

New Boutique Co-op in Oregon Thinks Green

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Oregon has long been known as an environmentally sound state; landmark land use laws went into effect in the early 1970s, and sustainable agriculture across all farming in this agriculture-driven state is the norm rather than the exception. Recycling is an accepted, ordinary practice. Even when the environment has not been such an important focus as it is today, Oregon has always been proud to be green.

With that established priority in the state, it is surprising that it has taken until now to see an environmentally-designed winery appear in the Willamette Valley.

The new **Carlton Winemaker's Studio** in the heart of Yamhill County is not only an earth-friendly, "green" facility, it also serves as a co-op for eight high-end producers, making it the first boutique co-op of its kind.

The facility was the brain child of Oregon winemakers **Eric Hamacher** (**Hamacher Wines**) and his wife **Luisa Ponzi** (**Ponzi Vineyards**), and was designed by **Boxwood**, a Seattle architectural firm noted for its sustainable design work.

Hamacher characterizes the decision to create the Studio as personal. He said, "I want a healthier family. A healthier environment. And wineries are high profile; this was an opportunity to build for influence. I have a natural podium due to wine. I can educate about 'sustainable' as an option for the future." And he needed a place to make his wine.

Hamacher partnered with Seattle developer (and Oregon **Lazy River Vineyard** owner) **Ned Lumpkin** and his wife **Kirsten** not only to build an environmentally-sound facility, but also "to prove that small wineries can

realize the efficiency of a larger operation without sacrificing quality," according to Hamacher.

The partners believed in the organic concepts, but did not know how to approach that kind of design and construction, turning to **Boxwood** and **Joe Chauncey AIA** for guidance.

Chauncey relates the "light bulb" moment, when they were walking through the Lumpkin's **Lazy River Ranch** vineyard, and looking at the home they had under construction. "Eric and I made our way up the ladder to the second floor and were standing between the rafters of a new dormer when he began talking about organic farming processes, so I asked him if he would be interested in building a sustainable winery. His eyes lit up as he exclaimed, 'Yes! How do we do that?' At the time our firm was involved in an increasing number of sustainable projects, using recycled materials, high fly ash concrete, enhanced daylighting, natural ventilation, rainwater har-

vesting and green roofs. I began explaining the concepts behind sustainability and Eric's enthusiasm increased. In that moment, our collaborative team was born. We seemed to have a contractor/vineyard owner who recycles and reuses as a matter of lifestyle and conviction, a winemaker who believes in all organic processes and a design firm with a passion for sustainability and excellence." Obviously, a winning combination.

What Makes it Green

Innovative building practices included: lowering the greenhouse gas mix in the concrete that serves as the primary building material; forming the concrete using aluminum rather than wood; massive use of natural light resulting in much less electricity demand; and the use of high grade insulation everywhere. The design of the exterior walls creates a natural temperature control; a column of air space between the interior and exterior concrete walls is open

at the top and bottom, allowing air to rise within the wall space and serve as natural heating and cooling.

Most materials are recycled (counters made of recycled plastic, carpets made of recycled plastic bags, the use of wheat board walls) or were purchased used. Barrel room dividers are made from recycled sails taken from 10-meter sailboats (the Lumpkins are passionate sailors), and glass garage doors close off the individual winery pods.

The Studio, in fact, has registered with the **United States Green Building Council (USGBC)** for certification, and will be the first **Leadership in Energy & Environmental Design (LEED)** certified winery in the United States. **Brightworks** in Portland provided assistance with the LEED process. Oregon's **Sokol Blosser Winery** already had an LEED-certified barrel-aging building in operation, as well.

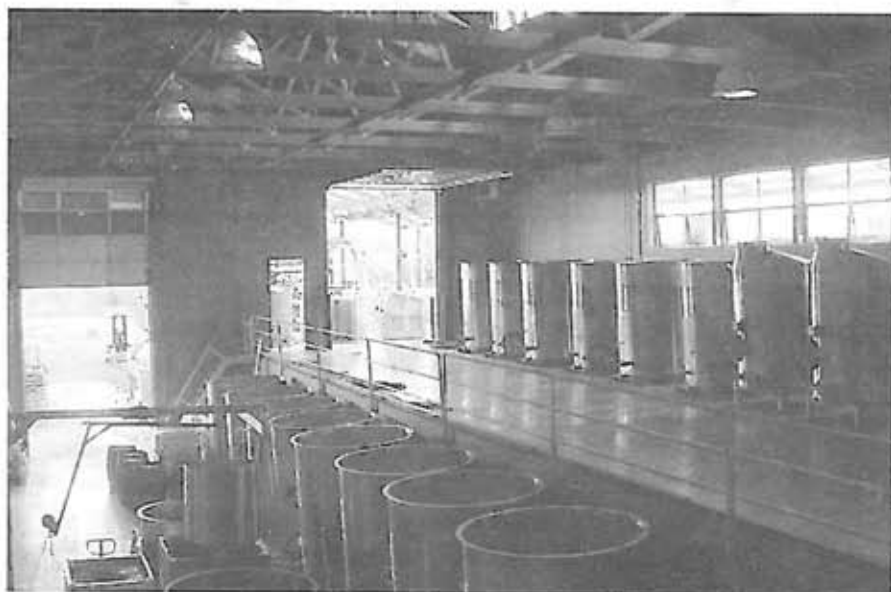
Economies of Operation

The economies in the Studio also extend to the production side. While the building is technically on two levels, Hamacher said that a simple gravity flow process works well: "Holes in the floor accept hoses to drain wine from the fermentation level into barrels below; a fork lift is then used to move barrels and, voila, the Studio becomes gravity fed."

