CRAFTSMANSHIP
QUARTERLY
THE ARCHITECTURE OF EXCELLENCE

Led by the Nose

In a growing number of artisanal shops dotted around the globe, small-scale perfume artists are bottling a world of scents left untapped by commercial fragrance houses.

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To make his perfumes, Spain's Alberto "Berti" Fernández wildcrafts the raw materials whenever possible. In this case, Berti is helping with the annual lavender harvest at Dos Padres Vineyard, situated an hour outside of Barcelona in Torrellas de Foix. *photo by U.B. Morgan, courtesy of Alberto Fernández*

Every August, Alberto Fernández travels to Northern Spain where his family owns some land in the mountainous region of Omaña. The land lies inside a United Nations-designated biosphere reserve whose natural flora include unusual plants that spill over to the open fields and roads leading into town.

Fernández forages the property for lavender, rosemary, tree barks, moss, and other leafy material to distill or grind into tinctures. Using beeswax from his family's apiary, he creates a concentrated extract that perfumers call "an absolute." In the village, he searches out wild-growing irises, culling pieces of large, fleshy roots called rhizomes. Once the roots have dried for at least three years, he grinds the material into fine powder. The result, tinctured in alcohol, "yields up a soft, violet scent," Fernández says. "It's a luxurious smell."

I learned these details during a recent summer trip as Fernández and I sat cross-legged between rows of lavender at a small vineyard just outside of Barcelona. There, in the Catalonian wine country, my wife and I were tourists with fortunate timing. Mutual friends had just sent us a summons to help trim and gather the fragrant purple blossoms in this lavender field before they withered in the Spanish sun.

Every year, more than 1600 perfumes get introduced to the global market. Most are developed by an industrialized system that, in 2018, expects worldwide sales of $48 billion.

To describe the subtleties that are possible in hand-crafted perfume, Fernández reached into his backpack and retrieved a small vial labeled "Vernalia." This scent, he said, was meant to capture that brief, seasonal moment when winter morphs into spring. Applying it, I smelled malty, wet vegetation beneath sweet springtime blooms. Most compelling, there was that unmistakable whiff of warming soil after spring's first rain—a scent, I later learned, called petrichor.

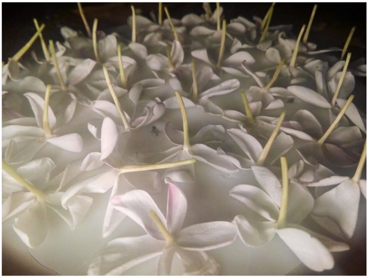
Fernández was actually born and raised in London; he moved to Barcelona almost a decade ago, after graduating with a degree in Natural Sciences from the U.K's Kingston University and a stint working in the sales department of Penhaligon's, a venerable British perfume house established in 1870. Although he keeps a day job, working as a K-12 teaching assistant, making perfume the way it used to be done has become his passion.

To make his perfumes, Fernández often uses a process called *enfleurage*, a common technique of Victorian-era perfumers. For Vernalia, for example, he starts with fresh hyacinth and narcissus blooms purchased in a Barcelona flower mart. Because the scent of these delicate petals doesn't survive modern methods of heat-based extraction, Fernández pours scent-free coconut oil into a small wooden chassis or glass container. (Any fat-based liquid that becomes solid at room temperature works.) He then presses the petals face down in the fat and lets it sit for 24 hours, or until the oil becomes saturated with fragrance.

After plucking the lavender's aromatic buds, Berti extracts their juices with a small, copper still, which sits on a stovetop in his studio. Although the captured moisture is primarily hydrosol (lavender water), a thin band of the plant's essential oil will float to the top. *photo by Leah Brooks, courtesy of Alberto Fernández*

"The amount of time depends on the flower and how intense a smell you want," he says. "Take jasmine. The flower contains a natural chemical, *indole*. Press the flowers for one day, I find the smell very fresh and clean. Leave it two days or longer and the *indole* starts to emerge. That smells like moth balls to some. To me, it's like animal skins and taxidermy. So you have to keep checking the mix."

