



Written by
Elaine Chukan Brown
26 Dec 2018

The story of California Chardonnay - part 2



See [part 1](#) of this four-part account of California's most-planted grape.

The building of California Chardonnay: the 1950s to the 1970s

It was in the Stony Hill vineyard, at between 1,000 and 1,600 ft (305–490 m) elevation in loamy volcanic soils, that the first Chardonnay was knowingly planted in Napa Valley. The first wines were released from the 1953 vintage after an unfortunate mishap with contamination of the first, 1952 vintage. The McCreas were friends with many Napa Valley winemakers and so learned how to make wine from their neighbours. Although it was the wines of Europe that inspired them, there was little communication between wine producers in Europe and California and so there was little knowledge of, for example, Burgundian winemaking techniques.

Varietally specific winemaking was not yet developed so the approach they took to making Chardonnay was consistent with what was simply white winemaking.

In 1972, Mike Chelini (above right) became first the Stony Hill vineyard foreman, and then also winemaker alongside Fred McCrea. When McCrea died in 1977, Chelini took the lead in both roles. Currently Chelini is both the longest-tenured winemaker in Napa Valley, and also the longest tenured Chardonnay winemaker in North America. Just this month Stony Hill announced that at age 70 Chelini is retiring after the completion of the 2018 vintage. During my interviews with Chelini, he explained that he has consistently made Stony Hill Chardonnay exactly as McCrea taught him, and that McCrea also claimed never to alter the approach. The equipment even remains largely the same. On further questioning, Chelini admitted the one thing that has changed is that he has reduced his sulfur usage.

Having remained largely unchanged, Stony Hill Chardonnay stands as an important window into the history of California winemaking. According to Chelini, the style was meant to offer very little flavour to the wine in its first few years. Instead, McCrea believed the wine began to show itself after around 10 years in bottle. The fruit was harvested at around 23.5 °Brix in the interest of preserving natural acidity. After harvest, the Chardonnay was run through a crusher and directly into the press. (Originally this choice would have been largely logistical, depending on the equipment available at the time, and was common throughout the region.) As the juice came in, sulfur was added to keep the juice from oxidising, and then after settling the juice went to old barrels and/or wooden tanks (depending on what was available in the winery) for fermentation. The wine was kept there for 10 months before bottling through sterile filter, without either bâtonnage or malolactic conversion (ML).

As Peter McCrea explained, it was common for wines of the region in the 1970s not to undergo ML. He believes the higher use of sulfur (generally 100 ppm at crushing) simply kept ML from happening. Lack of temperature control in cellars through winter followed by early bottling could have also contributed. Today Stony Hill uses around 80 ppm sulphur, with the level always at least 20 ppm free sulphur. The stylistic goal remains consistent with its founding – to deliver low pH, to be lean when young, gain bouquet in bottle, and age gracefully. Indeed, Stony Hill wines are known for their graceful ageing, with wines even from the 1980s currently showing evolution as well as ample vibrancy.

The story of Hanzell

In 1956, Hanzell began planting near the town of Sonoma. The site sits at between 650 and 900 ft (200–275 m) elevation in volcanic, clay loam. Today, Hanzell has the oldest continuously producing Chardonnay and Pinot Noir vineyard in North America, known as the Ambassador's Block. They derived their Chardonnay cuttings from Stony Hill, establishing the first Chardonnay in Sonoma County. (Hanzell's Pinot Noir cuttings were taken from Martin Ray.)

Importantly, the wines of Europe also inspired the founders of Hanzell. The original owner James Zellerbach had been the US ambassador to Italy. He also travelled broadly through Europe and became a fan of Burgundy. In founding Hanzell, his goals were to make wines inspired by those of Europe in their New World home. As at Stony Hill, knowledge of specific techniques used in Burgundy was minimal and so the winemaking at Hanzell required innovation on the part of the winemaker. Also as at Stony Hill, wines at Hanzell initially failed to go through malolactic conversion. The situation was different for Hanzell since the winery was also producing Pinot Noir. With this in mind, winemaker Brad Webb did extensive research and, as a result, Hanzell became the first winery in North America to successfully complete a controlled malolactic

conversion. The technique was eventually applied to their Chardonnay, too.