Chauncey said that while the building has two obvious levels, its four (less obvious) levels make it function better. He described the facility, "We began laying out a two level winery and had already added the recessed loading dock, which was a third distinct level of access on the site. The public enters on



The Studio has developed portable immersible heating units for tank temperature control.



The Studio is built on many levels, with all areas receiving a lot of natural daylight.

the main level into a two-story sky-lit spine that connects the three main building components and each level via a stair and bridge system. The tasting room is immediately on the right with a full kitchen, retail area and outdoor patio. The tasting room has a view into a 'chai' which houses Eric's barrels in three long rows stacked three high. Eric is experimenting with a new European barrel storage system that allows easy racking, cleaning and removal without disturbing the surrounding barrels. The cave also has access along its side from the main processing floor. All along the south side of the processing area are barrel rooms for other wineries, accessible through 12-foot-tall aluminum and glass garage doors. Support spaces, private storage areas, a lab and locker room are also located there. At the far end of the building through another tall glass garage door is the press, a loading dock and the bottling building.

Chauncey continued, "The full length of the lower processing floor adjoins the upper level processing area both inside and outside the building. The large Lexan covered crush pad and grape receiving area are located on this level separated from the upper processing area by another large glass garage door. Both processing levels are covered by one roof with a large north facing monitor and clerestory windows allowing natural light to flood the working area and penetrate deep into the building. The large glass garage not only allow additional light to enter the area, they also open the building to the west toward the best views.

But there is a fourth level as well. Chauncey explained, "To create enough working height in Eric's 'chai' and the bottling building, a fourth level above each of these areas was designed. Situated four-feet above the upper processing area at the east end of the



Eric Hamacher pictured in Carlton Winemaker's Studio.

building are administrative offices, toilets, a special blending/conference room for winemakers, storage and mechanical rooms. On the west end, four feet above the crush pad on the roof of the bottling building are receiving hoppers, sorting table and the crusher/destemmer. This level provides the additional height necessary to drop fruit directly into tanks or, in the case of white wine into the press in one operation and keeps the main crush pad available for receiving grapes under cover. Additional outside covered storage is provided along the north wall of the processing area under a 10-foot overhang.

"A full bottling line is located in its own structure and protected from weather by the crush pad roof. It is accessible from the lower processing area, a surface driveway, and the loading dock for easy access and movement of both empty and full cases of wine," Chauncey added.

The Studio is to winemaking as Miramar is to Top Gun; it is laid out to rock and roll... one can almost hear Kenny Loggins singing *Danger Zone*.

Two custom built portable, immersible heating and cooling units replace individual tank heat exchangers; Hamacher said, "Heat is not lost on the tank jacket. The portable units are more efficient and save energy."

Instead of *péage*, the Studio employs *pneumatage*, injecting low pressure, high volume gas (oxygen, compressed air, or nitrogen) through inlets low in the tank, which sends large bubbles up opposing sides of the tank, thereby causing the cap to fold in half and sink. Hamacher said, "We can still punch down, but it will take less effort as the cap has been broken by the gas."

Hamacher boasted about the sense of community. "We are using the winery not just to produce individual wines but promote them all. Most of the time when you make wine someplace, you just get space. Here, each winery gets to use the whole facility as its own. This is very important to the small winery."

The Studio also provides a cellar master who serves as "the air traffic controller" with the aid of three cellar workers. "They can help individual wineries, but their role is to keep the traffic flowing within the building," Hamacher said.

He continued, "Any place we could save time, we did. We have dual dumping stations, dual hoppers with pneumatic doors, a shaker table from each hopper to a sorting table. Traditional facilities do 20-30 tons per day maximum; here, we can do well over 100."

The Boutique Wineries

The Carlton Winemaker's Studio is presently populated by a fixed group of small, highly-rated wineries—Hamacher Cellars, Soter Vineyards, Andrew Rich Wines, Bryce Vineyard, Domaine Meriwether, Dominio, and Penner-Ash Wine Cellars. Lynn Penner-Ash is also making a new, as yet

unnamed wine from the Dundee vineyards of Neil Goldschmidt (the former mayor of Portland, governor of Oregon, and national secretary of transportation).

And as Chauncey said, "Seven wineries, all using the same space, without stepping on each other's toes. The key to the building's effectiveness is in the perimeter loop road, the long two level processing area with continuous access between levels, the one-of-a-kind processing line and a good forklift operator. The Studio is to winemaking as Miramar is to Top Gun; it is laid out to rock and roll...one can almost hear Kenny Loggins singing *Danger Zone*. Most will stay long enough to hone their craft and to share what they know with new winemakers coming to the Studio. At some point, these new entrepreneurs will move on to build their own wineries."

One hopes that when these wineries move on, they will keep the same commitment to green. **wbm**