After returning from Spain, I was so taken by what I'd seen that I started looking into how perfumes are being made these days, and sold, in the U.S. To my surprise, I discovered a wide, incredibly varied world, where prices and reputations have little bearing on quality, and where myths and misconceptions abound.



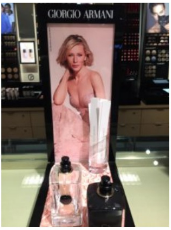
Enfleurage, a 19th century saturation technique developed in France, remains one of the best methods to capture pungent botanical scents. Here, Fernández extracts the intense aroma of fragile, night-blooming jasmine. *photo courtesy of Alberto Fernández*

THE $48 BILLION INDUSTRY

Every three-ounce glass bottle of perfume is a distant relative of a fragrant blend once found in a town's apothecary store, a spice bazaar, the royal court of distant kings, or the secret offices of ancient priesthoods. Today, more than 1600 perfumes are introduced every year, the majority developed by a much more industrialized system that, in 2018, expects worldwide sales of $48 billion.

A small percentage of these perfumes will be crafted by niche or artisan makers like Fernández, who are finding guidance—in different ways—from the skills of ancient masters. That's because, to many, the commercial fragrance industry has begun to smell, well, a little stale.

Before the Internet gave birth to online sales, and myriad platforms for them, the perfume counter of any big city department store was the dominant gateway to the scent industry. While it's still the easiest place to find designer brands, "many have lost their way, creatively," says Antonia Kohl, owner of Tigerlily Perfumery. Tigerlily is a boutique, independent fragrance shop in San Francisco, and a second home to the Bay Area's cadre of pioneers in the "indie" perfume movement.



Successful industrial perfume brands are like box office hits, with a single fragrance grossing $100 million or more in a single year. Marketing costs can run to $20 million or higher per scent. *photo by Barbara Tannenbaum*

To understand how these storied products have gotten so diluted, I asked Kohl to help me navigate several perfume counters in one of the city's major shopping centers, and to shed light on the work done by perfume's largely unseen network of specialists—fragrance houses, chemists, professional "noses," juice manufacturers, bottlers, and distributors that sit behind public-facing brands.

To distinguish her offerings, Tigerlily Perfumery's owner, Antonia Kohl (pictured here at Nordstrom's perfume counter) focuses on what she calls the consumer's growing desire to explore the stories behind perfumes, and their makers. According to Euromonitor, the market for small, indie perfumes will grow 15% within five years. *photo by Barbara Tannenbaum*

STANDARDIZED SCENTS

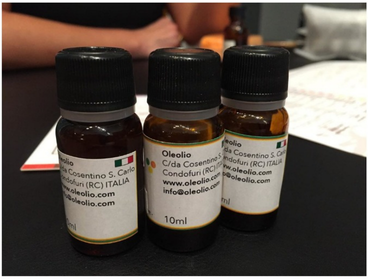
We started at Nordstrom on a midweek morning before Mother's Day, as the staff unpacks boxes, straightens their displays, and refills spray atomizers with perfume samples. The coming holiday is one of the industry's three most important sales days. Between Christmas, Valentine's, and Mother's Day, the world's largest perfume brands expect to rake in more than 60% of their annual sales.

The first thing that Kohl points out is the lack of product diversity. The same 15 or so brands—Dior, Channel, Giorgio Armani, Hermes, Tom Ford, Calvin Klein, Jo Malone, Tommy Hilfiger, Prada, a few others—fill the shelves here and at Bloomingdale's, Macy's, even airport duty-free shops.

Kohl sprays two scent strips with Prada's "Candy" and Viktor & Rolf's "Flower Bomb." The perfumes, developed separately, are aimed at the same demographic: young women. We inhale slowly, patiently. Candied floral perfumes are trendy. Young girls apparently love them. We inhale a synthetically created white flower note that yields to a sweet, cool, vanilla hinting at dessert. I move from one scent strip to the other. The second has the faintest whiff of pepper. Otherwise, they smell exactly the same.

