

roast



M A G A Z I N E

2015 Micro Roaster of the Year



The staff of Portola Coffee Lab. | photo courtesy of Portola Coffee Lab

Portola Coffee Lab

Micro Roaster of the YEAR

Maybe this is his way of paying it back.

All the years of putting off his homework until after midnight. The math and chemistry assignments he'd knock out of the park but wouldn't start until the last possible moment.

"I was an unparalleled procrastinator through high school and college," says Jeff Duggan, co-owner of Portola Coffee Lab in Costa Mesa, California. Smart but sluggish—at least without a caffeine drip.

Ask him and he'll tell you coffee got him through every late-night cram session and early morning class. Not good coffee, mind you. Functional coffee. And lots of it. It may be hyperbole to say coffee is the reason he made something of himself, but not by much.

Flash forward to the present day. Jeff now spends his days thinking about coffee nonstop. How to use science and technology to improve both the quality and consistency of his roasts. How his coffee bar can push the envelope to show what coffee can be, not just as a beverage but as an ingredient.

He has the temperament of a scientist, but with a coffee lover's enthusiasm. He'll happily riff on the difference between a roast that finished at 10:13 and 402 degrees F and one that finished at 10:15 and 402.5 degrees F.

"On paper, these were identical roasts," he explains. "The cupping table told a very different story."

Then he'll launch into the intrinsic value of sensory roasting—the sights, sounds and smells a roaster needs to understand as much as repeatable, measurable variables. And he's likely one of the few roasters who can speak to the potential of cloud-based learning systems to improve the skills and knowledge of baristas and wholesale customers.

"It creates a learning environment that's ultra flexible," he says, "while integrating multimedia tools such as text, graphics and images, and audio and video designed to increase the training efficacy."

With his every action, Jeff is intent on nudging coffee to a better place—better quality, better experience, better environmental and social practices, better everything.

Is it any surprise Portola Coffee Lab—the coffee bar and roasting operation Jeff owns with his wife, Christa—was named *Roast's* 2015 Micro Roaster of the Year?

Not to anyone who's ever heard Jeff speak about coffee.

It's About the Experience

The coffee bar at Portola Coffee Lab looks different than most. It's more of an island than a bar, with low countertops that allow customers to walk around the counter and interact with baristas. The shape is deliberate. Portola Coffee Lab is in Orange County, a market traditionally dominated by chains.

"We were born in a county where 'third-wave' coffee didn't exist," Jeff says. Still, he and Christa knew they wanted a true coffee menu. Portola Coffee Lab eschews syrups and other additives, focusing as much as possible on the natural flavor of the coffee. Aside from the coffee varieties, the most exotic ingredients in the main shop are milk and the Belgian chocolate used for mocha.

The brewing methods are decidedly un-chain-like as well. Customers can choose between the Hario V60; the Hario Siphon, heated by halogen lights; or the Bunn Trifecta.



Jeff Duggan roasting at Portola Coffee Lab. photo courtesy of Portola Coffee Lab

THE WINNER'S STATS

ESTABLISHED 2011

LOCATION Costa Mesa, California

EMPLOYEES 28

LEADERSHIP Jeff Duggan, Christa Duggan, co-owners

RETAIL LOCATIONS One; three more in the works

ROASTERS (MACHINES) U.S. Roaster Corp. Revelation

ROASTING OUTPUT 85,000 pounds per year

WEBSITE www.portolacoffeelab.com



Co-owners Jeff and Christa Duggan. | photo courtesy of Portola Coffee Lab

"I'm a firm believer that the same bean can taste like three different coffees based on how you brew it," Jeff says.

The question is, how do you sell that to a demographic that walks into your shop for the first time and thinks, "What planet did I just land on?"

You create a customer experience that's more inviting than pretentious. You build a coffee bar where it's easy to see what baristas are doing and ask them why they're doing it. Questions are currency at Portola Coffee Lab—the more, the better.

