

Technical Spotlight: Aperture Cellars

Winemaker Jesse Katz designs custom winery with a “no holds barred” approach to producing premium quality wine

Stacy Briscoe



ANDY KATZ

Rockpile Ridge Vineyard, Lake Sonoma

“**HOW I GOT INTRODUCED** to wine was through food and through travel and through art,” said Jesse Katz, owner and winemaker for the newly developed Aperture Cellars. Katz is the son of Andy Katz, a well-known photographer whose portfolio spans wine regions all over the globe. Like his father’s photography, Jesse Katz’s winemaking education took him around the world. His résumé includes experience at well-known winemaking estates, including Pétrus in Bordeaux, Bodega Noemia in Argentina and Screaming Eagle in Napa.

But Katz has always wanted to design his own estate winery—a dream achieved in fall 2019 when he and his team celebrated their first vintage in a newly constructed production facility located just off Old Redwood Highway in Healdsburg, Calif.

Katz said his priority was, and is, always wine quality. “I had a no holds barred approach for implementing the level of detail to create the style of wines I want to,” he said. “This is the third winery I’ve designed, the fifth that I’ve been a part of the construction. But this is the first time I’ve been able to design and build what *I* wanted. This is my dream.”



Stacy Briscoe is the assistant editor of *Wine Business Monthly*. Previously, she was a freelance wine writer for multiple publications, including the *San Francisco Chronicle*, *Napa Sonoma Magazine*, *Edible Silicon Valley*, among others. Stacy has a Bachelor of Arts degree in English-language literature, holds a WSET Level II certificate and is continuing with the WSET program. Outside of wine writing, she’s also a contributing editor for independent publisher She Writes Press/Spark Press.

New Estate, New Plantings

Katz purchased his 32-acre estate from the Ponzo family in 2016. At the time, the property included 30 acres of planted vines and three buildings. Katz decided to keep just one of those buildings, which he renovated into his new home, clearing the other two to make space for his estate winery.

During the time-consuming permitting process, Katz and his team made wine from every single block on the property to see what level of quality the existing vines could produce. “The two blocks that were standouts, by far, were the ones planted in 1912,” Katz said, referring to the old vine Zinfandel that line the blocks closest to the new winery.

The other blocks, he said, could not achieve the quality of wine he’s looking for. “The old vine stuff we kept, but there were 20- to 30-year-old vines here that had some viruses and were set up in a weird row orientation, not well set up for sun exposure. And they were really low-density,” Katz said. “The acreage of vineyards, since we bought the land, hasn’t changed much, but the amount of vines has pretty much doubled.”

Aperture

12291 Old Redwood Hwy, Healdsburg, CA 95448 | aperture-cellars.com | 707-200-7891

OWNERS/PRINCIPALS

Jesse Katz, winemaker/owner

Hillary Sjolund, associate winemaker

Phil Freese, vineyard consultant

WINERY INFORMATION

Year Bonded 2019

Winery Case Production

- 65K approval of case production per year
- Winery with current set up ~40K cases/year
- ~30K cases produced in 2019 under all clients
- ~12K cases under Aperture Cellars label

Average Bottle Price \$70

Direct-to-Consumer Sales 77%

VINEYARD INFORMATION

Appellation Russian River

Vineyard Acreage (estate) 32

Varieties Grown (estate) Semillon, Sauvignon Musqué, Cab Sauvignon, Merlot, Malbec, Zinfandel, Petit Sirah

Sustainability Certification In progress

Sustainability Practices Yes, no glyphosate, and minimal Sulfur

Soil Type 9 different types including Blue Clay and Volcanic gravel

Other vineyard property

Oliver Ranch, Alexander Valley
Del Rio, Alexander Valley
SJ Ranch, Alexander Valley

Varieties Grown Cabernet Sauvignon and Malebc

Sustainability Certification(s) Same

Sustainability Practices Same

Tons Used vs. Tons Sold (estate grapes) 90% used, 10% sold (estimate for future acreage)