> *In the perfume industry, professional "noses" are taught to follow the rules. As a result, big-brand perfumes end up drawing from a limited palette of materials. That's exactly why customers come to Kohl's boutique. Basically, they're tired of smelling like everybody else.*

We continue to sample perfumes, with Kohl identifying the main notes, proclaiming each brand "nice" or "easy." It's only when I spend more time with handmade, artisanal perfumes that I understand this is damning with faint praise. As *New York Times* perfume critic Chandler Burr pointed out in his 2008 bestseller, "The Perfect Scent," perfumes sold in department stores must be "loud"—grabbing people in a hurry, offering up nonthreatening, easy-to-grasp top notes. There's nothing *wrong* with these perfumes, Burr argued. They don't reek of alcohol or surprise you with stank. They just turn away from a number of creative options.



Oleolio, one of thousands of small growers serving indie perfume makers, is an Italian-based farm specializing in the production of citrus bergamot oil. If you want to confirm a product's claims of organic sourcing, check the label. If it says "ISO 9235," the manufacturer is in compliance with the Geneva-based International Standards Organization. (You can also look up a maker's practices on the London-based International Federation of Essential Oils and Aroma Trades website.) *photo by Barbara Tannenbaum*

"People at fragrance houses are classically trained," Kohl says. "If anything, they follow the rules a little too closely." As a result, big-brand perfumes end up drawing from a limited palette of available materials. That's exactly why customers come to Kohl's boutique. Basically, they're tired of smelling like everybody else.

OLFACTORY SHELF GAMES

Are indie brands excluded deliberately? Not exactly, Kohl says. Because sales people are employed by big brands, they are asked to focus on those brands. Unwittingly or not, indie bottles tend to fall to the bottom of a shelf, orphaned and forgotten.

Tigerlilly Perfumery reserves a corner of its store to highlight a subset of makers who use only botanically derived raw materials. A single perfume may contain 50 to 100 different ingredients, or more, that lock together for a signature fragrance. *photo by Barbara Tannenbaum*

We test her theory at the men's eau de cologne counter. Sniffing the cologne "Terre d'Hermes" she asks, "What notes am I smelling?" The associate draws a blank. Finally, she reaches under the counter for the package, reading unconnected information off a list.

"It's citrus," says Kohl helpfully. "With a cedarwood base note." Walking away, Kohl's face stiffens. The cologne has been an award-winning best-seller for 10 years. "It's super famous," she says with a sigh. Kohl has great respect for classic perfumes like Terre d'Hermes, but the sales clerk's ignorance perturbs her.

The celebrity endorsement game compounds the problem. In his book, Burr shows how industry insiders often steer celebrities away from nontraditional suggestions. To illustrate, Kohl points to Dior's new perfume, J'Adore, emblazoned with images of the actress Charlize Theron. "The perfume nose who *did* create this is a brilliant woman, Calice Becker," Kohl says. "And she will never have her name on the box or the advertising."

Why does this matter? "It's a lost opportunity for young consumers to hear an authentic story," she says. "They want to know who makes their food, their coffee, their clothing." Their loyalty isn't bought as much as earned by connecting with makers, sending an email, finding them on Facebook. "That dynamic has reached the world of perfume, too."

RULE BREAKERS

Many women start a life-long relationship with perfume as young girls at the department store cosmetics counter. I was not one of them. Adding a splash of L'Air du Temps before a night on the town was my mother's form of glamour, not mine. Fragrance may have the power to evoke memory, as Proust illustrated and scientists have proved, linking the brain's olfactory bulb and its neighbor, the limbic system. But my mother, like so many of her generation, wore perfume *anticipating* future memories. Scent, added to sights and sounds, elevated an ordinary Saturday night on the town to a timeless, effervescent moment.

ZOOLOGIST
CIVET
BAT

I never bought it. For one thing, perfume seemed *stinky,* that quality that Chandler Burr describes as "loud." I was especially alienated during the 1980s when every magazine, thick with pages of advertising, arrived in mailboxes overstuffed with scent strips. But what happens to perfume when makers take a different path, when they can focus on small-batch production that bypasses these factories and concentrates on pleasing hundreds of buyers rather than hundreds of thousands of them? Kohl's boutique shop, Tigerlily, proved a good place to find out.