"It's not just about selling a \$4 cup of coffee," Jeff says. "It's about being open and accommodating, and being willing to answer the same questions hundreds of times a day, if necessary. The last thing we want to do is impose a sense of superiority on our customers by acting exclusive, but we also had to teach the people of Orange County that there are very distinct reasons our coffee tastes different."

Then, after you succeed in educating your customers, you push their palates even further. At the edge of Portola Coffee Lab sits a "concept" coffee bar called Theorem—a six-seat bar that asks the question, "Is coffee a beverage or an ingredient?"

The answer is an emphatic, "Yes!"

Theorem began by offering two types of coffee service. The first was a reservation-only service that led customers through a fixed-price menu of unique coffees, recipes and creations designed by head barista Truman Severson. (This service was recently discontinued so the company can focus on consumer coffee and espresso training courses, which are in high demand.)

The second, now the primary service offered, is a walk-up brew bar with a rotating menu of boundary-expanding coffee drinks created by select Portola Coffee Lab baristas. No brew method is out of bounds, no experiment too far-fetched. And unlike Portola Coffee Lab's main bar, non-coffee ingredients are encouraged.

Shortly before Theorem opened, writers from Sprudge.com took part in an advance seating, deeming it "one of the most ambitious, professional, and exciting coffee experiences we've ever had." They described a menu that included five interpretations of the same Ethiopia Worka coffee—from a piccolo macchiato made with 6 percent milk from Straus Family Creamery to an "enhanced espresso, wherein a mixture of filtered water, blueberries, clove, and vanilla were heated

and allowed to macerate together in a Hario TCA-5 siphon pot."

"It's truly a playground," Jeff says. "It's our space for pushing the envelope and experimentation. What's great about Theorem is we don't know what's going to come out of that space next week or next month. It's a totally blank canvas."

The Science of Coffee

Jeff credits coffee with helping him pursue his interest in chemistry and computer science. It wasn't until he was out of college and working in the technology field, however, that he realized the coffee he had been drinking since he was a kid was—in a word—swill.

"When the gourmet coffee scene hit in the '90s, I became a snob pretty quickly," he says.

That snobbery led to Internet research, which led to home-roasting websites, which led to a perfect hobby for a coffee lover with an insatiable desire to understand how things work. Between the day he started home roasting and the day he opened Portola Coffee Lab, Jeff roasted "on probably every contraption known to man," he says—from a cast-iron skillet to a Diedrich HR-1.

"It helped me to understand what sensory roasting was all about, because I didn't know any other way," he explains. "It really forced me to connect my senses with my palate. I would document what I saw, what I smelled, what I heard. I wasn't a good taster in the beginning, of course, but as I did it more and more, I was able to understand how the changes on the roasting side translated to changes in flavor."

He probably would have stuck with home roasting if life hadn't gotten in the way. In 2007, Jeff and Christa's first son, Gabriel, was born with a heart defect. Everything changed. Surgeries, treatments and medical bills were forthcoming. Someone had to stay home with Gabriel. A job in the tech sector—where working late is commonplace—no longer seemed like a good fit.

"I realized the only other thing I knew how to do was roasting," Jeff recalls.

Within two years—jam-packed with trips around the country to other roasting and retail operations—he started roasting in the front of a bakery. In 2011, Jeff and Christa opened Portola Coffee Lab.

Jeff loved home roasting, but commercial roasting is truly his element.

"Things that make most people cringe make me smile," he says.



Joe Harrison, Portola's head roaster, cupping with Jeff Duggan (background). | photo courtesy of Portola Coffee Lab



A drink being created at Theorem. | photo courtesy of Portola Coffee Lab



Theorem coffee bar. | photo courtesy of Portola Coffee Lab



Coffee art at Theorem. | photo courtesy of Portola Coffee Lab



Jeff Duggan in Uganda. | photo courtesy of Portola Coffee Lab

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With a commercial roaster, he can record every detail of every roast and find correlations between variables. It's easier to pinpoint which variables require a human touch (ambient temperature, humidity, green bean variance) and which don't (roast time and temperature). The human element is always present—"our roasting team operates our Revelation roaster 100 percent manually, every roast," Jeff notes—but science and technology play a critical role.

