Being the face of both PSC and ASV at wine festivals around the state, I have the privilege of pouring A LOT of wine for A LOT of people… A quick calculation from the festivals through the end of this year alone suggests that I (with help) will have easily poured over 10,000 samples of wine. Yes, my forearms are approaching Popeye status. No, that’s not the point of this article. The point is that being in this position I get to meet a wide array of wine drinkers and I also get to witness a wide array of responses to the wines! I see it all. Everything from first time wine drinkers to Master Sommeliers. I watch and listen to one wine drinker wax poetic about how gorgeous Arizona Syrah can be, only to be followed by another who cringes and accuses me of giving them moonshine... and both of them had the same wine from the same bottle. Watching and listening to the reactions can be rather entertaining to say the least. The wide array of responses begs a question: Why? Why such a wide range of reactions from the same juice?? Of course we are all individuals with our own perspectives, but I think we can boil this down a bit more. Personally I’ve noticed three distinct influences during these tastings: 1) the wine drinker (personal preconception), 2) the wine server (power of suggestion), and finally 3) the wine itself (package and place). In this article we will take a look at the first of these tricky influences. The wine drinker him/herself. Yes, like all things, it starts with You. The wine drinker’s own past experience with wine is a huge influence on all their future wine tastings. In a wine tasting setting like a street fair, one of the best things for me to do is to simply listen. Wine (being the convivial libation it is) makes it easy for most guests to speak of their personal experience. The main theme from what I hear out there seems to be an admission, and or caveat of sorts. ie: “I don’t like dry wine” or “I’m from Washington ” or “ I only drink French wine.” Believe me this is just the tip of the iceberg. The theme here is preconception. What’s incredible is the power of the preconception. It is quite often more powerful than the present experience. For instance, I recently poured a sample of the 2009 ASV Manganese, and as I poured it I described the blend of “Sangiovese, Cabernet, and Merlot.” The moment the guest heard the word “Merlot,” she said out loud “Oh, I don’t like Merlot.” I tried to explain that it was only some 16% Merlot, and that the Sangio was really the star here, but it was too late! She had made up her mind a long time ago. She had Merlot...
Arizona is one of the most challenging regions in which to grow plants due to a variety of factors. One of our main concerns is the soil. Fortunately, grapes are vigorous and benefit in complexity from our soil’s high mineral content, but other plants have a harder time in these conditions. There are a few things to consider when growing trees, landscape plants or vegetables in Arizona soil.

The first major factor is 'pH' or 'percent hydrogen' in Arizona soil that is too high; known as alkaline soil. All southwestern soil is alkaline due to the low rainfall and scant organic matter. With little rain, salts accumulate in the soil surface and must be washed-down and away from plant roots with deep watering. Typically, alkaline soil is heavy with clay. This not only makes it difficult to percolate away the salt, but creates a problem of too much water that chokes out the roots from receiving oxygen. The good thing about these soils is that they are usually fertile with many nutrients. Making these nutrients available for plants here is the hard part.

An exchange of positively or negatively charged atomic particles takes place between the tiny hairs on plant roots and the nutrients in the soil. Water and oxygen in the soil need to be in a range of balance that allows plant roots to uptake the nutrients on a molecular and atomic level. The best example of this exchange is the successful practice of hydroponics where plant roots are placed in aerated water mediums such as bubbling fish tanks or misting sprayers. The best technique before planting in the soil is to dig, break-up and till it (removing rocks) as deep as possible to open the clay up so the water can push salt below the root zone. When this is too difficult a task, the next best option is to build a raised bed to hold imported soil. Mixing-in organic matter will increase percolation and provide nutrients for plants. Finding a large amount of compost can be difficult and expensive. Some gardeners use horse manure, yet it contains some salts and a ridiculous amount of weed seeds that will cause problems. Other livestock manures are preferred, especially cow that digests any weed seed. Use animal manure sparingly and be sure it is well composted. Leaf and grass compost is best and can be easily found in fall/winter.

The balance between water & air in the soil

**PSC GROUNDS**

By John Blanchini

“Essentially, all life depends upon the soil ... There can be no life without soil and no soil without life; they have evolved together.”