Kohl is a former software designer and interactive gaming producer; she opened her storefront four years ago, seeking a career change that would still allow her to showcase artistic works. The jewel-box storefront is so small it has to share space with a bridal dress designer. Nonetheless, Kohl has more than 600 perfumes on her shelves, each bottle as chiseled, shapely, and colorful as its department store counterparts. These perfumes are drawn from more than 50 indie makers from America, Europe, Asia, and the Middle East. Mixed in with the display cases, fresh-cut flowers, turquoise-painted accents, oriental rugs, and Victorian period furnishings are elements that point to milestones in the rise of independent perfumery movement.

Historically, the musky scent in Civet Perfume (pictured here), was extracted from the animal's glands. At Zoologist, where all perfumes are free of animal byproducts, Victor Wong, the owner, employs professional "noses" to develop a synthetic version of the civet's scent. *photo by Barbara Tannenbaum*

Working out of her home in Berkeley, Calif., Mandy Aftel is viewed by many as the godmother of the modern indie perfume movement. Her workbench, called a perfumer's organ, now comprises more than 400 rare, natural fragrance oils. Some items, sourced from her personal network of global suppliers, are more than 100 years old. *photo by Barbara Tannenbaum*

I spot *Essence and Alchemy: A Book of Perfume* by Mandy Aftel, a Berkeley-based author and former psychotherapist, who is credited with kicking off the current renaissance of indie perfume makers. In 1999, when Aftel published her exploration of perfume's cultural history, she added a detailed, pre-Internet bibliography on raw materials suppliers, scent recipes, and other DIY information—a treasure trove for those captivated by the olfactory arts. On another shelf was a Golden Pear award from 2014 for Best Independent Perfume, a commendation that the Institute of Art and Olfaction (IAO) gave to her perfuming colleague, Yosh Han, for her crisp, smoky men's cologne, König.

INSPIRED BY BATS

With my first breath, "Bat" smelled fruity, yet richer, cleaner and more distinct than those candied, commercial florals we'd sampled downtown. The sweet almost banana-like smell resolved into cool limestone, like being in a cave. Stunned, I closed my eyes. There was a spatial 3-D effect, an olfaction-induced sense of place.

Both Aftel and Han taught many of the perfumers whose efforts line the shelves of Tigerlily and other independent perfume retailers that have sprung up in the last few years in cities such as Los Angeles, Portland, Seattle, Brooklyn, Manhattan, Cleveland, and Washington, DC. "The creativity of these makers is off the hook," Kohl says. "Sometimes, because they *aren't* classically trained, they are willing to take more risks." We start spraying perfumes on our arms and wrists, evaluating scents as Kohl details each maker's biography, choice of materials, and process of extraction.

Overhearing us, one customer described the smell of commercial fragrance as "blurry," or "smeared." Indie compositions, however, allowed her to differentiate individual scent notes that combine in surprisingly unique ways.

I had to agree, especially when Kohl had me sample a perfume called "Bat," one of several animal-themed scents produced by a Toronto-based company, Zoologist. With my first breath, "Bat" smelled fruity, yet richer, cleaner and more distinct than those candied, commercial florals we'd sampled downtown. Other notes emerged as I patiently savored the fragrance, letting it work with my skin. The sweet almost banana-like smell resolved into cool limestone, like being in a cave. Stunned, I closed my eyes. There was a spatial 3-D effect, an olfaction-induced sense of place.

Once Aftel mixes a new scent, she filters the batch in her kitchen. To Aftel, every raw material contains a story. "That's why it's easy to fall down the rabbit hole," she says. "Natural ingredients are alive with layers and facets, rich with the texture of human history." *photo by Barbara Tannenbaum*

My sensations were due, in part, to Zoology's owner, Victor Wong, choosing not to hire a classically French-trained "nose" to create the scent formula, but instead hiring Dr. Ellen Covey, a neuroscientist-turned-perfume artist. Covey's scientific background includes the study of bat sounds (called "echolation"), which included visits to numerous bat caves while she was writing her PhD dissertation. "The sweet note is inspired by the rotten fruit and other bat droppings," explained Kohl. "The leathery smell that emerges during dry-down is based on their wings."

