

Vitis Vinifera

Michael H. Kremzar

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The year was 1962, I was four years out of college and rewarded for a promising start to my P&G career by an emergency three month assignment at the Sacramento plant to fix the most screwed up operation in the company. With two days notice to move, my wife emptied our refrigerator, packed suitcases, picked up extra supplies for our one year old son, and locked the door on our nice Cincinnati apartment. We found a furnished two bedroom apartment in Sacramento. But she was left with a one year old while her husband was in the plant at least 16 hours a day, six and seven days a week, and without a car. The operation was worse than even I had imagined, and required every bit of energy and creativity that could be mustered with operators who did not have a clue about their operation – typically push the green button and hope. Finally, one weekend she drew the line and stated, rather strongly, that we were going to Napa Valley on Sunday to visit wineries. Of course, I refused since I had a briefcase full of paperwork and wanted to go back into the plant to check something or other. Also, of course, we went to Napa Valley on what turned out to be a fateful day.

Our first stop was the Louis Martini winery. My sour mood was made worse when I discovered there were no tours of the winery where I could at least expand my chemical engineering background. Instead, there I was in the wine tasting area standing with my arms crossed, my brow creased, while my wife said something like “watch the baby” and chatted with the tasting crew. In 1962, the tasting rooms were not as they are today with large oak bars, fancy displays of bottles, fake barrels, and mood lighting. This tasting room actually was a corner of the vat room with large tanks, fluorescent lighting, and plywood sheets over sawhorses for the bar.

The winemaker happened to be behind the plywood bar nearest me and said in a friendly manner: “Would you like to try some wine?” In what I thought passed for a haughty demeanor, I responded: “No thank you, I’m from the East and don’t care for Muscatel.” Now, had he killed me on the spot, no jury in California would have convicted him. Had he beaten me senseless with a barrel stave, he would have likely been commended unless he used too many blows. In fact any California jury would have probably charged my wife for inciting a commotion and littering. Fortunately, at least for me, the winemaker smiled – or was that a snarl – and said “I see you have not tried any of the good California wines. Would you humor me and just taste one or two of what we are producing now?” Some level of civility in me rose up and let me bend – just a little – and accept his offer. He started with a sample of very dry white wine and moved through every variety of white and then to the same routine with reds. Being a real neophyte at wine tasting, I gulped down every glass he offered. After going through all these wines, I was not only wildly impressed with the flavor and complexity of the wine, but also quite sloshed. We staggered off to another winery and then dinner at the Grapevine Inn before heading back to Sacramento. I think that my wife drove home, but could not verify if our one year old son took the wheel.

Silly as this tale is now looking back over these years, it was a breakthrough moment for me and maybe our marriage. That afternoon released a lot of tension and brought life back to perspective - one of the many powers of wine. Also, I had no real knowledge of wine at all up to my "Muscatel" crack, since wine was rarely served by my parents and the budget of our early married life did not permit much other than a bottle of red shared over spaghetti with another couple. I immediately enrolled in a mailed course in wine from the Wine Institute and started on a long – dare I say fruitful – journey in the world of wine.

The California wine industry that I stumbled upon in 1962 was at one of many turning points in their history. Wine was first made in California by Spanish priests when they accompanied the Spanish army on the invasion of the western part of this continent. Not only was wine an important part of the sacrament of communion, but being a priest had to have some earthly rewards including decent wine. The indigenous grapes were plentiful, but not really suitable in style for wine. Vine cuttings were transported from the old to the new world as one of the first imports - initially to Mexico, and then to what is now California. After some trial and error, decent wines were produced not only for the use by the church, but also for the Spanish soldiers and settlers.

As the west coast grew in economic importance, more wine was being produced as farmers added grapes to their crop base in the many areas favorable for good grape harvests. Of course, most of you know that Nicholas Longworth started making wine right here in Cincinnati in 1813 and achieved some fame as he developed the Catawba grape and wine. The first California commercial vineyard and winery opened in the Los Angeles area about 1825 using the same type of grapes developed by the priests – called Mission grapes - a hearty vine that produced robust tasting wine. However, within ten years, the few growers were grafting more cuttings from France to produce grapes and wines similar in style to those in Bordeaux. The European vines and many in the U.S. were decimated in the 1890's by an aphid called Phylloxera. The industry was saved when French vineyards discovered that French cuttings plugged into native American root stock were resistant to this pest. The global nature of the wine business started to take real shape at that time but no one could have predicted what would transpire a century later.