- Charles E. Kellogg, USDA Yearbook of Agriculture, 1938

Psychology continued from page 1

once, she didn’t like it, and now she knows she doesn’t like Merlot. Needless to say, she did not enjoy the Mangus. When this happens I always wonder how differently things would have gone had I not mentioned the accursed Merlot? Perhaps the wine still wouldn’t have been her style, but at least she would have been more likely to give it a fair shake!

On another occasion I asked a gentleman who was looking over the menu what sort of wine he liked, and could I recommend something for him? He said “I like full bodied dry red.” “Let me pour you our El Serrano, and you tell me what you think,” I replied. He was still looking at the menu descriptions as I poured the El Serrano, and he said “Oh, is that a blend?” “Yes” I said. “I don’t care for blends,” he says.

I don’t care for blends? He hadn’t tried it, and he didn’t even know what the blend was. He simply did not like blends...It’s at this point I’ve learned to let these things go. In the past I may have taken this as an opportunity to launch into a wine geek rant about how nearly everything on the store shelf is a blend even if it doesn’t say it on the bottle. Furthermore, many of the most prized, most sought after wines in the entire world are blends! Cheval Blanc ring any bells?!? Not to mention the fact that with the amount of different varietals in the world, the blending possibilities and flavor profiles are practically limitless! I could tell it mattered not to my guest. He was like the Highlander of wine tasting “There can be only one...varietal.” I wonder what would have happened had I handed him his sample and said “This is 100% Cabernet Sauvignon my friend, enjoy.” I am utterly convinced he’d have bought two bottles on the spot. Instead, he tried it and said “that’s pretty good...for a blend.” Ugh.

The obvious theme behind both of these experiences is that the preconceived notions of “I don’t like blends,” and “I don’t like Merlot,” are the very ideas which kept these two from enjoying the wines. Regardless of whether they would have liked the wines otherwise, they were closed to the experience, and therefore
When it comes to winemaking, what is the fermentation process and why is it important?
The overall process of fermentation is to convert glucose sugar ($C_6H_{12}O_6$) to alcohol
($C_2H_5OH$) and carbon dioxide gas ($CO_2$). The reactions within the yeast cell which make
this happen are very complex but the overall process is as follows:

$$C_6H_{12}O_6 \rightarrow 2C_2H_5OH + 2CO_2 + \text{Energy (which is stored in ATP)}$$

Sugar $\rightarrow$ Alcohol + Carbon dioxide gas + Energy (Glucose) (Ethyl alcohol).

**Metabolism of yeast is pH dependent:** the acid-level plays a role in determining
wine’s properties. One of grapes’ two principal acids, Tartaric acid and Malic acid:

![Tartaric acid and Malic acid](image)

There is an optimum pH for fermentation. Prior to fermentation, pH is measured either by
titration or more conveniently with a pH meter, and if it is too high, tartaric acid is added. Fer-
mentation is an exothermic process (it releases heat). But in winemaking, the temperature
cannot exceed 35.0°C for red wines otherwise the growth of yeast cells will stop. Moreover, a
lower temperature is desirable because it increases the production of esters, other aromatic
compounds. This makes the wine easier to clear and less susceptible to bacterial infection.

The metabolism of amino acids and breakdown of sugars by yeasts has the effect of creating
other biochemical compounds that can contribute to the flavor and aroma of wine. These
compounds can be considered “volatile” like aldehydes, ethyl acetate, ester, fatty acids, fusel
oils, hydrogen sulfide, ketones and mercaptans) or “non-volatile” like glycerol, acetic acid
and succinic acid. Yeast also has the effect during fermentation of
releasing glycoside hydrolase which can hydrolyse the flavor precursors of aliphatics (a flavor component
that reacts with oak), benzene derivatives, monoterpenes (responsible for floral aromas from grapes
like Muscat and Traminer), norisoprenoids (responsible for some of the spice notes in Chardonnay),
and phenols.

Malolactic fermentation is a sec-
ondary process of bacterial conver-
sion. We overlap this fermentation
with primary fermentation. Harsher
tasting malic acid is converted into
softer, and less acidic, lactic acid.
Carbon dioxide is also produced.
In practical terms this means a
reduction in the acidity of the wine
and an increase in its complexity.
The level of alcohol is unaffected.
Like primary fermentation, malo-
lactic fermentation can be induced
by the introduction of cultured
bacteria, or suppressed with sulfer
dioxide.