My sense of surprise and delight continued as we sampled fragrances based on printer's ink, burnt matches, driftwood and salt water, even Stanley Kubrick's horror film, "The Shining." (That perfume, by Bruno Fazzolari, was "Room 237," the scene of some of the film's scariest moments, and it stinks of moldy hotel hallways and vinyl shower curtains. My friend, a film editor, would *love* it.) Needless to say, it's hard to imagine a commercial perfumer who would approve such whimsical choices or hire "noses" whose skills were developed in a bat cave, or anywhere else outside of France's rigorous perfume schools.

CUIR DE GARDENIA

For Gardenia perfume, the flower's scent is so elusive that most perfumers mimic it with other oils or synthetics. But the secret to Aftel's Gardenia is tiare, which Aftel bought from a Tahitian flower grower, along with castoreum—another classic rare find. Aftel obtained the castoreum (a paste-like musk from the animal's glands) from a Canadian student who froze the secretions when some neighbors culled beavers on their property. Other "animalistic" aromas are drawn from animal musk oil mixed with its urine or feces, producing an amazing scent: dirty to some, sexy to others. *photo by Barbara Tannenbaum*

DOLLARS AND SCENTS

Ineke Rühland, one of Kohl's colleagues and creator of artisanal perfumes, attended one of those French schools, ISIPCA Paris, which is affiliated with the University of Versailles. While working at her laptop in the back of Tigerlily, she describes hundreds of training hours where students focus on organic chemistry, learn to identify unlabeled scents, name the component materials and scent molecules in liquid-filled beakers, and achieve new smells through scent combinations and other chemical reactions. Apprentices recreate iconic perfumes, working with archival formulas for Nina Ricci's L'Air Du Temps or Guerlain's Shalimar. Graduates are hired by one of the Big Five fragrance houses (or their smaller competitors) that perfume brands use to produce and develop the "juice" we buy in stores. Rühland would have worked there, too, if she hadn't relocated to San Francisco for her husband's career.

Her observations were underscored in a 2013 BBC documentary on perfume ("Something Old, Something New," viewable on YouTube) that takes us behind the scenes for the launch of a new perfume by Tommy Hilfiger, which is owned by international conglomerate Estée Lauder.

DEERTONGUE LEAF
Liatris odoratissima, USA

Mandy Aftel's perfume museum is a treasure trove of aromatic history. Did you know, for instance, that deer-tongue leaves were used, in 1868, by English chemist William Perkin to create one of the first synthetic scents? These leaves were used to chemically extract coumarin—a substance with a sweet, nutty, tobacco-like smell, and that's normally found in Tonka beans, which are difficult to harvest. *photo by Barbara Tannenbaum*

The film shows that, for a perfume to be successful in the current commercial market, the actual crafting and mixing of scent comes last. Most important is to begin with demographic research to target a large enough pool of customers. Next, managers hire specialists to develop a persuasive product name, bottle design, and advertising concepts. Only then is the nose hired to mix potential scents to match the artistic goals, audience, and budget outlined in the creative brief.

That is because, as Veronique Gabai-Pinsky, president of Estée Lauder's designer-fragrance division, explains, "The first time that you access a fragrance, you're going to do it because of the idea, the advertising campaign, the bottle design...hopefully, by the tenth time you buy the bottle, it's because of what's inside."

I relay this theory to Kohl who just laughs. "Inside the bottle is where my customers, not to mention these makers, begin."

In the perfume world, master craftsmanship begins with the talents of the human nose. At Tigerlily Perfumery, International perfumer Yosh Han evaluates a shipment from Palette Naturals for their qualities of citrus, green, floral, spice, amber, or aromatic woods. *photo by Barbara Tannenbaum*

WHAT'S INSIDE THE BOTTLE?

Perfumers call the array of materials on their shelves and workbench an "organ." After I'd seen the hundreds of multicolored, bottled liquids in Mandy Aftel's Berkeley-based atelier, the descriptor made sense. One can easily liken these collections to the keys of a giant calliope, whose individual notes are pressed in different combinations to make various chords and full songs. Yosh Han uses another analogy. When she speaks at colleges and perfume-making workshops, she compares perfumers to painters, choosing scent notes instead of pigment to color their olfactory portraits.

