Taste

Those...from whom nature has withheld the legacy of taste, have long faces, and long eyes and noses, whatever their height there is something elongated in their proportions. Their hair is dark and unglossy, and they are never plump; it was they who invented trousers.

Anthelme Brillat-Savarin, The Physiology of Taste
THE SOCIAL SENSE

The other senses may be enjoyed in all their beauty when one is alone, but taste is largely social. Humans rarely choose to dine in solitude, and food has a powerful social component. The Bantu feel that exchanging food makes a contract between two people who then have a “clanship of porridge.” We usually eat with our families, so it’s easy to see how “breaking bread” together would symbolically link an outsider to a family group. Throughout the world, the stratagems of business take place over meals; weddings end with a feast; friends reunite at celebratory dinners; children herald their birthdays with ice cream and cake; religious ceremonies offer food in fear, homage, and sacrifice; wayfarers are welcomed with a meal. As Brillat-Savarin says, “Every . . . sociability . . . can be found assembled around the same table: love, friendship, business, speculation, power, importunity, patronage, ambition, intrigue . . . .” If an event is meant to matter emotionally, symbolically, or mystically, food will be close at hand to sanctify and bind it. Every culture uses food as a sign of approval or commemoration, and some foods are even credited with supernatural powers, others eaten symbolically, still others eaten ritualistically, with ill fortune befalling dullards or skeptics who forget the recipe or get the order of events wrong. Jews attending a Seder eat a horseradish dish to symbolize the tears shed by their ancestors when they were slaves in Egypt. Malays celebrate important events with rice, the inspirational center of their lives. Catholics and Anglicans take a communion of wine and wafer. The ancient Egyptians thought onions symbolized the many-layered universe, and swore oaths on an onion as we might on a Bible. Most cultures
embellish eating with fancy plates and glasses, accompany it with parties, music, dinner theater, open-air barbecues, or other forms of revelry. Taste is an intimate sense. We can’t taste things at a distance. And how we taste things, as well as the exact makeup of our saliva, may be as individual as our fingerprints.

Food gods have ruled the hearts and lives of many peoples. Hopi Indians, who revere corn, eat blue corn for strength, but all Americans might be worshiping corn if they knew how much of their daily lives depended on it. Margaret Visser, in Much Depends on Dinner, gives us a fine history of corn and its uses: livestock and poultry eat corn; the liquid in canned foods contains corn; corn is used in most paper products, plastics, and adhesives; candy, ice cream, and other goods contain corn syrup; dehydrated and instant foods contain cornstarch; many familiar objects are made from corn products, brooms and corncob pipes to name only two. For the Hopis, eating corn is itself a form of reverence. I’m holding in my hand a beautifully carved Hopi corn kachina doll made from cottonwood; it represents one of the many spiritual essences of their world. Its cob-shaped body is painted ocher, yellow, black, and white, with dozens of squares drawn in a cross-section of a-kerne/ design, and abstract green leaves spearing up from below. The face has a long, black, rootlike nose, rectangular black eyes, a black ruff made of rabbit fur, white string corn-silk-like ears, brown bird-feather bangs, and two green, yellow, and ochre striped horns topped by rawhide tassels. A fine, soulful kachina, the ancient god Mais stares back at me, tastefully imagined.

Throughout history, and in many cultures, taste has always had a double meaning. The word comes from the Middle English taster, to examine by touch, test, or sample, and continues back to the Latin taxare, to touch sharply. So a taste was always a trial or test. People who have taste are those who have appraised life in an intensely personal way and found some of it sublime, the rest of it lacking. Something in bad taste tends to be obscene or vulgar. And we defer to professional critics of wine, food, art, and so forth, whom we trust to taste things for us because we think their taste more refined or educated than ours. A companion is “one who eats bread with

another,” and people sharing food as a gesture of peace or hospitality like to sit around and chew the fat.

The first thing we taste is milk from our mother’s breast,* accompanied by love and affection, stroking, a sense of security, warmth, and well-being, our first intense feelings of pleasure. Later on she will feed us solid food from her hands, or even chew food first and press it into our mouths, partially digested. Such powerful associations do not fade easily, if at all. We say “food” as if it were a simple thing, an absolute like rock or rain to take for granted. But it is a big source of pleasure in most lives, a complex realm of satisfaction both physiological and emotional, much of which involves memories of childhood. Food must taste good, must reward us, or we would not stoke the furnace in each of our cells. We must eat to live, as we must breathe. But breathing is involuntary, finding food is not; it takes energy and planning, so it must tantalize us out of our natural torpor. It must decoy us out of bed in the morning and prompt us to put on constricting clothes, go to work, and perform tasks we may not enjoy for eight hours a day, five days a week, just to “earn our daily bread,” or be “worth our salt,” if you like, where the word salary comes from. And, because we are omnivores, many tastes must appeal to us, so that we’ll try new foods. As children grow, they meet regularly throughout the day—at mealtimes—to hear grown-up talk, ask questions, learn about customs, language, and the world. If language didn’t arise at mealtimes, it certainly evolved and became more fluent there, as it did during group hunts.

We tend to see our distant past through a reverse telescope that compresses it: a short time as hunter-gatherers, a long time as “civilized” people. But civilization is a recent stage of human life, and, for all we know, it may not be any great achievement. It may not even be the final stage. We have been alive on this planet as recognizable humans for about two million years, and for all but the last two or three thousand we’ve been hunter-gatherers. We may sing in choirs and park our rages behind a desk, but we patrol the world

---

*This special milk, called colostrum, is rich in antibodies, the record of the mother’s epidemiologic experience.
with many of a hunter-gatherer’s drives, motives, and skills. These aren’t knowable truths. Should an alien civilization ever contact us, the greatest gift they could give us would be a set of home movies: films of our species at each stage in our evolution. Consciousness, the great poem of matter, seems so unlikely, so impossible, and yet here we are with our loneliness and our giant dreams. Speaking into the perforations of a telephone receiver as if through the screen of a confessional, we do sometimes share our emotions with a friend, but usually this is too disembodied, too much like yelling into the wind.

We prefer to talk in person, as if we could temporarily slide into their feelings. Our friend first offers us food, drink. It is a symbolic act, a gesture that says: This food will nourish your body as I will nourish your soul. In hard times, or in the wild, it also says I will endanger my own life by parting with some of what I must consume to survive. Those desperate times may be ancient history, but the part of us forged in such trials accepts the token drink and piece of cheese and is grateful.

FOOD AND SEX

What would the flutterings of courtship be without a meal? As the deliciously sensuous and ribald tavern scene in Fielding’s Tom Jones reminds us, a meal can be the perfect arena for foreplay. Why is food so sexy? Why does a woman refer to a handsome man as a real dish? Or a French girl call her lover mon petit chou (my little cabbage)? Or an American man call his girlfriend cookie? Or a British man describe a sexy woman as a bit of crumpet (a flat, toasted girdlecake well lubricated with butter)? Or a tart? Sexual hunger and physical hunger have always been allies. Rapacious needs, they have coaxed and driven us through famine and war, to bloodshed and serenity, since our earliest days.

Looked at in the right light, any food might be thought aphrodisiac. Phallic-shaped foods such as carrots, leeks, cucumbers, pickles, sea cucumbers (which become tumescent when soaked), eels, bananas, and asparagus all have been prized as aphrodisiacs at one time or another, as were oysters and figs because they reminded people of female genitalia; caviar because it was a female’s eggs; rhinoceros horn, hyena eyes, hippopotamus snout, alligator tail, camel hump, swan genitals, dove brains, and goose tongues, on the principle that anything so rare and exotic must have magical powers; prunes (which were offered free in Elizabethan brothels); peaches (because of their callipygous rumps?); tomatoes, called “love apples,” and thought to be Eve’s temptation in the Garden of Eden; onions and potatoes, which look testicular, as well as “prairie oysters,” the cooked testicles of a bull; and mandrake root, which looks like a man’s thighs and penis. Spanish fly, the preferred aphrodisiac of the Marquis de Sade, with which he laced the bonbons he fed prostitutes and friends, is made by crushing a southern European beetle. It contains a gastrointestinal irritant and also produces a better blood flow, the combination of which brings on a powerful erection of either the penis or the clitoris, but also damages the kidneys; it can even be fatal. Musk, chocolate, and truffles also have been considered aphrodisiacs and, for all we know, they might well be. But, as sages have long said, the sexiest part of the body and the best aphrodisiac in the world is the imagination.