Additional Varieties Purchased Chenin Blanc, Cabernet Sauvignon, Cabernet Franc, Merlot, Malbec, Sauvignon Blanc

Vineyard Sourcing

Rockpile Ridge, Farrow Ranch, Del Rio, Warnecke, Dry Stack, Kick Ranch

BUILDING THE WINERY (Production Facility)

Year Built 2019

Size 21,379 square feet

Architect Signum Architecture, www.signumarchitecture.com

Contractor Grassi and Associates Inc. www.grassiandassociates.com

Interior Design H. Palmer Design, www.hpalmerdesign.com

Landscape Architect Frank + Grossman Landscape Contractors, Inc., frankandgrossman.com

HVAC Henry Mechanical, www.henrymechanical.com

Cellar Humidity Control Smart Fog, www.smartfog.com

Wastewater System Cloacina, Inc., www.cloacina.com

WINEMAKING

Wines Made Cabernet Sauvignon, Malbec, Bordeaux-style red blends, Sauvignon Blanc, Chenin Blanc

Receiving Hopper Bucher Vaslin, www.bvnorthamerica.com

Vibrating Sorting Table Bucher-Vaslin Delta TRV 25 vibrating sorting table, www.bvnorthamerica.com

Iso-Flo Vibratory Conveyer, Key Technologies, www.key.net

Weco optical sorter with WineGrapetTek Color Sorter, wecotek.com

Destemmer Bucher Vaslin Oscillys 200 destemmer, Bucher Vaslin TR300 elevator, www.bvnorthamerica.com

Tanks Sliver State Stainless, silverstatestainless.com

Tank Heating/Chilling Systems TankNet, Acrolon Technologies, Inc., www.acrolon.com

Punchdown Devices manual

Pumpover Devices Carlsen & Associates, carlsenassociates.com

Pumps Carlsen & Associates, carlsenassociates.com

Racking Wands Carlsen & Associates, carlsenassociates.com

Hoses Carlsen & Associates, carlsenassociates.com

Press Prexa F40 pneumatic press, Puleo, www.puleoitalia.com

Forklift Toyota

Bin Dumper Cascade forward bin dumper, www.cascorp.com

Barrels 100% French Oak

Barrel Washing System Steam

Winemaking Management System TankNet, Acrolon Technologies, Inc., www.acrolon.com