Even if industrial perfumers wanted to make highly nuanced scents, they could't afford to. Fernández might spend a week pressing flowers to make enough for his events: one to three bottles that each hold 100 milliliters (about 3.5 ounces).

While Aftel is renowned for only using natural ingredients in her perfume mixes, Han is willing to incorporate synthetic fragrance oils. To consumers who have been schooled in the virtues of natural food, just mentioning "synthetics" might sound fishy. But these ingredients serve a defensible purpose, in several ways.

To understand this, it helps to begin with the differences between the synthetic and the natural, at least regarding scent ingredients.

Natural scents are extracted from a broad range of materials: flowers, plants, moss, trees, bark, resins, wax, shells, even animal glands. The process can be done at small scale or at a large scale, through processes such as steam distillation, solvent extraction, or the use of CO2 gas or hydrofluorocarbon. Regardless of the production method, the resulting scent molecules are the same.

Synthetic scent molecules, on the other hand, are isolated in a laboratory from larger organic compounds. These base elements include petroleum byproducts, alcohol, ethanol, methane and other gases, carboxylic acids, enzymes, and even plant-based scraps. Regardless of how you feel about these processes, it's important to note that in both cases—the natural and the synthetic—the core material begins as dirt. In one case the scent elements grow out of dirt, as plants; in the other, the scent materials are found in the dirt, and then transformed, through organic chemistry. Linolool, for example, is a building block of all green matter. When isolated, a molecule of linolool smells like lavender.

In honor of perfume's distinguished history, Antonia Kohl maintains a personal collection of blown glass, ornate stoppers, and a variety of unique bottles inspired by the Art Nouveau movement. *photo by Barbara Tannenbaum*

Perfumes made with synthetic scents also have some advantages over their natural cousins, on two fronts.

First, just the manufacturing process for synthetic perfume is a more sustainable way to bottle exotic scents. As Kohl points out, "You don't want someone stomping through the Amazon to harvest rare flowers." While there are research costs associated with developing synthetics, that process is cheaper when compared to cultivating plant sources for "natural" perfumes—specifically land costs, water use, and farm labor. As a result, synthetic ingredients are typically cheaper. In "Perfumes: The Guide," Luca Turin writes that a kilo of synthetic scent typically costs $50, while a kilo of its natural counterpart can cost 10 times that, or more.

Second, with synthetic perfumes, consumers enjoy more assurance that what they spray on their skin won't provoke an allergic reaction. This is because big brand perfumes sell the majority of their products in retail outlets here and abroad, and that geographic distribution subjects them to greater regulatory scrutiny. By law, any perfume destined for import or export must conform to International Fragrance Association (IFRA) standards, which involves independent testing of their potential to cause allergic reactions. (Its counterpart here, the U.S. Department of Commerce, conducts no oversight of perfume ingredients sold domestically or over the Internet.) Over the years, synthetics have been regularly vetted; meanwhile natural materials, especially when used in new combinations, have undergone little if any testing, which is both time-consuming and expensive. This can become a real problem. Natural perfumes include material drawn from a plant's immune system; as such, they have the power to burn, soothe, inflame, attract, or repel when applied to our skin.

Palo Santo
Bursera graveolens
Peru

Red Juniper berries, known for their dry woody aroma, contribute to just one of Aftel's more than 200 bottled scents. Her collection is displayed in the Aftel Archive of Curious Scents, which is housed in a remodeled garage behind her Berkeley home. *photo by Barbara Tannenbaum*

ENLARGING THE PALETTE

In an industry infamous for its trade secrets and lack of transparency, independent perfumers struggled for years to obtain synthetics and other tools of the trade. Before we had an omnipresent encyclopedia called the Internet, pioneers like Aftel had to scour antiquarian trade shows and bookstores just to find formulae and mixing instructions.