Primitive peoples saw creation as a process both personal and universal, the earth’s yielding food, humans (often molded from clay or dust) burgeoning with children. Rain falls from the sky and impregnates the ground, which brings forth fruit and grain from the tawny flesh of the earth—an earth whose mountains look like reclining women, and whose springs spurt like healthy men. Fertility rituals, if elaborate and frenzied enough, could encourage Nature’s bounty. Cooks baked meats and breads in the shape of genitals, especially penises, and male and female statues with their sexual organs exaggerated presided over orgiastic festivities where sacred couples copulated in public. A mythic Gaia poured milk from her breasts and they became the galaxies. The ancient Venus figures with global breasts, swollen bellies, and huge buttocks and thighs symbolized the female life-force, mother to crops and humans. The earth itself was a goddess, curvy and ripe, radiant with fertility, as spell with riches. People have thought the Venus figures imaginative exaggerations, but women of that time may indeed have resembled
them, all breasts, belly, and rump. When pregnant, they would have bulged into quite an array of shapes.

Food is created by the sex of plants or of animals; and we find it sexy. When we eat an apple or peach, we are eating the fruit’s placenta. But, even if that weren’t so, and we didn’t subconsciously associate food with sex, we would still find it sexy for strictly physical reasons. We use the mouth for many things—to talk and kiss, as well as to eat. The lips, tongue, and genitals all have the same neural receptors, called Krause’s end bulbs, which make them ultrasonically, highly charged. There’s a similarity of response.

A man and woman sit across from one another in a dimly lit restaurant. A small bouquet of red-and-white spider lilies sweetens the air with a cinnamonlike tingle. A waiter passes with a plate of rabbit sausage in mélange sauce. At the next table, a blueberry soufflé oozes scent. Oysters on the half shell, arranged on a large platter of shaved ice, one by one polish the woman’s tongue with silken saltiness. A fennel-scented steam rises from thick crabcakes on the man’s plate. Small loaves of fresh bread breathe sweetly. Their hands brush as they both reach for the bread. He stares into her eyes, as if filling them with molten lead. They both know where this delicious prelude will lead. “I’m so hungry,” she whispers.

**THE OMNIVORE’S PICNIC**

You have been invited to dinner at the home of extraterrestrials, and asked to bring friends. Being considerate hosts, they first inquire if you have any dietary allergies or prohibitions, and then what sort of food would taste good to you. What do humans eat? they ask. Images cascade through your mind, a cornucopia of plants, animals, minerals, liquids, and solids, in a vast array of cuisines. The Masai enjoy drinking cow’s blood. Orientals eat stir-fried puppy. Germans eat rancid cabbage (sauerkraut), Americans eat decaying cucumbers (pickles), Italians eat whole deep-fried songbirds, Vietnamese eat fermented fish dressed with chili peppers, Japanese and others eat fungus (mushrooms), French eat garlic-soaked snails. Upper-class Aztecs ate roasted dog (a hairless variety named squalitli, which is still bred in Mexico). Chinese of the Chou dynasty liked rats, which they called “household deer,”* and many people still do eat rodents, as well as grasshoppers, snakes, flightless birds, kangaroos, lobsters, snails, and bats. Unlike most other animals, which fill a small yet ample niche in the large web of life on earth, humans are omnivorous. The Earth offers perhaps 20,000 edible plants alone. A poor season for eucalyptus will wipe out a population of koala bears, which have no other food source. But human beings are Nature’s great ad libbers and revisers. Diversity is our delight. In time of drought, we can ankles off to a new locale, or break open a cactus, or dig a well. When plagues of locusts destroy our crops, we can forage on wild plants and roots. If our herds die, we find protein in insects, beans, and nuts. Not that being an omnivore is easy. A koala bear doesn’t have to worry about whether or not its next mouthful will be toxic. In fact, eucalyptus is highly poisonous, but a koala has an elaborately protective gut, so it just eats eucalyptus, exactly as its parents did. Cows graze without fear on grass and grain. But omnivores are anxious eaters. They must continually test new foods to see if they’re palatable and nutritious, running the risk of inadvertently poisoning themselves. They must take chances on new flavors, and, doing so, they frequently acquire a taste for something offbeat that, though nutritious, isn’t the sort of thing that might normally appeal to them—chili peppers (which Columbus introduced to Europe), tobacco, alcohol, coffee, artichokes, or mustard, for instance. When we were hunter-gatherers, we ate a great variety of foods. Some of us still do, but more often we add spices to what we know, or find at hand, for variety, as we like to say. Monotony isn’t our code. It’s safe, in some ways, but in others it’s more dangerous. Most of us prefer our foods cooked to the seaminess of freshly killed prey. We don’t have ultrasharp carnivore’s teeth, but we don’t need them. We’ve created sharp tools. We do have incisor teeth for slicing fruits, and molars for crushing seeds and nuts, as well as canines for ripping

---

*It was the food-obsessed Chinese who started the first serious restaurants during the time of the T’ang dynasty (A.D. 618–907). By the time the Sung dynasty replaced the T’ang, they were all-purpose buildings, with many private dining rooms, where one went for food, sex, and barroom gab.
flesh. At times, we eat nasturtiums and pea pods and even the effluvia from the mammary glands of cows, churned until it curdles, or frozen into a solid and attached to pieces of wood.

Our hosts propose a picnic, since their backyard is a meadow lit by two suns, and they welcome us and our friends. Our Japanese friend chooses the appetizer: sushi, including shrimp still alive and wriggling. Our French friend suggests a baguette, or better still croissants, which have an unlikely history, which he insists on telling everyone: To celebrate Austria’s victory against the invading Ottoman Turks, bakers created pastry in the shape of the crescent on the Turkish flag, so that the Viennese could devour their enemies at table as they had on the battlefield. Croissants soon spread to France and, during the 1920s, traveled with other French ways to the United States. Our Amazonian friend chooses the main course—nuptial kings and queens of leaf-cutter ants, which taste like walnut butter, followed by roasted turtle and sweet-fleshed piranha. Our German friend insists that we include some spaetzle and a loaf of darkest pumpernickel bread, which gets its name from the verb *pumpern*, “to break wind,” and *Nicker*, “the devil,” because it was thought to be so hard to digest that even the devil would fart if he ate it. Our Tasaday friend wants some natek, a starchy paste his people make from the insides of caryota palm trees. The English cousin asks for a small platter of potted ox tongues, very aged blue cheese, and, for dessert, trifle—whipped cream and slivered almonds on top of a jam-and-custard pudding thick with sherry-soaked ladyfingers.

To finish our picnic lunch, our Turkish friend proposes coffee in the Turkish style—using a mortar and pestle to break up the beans, rather than milling them. To be helpful, he prepares it for us all, pouring boiling water over coffee grounds through a silver sieve into a pot. He brings this to a light boil, pours it through the sieve again, and offers us some of the clearest, brightest coffee we’ve ever tasted. According to legend, he explains, coffee was discovered by a ninth-century shepherd, who one day realized that his goats were becoming agitated whenever they browsed on the berries of certain bushes. For four hundred years, people thought only to chew the berries.

