HUNTING THE GREAT WHITE

Pinot noir is easily the singular red wine focus in this great cool climate, but white wines are a source of equal passion for many Oregon winemakers. In this workshop, we will investigate the bright, fresh fruit of these complex and imminently age-able white varieties that have captivated many of us. More and more these wines will define our region as it evolves to be as well-known for white as red.

During our investigation we will discuss varieties, clones, and the grapegrowing and winemaking decisions that help us take advantage of our climate. A tasting of varied vintages of Pinot gris and Chardonnay will illustrate these decisions.

WORKSHOP DETAILS
More information available at this link following OPC.

POINTS TO INVESTIGATE

- History of white grape varieties in Oregon and where these varieties are now planted, with an emphasis on their compatibility with the cool climate of Oregon
- The growing conditions, climates, and soils for white varieties in the Willamette Valley and Southern Oregon
- How white wines differ from red
- Development of a uniquely Oregon style
- Oregon Chardonnay
- Oregon Pinot gris
- White wines can age

HISTORY OF WHITE GRAPE VARIETIES IN OREGON
Early winegrowing in Oregon always involved white wines. Although retired French-Canadian fur trappers planted the first grapes in the 1840s, many settlers in the second half of the nineteenth century had German heritage, and German white varieties, particularly Riesling, were favored. One of the early growers was Adolph Reuter with grapes on David Hill outside Forest Grove. His wines received acclaim when his Clevner (a German name for Pinot, though the wine was probably Pinot blanc) won a silver medal at the St. Louis World's Fair in 1904. Reuter claimed that the region would become the Rhineland of America.

In southern Oregon, there was more influence from California. Peter Britt came to Jacksonville from Switzerland in 1862. He brought grape cuttings from California and produced Claret, Muscat, and Zinfandel wines. The Von Pessl brothers added Riesling and Sauvignon. Adam Doerner got Riesling and Sauvignon cuttings from the Beringer brothers and planted them near Roseburg in the 1890s. And it was near Roseburg that the rebirth of Oregon wines took

place in 1961, when Richard Sommer planted Riesling at Hillcrest Vineyard.

The plantings in the 1960s and 1970s focused on Pinot noir, Riesling and Chardonnay; however, Riesling was gradually eclipsed by Chardonnay in the mid-1980s. By 1986, Chardonnay accounted for 23% of Oregon's acreage, Riesling 19%, and Pinot gris 3%. Oregon growers were pulling out Pinot noir to plant Chardonnay and Müller-Thurgau. Pinot noir acreage remained relatively flat until 1996. By 1994, Pinot gris had become more widely planted than Riesling, and in 2001 Pinot gris replaced Chardonnay as the most planted white grape variety in Oregon.

Today, here's the way things stand (numbers from 2020): in all, white varieties make up 24% of the grapes planted in Oregon. Of these, Pinot gris accounts for 58% of all white varieties in Oregon with 5,460 acres planted. Chardonnay accounts for 27.6% of all white varieties (2,610 acres). The next three white varieties in terms of acreage are Riesling (4.8% of the total white varieties planted in Oregon), Viognier (4%), and Pinot Blanc (2.5%). Other whites planted in Oregon include Müller-Thurgau, Albariño, Grüner Veltliner, and Sauvignon Blanc.

THE GROWING CONDITIONS, CLIMATES AND SOILS IN THE WILLAMETTE VALLEY

Climate

There are four critical aspects to the Willamette Valley growing season:

a. Moderate temperatures
b. Dry growing season
c. Day length
d. Sunlight intensity

Our winters are very mild (mean January temperature of 42°F), and our summers are reasonably cool with July's average temperature being 68°F. Generally, there is just enough heat and sunlight intensity to fully ripen cool-climate grape varieties at the end of the growing season. The Willamette Valley has a very dry summer growing season. Although the average annual rainfall is 40" most of it falls in the winter. Average rainfall in January is 7" but only 0.5" in July and August. This is in stark contrast to Burgundy, where rainfall is more evenly distributed throughout the year at about 3" per month. This means that we have no downy mildew and few problems with botrytis in the Willamette Valley, but we have a greater incidence of drought-related issues.