The California wine business grew steadily until 1919 when that so called "noble experiment" – Prohibition - cast a dark cloud over the entire United States for 14 years. Before the Volstead act and the 18th Amendment, the wine industry in California was focused around the Napa Valley with some 120 wineries and about 700 nationwide. Only 50 wineries remained during this dark-age producing either grape juice or a small amount of wine for sacramental and medicinal uses. Of course, even though U.S. wineries could not operate, bootleggers found a brisk business in importing European wines, establishing a reputation for imported wine that took decades to overcome.

The sun came out on the U.S. wine industry, and everyone else, in 1933 with the passage of the 21st Amendment ending this ignoble experiment. Although World War II intervened in the growth of the national wine industry, the end of the war brought back waves of returning soldiers and

sailors who had been exposed to wine in many parts of the world. Their interest in broader selection of adult beverages as well as the rapidly expanding post-war economy led to growth in wine production, particularly in California. Winemakers from California were frequent visitors to European wineries and early research into growing the right grapes and making high quality wine was developing at the University of California. However, most of the wine consumed outside of the west coast was European with the prominent California wine represented by the dreaded jug and sweet wines. My ill mannered visit to Napa Valley in 1962 was fortunately timed to coincide with a surge in quality and quantity of really well made wines – although most consumed on the west coast. There were only a couple of dozen wineries in Napa Valley in 1962, but that number was about to start growing rapidly.

The technology of making wine is shrouded in ancient art and mystery. What has been known for centuries is that you can make bad wine from bad grapes and bad wine from good grapes, but you cannot make great wine from bad grapes. Everything about wine starts in the dirt of the vineyard, and the dirt in a top vineyard is not good dirt. Not to confuse you, but a basic premise of wine making is that the plant that produces wine grapes, *Vitis Vinifera*, must be made to work very hard to produce a fruit that will have distinct flavor characteristics. Therefore, the typical vineyard soil will not be good mid-west black dirt suitable for corn or wheat, but will be rocky and likely full of fossilized shells from some ancient seabed. The best climate is mild but seasonal with warm days and cool nights during the growing season. This combination of soil and climate is called “terroir” by the French, and each plot of vineyard will produce grapes of unique character. The entire process from vine to bottle requires extraordinary attention to hundreds of key variables or what has been called “maniacal attention to detail.”

The vineyard can have plant spacing between 500 and 2000 vines per acre depending on flat ground or steep hillside, manual harvest or mechanical harvest, and type of grape. Manual picking of grapes will almost always yield better quality wine and does permit higher density of vines. This higher density also makes each plant work harder to get nutrients and develop more intensity in the grapes. The vineyards working to produce top quality wine will pick as many as half the grape clusters before full ripeness – called a “green harvest” – so that the full energy of the plant goes into the remaining clusters. Grapes are picked at the optimum time chosen by the winemaker for each variety. This is a combination of sugar content in the grape, flavor development, and weather – all monitored as closely as the birth of a baby by the winemaker. The timing and handling of the grape picking is thought to be so critical that some white wine grapes are picked at night and doused with cold water to both protect the skin and stop further maturation of the grape. Just to further emphasize the importance of the vineyard – try to visualize that a glass of wine represents 100 grapes.

The rest of the process is simple in concept but very difficult to execute with precision. Don't worry, although I am tempted to show off my chemical engineering chops, this will be blessedly brief. First, the grapes are crushed to free the juice from the skins and pulp. For white wine, the pressing takes several steps with the best quality juice coming from the least amount of pressure with the skins, pulp, and seeds separated from the juice. Red wine grapes are crushed to open up the grape, but the skins stay with the juice. Fermentation is triggered by the addition of yeast

and will take days or weeks depending on the temperature and type of wine. After the sugar is converted into alcohol, the contents of the tanks are settled and then filtered to remove the chewy bits and clarify the wine. Some wine is then aged in oak barrels for weeks or months – again depending on the style of the wine. Bottling is the next step and the bottles are placed into storage normally for at least one year to permit the flavors to blend and develop. Few wines improve very much after five years in the bottle, and fewer still after ten years. Bottles older than ten years may hold their quality, but only a true hand-full will continue to improve.