Raw coffee doesn’t brew into anything special, but in the thirteenth century someone decided to roast the berries, which releases a pungent oil and the mossy-bitter aroma now so familiar to us. Our Indian friend passes round cubes of sugar, which we are instructed to let melt on the tongue as we sip our coffee, and our minds roam back to the first recorded instance of sugar, in the Atharvaveda, a sacred Hindu text from 800 B.C., which describes a royal crown made of glittering sugar crystals. Then he circulates a small dish of coriander seeds, and we pinch a few in our fingers, set them on our tongues, and feel our mouths freshen from the aromatic tang. A perfect picnic. We thank our hosts for laying on such a splendid feast, and invite them to our house for dinner next. “What do jujubarians eat?” we ask.

**OF CANNIBALISM AND SACRED COWS**

Even though grass soup was the main food in the Russian gulags, according to Solzhenitsyn’s *One Day in the Life of Ivan Denisovich*, humans don’t prefer wood, or leaves, or grass—the cellulose is impossible to digest. We also can’t manage well eating excrement, although some animals adore it, or chalk or petroleum. On the other hand, cultural taboos make us spurn many foods that are wholesome and nourishing. Jews don’t eat pork, Hindus don’t eat beef, and Americans in general won’t eat dog, rat, horse, grasshopper, grubs, or many other palatable foods prized by peoples elsewhere in the world. Anthropologist Claude Lévi-Strauss found that primitive tribes designated foods “good to think” or “bad to think.” Necessity, the mother of invention, fathers many codes of conduct. Consider the “sacred cow,” an idea so shocking it has passed into our vocabulary as a thing, event, or person considered sacrosanct. Though India has a population of around 700 million and a constant need for protein, over two hundred million cattle are allowed to roam the streets as deities while many people go hungry. The cow plays a central role in Hinduism. As Marvin Harris explains in *The Sacred Cow and the Abominable Pig*.
Cow protection and cow worship also symbolize the protection and adoration of human motherhood. I have a collection of colorful Indian pin-up calendars depicting jewel-bedazzled cows with swollen udders and the faces of beautiful human madonnas. Hindu cow worshippers say: "The cow is our mother. She gives us milk and butter. Her male calves till the land and give us food." To critics who oppose the custom of feeding cows that are too old to have calves and give milk, Hindus reply: "Will you then send your mother to a slaughter house when she gets old?"

Not only is the cow sacred in India, even the dust in its hoofprints is sacred. And, according to Hindu theology, 330 million gods live inside each cow. There are many reasons why this national tantanism has come about; one factor may be that on overcrowded land such as India can't support the raising of livestock for food, a system that is extremely inefficient. When people eat animals that have been fed grains, "nine out of ten calories and four out of five grams of protein are lost for human consumption." The animal uses up most of the nutrients. So vegetarianism may have evolved as a remedy, and been ritualized through religion. "I feel confident that the rise of Buddhism was related to mass suffering and environmental depletions," Harris writes, "because several similar nonkilling religions ... arose in India at the same time." Including Jainism, whose priests not only tend stray cats and dogs, but keep a separate room in their shelters just for insects. When they walk down the street, an assistant walks ahead of them to brush away any insects lest they get stepped on, and they wear gauze masks so they don't accidentally inhale a wayward midge or other insect.

One taboo stands out as the most fantastic and forbidden. "What's eating you?" a man may ask an annoyed friend. Even though his friend just got fired by a tyrannical boss with a mind as small as a noose, he would never think to say "Who's eating you?" The idea of cannibalism is so far from our ordinary lives that we can safely use the euphemism eat in a sexual context, say, and no one will think we mean literally consume. But omnivores can eat any-

thing, even each other,* and human flesh is one of the finest sources of protein. Primitive peoples all over the world have indulged in cannibalism, always ritualistically, but sometimes as a key source of protein missing from their diets. For many it's a question of headhunting, displaying the enemy's head with much magic and flourish; and then, so as not to be wasteful, eating the body. In Britain's Iron Age, the Celts consumed large quantities of human flesh. Some American Indian tribes tortured and ate their captives, and the details (reported by Christian missionaries who observed the rites) are hair-raising. During one four-night celebration in 1487, the Aztecs were reported to have sacrificed about eighty thousand prisoners, whose flesh was shared with the gods, but mainly eaten by a huge meat-hungry population. In The Power of Myth, the late Joseph Campbell, a wise observer of the beliefs and customs of many cultures, tells of a New Guinea cannibalism ritual that "enacts the planting-society myth of death, resurrection and cannibalistic consumption." The tribe enters a sacred field, where they chant and beat drums for four or five days, and break all the rules by engaging in a sexual orgy. In this rite of manhood, young boys are introduced to sex for the first time:

There is a great shed of enormous logs supported by two uprights. A young woman comes in, ornamented as a deity, and she is brought to lie down in this place beneath the great roof. The boys, six or so, with the drums going and chanting going, one after another, have their first experience of intercourse with the girl. And when the last boy is with her in full embrace, the supports are withdrawn, the logs drop, and the couple is killed. There is the union of male and female ... as they were in the beginning. ... There is the union of begetting and death. They are both the same thing.

Then the couple is pulled out and roasted and eaten that very evening. The ritual is the repetition of the original act of the killing of a god followed by the coming of food from the dead savior.

*In German, humans eat (essen), but animals devour or feed (fressen). Cannibals are called Menschenfresser—humans who become animals when they eat.
When the explorer Dr. Livingstone died in Africa, his organs were apparently eaten by two of his native followers as a way to absorb his strength and courage. Taking communion in the Catholic Church enacts a symbolic eating of the body and blood of Christ. Some forms of cannibalism were more bloodthirsty than others. According to Philippa Pullar, Druid priests “attempted divination by stabbing a man above his midriff, foretelling the future by the convulsions of his limbs and the pouring of his blood. . . . Then . . . they devoured him.” Cannibalism doesn’t horrify us because we find human life sacred, but because our social taboos happen to forbid it, or, as Harris says: “the real conundrum is why we who live in a society which is constantly perfecting the art of mass-producing human bodies on the battlefield find humans good to kill but bad to eat.”*

THE BLOOM OF A TASTE BUD

Seen by scanning electron microscope, our taste buds look as huge as volcanoes on Mars, while those of a shark are beautiful mounds of pastel-colored tissue paper—until we remember what they’re used for. In reality, taste buds are exceedingly small. Adults have about 10,000, grouped by theme (salt, sour, sweet, bitter), at various sites in the mouth. Inside each one, about fifty taste cells busily relay information to a neuron, which will alert the brain. Not much tasting happens in the center of the tongue, but there are also incidental taste buds on the palate, pharynx, and tonsils, which cling like bats to the damp, slimy limestone walls of a cave. Rabbits have 17,000 taste buds, parrots only about 400, cows 25,000. What are they tasting? Maybe a cow needs that many to enjoy a relentless diet of grass.

At the tip of the tongue, we taste sweet things; bitter things at

---

*For an excellent discussion of cannibalism, and the nutritional facts that have prompted it in a variety of cultures (Aztecs, Fijians, New Guineans, American Indians, and many others), including truly horrible and graphic accounts by eyewitnesses, see Harris’s chapter on “People Eating.”
jaded* as we get older. It takes a more intense taste to produce the same level of sensation, and children have the keenest sense of taste. A baby's mouth has many more taste buds than an adult's, with some even dotting the cheeks. Children adore sweets partly because the tips of their tongues, more sensitive to sugar, haven't yet been blunted by years of gourmandizing or trying to eat hot soup before it cools. A person born without a tongue, or who has had his tongue cut out, still can taste. Brillat-Savarin tells of a Frenchman in Algeria who was punished for an attempted prison escape by having "the forepart of his tongue . . . cut off clear to the ligament." Swallowing was difficult and tiring for him, although he could still taste fairly well, "but very sour or bitter things caused him unbearable pain."

