories. They also brought newly discovered vines home with them.

Our story begins with these ancient origins, as any tale of a *vitis vinifera* grape must, but winds its way all the way to our nightly dinner tables where a bottle of Zinfandel sits. So, for the time being fast forward through the Phoenicians, Greeks and their wine-dark seas, the Romans, the Vikings, the crusades, and the pre-Westphalian European state— for all of whom wine played a critical social role, whether it be the drink of kings or peasants or the blood of a religious deity. Let us move all the way to the 1820s in the puppyish United States— the decade that witnessed the death of the final founding fathers (Jefferson and John Adams), and the rise of a new, financially viable American bourgeoisie, blooming on their own but still looking back to the Old World, and mainly England, as a model of proper behavior.

All the rage in early-Victorian England and the United States was hot-house gardening—quite similar to modern-day greenhouses but heated by a constant stream of coal and wood for warmth in the chilly Northeast winters. Grapes were particularly sought after

symbols of winter wealth and nurserymen were in constant search of grapes that lent themselves to successful hot-house growing.

One such person was George Gibbs, who, in a series of exchanges with the Austrian Imperial Nursery, stocked his Long Island greenhouses with some cuttings from the Imperial collection. At the time, the Austro-Hungarian Empire, from whence the cuttings in the Imperial nursery were taken, was five times the current size of today's Austria and Hungary and included the vine-rich Balkans, and thus offered Gibbs a panoply of vines from which to choose. Although no record of a grape called Zinfandel exists in Gibbs collection, a grape that can be traced back to his greenhouse later surfaced in the catalog of Samuel Perkins under the name "Zinfendal." Over the 1830s and 1840s the grape, and the spellings vary, became a popular hothouse variety, prized for its ability to ripen robustly in winter hothouses. Other references to a grape with the Zinfendal or Zinfandel name also appear in a couple of scholarly texts of the time—notably William Robert Prince's popular, *A Treatise on the Vine* from 1830. In addition, a grape by the name of Black St. Peters, described by horticulturists of the time to be almost identical to the various Zinfandels floating around, was found in the nursery records of George Gibbs.

As the Gold Rush spurred a mass movement of people over the Rockies and Sierra Nevada into the various climes of California vines were brought as well. Between 1852 and 1857, Massachusetts nurseryman Frederick Macondray, shipped Zinfandel vines to California. After the wine from it became popular it became widely planted.



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Two notable examples are Joseph Osborne's planting of the grape in his Oak Knoll vineyard (Napa made Oak Knoll an AVA in 2003), roughly where Trefethen Winery is currently located, and William Hill's Old Hill Ranch in the banana-belt of Sonoma Valley. Interestingly, Hill planted a grape he called Black St. Peters, which has since been proven to be the same grape as Zinfandel.

Like so much reconstructed history, particularly addressing items or events peripheral to better documented phenomena *comme rulers*, major peaces and bloody wars, the tracing of a vines travels is a matter of educated guessing punctuated by small islands of hard fact. With a grape like Zinfandel, which possesses no European counterpart—no Bordeaux or Burgundy—there is a particularly large synapse in the history of its transference from the Old World to the New. The best historians—and the wine industry is lucky to have one in Charles Sullivan—are able to sniff out the penumbrations of the ripples of the stone that hit the water of historical event, and construct the best possible explanation. It is his abilities that allow us (roughly in this piece) to chase the dark, morphologically and nominally clever Zinfandel grape as it bounced from Austria, to the Northwest United States, and finally to California. Sudden splashes of appearance, a Zinfandel here, a Black St. Peter there, are the sole indicators of a vines presence surely broader than the few references found.

California's Heritage Grape, that pesky Puglian Primitivo, and...Crljnak Kateljanski?

A suspected link between California's Zinfandel and the Puglian grape

varietal Primitivo was suspected as far back as 1967 when UC Davis professor Austin Goheen noted structural and flavor similarities between the two grapes. Though 1975 isozyme fingerprinting furthered the suspicion of a relationship between the two, it was not until 1994 that the talented Carol Meredith, another Davis professor and grape geneticist, found the grapes to be identical.

Though fragmented evidence regarding Primitivo's own travels to Puglia exist, they are as filled with vagaries as Zin's own clouded quest towards California's climes. There are mentions of a grape called Primitivo about 200 years old, but since the name stems from the grapes tendency to ripen early (rather than mean, "first" or "oldest"), as well as the countries late unification from a number of fractured theocracies and city-states, it is hard to figure out the direct path of travel from Croatia's Dalmation Coast. The movement of the grape from its Adriatic origin though is clearly more understandable given the short geographical distance between the heel of Italy's proverbial boot and the Balkans.

The Dalmation Coast you say? Croatia? In 2000 and 2001, the combined efforts of Carol Meredith of Davis and Ivan Pejic and Edi Maletić of the University of Zagreb, after more than a decade of work, found a genetic match to Zinfandel. Originally spurred on by the similarities of several Croatian grapes such as the Dobricic varietal of the island of Solta, and Plavac Mali, Meredith seemed to sense that an exact genetic match could be nearby. After several years and hundreds of cuttings later, her scientific inclinations proved correct.

While taking cuttings of ancient vineyards near Split, the Zagreb based researchers took cuttings of a rare vine—only nine have been found—called Crljnak Kateljanski, which, after extensive DNA testing, was established as the original Zinfandel. Since many genetically similar cultivars (read varietals) exist in and around the same area—a sign of deep roots, metaphorically and physically—it points to the veritability of Crljnak Kateljanski being the ancient progenitor of California's own heritage grape. Though it is possible that the grape existed, and still exists, in a more ancient location than Croatia—Croatia is the oldest, currently traceable ancestor to the contemporary Zinfandel and Primitivo varietals.

Knowing the genetic map of Zinfandel allows for a better historical route to be traced for the grapes arrival in California but does little to make less amazing the story and arrival of a minor Croatian grape, through the ebbs and flows of two centuries and much travel over wine-dark seas, in California where it has become a bulwark of one of the worlds most dynamic wine regions. Whether it be via the nineteenth century hothouse, the Central Valley or Sonoma Valley, Zinfandel's ability to satisfy generations of people, all with different aims, is a story of Darwinian survival. We have always known Zinfandel (if made properly) to provide a unique sensoral experience, and now we know that its history is equal to its revelatory organoleptic capacity.

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