These two fermentations combined
allow us to create a wide diver-
sity of wines. And it is interesting
to glimpse all of the science and
chemistry that lays behind the
seemingly simple process.

Psychology continued from page 2

Closed to the wine. It is with these examples I ask you to take a look at any of your own preconceived notions about wine. Did you have
one bad experience with a certain varietal and now you don’t want to try it again? Perhaps an educated wine friend once told you that
single varietal wines are inferior, or vice versa, but have you discovered this for yourself? Maybe you think that a wine which costs $50
must be better than one that costs $15, but have you tried them both?

These examples are really just scratching the surface. There are many ideas about wine that get passed around and shared as though
they are the gospel truth, but little of it can stand up to a moment of scrutiny. One of the best ways to strip away preconceived notions
is to do blind tastings. I guarantee you will be surprised how hard it is to judge a wine based solely on how it tastes! Sounds ridiculous
I know, but give it a shot and you shall see. After all, if you don’t know how much it costs, or where it’s from, or what grape(s) it’s made
from then how in the world are you supposed to know how good it is?

Guess you’ll just have to try it and decide for yourself!
love for technical things, my work now demands more administrative duties (yuck) which means I have to have fun at home. When I was younger I played sports (climbing, skiing, camping, etc) now that I am older I hunt, drink wine, and other semi technical things (i.e. play with fire). Which brings me to my wine making exploits.

A train ride with friends on the ‘wine train’ (Verde Canyon Railroad) brought me to my first introduction to Page Springs Cellars. During the scenic trip they served a couple of new and then mostly obscure Arizona wines but one label stood out. Guess who. This was my first exposure to Eric Glomski and Page Springs Cellars. Until then I was stuck on California (Napa) wines. Like many before me, I didn’t know Arizona could make good wines. I cannot claim to be a connoisseur of wine, however attending events, talking to Eric and watching how PSC wines are made, I was encouraged to attempt winemaking. What can resist the lure of a château overlooking your own vineyard? Sure, I’m a dreamer but I am also full of enthusiasm.

I love to take things apart and put them back together again. My friends know not to leave broken technical things lying around. It makes them nervous but I swear that I put them back together again. And occasionally fix them.

My career has bounced around from electromechanical research (ADOT), chemist (precision inorganic work), early computers design (control computers for nuclear power plants and industrial processes), aerospace design (shuttle, space station, etc.), telephony, and lately computer software. Although I have a love for technical things, my work now demands more administrative duties (yuck) which means I have to have fun at home. When I was younger I played sports (climbing, skiing, camping, etc) now that I am older I hunt, drink wine, and other semi technical things (i.e. play with fire). Which brings me to my wine making exploits.

I was born an engineer. My father was an engineer and my mother a teacher of chemistry and physics. Both family trees are technical types so when I use the term ‘eccentricities,’ you can understand the depth of the term. Please note the high school age geek sitting at a drafting board (above). My love for technical things first became a concern to my family when, as a 14 year old, I began playing with small explosives and then building large rockets. My parents didn’t know how large. The club and rockets just got bigger and bigger until eventually our liquid fueled rockets caused concern for the FAA.

I love to take things apart and put them back together again. My friends know not to leave broken technical things lying around. It makes them nervous but I swear that I put them back together again. And occasionally fix them.

My second attempt fermented weeks longer than planned due to increased demands at work. My initial tasting of the wine was perplexing. It didn’t taste bad but upon further research (on-line experts and friends) I discovered that being a new wine, it needed time and I should wait to try it. That is hard to do.

I named my wine Haphazard Genesis ING and it was bottled in champagne bottles (big sturdy bottles with a wax covered cork) and has been sitting waiting for maturity for close to a year. While am writing this, almost a year after the initial fermentation, I sampled another bottle and found it to have a mild but smooth taste with minimal oak but very drinkable. In a secondary project, my good friend and I (along with a few other investors) bought into a PSC barrel of wine and are using Eric’s expertise to generate what is already a far superior wine.
Scientific advances in viticulture, especially as it pertains to organics and sustainability, have been a hot topic this past decade. Organic herbicides using concentrated acids and oils have become very effective and have taken the industry by storm. Our understanding of soils has broken through the world of macro-nutrients (nitrogen, phosphorus, and potassium) into micro-nutrients and the delicate balance between fungal and bacterial levels and how they affect nutrient uptake. I could go on and on but in the interest of brevity, let’s look at scientific advances in fungicides.