What we have just discussed comprises the basics of vineyards and winemaking but barely scratches the surface of the real technology or art and customs of centuries of wine knowledge. The Europeans had developed deep knowledge passed down through families for generations. Of course, like many handed down traditions, most good approaches survived in the best known and top quality wines. However, these traditions also kept many not so good ideas and certainly did not encourage innovation. California winemakers were about to challenge the logic that said that only old European families in ancient stone castles could make magic happen in the vineyard to bottle process. However, any comparison of old and new world wine needs to be tempered by the impact of the magic on those drinking the wine. We need to be guided by Ben Franklin who said: “Wine is sure proof that God loves us and wants us to be happy.”

As the corporate roulette wheel turned in 1966, we were back in Sacramento on a more normal, but higher level assignment with all our possessions and a real house. No surprise that when the dust had settled from the move, we went back to Napa Valley. In 1966, the production of table wine in California had exceeded the production of sweet wines with the number of wineries increasing daily. As we drove along Route 29 into Napa Valley, now with our two children, we noted a small sign for “Heitz Wine Cellar” in front of a plain block building fronting a large white house surrounded by a vineyard. We immediately pulled into the driveway since one of our friends in Baltimore was named Jim Heitz, and he was exempt from the military draft since he was the last surviving male member of his family. The block building was the winery and the room we entered was part lab and part tasting room next to barrel and vat storage. Joe Heitz, wearing a beret and stained work clothes, greeted us warmly and was amused at our obscure connection. By the way, subsequent contacts between us, Jim, and Joe verified that they were distant cousins. We did not know it at the time but Joe was, and continued to be until his death in 2000, one of the most influential people in the wine business during that era. He had a Masters Degree in Viticulture and Enology from the University of California at Davis, then rose to winemaker at Beaulieu Vineyard, and ultimately was a Professor of Enology at Fresno State. Joe borrowed enough money in 1961 to buy the small 8.5 acre operation that we came across in 1966. He let us sample wine from casks at various stages of maturity as well as taste some extraordinary bottles - a delightful gentleman who was very gracious and helpful. We bought a few bottles of wine on that visit and many more over the years. In fact, I still have a bottle that we bought that day that I keep unopened because it reminds me of that unique experience.

That time with Joe Heitz highlighted a major shift taking place in California wines. When we met Joe, he had just returned from a sales trip to Beverly Hills. Joe had the audacity to demand that his wines be priced at the same level as the best French wines since he believed that the quality

was the same. Also, Heitz Wine Cellars was not only focusing on single varietal wines, but was identifying individual vineyards that produced the grapes in that bottle. One of the outstanding wines he was making, Heitz Martha's Vineyard Cabernet Sauvignon, was and still is made with grapes from a single hillside named for the wife of the vineyard owner. Although the sharing of information such as this was quite open among the Napa wine community, Joe Heitz is usually credited for making a statement with pricing and specific identification that shifted the economics and reputation of the region.

A major reason for this shift to high quality, complex wines was the agricultural and scientific work at the University of California Davis campus and at Fresno State. Simply stated, these researchers had broken the codes of good winemaking. This was an example of scientific thinking being applied to an ancient process from field to table. The application of science – study of basic processes, experimentation, testing, and trial of new ideas – does not mean adding chemicals or changing the basic chemistry. It does mean that the university teams were able to understand why some techniques worked and why some did not. They were able to provide plantings of vines designed not only for the identified grape and region, but also for the specific soil of each vineyard. The interaction of each step in the process was understood with analyses for verification. The fermentation process was refined with better understanding of the impact of specific strains of yeast. It was clear to many in California and some around the world that the best California wines could be excellent and the average quite good. California was starting to make a wine that measured up not just to the ordinary wines of France but also to their best.