Winemaking Software Vintrace, www.winery-software.com

Analytical Equipment Anton Paar, www.anton-paar.com

Other Key Winemaking Equipment

Ragazzini Rotho Peristaltic must pump, www.peristaltic-pumps-ragazzini.com

PACKAGING

Bottling Line Mobile

Glass M.A. Silva, www.masilva.com
Saxco, www.saxco.com

Corks Diam, www.diam-closures.com

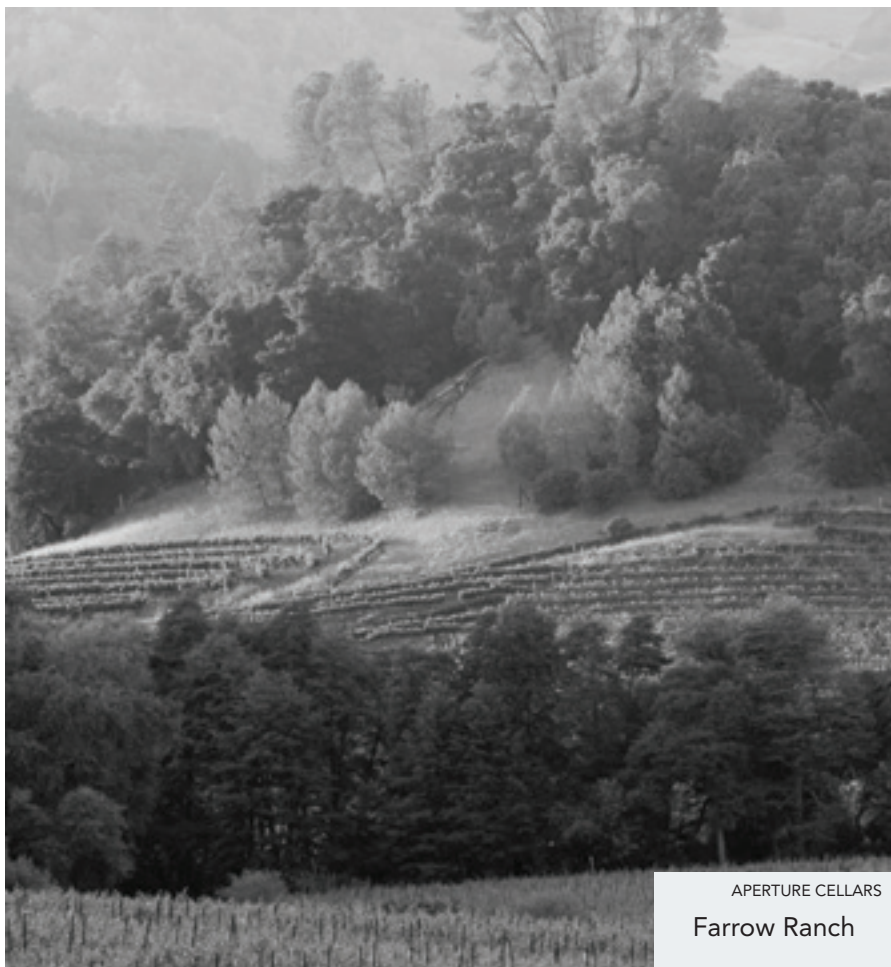
Capsules Amcor, www.amcor.com

Label Design Chuck House, Icondesigngroup.net

Label Printing CCL Label Industries, cclabel.com

Case Goods Storage Alexander Valley Cellars, LLC, alexandervalleycellars.com





As part of his due diligence, Katz had Paul Anamosa, a soil scientist, viticulturist and owner of Vineyard Soil Technologies, dig 56 different soil pits within the 30 acres to see how best to redevelop the vineyard. “He came back with something like a 140-page soil dialogue and a 3D mapping of the water-holding capacity, organic material and all the nutrients,” Katz said.

Anamosa found that Katz’s new estate is home to nine different soil types. The acreage closest to Old Redwood Highway contains gravelly, volcanic soils; beyond that, there is blue clay, which Katz compares to the soils found at Pétrus. The soil gradient keeps softening from there, with the blocks furthest east consisting of heavy clays that soak up rain like a sponge and, after more abundant showers, even pool water above the surface.

The range of soils is perfect for Katz, whose sole focus is Bordeaux varieties, including Cabernet Sauvignon, Merlot, Malbec, Sauvignon Blanc Musqué and Semillon, in addition to the old vine Zinfandel. Katz believes these varieties thrive in the proper soil type.

“In my opinion, one of the faults of the California wine industry is that we blanket-plant to what’s popular in that region,” he said. “We’re in the Russian River Valley, so most people would have purchased this property and planted to Pinot Noir or Chardonnay because you can get a really high price per ton for those varieties.” To Katz, the soils dictate otherwise.

With knowledge and data to back him up, Katz, with the assistance of Anamosa and viticulturists Phil Freese and James Stamp, implemented thoughtful, purposeful planting for each grape variety and clone newly rooted into his vineyard. In the spirit of viticultural name-dropping, some of those new vines include Semillon cuttings from Château d’Yquem and Merlot clones from Château Pétrus.

Outside of his newly acquired estate vineyard, Katz also has long-term leases at vineyards throughout Alexander Valley and sources grapes from vineyards he’s worked with for many years. “Every piece of viticulture we control,” said Katz when asked about his involvement in the outsourced vineyards. “The same crew that works our estate vineyard [Tri Valley Vineyard Management] works our leased vineyards.”