Just as we can smell something only when it begins to evaporate, we can taste something only when it begins to dissolve, and we cannot do that without saliva. Every taste we can imagine—from mangoes to hundred-year-old eggs—comes from a combination of the four primary tastes plus one or two others. And yet we can distinguish between tastes with finesse, as wine-, tea-, cheese- and other professional tasters do. The Greeks and Romans, who were sophisticated about fish, could tell just by tasting one what waters it came from. As precise as our sense of taste is, illusions can still surprise us. For example, MSG doesn't taste saltier than table salt, but it really contains much more sodium. One of its ingredients, glutamate, blocks our ability to taste it as salty. A neurologist at the Albert Einstein College of Medicine once tested the amount of MSG in a bowl of wonton soup in a Chinese restaurant in Manhattan, and he found 7.5 grams of MSG, as much sodium as one should limit oneself to in an entire day.

After brushing our teeth in the morning, orange juice tastes bitter. Why? Because our taste buds have membranes that contain fatlike phospholipids, and toothpastes contains a detergent that breaks down fat and grease. So the toothpaste first assaults the membranes with its detergent, leaving them raw; then chemicals in the toothpaste, such as formaldehyde, chalk, and saccharin, cause a sour taste

*From the Middle English jade, a broken-down horse that is spiritless and crippled by fatigue. when they mix with the citric and ascorbic acids of orange juice. Chewing the leaves of the asclepiad (a relative of the milkweed) makes one's ability to taste sweetness vanish. Sugar would taste bland and gritty. When Africans chew a berry they call "miraculous fruit," it becomes impossible to taste anything sour: lemons taste sweet, sour wine tastes sweet, rhubarb tastes sweet. Anything off-puttingly sour suddenly becomes delicious. A weak enough solution of salt tastes sweet to us, and some people salt melons to enhance the sweet flavor. Lead and beryllium salts can taste treacherously sweet, even though they're poisonous and we ought to be tasting them as bitter.

No two of us taste the same plum. Heredity allows some people to eat asparagus and pee fragrantly afterward (as Proust describes in Remembrance of Things Past), or eat artichokes and then taste any drink, even water, as sweet. Some people are more sensitive to bitter tastes than others and find saccharin appalling, while others guzzle diet sodas. Salt cravers have saltier saliva. Their mouths are accustomed to a higher sodium level, and foods must be saltier before they register as salty. Of course, everyone's saliva is different and distinctive, flavored by diet, whether or not they smoke, heredity, perhaps even mood.

How strange that we acquire tastes as we grow. Babies don't like olives, mustard, hot pepper, beer, fruits that make one pucker, or coffee. After all, coffee is bitter, a flavor from the forbidden and dangerous realm. To eat a pickle, one risks one's common sense, overrides the body's warning with sheer reason. Calm down, it's not dangerous, the brain says, it's novel and interesting, a change, an exhilaration.

Smell contributes grandly to taste. Without smell, wine would still dizzy and lull us, but much of its captivation would be gone. We often smell something before we taste it, and that's enough to make us salivate. Smell and taste share a common airshaft, like residents in a high rise who know which is curry, lasagna, or Cajun night for their neighbors. When something lingers in the mouth, we can smell it, and when we inhale a bitter substance—a nasal decongestant, for example—we often taste it as a brassiness at the back of the throat.
Smell hits us faster: It takes 25,000 times more molecules of cherry pie to taste it than to smell it. A head cold, by inhibiting smell, smothers taste.

We normally chew about a hundred times a minute. But, if we let something linger in our mouth, feel its texture, smell its bouquet, roll it around on the tongue, then chew it slowly so that we can hear its echoes, what we’re really doing is savoring it, using several senses in a gustatory free-for-all. A food’s flavor includes its texture, smell, temperature, color, and painfulness (as in spices), among many other features. Creatures of sound, we like some foods to titillate our hearing more than others. There’s a gratifying crunch to a fresh carrot stick, a seductive sizzle to a broiling steak, a rumbling frenzy to soup coming to a boil, an arousing bunching and snapping to a bowl of breakfast cereal. “Food engineers,” wizards of subtle persuasion, create products to assault as many of our senses as possible. Committees put a lot of thought into the design of fast foods. As David Bodanis points out with such good humor in *The Secret House*, potato chips are:

... an example of total destruction foods. The wild attack on the plastic wrap, the slashing and tearing you have to go through is exactly what the manufacturers wish. For the thing about crisp foods is that they’re louder than non-crisp ones... Destructo-packaging sets a favorable mood... Crisp foods have to be loud in the upper register. They have to produce a high-frequency shattering; foods which generate low-frequency rumblings are crunchy, or slurpy but not crisp...

Companies design potato chips to be too large to fit into the mouth, because in order to hear the high-frequency crackling you need to keep your mouth open. Chips are 80 percent air, and each time we bite one we break open the air-packed cells of the chip, making that noise we call “crispy.” Bodanis asks:

How to get sufficiently rigid cell walls to twang at these squeaking harmonics? Starch them. The starch granules in potatoes are identical to the starch in stiff shirt collars... whitewash... is nearly identical in chemical composition... All chips are soaked in fat... So it’s a shrapnel of flying starch and fat that produces the conical air-pressure wave when our determined chip-muncher finally gets to finish her chomp.

These are high-tech potato chips, of course. The original potato chip was invented in 1853 by George Crum, a chef at Moon Lake Lodge in Saratoga Springs, New York, who became so angry when a guest demanded thinner and thinner French fries that he sliced them laughably thin (he thought) and fried them until they were varnish-brown. The guest loved them, envious fellow guests requested them, word spread, and ultimately Crum started up his own restaurant, which specialized in potato chips.

The mouth is what keeps the prison of our bodies sealed up tight. Nothing enters for help or harm without passing through the mouth, which is why it was such an early development in evolution. Every slug, insect, and higher animal has a mouth. Even one-celled animals like paramecia have mouths, and the mouth appears immediately in human embryos. The mouth is more than just the beginning of the long pipeline to the anus: It’s the door to the body, the place where we greet the world, the parlor of great risk. We use our mouths for other things—language, if we’re human; drilling tree bark if we’re a woodpecker; sucking blood if we’re a mosquito—but the mouth mainly holds the tongue, a thick mucous slab of muscle, wearing minute cleats as if it were an athlete.

**THE ULTIMATE DINNER PARTY**

Romans adored the voluptuous feel of food: the sting of pepper, the pleasure-pain of sweet-and-sour dishes, the smoldery sexiness of curries, the piquancy of delicate and rare animals, whose exotic lives they could contemplate as they devoured them, sauces that reminded them of the smells and tastes of lovemaking. It was a time of fabulous, fattening wealth and dangerous, killing poverty. The poor served the wealthy, and could be beaten for a careless word, destroyed for amusement. Among the wealthy, boredom visited like an impossible in-law, whom they devoted most of their lives to
entertaining. Orgies and dinner parties were the main diversions, and the Romans amused themselves with the lavishness of a people completely untainted by annoying notions of guilt. In their culture, pleasure glistened as a good in itself, a positive achievement, nothing to repent. Epicurus spoke for a whole society when he asked:

Is man then meant to spurn the gifts of Nature? Has he been born but to pluck the bitterest fruits? For whom do those flowers grow, that the gods make flourish at mere mortals’ feet? ... It is a way of pleasing Providence to give ourselves up to the various delights which she suggests to us; our very needs spring from her laws, and our desires from her inspirations.

