SCENTS AND SENSIBILITY

What the nose knows.

BY JOHN LANCHESTER

For years, ever since I started taking an interest in wine, I've been annoyed by the word "grainy." It's a word that mavens use in relation to red wines, and refers to certain types of tannin—the chemical that cures leather, is present in tea, and makes the mouth pucker. Tannin is a preservative and an important factor in the way wines age. Still, how could a liquid be "grainy?"

Then, a few nights ago, I opened a bottle of wine I'd been given, a Languedoc red called Le Pigeonnier, from the European heat-wave year of 2003, and, without concentrating very hard, took a sip, noticed something odd about the mouthfeel of the wine, and suddenly realized—bam!—that it was grainy. I'd found the famous grainy tannins, and the term actually made sense, because the wine definitely had a particulate, almost sandlike texture, not unpleasant, but distinctive. What's more, in tasting it I realized that I'd encountered versions of it—milder, more restrained versions—before. Now I knew what grainy tannins were.

Most taste experiences work like that. A taste or a smell can pass you by, unremarked or nearly so, in large part because you don't have a word for it; then you see the thing and grasp the meaning of a word at the same time, and both your palate and your vocabulary have expanded. One day, you catch the smell of gooseberries from a Sauvignon Blanc, or red currants from a Cabernet, or bubble gum from a Gamay, or horse manure from a Shiraz, and from that point on you know exactly what people mean when they say they detect these things. The smell of a "corked" bottle of wine, for instance, is something that, once it has been pointed out to you, you never forget.

The idea that your palate and your vocabulary expand simultaneously might sound felicitous, but there is a catch. The words and the references are really useful only to people who have had the same experiences and use the same vocabulary: those references are to a shared basis of sensory experience and a shared language. To people who haven’t had those shared experiences, this way of talking can seem like horse manure, and not in a good way.

Consider product A, in which layers of cedar and raspberry strike a sharp upfront note, while clove and creamy notes add body while contributing an exotic, sumptuous character that conveys luxury in its essence. Might there also be a trace of rubber, though?

And then there’s B, with its aroma of underripe bananas, and the way the fruitiness opens up on my tongue with a flick of bitterness that quickly fades to reveal luscious, grassy tones.

Product C, on the other hand, is fruity (with a high-profile role for the deliciously garlicky, overripe smell of guava plus floral (powdery rose) plus green (neroli and oak moss)).

These are descriptions of, respectively, a chocolate, an olive oil, and a perfume, but you couldn’t possibly guess that. I've never caught traces of red fruit in a dark chocolate, I don't even know what neroli is, and, as for underripe bananas in olive oil, I'm more likely to catch the Sundance Kid in Bolivia. That doesn't mean that the people who can taste these things are bluffing; rather, they have a vocabulary of specific sense references that I haven't acquired. (To complicate matters, some-
times these people actually are bluffing.)

There is a loss involved in learning about taste: as you gain a more detailed and
precise vocabulary, you risk talking to fewer and fewer people—the people who
know what these taste references mean.

As your vocabulary becomes more
specific, more useful, it also becomes less
inclusive.

For that reason, imaginative writers
tend to flee as far as possible from
the too-specific nomenclatures of
the expert and toward pure evocations
of sensation. It is possible to feel envi-
ous of people who wrote about wine
before the tyranny of expert descrip-
tors. The classic text in this respect
is the scene in “Brideshead Revisited”
where the narrator, Charles Ryder,
and his friend Sebastian Flyte make
a serious run on the bottles in the
latter’s ancestral cellar, getting comprehen-
sively blitzed and making tasting
notes:

“...It is a little, shy wine like a gazelle.”

“Like a leprechaun.”

“Dappled, in a tapestry meadow.”

“Like a flute by still waters.”

“...And this is a wise old wine.”

“...A prophet in a cave.”

“...And this is a necklace of pearls on a
white neck.”

“Like a swan.”

“Like the last unicorn.”

Here the unlikelihood is part of the
fun. Paradoxically, the more deliber-
ately over-the-top taste descriptions
are, the more they can appeal to a gen-
eral, untrained reader. prose that is
rich in similes and wild comparisons
is making an effect to reach out. This
is the sort of game that anyone can play—
a wine can remind you of your first
kiss, or of the smell of a new car, even
if you don’t know the difference be-
 tween volatile phenolics and malolactic
conversion.

In a seminal study of the subject,
“Wines: Their Sensory Evaluation”
(1976), Maynard A. Amerine and Ed-
ward B. Roessler called this the “Ro-
mantic” tradition in wine writing. They
were against it. Both men were profes-
sors at the University of California at
Davis, an important center for the
study of wine, and they wanted to put
some scientific backbone into the busi-
ness of tasting—or, as they preferred to
call it, “sensory evaluation,” since all the
senses were involved. (One of their
senses is pain: “It is rare for a wine to be
so acid as to give genuine pain...”)