Han, who once sold perfumes blended in her San Francisco apartment to Athropologie and Barney's in Manhattan, remembers her first trip to Grasse, in the South of France. ("There were more perfume-related businesses than bars or restaurants," she says.) Having recently completed an apprenticeship with an Aspen-based perfumer, Han saw opportunities the big houses were missing.

MONSERRAT
UMMA
ZZOLARI
ROOM 237
BRUNO FAZZOLARI

For Bruno Fazzolari, a San Francisco-based artisanal perfume maker and visual artist, an aroma evokes a color. This cognitive condition, called synesthesia, inspires him to base perfumes on movies such as "The Shining," in which famously ominous scenes occurred in Room 237. For his award-winning fragrance "Lampblack," the idea for its darker, peppery notes came from India ink. *photo by Barbara Tannenbaum*

Feeling excluded by the Grasse perfumerati, Han soon helped West Coast makers gain their own foothold by hosting San Francisco-based salons, events, and collaborations, such as 2010's International Chocolate Salon and Scent Makers, Sniff-a-palooza, and the Artisan Fragrance Salon in 2012. (The event later spread to Los Angeles, Portland, and Seattle.)

One of Aftel's early students was Linda Andrews, founder of Perfumer's Apprentice, the Santa Cruz-based supplier of natural and synthetic fragrance oils. "It certainly wasn't a level playing field when I started," says Andrews. "The industry was very closed, very secretive. They kept their process mysterious. That's what we set out to change."

Once Andrews dove into the world of perfume, her fascination bloomed. She soon learned, for example, that the first scent molecule used by perfumers was the vanilla-smelling *coumarin*, synthesized in 1868 from a plant leaf called deer tongue. Another milestone was the creative impact of a chemical class of ingredients called aldehydes. In 1921, a perfumer's lab assistant is said to have accidentally dumped too much aldehyde into perfume samples being mixed for Coco Chanel. Luckily, Coco liked the way the fifth sample's cool floral blast nearly leapt across the room. And Chanel No. 5 was born.

Working with bunches of hyacinth from a local flower shop, Leïla El Maamar helps Berti Fernández prepare for an enfleurage workshop in his studio, which is housed in Barcelona's Nau Bostik cultural center. Before long, the fragrance from these small trays of flowers envelop the center's hallways and any rooms nearby. *photo courtesy of Alberto Fernández*

Fernández composed "Al Zahir," which won a Mouillette d'argent award, with distilled orange leaf blossoms, grandiflorum jasmine, benzoin resin, and the essential oils of neroli, rose, and saffron. The perfume was inspired by Fernández's sense of the landscapes of North Africa and Spain's southern terrain. *photo courtesy of Alberto Fernández*

"BLOOD, SWEAT, AND TEARS"

When buying perfume, consumers may not notice any difference between natural materials, synthetic fragrances, or a blended mix. At Tigerlily, Kohl carries both, but devotes one area to all-naturals perfumes. "I will always love a good ingredient story," she says, pointing out a perfumer who sources rare natural rose oil from Afghanistan. "However, both forms of perfumery are legitimate."

This point is underscored by the Los Angeles-based Institute for Art and Olfaction, whose panel of 31 judges confers annual awards for excellence in five categories (Artisan, Independent Perfumer, Experimental Scent Projects, Contributions to Scent Culture, and the Aftel Award for Handmade Perfumes). "There was a lot of blood, sweat, and tears in our community to develop these categories," says IAO founder Saskia Wilson-Brown, a former independent film producer and alumna of Yosh Han's perfume-making workshops. The idea, she says, was to eliminate the financial advantage of large corporations that are buying up indie makers. ("If there is a parent company, we only allow those with a maximum of four perfume companies in their portfolio. That gets rid of the Estee Lauders.")

For his perfume-making workshops, Fernández teaches people how to create a liquid or solid paste from any type of aromatic raw material. These materials range from delicate oakmoss tendrils to hard frankincense resins. *photo courtesy of Alberto Fernández*

Recalling her first visit, in 2014, to Milan's artisanal perfumery trade show, Essence, now in its tenth year, Wilson-Brown says, "There were thousands of people, hundreds upon hundreds of booths. That's when I realized this wasn't just a West Coast movement. Indie perfume is a global movement."