Fighting the enemy, boredom, Romans staged all-night dinner parties and vied with one another in the creation of unusual and ingenious dishes. At one dinner a host served progressively smaller members of the food chain stuffed inside each other: Inside a calf, there was a pig, inside the pig a lamb, inside the lamb a chicken, inside the chicken a rabbit, inside the rabbit a dormouse, and so on. Another host served a variety of dishes that looked different but were all made from the same ingredient. Theme parties were popular, and might include a sort of treasure hunt, where guests who located the peacock brains or flamingo tongues received a prize. Mechanical devices might lower acrobats from the ceiling along with the next course, or send in a plate of lamprey milt on an eel-shaped trolley. Slaves brought garlands of flowers to drape over the diners, and rubbed their bodies with perfumed ungents to relax them. The floor might be knee-deep in rose petals. Course after course would appear, some with peppery sauces to spark the taste buds, others in velvety sauces to soothe them. Slaves blew exotic scents through pipes into the room, and sprinkled the diners with heavy, musky animal perfumes like civet and ambergris. Sometimes the food itself squirted saffron or rose water or some other delicacy into the diner’s face, or birds flew out of it, or it turned out to be inedible (because it was pure gold). The Romans were devotees of what the Germans call *Schadenfreude*, taking exquisite pleasure in the misfortune of some-one else. They loved to surround themselves with midgets, and handicapped and deformed people, who were made to perform sexually or cabaret-style at the parties. Caligula used to have gladiators get right up on the dinner table to fight, splashing the diners with blood and gore. Not all Romans were sadists, but numbers of the wealthy class and many of the emperors were, and they could own, torture, maltreat, or murder their slaves as much as they wished. At least one high-society Roman is recorded to have fattened his eels on the flesh of his slaves. Small wonder Christianity arose as a slave-class movement, emphasizing self-denial, restraint, the poor inheriting the earth, a rich and free life after death, and the ultimate punishment of the luxury-loving rich in the eternal tortures of hell. As Philippa Pullar observes in *Consuming Passions*, it was from this “class-consciousness and a pride in poverty and simplicity the hatred of the body was born. ... All agreeable sensations were damned, all harmonies of taste and smell, sound, sight and feel, the candidate for heaven must resist them all. Pleasure was synonymous with guilt, it was synonymous with Hell. ... ‘Let your companions be women pale and thin with fasting,’ instructed Jerome.” Or, as Gibbon put it, “every sensation that is offensive to man was thought acceptable to God.” So the denial of the senses became part of a Christian creed of salvation. The Shakers would later create their stark wooden benches, chairs, and simple boxes in such a mood, but what would they make now of the voluptuousness with which people enjoy Shaker pieces, not as a simple necessity but extravagantly, as art, as an expensive excess bought for the foyer or country house? The word “vicarious” hinges on “vicar,” God’s consul in the outlands, who lived like an island in life’s racy current, delicate, exempt, and unflappable, while babies grew out of wedlock and bulls died, crops shriveled up like pokers or were flooded, and local duenas held musicales for vicar, matrons, and spicy young women (riper than the saintliest mettle could bear). No wonder they lived vicariously, giving pause, giving aid, and, sometimes, giving in to embolisms, dietary manias, and sin. Puritanism denounced spices as too sexually arousing; then the Quakers entered the scene, making all luxury taboo,
and soon enough there were revolts against these revolts. Food has always been associated with cycles of sexuality, moral abandon, moral restraint, and a return to sexuality once again—but no one did so with as much flagrant gusto as the ancient Romans.

Quite possibly the Roman empire fell because of lead poisoning, which can cause miscarriages, infertility, a host of illnesses, and insanity. Lead suffused the Romans’ lives—not only did their water pipes, cooking pots, and jars contain it, but also their cosmetics. But before it did poison them, they staged some of the wildest and most extravagant dinner parties ever known, where people dined lying down, two, three, or more to a couch. While saucy Roman poets like Catullus wrote rigorously sexy poems about affairs with either sex, Ovid wrote charming ones about his robust love of women, how they tormented his soul, and about the roller coaster of flirtation he observed at dinner parties. “Offered a sexless heaven,” he wrote, “I’d say no thank you, women are such sweet hell.” In one of his poems, he cautions his mistress that, since they’ve both been invited to the same dinner, he’s bound to see her there with her husband. Don’t let him kiss you on the neck, Ovid tells her, it will drive me crazy.

**MACABRE MEALS**

When the chic, sophisticated Romans conquered the wilds of Britain, their cuisine conquered, too. As Pullar has pointed out, the Anglo-Saxon words “cook” and “kitchen” derive from the Latin, so the Romans no doubt greatly raised the level of sophistication in both spheres. Medieval tastes were still Roman tastes (sweet and sour sauces, spicy, currylike dishes). It was the crusaders who developed a taste for the spices of the East—cinnamon, nutmeg, cardamom, mace, cloves, and rose attar—as they had for the perfumes, silks, dyes, ornate sexual practices, and other delicacies. The poor Britains lived in squalor and the rich lived in ostentation, holding magnificent feasts in honor of marriages and other celebrations. Many people have written that medieval cooks used a heavy hand with spices to mask the odor of their half-decayed meat, but ladling on the spices was a legacy from the Romans and the crusaders.

Some of the strangest culinary habits arose in England during the eighteenth century, when bored city dwellers became fascinated by sadism, sorcery, and a dungeons-and-skeletons sense of fun. The idea arose that torturing an animal made its meat healthier and better tasting and even though Pope, Lamb, and others wrote about the practice with disgust, people indulged in ghoulish preparations that turned their kitchens into charnel houses. They chopped up live fish, which they claimed made the flesh firmer; they tortured bulls before killing them, because they said the meat would otherwise be unhealthy; they tenderized pigs and calves by whipping them to death with knotted ropes; they hung poultry upside down and slowly bled them to death; they skinned living animals. Recipe openers from the era said such things as: “Take a red cock that is not too old and beat him to death....” This was all sponsored by the peculiar notion that the taste of animal flesh could be improved if the poor thing were put through hell first. Dr. William Kitchiner, in *The Cook’s Oracle*, cites a grotesque recipe, by a cook named Mizald, for preparing and eating a goose while it is still alive:

Take a goose, or a Duck, or some such lively creature pull off all her feathers, only the head and neck must be spared; then make a fire round about her, not too close to her, that the smoke do not choke her, and that the fire may not burn her too soon; not too far off, that she may not escape free: within the circle of the fire let there be set small cups and pots of water, wherein salt and honey are mingled; and let there be set also chargers full of sodden Apples, cut into small pieces in the dish. The Goose must be all larded, and basted over with butter: put then fire about her, but do not make too much haste, when as you see her begin to roast, for by walking about and flying here and there, being cooped in by the fire that stops her way out the unwearied Goose is kept in; she will fall to drink the water to quench her thirst, and cool her heart, and all her body, and the Apple sauce will make her dung and cleanse and empty her. And when she roasteth, and consumes inwardly, always wet her head and heart with a wet sponge; and when you see her giddy with running, and begin to stumble, her heart wants moisture, and she is roasted enough. Take her up and set her before your guests and she will cry as you cut off any part from her and will be almost eaten up before she be dead: it is mighty pleasant to behold!
THE HEART OF CRAVING

It's not to my taste, we say, by which we mean a hankering or preference, and it's amazing how individual taste can be—but only if survival is not at stake. When I worked on a cattle ranch in New Mexico, I used to eat in the cookhouse with the rest of the cowhands, most of whom were Mexican-Americans with little schooling and absolutely no education in nutrition. Their workdays were so arduous that their bodies took over for them, dictating what they needed to survive the physical labor and blinding heat of the day. Each morning, they would eat pure protein—as many as six eggs at once, with two glasses of whole milk, and bacon—for breakfast. Although they drank a lot of water and lemonade, they spurned coffee, tea, or other drinks with caffeine. They ate almost no desserts and very little sugar, but each meal included the hottest of hot peppers. Often they would spread them on bread to make a scalding jalapeño-pepper sandwich. At night they ate lightly, and the meal consisted mainly of carbohydrates. If asked, they would say simply that they ate what tasted good, what they liked to eat, but their taste in food had clearly evolved to fuel the rigors of their life.