They sought to bring methodological
rigor to what might have seemed an
inherently subjective enterprise (“In a
paired-sample preference test with 64
trials, how many agreeing judgments
are required for significance at the 5% level?”), and the underlying plea for a
rational scoring system to evaluate
wines, combined with a pragmatic, de-
burking attitude toward fancy wine
vocabulary, had a big effect. The two men
had no use for taste words such as
“flinty”—“We confess that this flavor
(odor?) has never come our way”—or
“musty”: “Avoid it unless you know
what it means. We don’t.” What they
believed in was tasting wines and eval-
uating them according to verifiable,
quantifiable criteria.

Point systems have been popular
ever since. Part of their appeal is the
way they create a bridge between the
technical process of assessment and
something the ordinary consumer can
actually use. The most influential wine
assessments in the world are those
scores, out of a hundred, which appear
in Robert Parker’s “The Wine Advocate,”
followed by similar systems in such
magazines as “Wine Spectator.” A system
advocated by Amerine and Roessler
had the now touching austerity of the
nineteen-seventies, offering, instead, to
give marks out of only twenty, but the
basic idea is the same: break a wine
down into color, appearance, odor,
body, and so on, assign it marks in each
category, and voilà—you have a single
number that sums up the wine. The
reader doesn’t need a fancy vocabulary
of taste; he just needs to know the
score.

Point systems aren’t the only thing
that this more scientific approach brings
to the study of taste. It doesn’t take
long to discover that most of what we
think as taste is, in fact, smell. The
tongue can detect only five tastes, salty,
sweet, bitter, sour, and a taste whose
receptors have only begun to be identi-
fied: umami—the savory, broth-like
sensation that is amply present in Parmesan,
seaweed, and ripe tomatoes. All other
taste sensations are really smells, as a
very simple experiment will confirm: all
you have to do to prove it is hold your
nose while you taste something.

So taste is mainly smell, and smell
is a profound mystery. Why is it that
one molecule

\[
\text{C}_4\text{H}_8\text{O} \quad \text{H}_2\text{O}
\]

smells of spearmint, while its mirror
image

\[
\text{C}_4\text{H}_8\text{O} \quad \text{H}_2\text{O}
\]

smells of caraway? No one knows. When
scientists create new molecules in the lab-
atory, they may know every detail of
a molecule’s structure yet have no clue about
what it will smell like. In 1991, scientists
discovered the family of genes responsible
for the nose’s roughly three hundred and
fifty olfactory receptors; these, in combi-
nation, are what detect the presence
of molecules and allow the brain to translate
them into sensory experiences. So H2S
hydrogen sulfide, hits the receptors and
our brain tells us that we are in the pres-
ence of rotten eggs.

A trained nose can become very, very
good at isolating these sensory experiences
and matching them with the relevant mol-
eules. Theoretically, every known odor-
an molecule could have an agreed de-
scriptor. The descriptor wouldn’t need to
be in words: it could be a number, so that
the wintergreen scent of methyl salicylate
would be 172, say, and the garlicky odor of
alllicin would be 402. That would be the
beginnings of a fully scientific language
of taste—a joyless, inhuman prospect.

The language of taste has, therefore,
reached something of an impasse. On the
one hand, we have the Romantic route,
in which you are free to compare a taste
to the last unicorn or the sensation you had
when you were told that you failed your
driving test—and others are free to have
no idea what you are talking about.
On the other, we have the scientific route,
which comes down to numbers, and risks
missing the fundamental truth of all smells
and tastes, which is that they are, by
definition, experiences. One of the things
that are so welcome about “Perfumes:...”
The Guide’’ (Viking; $27.95), by Luca Turin and Tania Sanchez, is that, while the authors embrace point systems (they offer between one and five stars) and science, they also offer vivid, funny, evocative descriptions of the smells they write about. Here, for instance, is Turin’s discussion of Antidote, by Viktor and Rolf:

There is a new chemical cosmetic pricking the streets, a strange molecule with the feel of a light, volatile top note and the power and tenacity of the most powerful drydown materials. Smelling it at length gives the feeling of alarm one would get from trying to pick up a two-year-old child and finding that it weighed as much as a car. This strange creature is called ambrox, an intermediate in the synthesis of Ambrox from clary sage, and has a fresh, herbaceous dry smell that simply goes on forever.

Turin and Sanchez don’t fear the science of their subject; far from it. Turin is a professional biophysicist and a principal in a company that develops new-smelling molecules. Sanchez is that happy thing, a perfume critic. To enjoy Perfumes, you don’t need to know, or even to like, perfumes, such is the lingo of Turin’s and Sanchez’s prose. Their book has a series of introductory chapters about scent in general, and reviews of more than twelve hundred perfumes, initiated by T.S. or L.T.