In the interests of increasing quality, Webb applied further technical innovation at Hanzell. In collaboration with a stainless-steel manufacturer he created what were claimed to be the world's first temperature-controlled stainless-steel tanks. The invention led to a fundamental change in technique, which resulted in important stylistic changes throughout California. Hanzell shifted fermentation to the temperature-controlled tanks, while other aspects of their approach remained similar to Stony Hill's: picking for acid retention; fruit through the crusher with sulfur and straight into the press. As the stylistic impact of fermentation in stainless steel became better understood, Hanzell initiated slight modifications to their overall technique.

Over time the Hanzell style that was established, and is still practised there by winemaker Michael McNeill today, is a two-lot approach. As fruit comes in it is crushed and then allowed to sit on skins for around three hours without sulfur. The juice is thereby intentionally oxidised in order to allow bitter phenolics to drop out before fermentation while at the same time developing greater aromatic and flavour complexity from the time on skins. The time on skins is kept relatively minimal to avoid harsh tannins and exaggerated flavours. Then around 75% of the juice is put in temperature-controlled stainless-steel tanks for fermentation while the remaining quarter is put in new French oak barrels. The barrel-fermented portion undergoes malolactic conversion. After a year it goes into stainless-steel tank for a further six months' ageing. Meanwhile, the lot in stainless-steel tank undergoes fermentation and is kept from going through malolactic conversion. After six months it is moved to older barrels for a year's ageing. After 18 months the two lots are consolidated, sterile filtered and bottled.

This two-lot approach creates a combination of freshness and flavour while offering the advantages of temperature-controlled fermentation that harnesses the purer fruit notes. The Chardonnays of Hanzell are known for their brilliant ageing ability, something consistently demonstrated through the winery's commitment to offering library-release wines to members of their wine club. Like Stony Hill, Hanzell also offers an interesting window to the history of California wine. It reflects one particular response to the tension being explored towards the end of the 1970s between fruit purity, complexity and phenolic balance.

Enter Robert Mondavi

In 1966 Robert Mondavi opened his eponymous winery known not only for its wines but also for its marketing force throughout the world. Importantly, Mondavi capitalised on the innovations of Hanzell. By the 1960s, Hanzell had perfected their use of stainless-steel tanks but the winery was still small. Mondavi took the technology and applied it on a larger commercial scale, fermenting most Mondavi wines in them. His Fumé Blanc may have been famous for having been vinified in oak but his focus for red wines was on fermentation in stainless steel. In the 1980s and 1990s the winery did small-scale experiments with red-wine fermentation in wood. But the central practice remained with fermentation in stainless-steel tanks followed by ageing in wood until in 1999 the To Kalon cellar with large wooden fermentation tanks was established. The To Kalon cellar is now home to most premium-level Mondavi Cabernet Sauvignon fermentations.

The influence of Mondavi's use of stainless-steel fermentation tanks is impossible to overestimate. It led to the proliferation of such practices throughout California. In Napa Valley it also created a profound shift in perspective. Oral history transcripts with notable producers from the 1970s into the 1980s often display what can only be described as a sort of paranoia against fermentation in wooden vessels. So fully used to stainless steel, many at the time saw the

practice of using wood as unsafe and unclean.

Winemakers were fermenting whites between 40 and 60 °F (4.5–15.5 °C) in an attempt to increase complexity by slowing fermentation while also trying to harness purer fruit character. (If left to their own devices, fermentations can easily reach 80 or 90 °F (26.5–32 °C). Generally speaking, colder fermentation temperatures result in fruitier aromas and flavours in a wine, while hotter fermentation temperatures tend to burn off these fruit esters revealing earthy and herbal notes. At the same time, the impact of stainless steel was to reduce flavour after fermentation. With the increased public interest in table wine, there was also a greater need to produce wines that were accessible early. The desire, then, was to increase the immediate flavour of the wine. Thanks to available equipment, producers still relied on crushing fruit after harvest and began increasing time on skins after crushing, rather than going directly to press as was typical previously. The time on skins helped to increase flavour in the wine.