This self-protective yen is also true on a larger scale: whole countries prefer cuisines that help them keep cool (in the Middle East), or sedated (in the tropics), or protect them against regional illnesses—as Pete Farb and George Armelagos say in their book which, like Pullars', is entitled Consuming Passions, “Ethiopian chow, consisting primarily of chili but containing up to fifteen other spices, has been shown to inhibit almost completely staphylococcus, salmonella, and other microorganisms.” Hot peppers contain high amounts of beta carotene (converted by the body into vitamin A), which has antioxidant cancer-fighting properties, as well as capsaicin, which makes one sweat, lowering the body temperature. Consider the age-old English habit of drinking tea with milk: Tea contains a lot of tannin, which is toxic and can cause cancer, but milk protein reacts with the tannin in a protective way, preventing the body from absorbing it. Esophageal cancer is much higher in countries like Japan, where tea is drunk unadulterated, than it is in England, where people add a milk buffer to it. Farb and Armelagos describe some interesting additional national cravings:

Peasants in Mexico prepare maize for making tortillas by soaking it in water in which they have previously dissolved particles of limestone, a practice which we certainly consider unusual. But . . . this preparation multiplies the calcium content to at least twenty times that in the original maize while possibly increasing the availability of certain amino acids—important because the peasants inhabit an environment where animal foods are scarce. . . . In places in Africa people eat fish wrapped in a banana leaf whose acidity dissolves the fish bones and thereby makes the calcium in them available; the French practice of cooking fish with sorrel has the same effect. Putrefied food . . . eaten in numerous societies . . . enhances the nutritive value . . . since the bacteria that cause putrefaction manufacture such vitamins as B1 . . .

There's no question that, at least for certain nutrients, if a person is in true need, some gustatory yen or body wisdom takes over. Patients with Addison's disease become ill because of a deficiency of the adrenal hormones. They've been known to crave salt with a vengeance, subconsciously medicating themselves. One way they do this is by eating large amounts of licorice, which contains glascorhic acid, a substance that causes sodium retention, and while doctors certainly don't prescribe it, they find that Addison's sufferers feel better if they eat a lot of licorice.

Some Quechua Indians of Peru subsist largely on potatoes, but because the growing season is so short, they're often forced to eat only partially ripened ones. Potatoes contain solanine, a bitter toxic alkaloid, but the Quechuas find that if they smear kaolin clay on the potatoes, it masks the bitterness and they don't get upset stomachs. The kaolin also detoxifies the alkaloids in the potatoes, making them simultaneously tastier and more nutritious.

It's odd to think of people eating dirt. Salt is the only rock we really seem to enjoy, but that's because we are small marine environments on the move, with salt in our blood, our urine, our flesh, our tears. However, you can still find clay for sale in some of the open-air markets in the southern United States. Pregnant women buy it. In
Africa, pregnant women occasionally eat termite mounds. It’s thought that they’re after calcium and certain other minerals missing from their diet. In Ghana, some villages support themselves by selling egg-shaped balls of clay, which are rich in potassium, magnesium, zinc, copper, calcium, iron, and other minerals. A pregnant woman’s craving for dairy products makes good nutritional sense, because if the fetus doesn’t get enough calcium, it will take it from the mother’s bones and teeth. Most cultures have taboos for pregnant women, certain fish or fungi or spices they must not eat, but these are not the same as a woman’s craving certain foods. The increased blood volume of a pregnant woman lowers her sodium level, and as a result she doesn’t taste saltiness as easily as she did when she wasn’t pregnant; she may crave really salty foods, like the legendary pickle. Among the many explanations for why pregnant women crave ice cream and other sweets, one of the most interesting modern theories is that they crave foods which produce the neurotransmitter serotonin, which they’ll need to help withstand the pain of childbirth.

Some foods may stimulate endorphins—morphinelike painkillers produced by the brain—and give us a sense of comfort and calm. This is why, even though we know that salty foods, greasy foods, and candy and other sweets aren’t good for us, we have a taste for them anyway. Neurobiologists suspect that endorphins and other neurochemicals control our hunger for certain kinds of foods. According to this thinking, when we eat sweets we flood our bodies with endorphins and feel tranquil. When people are under stress, and their need for endorphins goes up, they may crave a box of cookies. Since our hunger for fats, proteins, and carbohydrates is controlled by specific neurotransmitters, which can easily get out of balance, we need only binge to knock the neurotransmitters out of whack, which leads to further binging, further imbalances, and so on. In one experiment, depriving rats of their breakfast threw off their neurotransmitters and they gorged later in the day.

Are one’s moods linked to food? Biochemist Judith Wurtman has published highly controversial findings about how food can affect our moods. She concludes that there are “carbohydrate cravers,” who in reality are trying to raise their level of serotonin. When these levels are increased by drugs in controlled experiments, the carbohydrate cravers lose their cravings. Some scientists at the Monell Chemical Senses Institute and elsewhere dismiss her findings as being too tidy, too simple a version of how the body works, but I think some of it is persuasive. I never drink coffee after dinner, but I discovered accidentally over a period of years that I get to sleep better if I also don’t eat protein late at night, only toast and jam or some other carbohydrates. On the other hand, around 3:30 in the afternoon, when my energies start to crash but I still have work to do, I’ll be perked up by a jolt of protein, usually some cheese. My pattern gibes with Wurtman’s experiments. The real power lunch, she suggests, revolves around an initial serving of protein, then a simple protein entree and lightly cooked vegetables, with nothing richer than fruit for dessert, and no alcohol. Carbohydrates are sedating. When I meet someone for lunch and want to stay bright-eyed and bushy-tailed I order a high-protein appetizer like a shrimp cocktail or oysters on the half shell, or sliced mozzarella cheese with basil and tomatoes, and never nibble on the bread. A heap of pasta followed by chocolate mousse for dessert is what I’d really like, but I’ve found that it leaves me too listless to work. I disagree with Wurtman about why we crave chocolate, however—I don’t think it’s just a general cry for carbohydrate, but a craving for something more specific that chocolate provides.

Another researcher, one at the National Institute of Mental Health, found that people with Seasonal Affective Disorder (SAD), who become very depressed in winter, share a craving for carbohydrates at that time; this helps lift their mood. In yet another study, ex-smokers were found to crave carbohydrates. The link between carbohydrate craving, serotonin, and our drive to bring ourselves back into emotional balance seems undeniable. The brain is a chemical industry, and foods are highly complex chemicals. The extent to which eating one food or another may affect one’s mood is really what’s at issue.

Most people need about 15 percent of their food to be protein, and they automatically choose foods that will provide it, but scien-
tists at the University of Toronto medical school discovered how much such a need can depend on genetics when they studied identical and fraternal twins. Identical twins, even though they were raised apart since birth, ate the same proportions of protein and carbohydrates, while fraternal twins didn’t. So craving may, to some extent at least, be genetically determined. Hyperactive children often respond well to changes in their diet, as do those suffering from various disorders like Addison’s disease or diabetes. But it’s hard to say where memory stops and nutritional need or genetic fiat begins. We may crave sweets because we associate them with childhood rewards, or with being fed sweet liquids when we were babes-in-arms. Or we may crave them as a way to trigger the calm serotonin brings. Or both.

Most nutritionists, who are conservative, claim that there’s no magic bullet and we should just try to eat as varied and well-balanced a diet as possible. Under some circumstances, food can do more than change one’s mood: It can kill. Raw liver used to be prescribed for pregnant women or those listless from iron deficiency, but now we know that liver collects the body’s impurities and probably shouldn’t be eaten at all. Polar bear liver is so high in vitamin A that it’s toxic to humans. Alexander Pope and Henry I of England reportedly died from eating eels, which have poisonous filaments cooks might forget to remove. Balzac drank over fifty cups of coffee a day, and died from caffeine poisoning. Mushroom collectors run a steady risk of plucking the wrong fungus. Salmonella, which sounds so delicatessenlike and fresh, claims victims every year. Supposed aphrodisiacs have killed many victims, too. We don’t think of plants as aggressive, but, since they can’t run away from predators, they often devise extraordinary defense systems and potions, like strychnine, which protect them in the wild and sometimes appear on our plates.

---

*With one exception. Animals that are greatly underfed have longer life spans. Scientists aren’t sure why—it may be the effect on the immune system, it may be the effect on metabolism, it may be something else entirely. And it’s important that the animals not be undernourished, just fed a lot less than normal and given vitamin supplements. Studies are now beginning with primates, our closest relatives, but every other animal studied has shown longer life spans as a result of being skinner.