The 45th parallel cuts through the Willamette Valley just north of Salem. Being that far north, between March 21 and September 21, we have more daylight hours than growing regions further south. On June 22 we have 1.5 hours more daylight than in Napa; this is a key difference between cool- and warm-climate whites. Conversely, day length shortens rapidly in the fall, registering strong hormonal signals of the growing season's end to the vines.

Small improvements in our viticulture lend themselves to big quality differences in a cool, maritime climate like that of Oregon.

Soils and Geology

Oregon was created by the collision of the Pacific Plate with the North American Plate almost 200 million years ago. The Willamette Valley, and the Coast Range that protects it from the ocean, were created by uplift caused by that collision. The Willamette Valley is 150 miles long and up to 60 miles wide. It is an old volcanic and sedimentary seabed that has been overlaid with gravel and silt from Montana and Washington. During the final period of the last ice age, hundreds of floods occurred when an ice dam holding back massive lake waters near present day Clark Fork River gave way. Flood debris filled the Willamette Valley to depths of 400' as many cubic miles of water washed down the Columbia River Basin and into the Willamette Valley. (Read Cataclysms on the Columbia by John Logan Allen and Marjorie Burns for more insight on some truly dramatic geology.)

Early plantings focused on the deep red, basaltic-origin clay-loam soils, such as Jory, Saum or Nekia that overlay a basalt volcanic rock base. Recently, interest has developed in planting on the shallower silty clay-loams, such as Willakenzie and Peavine that overlay sedimentary rock, and in the wind-blown Loess soils of the flood era in the hills of the northern Willamette Valley.

THE GROWING CONDITIONS, CLIMATES AND SOILS IN SOUTHERN OREGON

The motto of Southern Oregon is that it is a "world of wine." Nearly all temperate-climate grape varieties can be successfully grown somewhere in the Umpqua, Rogue and Applegate appellations. This is a diverse winegrowing region with a range of soils, aspects and climatic conditions.

Historically, to differentiate the region from the Willamette Valley, the tendency has been to emphasize the more arid areas where Bordeaux and Rhone varieties excel. However, Southern Oregon vineyards feature a very wide range of soils (from sandy loam to clay), precipitation (from 12"–60" per year), elevations (600'–2800') and heat units (2,100–3,100).

The warmest areas, the Bear Creek and Applegate Valleys, are predominately planted to Merlot, Cabernet Sauvignon, Cabernet Franc, Chardonnay and Syrah, while the "cooler" areas, the Illinois and Umpqua Valleys, grow Pinot noir, Pinot gris, Gewürztraminer, Tempranillo, Riesling and Chardonnay.

THE GROWING CONDITIONS, CLIMATES AND SOILS OF THE COLUMBIA RIVER GORGE AVA

The Columbia Gorge AVA is a two-state appellation stretching from Hood River, Oregon across the river through Underwood and Lyle, WA, and back across the river to The Dalles, Oregon. Grapes are grown from 200' to 1,825' elevation. Rainfall drops dramatically; traveling east along the 120-mile-long Gorge, within 25 miles 31" of precipitation at Hood River drops to 15" at The Dalles. Soils are dependent upon elevation, a result of Missoula Floods of 20,000 to 12,000 years ago, with a rough dividing line at 1,000'—above which the soils are volcanic in origin and below are glacial and Missoula Floods deposits. This region is proving an exciting place to grow cool-climate varieties (Pinot noir, Pinot gris, Chardonnay, Gewürztraminer,

Riesling and Grüner Veltliner) in the western end, and warm climate varieties (Merlot, Syrah and Zinfandel) in eastern portions around The Dalles. The Columbia River Gorge has an important and unique influence on both the Willamette Valley and Columbia Basin climates, as it is the only sea level passage through the Cascade Mountain Range.

HOW WHITE WINES DIFFER FROM RED White wine grapes grow side-by-side with Pinot noir, receive the same handwork and attention to grapegrowing detail and are harvested over the same period. They all have clear juice—Pinot noir too, unlike some other red varieties—and are known for bright fruit character and food-friendly acidity.