At the end of the 1960's, the fortunes of urgent corporate need had us assigned, with ten days notice, to Brussels for about a year – again with suitcases only and living in a furnished row house. My job did require extensive travel to the countries of the Common Market, but at least we could afford for my wife to come along on occasion. Also, the pain of travel was softened by the excitement of working in the diverse cultures of Europe, as well as a European expense account. What is a European expense account? It was one that understood that fine dining was normal for a traveler and that a bottle of wine was quite expected with a meal - compared to a U.S. manufacturing expense account that seemed to expect most meals at Walgreens lunch counters. What I learned was that the best European wines were very good and many were memorable. However, the typical table wine of France, "vin ordinaire," was often very ordinary indeed. I drank as much bad French wine as I did good, until I figured out which was which. Because the French wines were usually blends of several grape varieties, I did miss the unique flavor of each variety that I had come to appreciate in California wines, but I soldiered on anyway. After stumbling through pronunciation embarrassments, I determined that I could live with a good bottle of St.Emillion, or Chambertin, or Medoc, or Montrachet or Chateauneuf-du-Pape. This was a very good broadening assignment for my career and also for my palate.

Our story jumps ahead into the next decade, when a critical event occurred in France that started a sea-change in global wine making. In 1971, a young Englishman, Stephen Spurrier, opened a small wine shop, "Les Caves de la Madeleine," off the rue Royale in Paris with a nice, focused business model. He realized that the growing number of expatriates in Paris were in

need of a wine shop where they could learn about French wines without being treated like bumpkins by the locals. His shop was a success and he expanded into the building next to his and opened "l'Academy du Vin," the first Parisian school to teach citizens of any country about French wine.

Spurrier became very well known in the French wine industry since he was such a good salesman for them, both in terms of cash sales, but also in terms of bringing a non-French affirmation to their products. Californian winemakers started to visit his shop when they were touring French wineries, and often brought along bottles of their wine. He became aware that no one in France had tasted some of the very good wines being produced by small wineries in California, since the only American wine seen in France was jug wine sold in shops catering to expat Americans. With his deep knowledge of French wines and new experience with very good California wines, Spurrier decided to set up a tasting in 1976 with the best French and the best California wines.

Based on previous frustrating experience with French customs, he asked a group of visiting California winemakers to bring along bottles of their best wine with their luggage. Except for one broken bottle, all passed through customs without incident. Spurrier then lined up a very impressive list of nine recognized French experts to do the tasting. He and his partner at l'Academy du Vin, Patricia Gallagher, completed the panel. He was able to secure a small banquet room at the Intercontinental Hotel, but only from 3 to 6 pm on May 24, 1976. Thus the stage was set for an event that would forever change the world of wine.

The wines were divided into two flights, one of white and one of red. There were six American Chardonnay and four French white Burgundies in the white section, and six American Cabernet Sauvignon and four French Bordeaux in the red group. Although this six to four ratio gave the Americans a slight statistical edge, Spurrier thought it would be more interesting for the judges to try more Californians. It is important to note that Spurrier had no motives to stack the deck in any way. His business was focused entirely on French wines and he did not plan to carry American wines in his shop. The only motivation was to expose these specific judges to some interesting new wines, and probably keep himself in the role of wine expert.

The wines were decanted into standard bottles labeled only with the name of the dominant grape and a random number to indicate order of tasting. All had been at cellar temperature and the whites were placed in ice buckets just prior to the start of the tasting - as they would have been in a restaurant. Spurrier instructed the judges to use a standard 20 point scale in judging four attributes of the wine: eye, nose, mouth, and harmony. The tasting began with the white wines, and it was obvious from the beginning that the judges were surprised and confused by what they were tasting. They started talking to each other during the tasting which is very unusual. Besides grading the wine by the criteria, the judges started trying to guess the national origin of each wine – and were often wrong. Spurrier collected the grading sheets after the white wine tasting, but had planned to wait till the end to announce the results. However, the waiters were slow in re-setting the tables, so he reported the results of the white before they started on the reds. To a stunned group of judges, he reported that the American Chardonnays

took first, third, fourth, and sixth of the ten white wines. 'Zut alors,' every judge chose a California wine first and the scores were uniformly favorable for the Americans - except for one bottle of California that was so bad that it likely spoiled in transit. The unthinkable had occurred. Four California wines were in the top six and one, the Chateau Montelena, was judged the best by nine well recognized French experts.