There’s a whole spectrum of viruses, bacteria and insect pests that can wreak havoc on a vineyard. Almost all of them are rare and rear their ugly heads every few years. Rot and fungal spores are a problem every year, and all year long. When ordering materials for the upcoming year, it’s never a question of “if” we’ll need it but “how much” we’ll need. Regalia is the newest product and perhaps the most interesting. Regalia bolsters the plants natural defense system to protect against fungal and bacterial pathogens. We spray it on the leaves and it works by inducing the vines to produce antimicrobial substances, cell strengtheners, antioxidants, and proteins to inhibit fungal pathogens.

Another product that prevents fungal invasions, but in a very different way, is Serenade. Serenade contains *bacillus subtilis* (a bacterium commonly found in soil) that stops harmful fungal spores from developing. Again, we spray it on the plant and for about 10 days this organism inhibits the attachment of the harmful spores to the plant itself. Lastly, we have Kaligreen and MilStop. The previous 2 products are preventative, while these 2 products are used when we have a fungal problem. Both products have roughly the same formulation and they are interesting because they’re more or less common baking soda (sodium bicarbonate). Baking soda has been used for years as a fungicide but more recently these products combine it with surfactants that help the product adhere and uniformly cover the leaf or grape cluster. A common product with a kicker to make it more effective. In a nutshell, these products disrupt the sodium ion balance within the fungal cell, causing the cell wall to collapse. All of these products target fungal spores and nothing else, very specific in purpose and scientifically engineered to be very effective.

Even though these products are harmless and 100% natural we try and use them as little as possible. Our fungal control starts well before we load these products into the sprayer. Scientific knowledge of how fungal pathogens reproduce and travel tells us that they need a warm, moist and stagnant environment to flourish. Early in the season we open up the canopy by spacing out canes and pulling leaves to create an environment where a subtle breeze passes through the vine making the environment not ideal for fungal growth. It’s a careful and thought out battle armed with scientific weaponry that lasts the whole year long.

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**FROM THE VINEYARD**

By Jeff Hendricks

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**heard it on the GLOMSKI GRAPEVINE**

The art & science of picking grapes

A lot of important decisions go into every bottle of wine you drink. The infinite combinations of these decisions lead to all the distinctive styles you see out there in the wine world. One vintner may ferment with yeast from the south of France while another prefers a strain isolated from South Africa. One
In a secondary project, my good friend and I (along with a few other investors) bought into a PSC barrel of wine and are using Eric’s expertise to generate what is already a far superior wine.

My own winemaking efforts are a far cry from that of a professional but I have learned the value and merits of a good vintner and what can come from taking advice from the real artist in the trade. My next batch (fermenting now) might not taste as good but I will be delighted anyway because I have since learned a new appreciation for the art and its practitioners.

Science is the study of the art of nature. Like my chemistry cooking job, all the chemistry and science knowledge in the world might help but it won’t make a good wine unless a real artist has been at work.
may like French Oak from from the forest Allier while another swears by American Oak from Missouri. I could go on and on. To me (all other things being equal), I feel the most critical decision a winegrower makes each year is, first and foremost: when to pick.

At both Page Springs Cellars and Arizona Stronghold, we don’t believe wine quality is always found in a single pick. (We could go on for days defining what quality is, but let say for the purpose of this brief conversation we define a quality wine as one that is complex and pleasing.) If you were to look at one of our labels, say our Rhone blend ECIPS, you would see that it often contains a significant amount of Grenache. What you don’t realize is that the singular mention of Grenache is quite misleading. Not only does that total percentage of Grenache include differing blocks or plantings of Grenache, it almost always contains multiple picks as well.

When I first really started digging into chardonnay winemaking when I lived in California, I hung out with some scientists who had conducted some pretty interesting studies on the chemical composition of Chardonnay grapes at differing brix (% sugar) levels. They picked chardonnay at 21, 23, 24, 25 and 27 brix (from less ripe to very ripe) and then conducted sophisticated analyses that allowed them to identify and quantify the chemical flavor and aromatic compounds present at each brix level. Their results were fascinating. At low and high brix extremes, the compounds present were less diverse than the middle picks. These findings seemed to parallel a lot of the age old wine knowledge regarding wines being simpler when overripe and green and uninteresting when picked too early. At first glance you might think the story ended there. As it turns out, there were compounds present in the high and low picks that were not present in the middle picks at all. So, if you were to only pick once, the middle pick seemed to make sense, but...who said you could only pick once?