To understand perfume, science is a good place to start, since it’s with the nineteenth-century discovery of synthetic fragrances that modern perfumes began. Synthetics are molecules that are made in the laboratory, and they are crucial to perfumery; they supply fragrances that can’t be created through natural processes. Take the smell of a rose, for example. It is instantly recognizable in nature, but it can’t be chemically extracted from the flower. (It’s possible to extract rose oil, but rose oil doesn’t quite smell like a rose.) To create the fragrance of a rose, you must synthesize it from other molecules: the route to the illusion of nature travels straight through the lab. Synthetics can also be “abstract,” in that they don’t smell like anything else at all—they aren’t surrogates for natural smells. In an earlier book, “The Secret of Scent,” Turin cites Coca-Cola as a brilliant example of an abstract taste, one that resembles nothing in nature.

The history of perfume is, in large part, the history of synthetics. The first important family was the fragrances. These came into use in the early eighteenth-

eighties and, as the word suggests, are said to be “fennikly—which is one of those scent references that I simply don’t get. Let’s just say that cheap and cheerful versions of fennikly are present in Blue Stratos and the great smell of Reef. Soon vanillia, which was synthesized from pine wood sap, became a crucial ingredient in perfume (it’s a dominant note in Guerlain’s Jicky), and then, in 1888, a chemist accidentally invented synthetic musks while fumbling around with TNT. Turin describes the role of musk in perfume as “something akin to the transparent varnish on a painting that gives all colors depth and saturation.”

Natural musk comes from the glands of certain deer that live in the Himalayas, so the laboratory version had the significant advantage of being much cheaper. The typical cost of synthetics is fifty dollars a kilogram; natural can be hundreds of times as much. In subsequent decades, as the inventions continued, the perfume’s palette of scents steadily increased. Turin writes, “The enormous artistic edge that chemistry gives perfumers is the ability, familiar to the gods of Olympus and to fairy godmothers when putting together a triun- ghtly gifted baby, to compose a perfume from disparate inherited virtues: the rough, grassy freshness of lily of the valley, the naps of lily proper, the mushroom note of garcinia, the lemon of magnolia, the banana of ylang ylang, the deep woody velvety of violets, the buoyant sweetness of rose, the soapy edge of cyclamen, etc. Marshall all these molecular gases into a perfume, even beautiful, is far from easy.” It is as if the history of painting had proceeded via the invention of new colors. There are fashions in smell, too, and the heavy-duty perfumes of the nineteen-eighties, in particular, came in for a hard time from Turin and Sanchez. They give some of these perfumes a rating of five out of five, while at the same time more or less begging the reader not to buy them. Opium is “inevitably one of the greatest fragrances of all time,” Turin writes. “Yet I would hate it if anyone were to wear it near me today.”

That, it turns out, is relatively mild, as their criticisms go. Consider 212, from Carolina Herrera: “Like getting lemon juice in a paper cut.” Amaretti, from Givenchy? “If you are reading this because it is your darling fragrance, please wear it at home exclusively, and tape the windows shut.” Heiress? “I Hilariously vile 50/50 mix of cheap shampoo and canned peaches.” Princess? “Snipid name, pink perfume, heart shaped bottle, little crown on top. I half expected it to be really great just to spite me. But no, it’s probably the most repulsively cloying thing on the market today.” Hugo, the men’s cologne from Hugo Boss? “Dull but competent lavender-olive-brown thing, suggestive of a day filled with strategy meetings.” Love in White? “A chemical white floral so disastrously vile words nearly desert me. If this were a shampoo offered with your first shower after sleeping rough for two days, Nourakott, you’d opt to keep the lice.” Lauren’s Rumeur gets a one-word review: “Bosclase.”

This is fun to read—and a rare pleasure, too, since the importance of perfume advertising means that one doesn’t often get to read strong criticism of major dollar-earning fragrances. The joy of Turin and Sanchez’s book, however, is their ability to write about smell in a way that manages to combine the science of the subject with the vocabulary of scent in witty, vivid descriptions of what these scents are like. Their work is lucidly, simply, rivetingly, entrancing, and it passes the high test that their praise is even more compelling than their criticism. Here, in full, is Turin’s review of Lancôme’s Trésor:

I once sat in the London Tube across a young woman wearing a t-shirt printed with headline-size words ALL THIS ACROSS HER LARGE BREASTS, and small type underneath “and brains too.” That vulgar but witty combination seems to me to sum up Trésor. Up close, when you can read the small print, Trésor is a superbly clever accord between powdery rose and vetiver, reminiscent of the structure of Habanita. From a distance, it’s the trashiest, most good-humored pink nohrwearer and patched hair thing imaginable. When you manage to appeal to both the reptilian brain and the necortex of the male folk, what happens is what befell Trésor: a huge success.

You don’t have to like perfume to like Perfumes: The Guide.” Its blend of technical knowledge and evocative writing is exemplary in the strict sense: people who write about smell and taste in any context should use it as an example. Turin may be wrong about what appeals to the male neocortex, however. As Sanchez says, “The question that women casually shopping for perfume ask more than any other is this: What scent drives men wild?” After years of intense research, we know the definitive answer. It is bacon.”