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New Winery, New Winemaking Tools

Inside the new winery, Katz invested in some of the newest, highest quality winemaking equipment on the market. “We spend most of our time in the vineyard so when the grapes come in, it’s all about finding the purest expression of that fruit,” Katz said.

After harvest, the fruit is delivered to the large outdoor crushpad in the center of his winemaking facility. Any fruit that’s not ready for processing will be stored in a cold room that can stash about 20 tons of grapes and is kept at a steady 50° F.

Both red and white grapes will go through a Bucher-Vaslin receiving hopper and onto a Delta TRV 25 vibrating sorting table. The sorting table feeds directly onto the incline conveyor, which then moves fruit into the destemmer, and Katz said the table does a better job than any other sorter he’s used to pick out shot berries and raisins. Additionally, and most importantly for Katz, the trapezoidal grates allow for better evacuation of juices, which are then collected in an exterior tray. This component is especially critical for Katz’s white wine program. “It’s not an issue with Cabs but ... with Sauvignon Blanc, Semillon or Chenin, that de-juicing is critical,” he explained. “There was one lot we decided to get rid of altogether just because the volatile acidity was so high and the quality of the grape wasn’t there. So, we have that extra sorting element in place.”

After sorting, the red grapes are fed into a Bucher-Vaslin Oscillys 200 destemmer via a Delta 300 incline conveyor. The Oscillys 200 is what Katz refers to as a “double barrel system,” as the machine has two separate cages for destemming the fruit, ensuring that all stems are entirely removed from the grapes.



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“We don’t do any stem inclusion or whole cluster,” Katz said. “For us, we’re trying to get our tannins and the soul of the wine from the skins. We’re working with Bordeaux varieties, so that’s not really a problem. But also, stem inclusion would increase pH and drop out acidity, and we really want to showcase acidity.”

Another key component to the machine is that it acts as another sorter. “The Oscillys is really cool because you can really dial in how hard it’s shaking. And that bond with the raisins is a lot stronger than with the grapes, so it does a really good job of separating out the raisins as well,” Katz said.

The berries from the destemmer then move on to an Iso-Flo Vibratory Conveyor by Key Technologies. The slow oscillating table sorts out any leftover shot berries or raisins. Before this meticulous sorting, Katz would have to either discard the clusters altogether, because he didn’t have a way of cleanly separating good berries from dried ones, or would “deal with it,” which would result in higher Brix soak-ups.

The Iso-Flo feeds the grapes into the last level of sorting, a Weco optical sorter with WineGrape Tek. The WineGrape Tek takes a photo of every berry that passes through, then uses air pressure to shoot out any grapes that don’t meet the set parameters. “You dial in with the computer what variety you’re working with, and it has parameters of color, size and shape,” Katz explained. “And you can fine-tune those parameters. So, for example, if you think something got hurt from that heat spike, you can increase its sensitivity to raisins.”

Because of the many levels of sorting, Katz said he sees a lot less Brix soak-up in tank than before. “Usually with Bordeaux varieties, especially Cabernet Sauvignon, you’ll see about 2° or 2.5° Brix soak-up in tank. We’re seeing much lower—usually just half a degree or so,” he said. The result: a lower alcoholic conversion.

When asked if low alcohol was an important factor for him, Katz said he’s not necessarily worried about making wines high in alcohol. “I’m making



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big, layered Bordeaux-style wines," he said. The point, he explained, is about creating wines with balance and respecting all the work he and his crew have already done in the vineyard. "It gives us a lot more flexibility with extraction and as to when we pick in the vineyard. I can pick when it's ripe, when flavors are where we want them and not have to worry about a sugar increase or off-flavors or aromas because of raisin inclusion."