THE PSYCHOPHARMACOLOGY OF CHOCOLATE

What food do you crave? Ask the question with enough smoldering emphasis on the last word, and the answer is bound to be chocolate. It was first used by the Indians of Central and South America. The Aztecs called it xocoatl (“chocolate”), declared it a gift from their white-bearded god of wisdom and knowledge, Quetzalcoatl, and served it as a drink to members of the court—only rulers and soldiers could be trusted with the power it conveyed. The Toltecs honored the divine drink by staging rituals in which they sacrificed chocolate-colored dogs. Itzá human-sacrifice victims were sometimes given a mug of chocolate to sanctify their journey. What Hernán Cortés found surrounding Montezuma was a society of chocolate worshipers who liked to perk up their drink with chili peppers, pimiento, vanilla beans, or spices, and serve it frothing and honey-thick in gold cups. To cure dysentery, they added the ground-up bones of their ancestors. Montezuma’s court drank two thousand pitchers of chocolate each day, and he himself enjoyed a chocolate ice made by pouring the drink over snow brought to him by runners from the mountains. Impressed by the opulence and restorative powers of chocolate, Cortés introduced it to Spain in the sixteenth century. It hit the consciousness of Europe like a drug cult. Charles V decided to mix it with sugar, and those who could afford it drank it thick and cold; they, too, occasionally added orange, vanilla, or various spices. Brillat-Savarin reports that “The Spanish ladies of the New World are madly addicted to chocolate, to such a point that, not content to drink it several times each day, they even have it served to them in church.” Today, chocolate-zombies haunt the streets of every city, dreaming all day of that small plunge of chocolate waiting for them on the way home from work. In Vienna, the richest chocolate cakes are decorated with edible gold leaf. More than once, I’ve been seriously tempted to fly to Paris for the afternoon, just to go to Angelina, a restaurant on the rue de Rivoli where they melt a whole chocolate bar into each cup of hot chocolate. How many candy bars don’t contain chocolate? Chocolate, which began as an upper-class
drink, has become déclassé, trendy, cloaked in a tackiness it doesn’t deserve. For example, an ad in Chocolatier Magazine offers a one-quarter-pound chocolate “replica of a 5¼-inch floppy disk.” In fact, the company can provide an entire “computer work-station comprised of a chocolate terminal, chocolate computer keyboard, chocolate chip and chocolate byte.” Their slogan is “Boots up into your mouth, not in your disk drive.” One September weekend in 1984, the Fontainebleau Hotel in Miami offered a Chocolate Festival Weekend, with special rates, menus, and events. People could fingerpaint in chocolate syrup, attend lectures on chocolate, sample chocolates from an array of companies, learn cooking techniques, or watch a TV actor be dunked in six hundred gallons of chocolate syrup. Five thousand people attended. Chocolate festivals rage in cities all across America, and there are highly popular chocolate tours of Europe. In Manhattan last month I heard one woman, borrowing the jargon of junkies, say to another, “Want to do some chocolate?”

Because chocolate is such an emotional food, one we eat when we’re blue, jilted, premenstrual, or generally in need of TLC, scientists have been studying its chemistry. In 1982, two psychopharmacologists, Dr. Michael Liebowitz and Dr. Donald Klein, proposed an explanation for why lovesick people pig out on chocolate. In the course of their work with intense, thrill-seeking women who go into post-thrill depressions, they discovered that they all had something remarkable in common—in their depressed phase, virtually all of them ate large amounts of chocolate. They speculated that the phenomenon might well be related to the brain chemical phenylethylamine (PEA), which makes us feel the roller coaster of passion we associate with falling in love, an amphetamine-like rush. But when the rush of love ends, and the brain stops producing PEA, we continue to crave its natural high, its emotional speed. Where can one find lots of this luscious, love-arousing PEA? In chocolate. So it’s possible that some people eat chocolate because it reproduces the sense of well-being we enjoy when we’re in love. A shy beau once arrived at my apartment with three Droste chocolate apples, and every wedge I ate over the next two weeks, melting lusciously in my mouth, filled me with amorous thoughts of him.

Not everyone agrees with the PEA hypothesis. The Chocolate Manufacturer’s Association argues that:

the PEA content of chocolate is extremely small, especially in comparison with that of some other commonly consumed foods. The standard serving size of three and a half ounces of smoked salami contains 6.7 mg of phenylethylamine; the same size serving of cheddar cheese contains 5.8 mg of phenylethylamine. The standard 1½-ounce serving of chocolate (the size of the average chocolate bar) contains much less than 1 mg (.21 mg). Obviously, if Dr. Liebowitz’s theory were true, people would be eating salami and cheese in far greater amounts than they are today.

And Dr. Liebowitz himself, in The Chemistry of Love, later asked of chocolate craving:

Could this be an attempt to raise their PEA levels? The problem is that PEA present in food is normally quickly broken down by our bodies, so that it doesn’t even reach the blood, let alone the brain. To test the effect of ingesting PEA, researchers at the National Institute of Mental Health ate pounds of chocolate, and then measured the PEA levels in their urine for the next few days; the PEA levels didn’t budge.

As a thoroughgoing chocoholic, I should say that I do indeed eat a lot of cheese. Smoked salami is too unhealthy for me even to consider; the Cancer Society has suggested that people should not eat foods that are smoked or contain nitrates. So, it’s entirely possible that cheese fills some of my PEA need. What else do chocoholics eat? In other words, what is the total consumption of PEA from all sources? Chocolate may be a more appealing, even if smaller, source of PEA because of its other associations with luxury and reward. The NIMH study tested average people, but suppose people who crave chocolate aren’t average? Isn’t that the idea? Liebowitz now says that PEA may break down too fast to affect the brain. We still know very little about the arcane ways in which some drugs do this, not enough to completely dismiss chocolate’s link with PEA.

Wurtman and others argue that we crave chocolate because it’s
a carbohydrate, which, like other carbohydrates, prompts the pancreas to make insulin, which ultimately leads to an increase in that neurotransmitter of calm, serotonin. If this were true, a plate of pasta, or potatoes, or bread would be equally satisfying. Chocolate also contains theobromine (“food of the gods”), a mild, caffeine-like substance, so, for the sake of argument, let’s say it’s just the serotonin and the relative of caffeine we crave, a calm stimulation, a culinary oxymoron few foods provide.* It might even explain why some women crave chocolate when they’re due to menstruate, since women who suffer PMS have been found to have lower levels of serotonin, and premenstrual women in general eat 30 percent more carbohydrates than they do at other times of the month. But if it were as simple as that, a doughnut and a cup of coffee would do the trick. Furthermore, there’s a world of difference between people who enjoy chocolate, women who crave chocolate only at certain times of the month, and serious chocoholics. Chocoholics don’t crave potato chips and pasta; they crave chocolate. Substitutes in any combination won’t do. Only the chocoholic in a household fresh out of chocolate, on a snowy night when the roads are impassable, knows how specific that craving can be. I’m not sure why some people crave chocolate, but I am convinced that it’s a specific need, and therefore the key to solving a specific chemical mystery to which we’ll one day find the solution.