Producers experimented with time on skins from as little as several hours to as much as two days. Increased time on skins, however, created other problems such as bitter, even rough, phenolics. After the skin contact, then, producers started experimenting with running juice through a centrifuge and/or filtering prior to fermentation to help reduce phenolics and sediment in the wines. The use of pre-fermentation centrifuge and filtering often created other issues such as challenges with fermentation, which would lead to other corrective techniques in the cellar such as reliance on cultivated yeast. Cooler fermentations also encouraged the use of cultivated yeast, and pre-fermentation filtration ruled out the possibility of ageing on lees as is common practice today. At the same time, producers were working to understand the role of barrels for ageing, with the richer flavours associated with ageing in new barrels being appreciated by the late 1970s, although barrel fermentation was not common. Wines were generally picked to finish below 13% alcohol, so any sense of weight in the wines was coming primarily from the phenolic effect of skin contact, rather than from alcohol.

In the same period, the isolation of the Santa Cruz Mountains made it easier for stalwarts such as Martin Ray to simply stick to his style. He fermented his wines in wood as he'd always done. Throughout the 1970s, his wines never underwent malolactic conversion. In the late 1970s, when ownership shifted and what was Martin Ray became Mount Eden, the wines accidentally went through malo for the first time. At the end of the decade, an effort to expand the winery cellar led to an increase in cellar temperatures, triggering malo in the wines. The team realised they liked the effect. By the time Jeffrey Patterson became winemaker in the early 1980s, malo was made standard practice at Mount Eden, although Patterson chose to counterbalance this change by picking earlier to preserve freshness. As a result, Mount Eden represents a style of Chardonnay that was updated slightly over time, while delivering a style that is regarded today as recognisably classic. They are also the longest-established estate-only producer of Chardonnay in North America. Jeffrey Patterson has now been winemaker longer than any other, including Martin Ray, for this famous site.

In the meantime, the experimentation continued and increased in the North Coast. Such explorations were encouraged by the fact that vineyards were at last selling Chardonnay to other producers, rather than just growing it for their own use. The change in the grape market occurred thanks to a few other changes in wine sales. In 1961, there were still only 300 acres (120 ha) of Chardonnay in the entire state. But in 1967 table-wine sales finally surpassed dessert wine sales in the United States. The change led to a surge of newer, younger producers venturing into the North Coast, then regarded as remote, to plant vineyards. It also meant that some established growers were willing to plant a few acres, or a few rows, of less commercially viable varieties. Before the 1970s, the cost of farming was greater than the selling price of

grapes. At the same time, Chardonnay was primarily a lower yielding variety (thus leading to the heat-treatment trials of UC Davis that resulted in more productive, virus-free clones, as mentioned in part 1). The combination meant that until the end of the 1960s, essentially all those growing Chardonnay had been doing so for their own estate wine production.

By the late 1960s, grape prices finally began to surpass the cost of farming and North Coast vineyards with small parcels of Chardonnay for sale appeared on the scene. The Montelena 1973 Chardonnay that famously won the Judgment of Paris tasting was made with fruit from a mix of sites in Sonoma County and Napa Valley, primarily Alexander Valley as well as Russian River Valley, with only small portions from Oak Knoll and Calistoga in Napa Valley.