After pondering this information for a while, I started picking Chardonnay in a Brix bell curve. I would pick 20% of the crop less ripe, 60% in the middle, and 20% much riper. This gave me much more flavor diversity to work with in my blending and taught me a lot about these grapes and their many personalities. (I have to note that I am oversimplifying things here because we didn’t really talk about whether all the flavors present were good ones... We’ll save that for another day...!)

Back to our Arizona Grenache, I should point out that we often have three, four and sometimes even five different picks of this grape. When we want to make a special Grenache all by itself, we often pick at 23-24 brix. But for use in a big Rhone blend we love to get the pretty aromatics of the early picks (maybe 22 brix) as well as the big, dense, rich and jammy wines that arise from hanging the fruit longer (at 26 or 27 brix). These picks sometimes arise from cleaning out one block on a day and then coming back for another several days later or we might go through and pick the mature fruit from a block, leaving the under ripe fruit behind to hang longer. We might even pick visually different clusters from the same vines into different bins which then are fermented separately.

As a word of both closing and caution; this is obviously not a silver bullet or anyone could make great wine. What to pick at what time is very varietally specific and changes from year to year based on climate (among other things). None of this is a substitute for knowing your vines and your vineyard site. Ultimately the key to making great wine is growing great grapes – and this is the hardest part of the whole process. Picking multiple times is simply another tool to be used to craft wines of quality.

‘Ultimately the key to making great wine is growing great grapes – and this is the hardest part of the whole process.’
INNER CIRCLE

2010 Petite Sirah Shell Creek Vineyard
The dense, sweet, raspberry pie character of this wine is undeniable. The palate is thick and chewy with a long, lingering, tannic finish. Picked a bit riper than usual, earlier drinking is advisable.

2010 El Serrano
2010 marks the 8th vintage of El Serrano, our Flagship blend at Page Springs. Well balanced, fruity, spicy wine with moderate acid tannins and impeccable balance.

2010 Mourvedre Tablas Clone ASV
The first harvest for these vines, we purchased 4 years ago from Tablas Creek Vineyards in Paso Robles. Intense dark cherry, black plums, chocolate cake and dusty characters of this wine. Complex and tasty.

2010 Pinot Noir Bonita Springs Vineyard
Very Burgundian in style, this wine has classic sour red cherry, orange rind, brambly spice and beautiful acidity.

2010 Mourvedre Page Springs Vineyard
The 2010 vintage marks the only year that Mourvedre ever was or will be produced from our original Estate Vineyard. Previously located in the lowest block below our winery, these grapes were continually assailed by low winter temperatures and cool summer nights. 2010 provides us just enough heat to ripen this complex, earth driven, spicy wine.

2010 Cab Franc Ranchita Canyon Vineyard
Syrupy black cherry and cedar dominate this wine. Hints of green peppercorn and tingly, savory herbs also grace the palate with a light, dusty spice on the finish. When you can, we recommend trying this alongside our other RCV bottlings from this year for a great vineyard comparison.

FAMILY

2010 ECIPS
ECIPS is all about Arizona Spice. We begin by setting aside all the spiciest Arizona grown wines from each of the batches in the cellar. We then look to harmonize these components with the goal of creating a complex, somewhat austere, ageable wine, reminiscent of great southern French blends.

2010 Syrah “Resurrection” RSL Vineyard
This syrah brings back memories with blackberry and pepper, walnut and matchstick, and a hint of good herb. A delicious, soft and creamy palate.

2010 Petite Sirah Ranchita Canyon Vineyard
Ranchita Canyon Vineyard is located in northern Paso Robles County, our Petite block runs up a steep limestone hill slope. Farmed with the mantra, no leaf touching a leaf and no cluster touching a cluster. A luscious, liquid-jammy-silk berry wine.

2010 Mourvedre Colibri Vineyard
The character of this wine is undeniable. A quick sniff instantly reveals the characteristic white pepper and cigarette aromas of Colibri. Mouth watering acidity, red delicious apples, tart red cherry and lingering stone fruits.

VISIT OUR WEBSITE FOR MORE INFORMATION ON THE WINES IN YOUR RELEASE.