Differences rest in red wines being fermented on their skins and seeds to extract color, fruit tannins for more structure and slightly different aromas and flavors. Typically, white wines are pressed away from their skins and stems immediately, and fermentation is slow and cool, compared to a warmer and actively worked mass of pulp, skin, seeds and sometimes stems in Pinot noir. All reds and some whites age in barrel. Time in barrel, lees contact and malolactic fermentation are all employed in red and often white wine vinification.

Although there are similarities, the makeup of white wine is different by being generally higher in acid, lower in pH, less alcoholic and ripe and may or may not be influenced by malolactic fermentation. To achieve perfect balance, a minor amount of natural residual sugar is sometimes left in white wines. As often as not, white wines are allowed to ferment to total dryness, just like Pinot noir. Textural enhancement also helps balance. Wine color is mainly dependent on skins and barrel. Pinot noir pulls color and structure during maceration and fermentation, which is fixed with the help of barrel tannins. White wines in barrel pull some golden color from the barrel and from oxidation over time in bottle, where the color deepens, especially under cork.

THE STYLES OF WHITE WINES IN OREGON

As viticulture and winemaking have improved in Oregon, a sense for better definition of balanced ripeness has evolved to reflect Oregon's unique ability to offer both the New World's vibrant fruit characteristics and the Old World's mineral structure and complexity.

White wines from the same variety, even from the same vineyard, can be produced in a range of styles. Winemakers are quick to say that their wines are "made in the vineyard", and ideally all white wines will reflect the vineyard and the region where they are produced. However, techniques employed by the winemakers have an important effect as well. To help understand the winemakers' influence on style, we can divide wine styles into two basic categories: those that emphasize fruit and those that emphasize texture. These styles can be applied to any white grape variety in any winegrowing region. Looking at Pinot gris in Alsace and Friuli for example, we see the fruit-emphasizing style of Pinot gris coming from Trimbach in Alsace and from Livio Felluga in Friuli. Contrast those wines with the texture-emphasizing style produced by André Ostertag in Alsace and Jermann in Friuli.

Fruit Emphasis

Most non-Chardonnay white wines in Europe and the New World are produced by fermenting ripe grape juice in stainless steel or large, neutral oak ovals. Some Oregon winemakers are beginning to ferment white varietals in concrete eggs as well. The intent is to capture as much of the primary fruit character as possible while (ideally) allowing the nuances of the vineyard site to be clearly reflected in the finished wines. Frequently, the juice is also fermented at low temperatures and malolactic fermentation is often limited. These wines have intense aromatics and purity of fruit. In many cases, a measure of residual sugar will be left to soften the impression of acidity and richly fill the mid-palate. Wines that emphasize fruit have aromatics that recall the flavors of bright, fresh fruit. Descriptors for these wines are usually fruit-oriented—citrus, pear, melon, peach, kiwi, etc.

Stylistic differences in fruit-emphasized wines arise from vineyard site, ripeness at harvest, selection of yeast strains, length of fermentation and the levels of residual sugar and malic acid that are retained in the final wine. Wines with a fruit emphasis are often aged on lees for less time than those that emphasize texture, going to bottle typically about six months after harvest.

Texture Emphasis

Texture and aging impart important characteristics for traditionally vinified Chardonnay, but other varieties can follow this path as well. As with the fruit-emphasizing style, fermentation strains (whether indigenous or selected), malolactic fermentation (either total or partial), the degree of lees contact, skin contact before pressing, vessel decisions (barrel, stainless or both) and length of aging (usually 6 to 11 months) all help determine the expression of the final wine. Winemakers define their style by employing all of these parameters to a greater or lesser degree. For example, wines that have undergone ML have greater mouth feel, are more textural and have softer acidity. They also have a less overt fruity character and more secondary flavors. Barrel fermentation adds richness and body in the mid-palate, and more lees contact contributes non-fruit flavors. By employing processes that emphasize texture, resultant wines can have more evolved aromatics accompanied by suppleness and body on the palate.