Mike Grgich was founding winemaker for Chateau Montelena and remained there until 1977, when the fame of the Paris tasting provided him with the opportunity to start his eponymous winery. According to oral transcripts, Grgich made the Montelena Chardonnay in a manner similar to that established by Stony Hill and Hanzell. The wine was put through a crusher, sulfured to avoid oxidation, and left on skins for several hours before being put to press. It was fermented between 40 and 50 degrees F (rather cool) in temperature-controlled stainless steel tanks. There was no malolactic conversion and the wine was then aged in one-year-old barrels because they had made Chardonnay for the first time the year before and were unable to purchase new barrels. Barrels were less readily available at the time, and purchasing new barrels every year was almost unheard-of in California then.

After moving to his own winery, Grgich continued making Chardonnay in this style. Even today, malo is avoided at Grgich. However, over time they have shifted to oxidising the juice early to avoid bitter phenolics, while also reducing overall sulfur use. Today Grgich makes Chardonnay in several other styles. The Miljenko Selection, for example, still focuses on natural acidity, juice oxidation, and no malo, but is fermented and aged in large foudres to reduce the oak flavour impact while retaining the textural advantages of wood.

Plantings of Chardonnay in the North Coast slowly increased. Over the course of the 1960s, Robert Young began planting his eponymous vineyard, a little below 300 ft (90 m) elevation in mixed loam soils of the relatively warm Alexander Valley of northern Sonoma County. In the 1970s, the vineyard became an important benchmark for California Chardonnay and its success led to greater planting of the variety throughout Sonoma. In 1975, for Chateau St Jean, Richard Arrowood made the winery's first Chardonnay with fruit from Robert Young and designated the site on the label. In contrast to the lighter styles of Stony Hill or Hanzell, the wine was meant to offer more power and flavour upon release. Grapes were picked a bit later, although still with the goal of being under 13.5% alcohol (so nowhere near the size associated with wines of the late 1990s) and aged in French oak to layer additional flavour, although malo was still suppressed. This led to a rounder, richer style of wine. The success of Chateau St Jean's Robert Young wine made it a benchmark for California Chardonnay. Chateau St Jean was also the first American winery to focus on making vineyard-designated wines, thus emphasising the importance of the Robert Young site. Today, the Robert Young clone is available through FPS as clone 17.

By 1976, when the Paris tasting took place, the increased interest in table wine, the access to higher-yielding clonal material, and the increase in grape prices, together finally increased Chardonnay plantings. In 1976, the total acreage for the variety in the state was 11,500 acres (4,655 ha). It was in the 1980s that consumer demand led to a push to expand plantings of the cultivar statewide. By 2000, the variety had become the most planted variety in the state with a total of 103,491 acres, more than the French total. While the total area planted has hovered up

and down around 100,000 acres, Chardonnay has remained the most widely planted (even if sometimes challenged by Cabernet Sauvignon) ever since. The second and third most-planted white wine varieties Pinot Gris/Grigio and Sauvignon Blanc lag far behind with only 17,000 and 16,000 total planted acres respectively.

Tomorrow, part 3 - the globalisation of Chardonnay, 1980s to 2000s

Additional reading

Gerald Asher, 1990, 'Chardonnay: Buds, Twigs and Clones', *Gourmet*

Robert Benson, 1977, *Great Winemakers of California*

Doris Muscatine, Maynard Amerine, Bob Thompson, 1984, *The Book of California Wine*

Thomas Pinney, 1989, *A History of Wine in America, Volumes 1 & 2*

Frank Prial, 2001, *Decantations: Reflections on Wine*

Nancy Sweet, FPS, UC Davis, 2007, 'Chardonnay History and Selections at FPS', *FPS Grape Program Newsletter*

George Taber, 2005, *Judgment of Paris: California vs France and the historic 1976 Paris tasting that revolutionized wine*

FPS Grapes, Grape Variety: [Chardonnay](#)

Focus on Chardonnay (proceedings of a four-yearly meeting of Chardonnay producers from around the world, available from the participating wineries only)

[University of California Oral History Project](#): including Ernest Wente, Wente Family, Mike Grgich, Zelma Long, Eleanor McCrea, Maynard Joslyn