When the tasting of the Cabernet and Bordeaux started, there was much less chatter among the judges as they really concentrated not just on the four elements of the wine, but also on the likely origin. However, the shock was greater when a Stag's Leap Wine Cellars Cabernet took first place over such storied labels as Chateaus Mouton Rothschild, Montrose, and Haut Brion. The total results were not as dramatic as the whites with French wines taking three of the top four places. However, a later examination indicated that more than one judge really hammered some of the California wines that they correctly identified as American rather than judge them on their merits. For example, Heitz Martha's Vineyard Cabernet ranked seventh, but the range of scores ran from best to worst. Regardless, American wines had won a blind tasting against some of the best French wines as judged by French oenophiles.

All of this might have been a minor footnote except for one small detail. No member of the French or international press deigned to cover a presumed laughable story about American versus French wines - except for one. George Taber, a reporter for Time Magazine, was the only member of the press to attend, and he was there only because he had an open afternoon and the hotel was close to the Time offices. After the tasting, Taber filed a 2000 word article about the results with the New York office. As is often the case with reporter's submissions, the article could be ignored or edited to a much shorter length. In this case, the June 7, 1976, edition of Time Magazine carried a small segment filling out a column on page 58, and titled "Judgment of Paris" - next to an ad for Armstrong Tires. The key sentence of the two paragraphs was "Last week in Paris, at a formal wine tasting ..., the unthinkable happened: California defeated all Gaul." The day after the magazine hit newsstands, wine merchants in the U.S. from coast to coast saw bottles of the wines named in the competition flying off their shelves. Panicked calls to distributors and then to the wineries did not help much since no one had built up supplies of these specific wines. Next the shelves emptied of other California wines as the American public rushed to try these wines or at least be seen as being on the winning side. If anyone had designed this as a news release, they could not have done better than choose Time Magazine with 1976 circulation of 20 million (now 3 million), focusing on the American middle class. This growing demographic had not been major imbibers of wine but, by that date, had the disposable income, education, and interest to fuel the growth of the entire American wine industry from 1976 though today. More newspapers, particularly the New York Times, devoted several stories to the Spurrier tasting to give even more credence to the significance of the event. This is one of those rare events when nothing will ever be the same again. If you want a very detailed description of the growth of the California and French wine businesses culminating with the Spurrier tasting, I recommend George Taber's book "The Judgment of Paris."

The aftermath of the tasting was predictable with many French oenophiles, including the judges, picking at the tasting methodology or wines chosen or improper comparison of wines. Many statisticians have examined the detailed scorecards and done different statistical comparisons, but virtually all have agreed with the original judgment. Even if a wine were to move up or down the ratings a bit, the conclusion would have to be the same – the best California wines could compete with the best French wines even when judged in France by French experts.

What this tasting really verified was that a new approach to wine making - starting with the specific vine and soil, and moving through the entire process could de-mystify centuries of tradition. Not only did this knowledge cause an explosion of wine making in California with over 400 wineries now in Napa Valley alone, but every country in the world has recognized that this knowledge can be replicated anywhere if the soil and climate are appropriate. Excellent wines are being made for the international market in Australia, New Zealand, Chile, Argentina, South Africa, and many more using the know-how and confidence of what started in California back in the 1960s. There are California winemakers making a nice living as roving consultants around the world – called “flying winemakers.” Today, if California was a country – and many think it is anyway - it would rank as fourth largest producer among all the countries of the world.

As a result of this global growth, large multi-national companies are buying vineyards and wineries or starting new ones in many countries including the U.S. Some have familiar names like Gallo and Chateau Mouton Rothschild, but others such as the largest wine producer in the world, Constellation Brands, are companies formed for the purpose of taking advantage of the global growth of wine consumption. This concentration of ownership coupled with continued expansion outside of Europe by the Rothschild organization and the wine divisions of liquor and beer giants, Diageo and Pernod Richard, is a real shift in the nature of the wine business. There is a question about the survival of smaller operations when faced with the distribution systems and access to capital of these companies. To survive, the small operators are starting to do more selling direct to customers through catalogs, internet, and their own wine clubs, and would appear to be the ones pushing the envelope of unique varieties and processes. Napa Valley has changed too, with over five million visitors a year, Silicon Valley jillionaires building McMansions, celebrities buying wineries to carry their name, and general commercialization of this former agricultural gem. All of this may shake out to everyone's benefit, but these are trends worth watching.