Next, Katz uses a Ragazzini Rotho peristaltic must pump to delicately transfer the must into tank. "This is probably the most gentle way you can move must. It's the same system they use in fish farms to move live fish from pond to pond," Katz said. The tank room is outfitted with a must line that wraps around the gantries just above the tanks. The pump feeds the must into the line, and from there it can be dropped into any one of the 27 stainless steel closed-top tanks. "And when we're feeding it into the top there, it crushes maybe 15 to 20 percent of the berries—because there's still so many whole berries in there—so it's about as gentle and as close to gravity as I've ever seen," he said.

Automatic Pump-overs Save Time—and the 2019 Vintage

Aperture Cellars' stainless steel tanks range from 5.5-ton tanks, utilized for their single-vineyard designated wines, to 12.5-ton tanks. "We designed it so that with the largest tanks, we can fit the entire pomace capacity into our press," noted Aperture's associate winemaker, Hillary Sjolund.

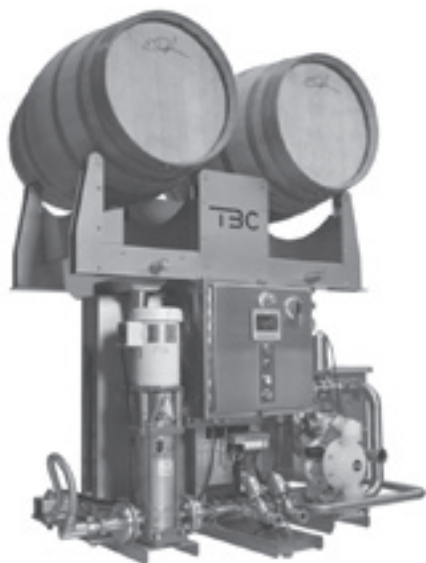
But the most exciting tank feature for the winemaking crew: each of the 27 tanks is outfitted with its own automatic pump-over system designed by Carlsen & Associates, complete with a TankNet management system.

This is both Katz and Sjolund's first time using automatic pump-overs. With the new system, they had to adjust their extraction protocol, and they both agree it's for the better. "For a normal extraction routine, fermenting for about three weeks, we'd pump over maybe 30 times at maximum," Katz said. With the automatic pump-over system, Katz and Sjolund were able to average 100 pump-overs per batch during the course of the red wine fermentations.

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The result is that the winemaking team is able to conduct pump-overs more often and at a much more even pace instead of “squeezing in what you can get when you can get it.” What Katz and Sjolund found was that even during cold soak and well before alcoholic fermentation, they were able to achieve wines with richer hues, more concentration and an overall more successful homogenization of aromas, flavors and textures.

Each tank has its own custom screen that encompasses all racking valves and catches all seeds and skins that sink to the bottom during that initial cold soak. “When we first bring it in, we pump over once every hour for just a few minutes. You can’t do long pump-overs because it will start clogging the screen,” Katz explained. Once a cap is formed, that’s when he can start pumping over more frequently and for longer, as well as begin incorporating air.

Katz and Sjolund use a Venturi air injector fitted to the top of the tanks, a device that pulls in air to push the wine being pumped from the bottom of the tank over the cap. “With the closed system, we don’t have sump and screen ability, so this is how we get the air to control the speed and the health of the ferment,” Sjolund said. As the wine is pushed over the cap, the dual-valve device rotates, providing even distribution throughout. “The width between the two valves is adjustable. So, we can fine-tune how much contact we want with the cap. That was a huge technological advance for us,” Sjolund said.

Every tank is hooked up to a TankNet control system so Sjolund and Katz can control every part of the fermentation process remotely—from heating and cooling the glycol jackets to fine-tuning the extraction process. Katz noted that because of this remote-controlled automatic pump-over system, Aperture Cellars was able to continue fermentation protocols through the 2019 Kincade Fire. “We turned on the generator before we evacuated. ... We never missed a beat,” Katz said.