Fernández collects beeswax and honey from his family's apiary in Omaña, along with marigold, broom flower, freshly mowed hay, oakmoss, and orris roots from iris plants. These materials are easy to store, dry and grind into powder, or tincture. Fernández can then use the scent of a Spanish summer when crafting perfume in winter months. *photo courtesy of Alberto Fernández*

THE POWER OF SCENT

Despite the small scale of his operation, business is going well for Alberto Fernández. This spring, he won the International Mouillette Argent Competition's Judge's Choice Award for his orange blossom-scented perfume "Al Zahir." While artisanal perfumers generally do their own mixing, and even draw from fine natural ingredients, Fernández is one of the few who hand-craft from the ground up—with ingredients that he forages and distills with his own hands. And they've been selling well at art festivals, via Etsy, and to an assortment of customers—so well, in fact, that to support his growing operations, he recently moved his equipment into Nau Bostik, a former Barcelona glue factory turned cultural center.

During the final stages of his traditional enfleurage process, Fernández becomes part mixologist, part chemist. To make "Vernalia," Fernández waits for the white petal scent oils to separate, then adds oakmoss and violet leaf oils (hardier materials that he had extracted previously with steam). After balancing the fragrance with a few other notes, Fernández adds a touch of a scent molecule called *geosmin*. This is actually a synthetic, necessary for working with the molecules found in petrichor. As "unnatural" as it may sound, the formulation allows Fernández to capture and hold that earthy smell of spring rain in liquid form.

At one point, during my conversations with Kohl and Aftel, I learned that natural oils extracted by enfleurage are overwhelmingly more fragrant than botanical material extracted by steam or solvents. But these "natural" fragrances tend to fade more quickly than perfumes designed with synthetics which are constructed to hold a consistent, signature odor in the bottle for years and, sometimes, decades.

Using steam distillery—an ancient method dating back to 3500 B.C.—Fernández heats water to a

Even if industrial perfumers wanted to make highly nuanced scents, evanescent as they may be, they couldn't really afford to. Fernández may spend a week pressing flowers to make enough for his events: one to three bottles that each hold 100 milliliters (about 3.5 ounces). He then sells these in 3-milliliter vials for $3 to $6 apiece. For the big perfume houses, that wouldn't take care of their customers in one city on a single day.

gentle 60 degrees. In the 19th century, fragrance houses in Grasse, France, put giant steam distillation vats and tanks in factories adjacent to flower fields. Many of those factories are still in use today. *photo courtesy of Alberto Fernández*

SCENT'S LONG REACH

One summer, because of a family emergency, Fernández had to suddenly pack up his foraging equipment and fly to London. An airport guard nearly flipped when his carry-on bag passed through the x-ray machine. With his dark mustache and thick mane of corkscrew curls, Fernández looks like a fashion model, not a terrorist. But there was the matter of those glass eyedroppers, beakers, and bottles containing hydrosol.

During a foraging expedition at a Barcelona-based summer camp, Fernández teaches children how to identify and collect aromatic plants (in this case, rosemary, lavender, orange, bay, and fig tree leaves). When these materials are heated in his copper still, the children will learn the next step in perfume-making: the nature of fragrance families and scent composition. *photo courtesy of Alberto Fernández*

Most confusing was the five-litre copper pot that was his steam distiller. "The piece looks like Aladdin's lamp," Fernández says. He was quickly pulled aside for questioning, but luckily had some samples of his colognes in his toiletry bag. After a quick spray to demonstrate the wonders of his craft, Fernández was cleared to board.

Back in San Francisco, when I walked into Tigerlily recently, the store was awash in fragrances. Kohl's business colleagues in the back row were on their iPhone's checking Instragram accounts of other indie perfumers. Curious, I asked who they were following. Maybe it was serendipity, or simply that the world of indie makers is still a small community. But they had Fernández' account open, proving that in today's world of fragrance, it might be more important to have an online account than a degree in French perfumery.

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⊕ Indie Perfume: A Resource List for Aspiring Buyers and Makers