Of interest, wine consumption in France has changed markedly. The top French wines, the Grand Cru's that have historically built the French reputation are still very good and command a top price. However, the typical Frenchman no longer has wine with his or her everyday meal, and the total sale of wine in France is down about 20% over the past 10 years. The confusion of multiple vineyards and chateaus with different grape blends makes brand identification difficult and globalization of the less expensive wines impossible. There is another problem facing the French wine industry – counterfeiting. The top wines are easy targets for counterfeiters since they are often sold or re-sold 10 years or more after bottling which makes tracing a bottle very difficult. Five dollars worth of wine can be sold for hundreds of dollars with a different label. In fact, Sotheby's auction house will no longer accept any French wine for auction unless there is

clear and verifiable provenance back to the winery including the day of bottling. There are estimates that as much as 50% of the Grand Cru wines in cellars around the world are counterfeit. I am glad that is not my problem to solve.

We cannot leave this subject without a mention of a revision in wine tasting methodology that occurred as a result of the Judgment of Paris. Many did think that the 20 point rating scale was insufficient, and Robert Parker started a 100 point system in 1978. Not only did his rating system catch on, but his approach to publicizing his results through his "Wine Advocate" newsletter became a guide for the entire industry. If a wine gets a rating above 90, the price per bottle goes up exponentially over one rated 89. In my humble opinion, this does not mean that a 91 or even 95 rated-wine is worth 10 to 100 times as much as one rated 89. But it does indicate a level of excellence that often leads to scarcity of supply and higher prices. As an example, while on a ski trip to Utah, last year, I could not help but notice that the most expensive bottle of wine on a long wine list in a Park City restaurant was from California. A bottle of Screaming Eagle Cabernet Sauvignon from Napa Valley was priced at \$4,750. How could a bottle of nine year old Cab from Napa be worth this amount? One, Robert Parker gave it a rating of 100. Two, the winery only made 500 cases of this vintage – all pre-sold. Three, and most important, someone is willing to pay almost \$5,000 for 25 oz of wine. Chatting with the sommelier revealed that the people who buy wines off that end of the wine list usually are the Hollywood folks who attend the annual Sundance Film Festival – and they expect - and get - a big show from him when they order and he serves the wine. The ability to be noticed paying an outlandish price for a product is, for some, more important than the product.

The other phenomenon that has come along post-Parker is the desire to find ways to describe wines in ever more creative verbiage. If you are going to be asked to pay a premium for a wine, many expect to be told in advance the unique quality of that wine and, the more esoteric the description the better. Here are a couple of Robert Parker descriptions from a recent wine catalog to illustrate the point. This for a Cabernet:

"Bursts from the glass with expressive layers of roasted coffee beans, graphite, scorched earth, and tar. It is a massive wine, yet shows remarkable balance and harmony from start to finish. Layers of racy black fruit build toward the muscular, virile finish."

I don't know about you but when I think of enjoying a glass of wine, flavors like graphite, scorched earth, and tar, are not what I had in mind. Of course, I like to think of myself as a muscular, virile guy, but I don't have a clue what that means in a bottle of wine.

Here is another that illustrates the attempt to work sex into even an innocent glass of Chardonnay:

"This long-legged, silky beauty tingles on the tongue with exotic flavors that entice and delight. Finishes with clean lines and a sexy mid-palate grip."

Not sure what this wine really tastes like, but this sounds like a description of a blind date.

Well, what about my personal wine journey. This lifetime and expensive course in wine education has opened the world of wine to me. Obviously, the lab work has been a lot of fun as well. I am no longer focused solely on California, although that is still where I look for most of my wine. Other countries are making some very interesting wines often from different grapes and with different flavor structure. Today, it is hard to buy a bottle of bad wine and even China is getting into the act with the Rothschild's invested in starting a major vineyard and winery. The business of the world and the business of wine is truly a global opportunity – thanks to the study, inventiveness, and dedication to making wine in California.

For me, thanks to a wine maker who humored an ill-tempered neophyte instead of stomping him like a batch of grapes, as well as a young wife who insisted on that timely trip to the wine country.

What about my long suffering wife, who moved with me eleven times in our first fifteen years of married life? I think we can give her the last word with this short vignette. We were on our porch of a summer evening with a nice bottle of Riesling, and she smiled and said "I love you very much. I don't know how I could live without you." I was touched by her tenderness, but had to ask "Is that you talking or the wine?" Without hesitating she responded "it's me. I'm talking to the wine."