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August 2023 Technical Letter to my friends

Good morning, I am glad I found you. In today's technical letter I will try to explain what I do as far as extraction of Cabernet during maceration. All of what I will discuss here is available on my YouTube channel @GoldschmidtVineyards. Below are two videos, but read on and please give me feedback. At the end is an update of where we are in the harvest of 2023 so far and changes sales of Napa Valley wines I just read. Average bottle of Napa is now over \$100. That's Napa, not even Oakville. Don't forget we make Goldschmidt Hilary from Oakville. Best Value Oakville on the market at \$60. Enjoy!

- Site Specific Winemaking
<https://www.youtube.com/watch?v=JGbISnoUigA&list=PLbAS2mG9pzZMp7I9bLnMkluu4JS5HvK0b&index=18>
 - Complexity vs. Tannin
<https://www.youtube.com/watch?v=n5PFer81gos&list=PLbAS2mG9pzZMp7I9bLnMkluu4JS5HvK0b&index=7>
1. One of the oldest considerations for me in winemaking, is **what we do during skin contact primarily after fermentation**. I will make some general comments, mention what is traditionally done in California and then the way we do it for the Ultimatum and PLUS wines for Goldschmidt.

General comments

Everybody talks about time on the skin, what temperature, and how many pump overs or punch downs they do. I think that works for younger or newer winemakers who lack experience and familiarity with the vineyards, or for wineries that are into "speed of tank turns." It is not as simple as this, being a very complicated process with many considerations.

There is one thing I strive for in skin contact that summed up in one word is LONGEVITY! This refers to color and flavor stability for at least 20 years in the bottle.

The formation of the cap during red wine fermentation necessitates the use of some form of cap management. There are three periods. The lag phase, where some winemakers use cold soak and this includes the early onset of ferment as the yeast increase in number. The second phase is the ferment. The third phase is when the tank is producing very little CO₂ at the end of the ferment, Extended Maceration.

The need to maintain proper control of fermentation temperature is to allow a certain amount of phenolic extraction during alcoholic fermentation. To minimize the effects of cap formation on red wine production, we employ various cap management techniques to mix the fermenting must, remove temperature gradients, and homogenize the phenolic content.

Pump-overs are the most common process in cap management and involve pumping the fermenting juice from below the cap pumping it over the top. The efficacy of pump-overs at maintaining temperature and promoting phenolic extraction is affected by the volume and frequency of the pump-over. Things that affect phenolics, or the polymerization of them, are heat, light, air, and time.

Over the years, I have done a lot of work in this area to get to my understanding of it today. The first time I ever formed a cap in a red was 1982. I knew nothing back then! I just felt the more I “broke up the cap” the better the wine would be. Boy was I wrong! Three things influenced my change in process. First was the discovery of Pinot Noir where we break up the cap using punch downs. Making wine in Colchagua, Chile, which I jokingly call the land of dry tannins and so trying to make wine with no extraction. Lastly my understanding of delestage, which is a technique not often talked about removing the wine from the tank and putting it back during the day.

Comparing pump-over and punch-down techniques we know with Cabernet fermentations, pump-overs produce wines with slight increases in color and tannin, punch downs do not. Years ago I was involved in a study with Cabernet fermentations in which phenolic extraction was compared using manual punch-down, pump-over, and rotary ferments. We found that the pump-over fermentations extracted the least total flavonols, anthocyanins, and tannins. The rate of extraction for the pump-over fermentations was slower than for the other fermentations in the study. **Pump overs are gentler than punch downs.**

The major classes of phenolics extracted during fermentation include the anthocyanins, flavan-3-ols (including flavan-3-ol polymers, called proanthocyanidins or tannins), flavonols, and hydroxycinnamates. Because the bulk of grape phenolics is located in the skins and seeds, contact between the juice and these grape solids is necessary for extraction. The presence of skins and seeds during fermentation results in the formation of a cap at the upper surface of the must. Carbon dioxide produced during fermentation causes the cap to rise to the surface and hold it there.

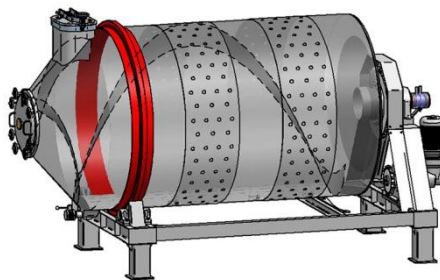
This dense cap has two potentially negative effects on the fermenting wine: the trapping of the heat of fermentation, and the cap reduces contact between the skin solids and the fermenting juice. Changes in temperature, air and time lead to changes in this extraction.