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When it comes to wine quality, the automated system provides Katz the ability to develop the texture of his wines during the fermentation process, which he says is what gives his wines the richness, depth and layers one would expect from big Bordeaux-style blends—without the astringency or grittiness of tannins. “Once the wine starts getting dry, you have more alcohol and more things that are soluble that you have to worry about. So, at that point, we just kind of guide it, taste two to three times a day, and pull back pump-overs to maybe just four or five times a day, just to wet the cap,” he explained.

“Because we’re able to develop the texture during the fermentation process, we can get a mid-palate shift in the wine; it becomes very full and luscious,” Sjolund added. “A lot of people use oak as their finishing tannin and to add that extra bit of richness. We don’t have to do that because we’ve already achieved what we wanted. We can see the whole wine just by looking at the extraction program. To adjust the wine, we fine-tune the ferment.” It’s because of the automated system that Sjolund and Katz are able to make those adjustments as needed during that process, simply by changing pump-over speed and/or frequency.

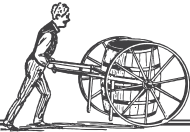
White Wine, Too

When it comes to the white wines, the grapes go through the initial receiving hopper, are cluster-sorted and de-juiced, then whole-cluster-pressed in a Puleo Prexa F40 pneumatic press.

Although the press has the option to conduct automatic, pre-set press fractions, Katz said that, more often than not, he and his team utilize the manual option to keep those fractions as precise as possible. “Every time we increase the pressure, we check the pH of the wine. When we start to see the pH increase and the acid drop out, we’ll separate that juice off and hold it in a separate tank,” Katz explained. For every white lot there will be two presses—a light and a heavy—and each will ferment in a separate tank. The lighter press is typically what is used in Aperture’s higher-tier white wines. The rest is either incorporated into a Bordeaux-style white wine blend or sold off, according to Katz.


“Once we’ve lost about a third of the sugar, we’ll start barreling down. At that point it’s usually around 18° or 19° Brix,” Katz said. He gives the white wine one more blast of air, taking it through sump and screen and actively splashing the wine around. “The extra oxygen provides nutrients to the yeast, but also varieties like Sauvignon Blanc and Chenin Blanc can be quite reductive, so this helps with that,” he said.

From there, the whites then move to barrel where they’ll stay until ready to bottle.





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Bordeaux Barrels

White wines age for as little as six months for the lighter, more aromatic varieties and as long as a year for the Semillon and some of the richer, Bordeaux-style blends. All white wines will see at least some oak influence: Chenin Blanc typically ages in 50 percent stainless steel barrels and 50 percent used oak barrels; the Sauvignon Blanc is typically split evenly with one-third each new, once used and neutral oak barrels.

Red wines, depending on the variety, will see anywhere between 33 and 100 percent new French oak, and age between 16 to 24 months.

Katz said that the barrels at Aperture Cellars are custom, proprietary barrels. “We work with a lot of cooperages in Bordeaux that do specific toasts just for us,” he said. “What I look for is minimal oak impact, more spice-influence than that vanilla or caramel sweetness.”

Another interesting feature to Katz’s barrels is that they are 22 millimeters in thickness, as opposed to the standard 27 millimeters, providing more oxygen influence throughout the aging process. “In our red wines, especially for the first couple of years—and the first year, in particular—we don’t mind oxygen as long as we’re controlling it. In that first year, during the racking period, we’ll actually splash some of it through sump and screen, put it into tank, adjust a bit and then put it back to barrel,” Katz said. The following year, he looks for more reductive qualities, so he typically stops the racking routine, letting the barrels take over a more micro-oxygenation process.

All wines are bottled on-site using a few different mobile bottling services. Labels are courtesy of Katz’s father—all images captured throughout his illustrious career. Some, like the Bordeaux Red Blend label, which features the toasting process of the custom Bordeaux barrels, are a literal wine connection. Others are more artistic interpretations of the wine inside. [WBM](#)

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