OREGON CHARDONNAY

As noted earlier, the once dominant white grape in Oregon, Chardonnay, was eclipsed by Pinot gris in the early 2000s. However, Oregon Chardonnay plantings are once again on the rise as the state's Chardonnay offerings gather recognition and acclaim. By pioneering Pinot gris and Pinot noir in the United States, Oregon had the great fortune of being able to set the national standard. However, an American Chardonnay style was well in place by the time Oregon wines started to gain visibility on the national stage in the 1980s. The established American style was based on warm-climate viticulture, and the ultra-ripe, soft flavors that resulted were often further augmented by new oak, residual sugar and the more buttery strains of malolactic. In contrast, Oregon's cool-climate Chardonnays were often comparatively mineral and structured in their youth, requiring time to reveal themselves. Many vintners stayed the course to make Chardonnay with a distinctively Oregon character, and this approach has proven its worth;

those wines have shown themselves to age magnificently. However, others attempted to emulate the "established" American Chardonnay style, de-acidifying, aging in high percentages of new oak and using fatter strains of malo. These approaches were not always harmonious with the essential mineral character of cool-climate viticulture. A complicating factor in the Oregon Chardonnay story has been clone. The Willamette Valley's founding clone was the Draper Selection brought by David Lett in 1965. Draper Selection traces directly to the "Old Wente" clones of Chardonnay imported from France in the early 1900s. Many of the Willamette Valley's pre-1974 plantings of Chardonnay are Draper Selection. In the mid 1970s, new high-yielding selections of Chardonnay became available from California. UC Davis clones 4 and 5 together became known as Clone 108. Like the Draper selection, Clone 108 can make good wines if properly managed for yield. The natural inclination of 108 is to produce huge, late-ripening clusters. In a warm climate like Napa's, this can lend needed acidity. In our climate, the acidity can be very much out-of-balance if yields are not vigilantly tended. In 1984 and 1988, a series of Chardonnay clones were brought into Oregon from Burgundy. These clones had been selected in the 1960s by a branch of the French Ministry of Agriculture whose office was in Dijon, and have numbers like 76, 95 and 96. These "Dijon clones" bloom and ripen two to three weeks earlier than others, and have added more options to match plantings to soil, site and winemaking style. Today, the breadth of available Chardonnay selections has created new excitement among Oregon Chardonnay growers. Planted acreage is once more beginning to climb.

The combination of attentive vineyard practices and a greater availability of clones is fueling a renaissance of Chardonnay made from both older and newer plantings. Winemakers are experimenting with various coopers and stainless steel, wild and commercial yeasts, lees stirring and extended barrel aging. There are styles that emphasize fruit through cool fermentations, stainless steel fermentation and aging and inhibited malolactic. Others vinify for texture through the use of barrel fermentation, malolactic fermentation and lees aging (sometimes with lees stirring regimens). Some wineries enjoy success blending both styles together in the making of their Chardonnay. In either case, the goal has become to make wines that reflect their place. To an American palate that has become fatigued with blousier versions of Chardonnay, Oregon offers many refreshing alternatives. Good Oregon Chardonnays have the same transparency as Pinot noir, and like Pinot noir have the ability to eloquently reflect site, place and vintage. Our cool, marine climate was never suited to growing the pillowy style of Chardonnay. The expansion of a subset of American wine drinkers who appreciate more food friendly, mineral-structured wines has led more and more consumers to explore the Oregon style.

OREGON PINOT GRIS

While Josh Jensen and the ghost of Dick Graff might debate the statement, "Oregon is the home of New World Pinot noir," no one can deny that Oregon was the first place in the New World to produce Pinot gris wine. While the variety was in the grape collection at UC Davis in the 1960s, no one had planted it commercially until David Lett did so in the Dundee Hills at his Eyrie Vineyard in 1966. The first wine to carry the Pinot gris label in the New World appeared

with Eyrie's 1970 vintage. Ponzi Vineyards released their first Pinot gris in 1978, followed by Adelsheim Vineyard in 1984. Lett, Ponzi and Adelsheim traveled together to promote Oregon Pinot gris around the country in the 1980s and early 1990s, introducing people both to a new variety and a "new" growing region (starting with a quick geography lesson: "Oregon: second down on the left").

Over the 1990s, Pinot gris acreage overtook that of any other white variety. The most significant increase in Oregon Pinot gris production came when King Estate made the variety a significant part of their portfolio. In 1991, Ed King III and his family started planting extensive acreage to Pinot gris and buying grapes from existing plantings. Grape prices jumped and more growers got into the act. Pinot gris acreage in Oregon continues to grow, increasing 88% in the last 10 years. Additionally, King Estate devoted significant marketing dollars to the variety. An early tool was a Pinot gris cookbook with recipes from many of America's top chefs.