I really like the idea these days of doing less to the cap. The idea of pumping over and punching down to me is becoming less and less desirable. I know it is traditional, but I am moving to a more hands-off approach for many reasons. When you punch down you are physically breaking the cap and releasing more green and dry tannins which become more apparent during aging. Pump over means the wine follows the same route through the cap each time so is more gentle but let's look at:

- The current options people use
- What I am doing today and why
- Then sum up

Current options:

- a) Pump-over volume and frequency does not have a significant effect on phenolic extraction in similar sized fermentors, but it does matter if you change the size or diameter of the tank. In different size tanks, the efficacy of the pump-over to mix the fermenter, maintaining proper cap temperature and promoting phenolic extraction, is affected by the volume and frequency of the pump-over.
- b) Delestage is old school. I learned about this at school but witnessed it at Penfolds in South Australia. I will discuss this later.
- c) Rotary ferments were also developed in Australia where you are taking a tank and lying it on its side so you get maximum skin contact. Remember in Australia we are primarily talking about Shiraz and not Cabernet. Then pulse air where we stick a spike through the cap and blow air under the cap. This in turn flips the cap in a very gentle process. There other techniques like heading boards where the cap stays in constant contact with the wine or continuous ferments where the ferment generates its own cap flip.

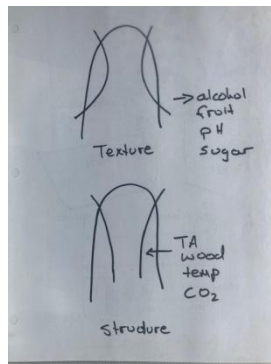


- d) Punch-down which is the most traditional way this is done but these days used mainly on Pinot. Again I do not like the physical break up of the cap. It can lead to astringency and actually is a very strong extraction process. As a note in Pinot though, the wine usually stays on skins longer. (Left photo)
- e) Pulse air is a way to pump oxygen under the cap. Very aggressive but good for Pinot when the tank needs a good mix early in the ferment. (Right photo)



What I am doing today

To me, a lot has to do with berry size, my history of the vineyard, the style of wine I am trying to make, and the grape flavor ripeness. As many of you have seen before it goes back to the tongue diagram I have used for years where I describe the 3 styles of wine we look for.

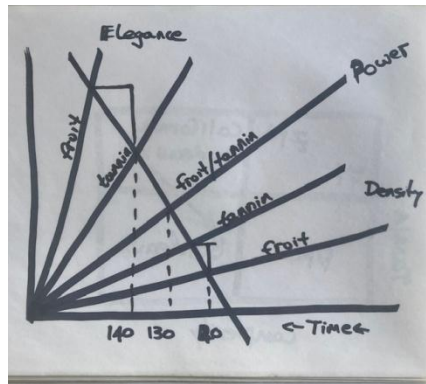


- Elegant wines that have soft berry fruit at the front of the tongue
- Powerful wines that provide the richness and weight
- Dense wines that provide structure and finish

Elegant wines always have more fruit than tannin and tend to have smaller canopies. Therefore we tend to drop a lot of fruit and in doing so we bring the ripening into a balance with the canopy. We can ferment at 80F and be a little more aggressive in the amount of time given to the pump over itself.

Dense wines are always more tannic and so we ferment at 70F and give shorter pump overs.

The bottom axis is in days so you can see from the angled line across the page we pick the elegant fruit later than the powerful. Make sense? Call me.



The key though is what you do after the ferment while still on skins. For Elegant wines I allow the temperature to drop to 70F, so I slow up the polymerization of the tannin as we want to build body. In the Dense wine, I warm the tank up as we want to soften the tannins. Each day we taste the tank and move the temperature up and down. We do this based on taste. If I feel it is too tannic, I increase the temperature. This releases more CO₂ from the wine and will lift the cap. If the wine is too simple, I lower the temperature to slow the release of CO₂ and so the cap will drop

For Ultimatum, Yoeman PLUS and Game Ranch PLUS we do things really differently.