Jeff loves process and complexity so much that he didn't shy away from Southern California's new ultra-stringent air quality standards. Instead, he embraced them, customizing his roaster with a burner that uses less natural gas and emits far less nitrogen oxide than most roasters. It was the first shop roaster anywhere to meet the standards.

"We're proud to say we're making real change in improving the air we breathe," he says.

Even training—a hands-on task for most coffee roasters—gives Jeff the opportunity to tinker with technology. Portola Coffee Lab balances in-person training with a versatile cloud-based learning management system (LMS).

"With the LMS, we can customize the content, test comprehension and retention, and monitor the performance of every trainee," Jeff explains. "The system also allows us to deliver shorter but more frequent blocks of information, which is proven to increase retention."



Jeff Duggan and Joe Harrison roasting.
photo courtesy of Portola Coffee Lab

It All Comes Down to Sourcing

Jeff is a big fan of acidity and sweetness.

"I like a dynamic cup," he says. "I like complex coffees with acidity that has some dimension to it. When I'm cupping a coffee, I want it to express itself not just in brightness or with citrusy notes. I want depth and character."

When Portola Coffee Lab opened, Jeff couldn't source these coffees on his own; he had to rely on importers.

"A lot of importers do a great job sourcing and fulfill a needed demand, but for us the ability to contribute and effect change in Portola fashion required a different model," he says. "We still work hand-in-hand with several importers for another critical reason—importing coffee we buy direct."

Jeff now buys roughly 95 percent of his coffee through direct trade relationships—a high percentage for any roaster, let alone a small company like Portola.

"I take about a dozen trips a year for sourcing," he says. "It's difficult for a lot of reasons. It's not like a light switch you flip on. It's a lot of time, effort, money, failure, success and experimentation—the whole nine."

Still, it's necessary for the business model Jeff and Christa have created.

"We wanted to be 100 percent committed to quality and a contributor to our industry," he says. "If we want to effect change, this had to happen."

Effecting change is a big deal for Portola Coffee Lab. It's about improvements in coffee quality—for both roaster and farmer—but also improvements in livelihoods, and putting coffee farmers on the right side of the demand curve. It's sustainability in its truest sense.

"Knowledge is power at the farm level," Jeff says. "True sustainability comes from not just throwing money at producers, but helping them be self-sufficient. That's quality, period."

But what can a roaster with an annual output of 85,000 pounds do to improve the self-sufficiency of farmers half a world away? Simple: collaborate and incentivize.

Jeff has developed a sourcing partnership with Mike Perry of Klatch Coffee and Chuck Patton of Bird Rock Coffee Roasters—both based in Southern California like Portola—under the name Roasters United. The trio have made it a mission to develop a "transparent green bean buying protocol" to help them secure top micro-lots while providing



Roasters United competition in Colombia.
photo courtesy of Portola Coffee Lab

incentives for small farmers to improve their coffees.

"It's not easy for small farmers to put themselves at risk," Jeff says. "It's one thing for a successful farmer with a large farm to section off 10 percent of his farm for experiments, but asking a farm that produces only 20 or 30 bags to change is a whole different situation."

So Roasters United created a price-based incentive for farmers, with Colombia as their initial market. They partnered with a Colombian green coffee buyer on a tiered pricing setup, guaranteeing certain prices for certain quality levels for farms in specified regions. And they held a contest offering 3.6 million pesos—about \$1,800 USD—in prize money to be divided to the producers with the top-scoring coffees.

It's one of many ways Roasters United is helping farmers at origin. Portola Coffee Lab also works individually with many of the same farmers, including purchasing four lots from four different family farmers in Colombia with whom Jeff had never before worked.

"It's just the initial steps," he says. "I met these farmers at the competition and each of their coffees has great potential, so I'm going to see what I can do to help them along. I'll approach each coffee individually, but also scientifically. Utilizing the scientific method is really important if you're going to improve quality at origin."

It all comes down to repaying his debt to the bean and the beverage. The coffee spurred the science, keeping Jeff Duggan focused all those years ago—and now the science spurs the coffee, one incremental improvement at a time.



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