Since 2003, as Pinot gris/grigio became the second most-purchased white wine in America, Oregon has become the growing region most associated with fine wines from this variety.

OTHER WHITE VARIETIES, SOME IN THE PINOT FAMILY … SOME NOT

In the 1960s and 1970s, when there was no surety about what grape varieties would succeed in Oregon, a range of white grapes was planted. These plantings included Gewürztraminer, Müller-Thurgau and Muscat Ottonel in the cooler regions, and Sauvignon blanc, Viognier and Semillon in the somewhat warmer regions of the state.

Another early white variety with which growers experimented was Pinot blanc. It was discovered, however, that those plantings were in fact Melon. The mistake was actually made at UC Davis where they had inadvertently gotten rid of all selections of Pinot blanc and misidentified Melon de Bourgogne (aka Muscadet) as Pinot blanc. In 1976, Oregon State University imported two clones of Pinot blanc from Colmar, along with a slew of other Alsatian clones. It took a while to get these clones through quarantine process, but by the mid-1980s, growers could plant Pinot blanc for first time. We slowly started to plant and to make wine. Cameron Winery made America's first true Pinot blanc in 1988 from a small test block of the new clones. Others soon followed.

Small plantings of a whole range of other white varieties can be found throughout the state. They include Albariño, Arneis, Auxerrois, Grüner Veltliner, Tocai Friulano, plus others that have not yet surfaced as wines. Those adventurous few who have chosen to plant these varieties face the same stylistic choices. Clearly, these producers have been inspired by wines they have tasted of these varieties from Europe. Their challenge will be to make the correct vineyard choices and then to find the winemaking approach that allows their project to be uniquely Oregonian.

WHITE WINES CAN AGE

> Ageability is the icing on the cake, especially since most bottles are consumed within days of purchase. Hasn't seemed to have held back Marlborough SB or Champagne that people drink them sooner rather than later. However, a reputation for making wines that stand the test of time enhances the image, at least among wine geeks willing to spend more.
> - Harvey Steiman, Wine Spectator

Ageability helps to define a wine region more than many other aspects. It seems to be the final recognition that validates a growing region as more than good, as possibly great enough to make wines that live from one generation to another. Not all wines are ageable, but the age-worthy ones are remembered and can lift an entire region's reputation.

Red wines are known for aging. They accomplish this by balancing fruit and alcohol with structure largely from tannin and polyphenolics. White wines can age equivalently by substituting good acid levels as the structural element in this three-legged stool (in sweet wines the sugar adds a fourth leg to be balanced). In both cases, balance is the key and structure of some kind is required.

Most of us don't drink older wines a lot, but we should cellar enough to experience the added dimension given by aging. As with reds, aged whites have often lost primary fruit to more tertiary, bruised fruit or savory characters, and gain textural richness and length.

However, the beauty of age has seldom been seen by most wine consumers, who may dismiss a lost bottle in the cellar or random bottle bin at a retailer as being highly oxidized and bland.

Two things are required for optimum aging of white wines: wines grown to perfect balance in a climate where acid and flavors peak at the end of the season, and conditions to minimize premature oxidation. Growing classic varieties like Riesling and Chardonnay in the cool climate of the Willamette Valley and making wines under oxidative protections give us confidence that our white wines will age exceptionally. Even under cork and with less winemaking experience, our Chardonnays, Rieslings and Pinot gris from the mid-90s have shown beautifully in recent tastings in London, Tokyo, San Francisco and New York.

We encourage the media and trade to recognize age-worthiness as an important measure of wine quality, to see in young wines the attributes needed for a wine to age, not just immediate drinkability, and to excite consumers about the attractiveness of elegant, aged wines so that they demand them from restaurants, retail shops and wineries—and possibly return to the culture of cellars and wine collection.

CONCLUSION

Oregon's cool climate is unique in North America, perhaps in the world. Oregon's white wine producers have moved from trying to imitate the white wines of Europe or California (and not

having much success at either) to finding the confidence to produce wines that are the unique products of Oregon's climates and sites.