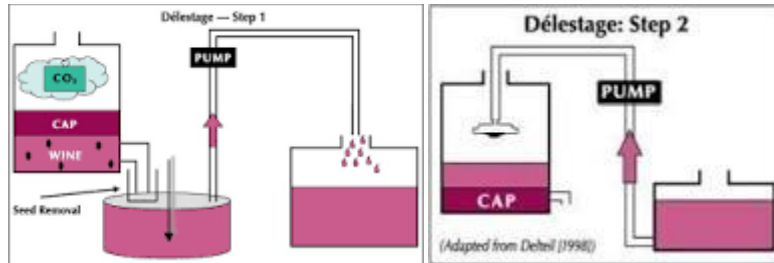
We do things completely differently for these wines. I use the “Penfolds Grange” technique, or a version of it at least. Traditionally they have used “heading boards” which is a technique where boards are placed inside the tank to keep the cap submerged in the wine during the whole skin contact time. In the photo the skins and wine are under the wood. This is looking down into the tank.



This is a great idea for maximum extraction but remember this is Syrah they are using. Syrah has bigger berries than Cabernet and can handle more aggressive extraction. I want to make Cabernet softer and more fruit driven therefore we chose not to do this. For delestage, we take wine out of the bottom valve to another tank. We wait 2-3 hours and then we carefully put it back over the top. To do this we do not want to break the cap and so we use a pipe that goes from the top of the tank, through the cap to the bottom. We then gradually lift the cap back up. We do this 2-3 times a day so it is very laborious.

During the period the wine is off the skins, we get naturally gravitational pressing and this in turn gives us the body to the wine.

The diagram on the left shows movement of the wine out of the tank and the one on the right the movement back after 3 hours. BUT I do not spray over the top on the return but go in below the cap. You can see the device in the photo below. Again looking into the tank



To sum up

Using different extractions based on the block appearance, we can dial in the winemaking to be very block/tank specific. **Site specific winemaking**. Coupled with this and the delestage, we can really change the result.

Bottom line is this is the way we get the maximum complexity from one site.

Reference; <https://www.ajevonline.org/content/69/3/295>

2. Update on 2023 vintage in Alexander Valley and Oakville

Through early August 2023, Calif. – After a record winter and spring, with needed rain we also have had below average temperatures. The growing season therefore started slower this year, making the start of harvest closer to what I used to consider as normal. Vine and grape growth is about three

weeks behind the last few drought-impacted years. As I have seen in other countries, we hope we will not get rain until mid-November as a result.

Flowering weather was cool and misty but due to the rain the vines are looking healthy. The 2023 crop is looking average or above average in size. Yields should be on par with pre-drought years. With steadily climbing temperatures during July, veraison has just started on our estates.

Goldschmidt Yoeman this lovely morning



3. **DTC prices** have jumped by such an extent in Napa that consumers are forking out in excess of \$100 per bottle, according to the annual Silicon Valley Bank report.

The average price of a bottle of wine from Napa Valley leapt by US\$17 last year, pushing the average price of a Napa wine up to US\$108 in 2023. Furthermore, visitor fees to Napa tasting rooms have leapt by 35% to reach a lofty US\$81 per person. In contrast, the average price of a bottle of wine in neighboring Sonoma is less than half the sum of a Napa wine at US\$57, while the average Sonoma tasting will set you back US\$38.

Adding my comment is that 80% of the land in Napa is owned by wineries and only 20% of land in Sonoma. I therefore say Napa is almost price fixed or a wealthy persons club. Building monuments to themselves and charging “exclusive prices.” Having been in Barolo and Rioja in May, you can buy an outstanding bottle for 50 euro. What is Napa doing? **Don’t forget we make 3 Napa’s well under \$100. Goldschmidt Hilary is by far the best value Oakville in the market**

- **Yardstick Napa Valley SRP \$50**
- **Goldschmidt Hilary Charming Creek Oakville SRP \$60**
- **Goldschmidt Game Ranch Oakville SRP \$90**

The stunning Goldschmidt Game Ranch in Oakville. Directly across the street from Harlan and Plum Jack. North facing and all hand done as you can see with rows that end leaving gaps. Not tractors© here!



In Conclusion - As usual I have such good feedback on these technical letters I will keep doing them but I always like hearing back from you all. You are on my list as we have made contact in the past and as we are a small family business it is impossible to see everyone every year. I therefore respect the honor it is that I have your email address

Thank you

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