The Four Seasons restaurant in Manhattan serves a chocolate bombe that’s the explosive epitome of chocolate desserts, two slices of which (the standard serving) few people are able to finish because it’s so piquantly rich. On the waterfront in St. Louis I once had a mousseline called “Chocolate Suicide,” which was drug-level chocolate. I felt as if my brain had been hung up in a smokehouse. I can still remember the first time I had Godiva chocolates at a friend’s house; they were Godivas from the original factory in Brussels, with a perfect sheen, a twirling aroma, heady but not jarring, and a way of
delicately melting on the tongue. One of the reasons why chocolates are superb in Belgium, Vienna, Paris, and some of our American cities is that chocolate candy is in considerable part a dairy product. The chocolate flavor may come from the plant, but the silken, melting delight comes from the milk, cream, and butter, which must be fresh. The people who create designer chocolates have learned that their confections must provide just the right melting sensation, and feel quintessentially creamy and luscious, with no grittiness or aftertaste, for people to be thoroughly wowed by them. In George Orwell’s 1984, sex is forbidden and chocolate is “dull-brown crumbly stuff that tasted . . . like the smoke of a rubbish fire.” Just before Julia and Winston risk making love, they eat real, full-bodied “dark and shiny” chocolate. Their amorous feast had its precedents. Montezuma drank an extra cup of chocolate before he went to visit his women’s quarters. Glamorous movie stars like Jean Harlow used to be shown eating boxes of chocolates. M. F. K. Fisher, the diva of gastronomy, once confided that her mother’s doctor prescribed chocolate as a cure for debilitating lovesickness. On the other hand, Aztec women were forbidden chocolate; what secret terror was it thought to unleash in them?

IN PRAISE OF VANILLA

Craving vanilla, I start the bathwater gushing, and unscrew the lid of a heavy glass jar of Ann Steeger of Paris’s Bain Crème, senteur vanille. A wallop of potent vanilla hits my nose as I reach into the lotion, let it seep through my fingers, and carry a handful to the faucet. Fragrant bubbles fill the tub. A large bar of vanilla bath soap, sitting in an antique porcelain dish, acts as an aromatic beacon. While I steep in waves of vanilla, a friend brings me a vanilla cream seltzer, followed by a custard made with vanilla beans that have come all the way from Madagascar. Brown flecks float through the creamy yellow curds. Though I could have chosen beans from the Seychelles, Tahiti, Polynesia, Uganda, Mexico, the Tonga Islands, Java, Indonesia, the Comoro Islands, and other places, I like the long, sensuous shape of the Madagascar vanilla bean, and its dark,
rich, pliable coat, which looks like carefully combed tresses or the pelt of a small aquatic animal. Some connoisseurs prefer the shorter Tahitian bean, which is fatter and moister (even though it has less vanillin and the moistness is only water, not flavorful oils), or the smoky flavor of beans from Java (wood fires do some of the curing), or the maltier flavor of those from the Comoros.

Most of the world’s real vanilla comes from islands in the Indian Ocean (Madagascar, Réunion, Comoros), which produce a thousand tons of vanilla beans every year. But we rarely taste the real thing. The vanilla flavoring we buy in the spice section of grocery stores, the vanilla we find in most of our ice creams, cakes, yogurts, and other foods, as well as in shampoos and perfumes, is an artificial flavor created in laboratories and mixed with alcohol and other ingredients. Marshall McLuhan once warned us that we were drifting so far away from the real taste of life that we had begun to prefer artificiality, and were becoming content with eating the menu descriptions rather than the food. Most people have used the medicinal-smelling artificial vanilla flavoring for so long that they have no idea what real vanilla extract tastes and smells like. Real vanilla, with its complex veils of aroma and jiggling flavors, makes the synthetic seem a poor parody. Vanillin isn’t the only flavor in genuine vanilla, but it’s the one synthetically produced (originally from clove oil, coal tar, and other unlikely substances, but now mainly from the sulfite by-products of paper manufacturing). Indeed, the world’s largest producer of synthetic vanillin is the Ontario Paper Company! Real vanilla varies along a spectrum from sweet and dusty to damp and loamlike, depending on the variety of bean, its freshness, its home country, how and for how long it was cured and in what temper of sun.

When a vanilla bean lies like a Hindu rope on the counter, or sits in a cup of coffee, its aroma gives the room a kind of stature, the smell of an exotic crossroads where outlandish foods aren’t the only mysteries. In Istanbul in the 1970s, my mother and I once ate Turkish pastries redolent with vanilla, glazed in caramel sugar with delicate filaments of syrup on top. It was only later that day, when we strolled through the bazaar with two handsome university students my mother had bumped into, that we realized what we had eaten with such relish. On a long brass platter sat the kind of pastries we had eaten, buzzed over by hundreds of sugar-delirious bees, whose feet stuck in the syrup; desperately, one by one, they flew away, leaving their legs behind. “Bee legs!” my mother had screamed, as her face curdled. “We ate bee legs!” Our companions spoke little English and we spoke no Turkish, so they probably thought it odd that American women became so excitable in the presence of pastry. They offered to buy us some, which upset my mother even more.

Walk through a kitchen where vanilla beans are basking in a loud conundrum of smell, and you’ll make some savoring murmur without realizing it. The truth about vanilla is that it’s as much a smell as a taste. Saturate your nose with glistening, soulful vanilla, and you can taste it. It’s not like walking through a sweetshop, but more subterranean and wild. Surely this is the unruly beast itself, the raw vanilla that’s clawing your senses. But no. The vanilla beans we treasure aren’t delectable the way we find them in the jungle. Of all the foods grown domestically in the world, vanilla requires the most labor: Long, tedious hours of hand tending bring the vanilla orchids to fruit and then the fruit to lusciousness. Vanilla comes from the string-bean-like pod of a climbing orchid, whose greenish-white flowers bloom briefly and are without fragrance. Since the blossoms last only one day, they must be hand-pollinated exactly on schedule. The beans mature six weeks after fertilization, but cannot be picked for some months longer. When a bean turns perfectly ripe, the pickers plunge it into boiling water to stop the ripening; they dry and process it, using blankets, ovens, racks, and sweating boxes; and slowly cure it in the sun for six to nine months. The glorious scent and taste don’t adorn the growing plant. It’s only as the beans ferment to wrinkled, crackly brown pods that the white dots of vanillin crystallize mellowly on their outsides and that famous robust aroma starts to saturate the air.

It was in 1519 that Cortés first noticed the Aztecs flavoring their chocolate with ground-up vanilla pods, which they called tilacochitl (“black flower”) and prized so highly that Montezuma drank an
infusion of it as a royal balm and demanded vanilla beans in tribute from his subjects. The Spaniards called the bean _vainilla_ ("small sheath"), from the Latin _vagina_—the bean's elongated shape, with a slit at the top, must have reminded the lonesome Spaniards of what they were missing. There would have been many boisterous jokes about Montezuma stirring his chocolate with a little vagina.* Cortés valued vanilla enough to carry bags of it back to Europe, along with the Aztecs' gold, silver, jewels, and chocolate. A passion for vanilla, especially in combination with chocolate, raged in Europe, where it was prized as an aphrodisiac. Thomas Jefferson's letters include an appeal to a Parisian friend to send him some vanilla beans, for which he had developed a taste during his tenure as the U.S. minister to France, and which he couldn't find in American apothecary shops.

Precious and desirable as vanilla was, no one could figure out how to grow it outside Mexico. The problem was typical of the delicate ecosystem in the rain forest, and a good example of how fragile all that lush green abandon really is, but no one realized it. Though insects, birds, and bats pollinate most plants in the tropics, the vanilla orchid is pollinated by only one type of bee, the tiny Melipone. In 1856, a Belgian figured out the vanilla orchid's secret sex life when he caught sight of the Melipone buzzing about its work. Then the French devised a method of hand-pollinating the orchids and started plantations on their Indian Ocean islands, as well as in the East and West Indies. The Dutch carried vanilla to Indonesia, and the British to India. "Tincture of vanilla" didn't appear in the United States until the 1880s, but when it did, it appealed to the American impatience and aversion to fuss, that spirit throughout life whose byword is _convenience_. Europeans used the vanilla bean, luxuriating in its textures, tastes, and aromas, but we preferred it reduced and already bottled. By the nineteenth century, demand flourished, vanilla became synthesized, and the world floated on a mantle of cheap flavoring. Vanilla now appears as an ingredient in most baked goods and in many perfumes, cleaning products, and even toys, and has insinuated itself into the cuisine of far-flung peoples, conquering their palates. Only saffron is a more expensive spice.

When I finally emerge from the tub into which I climbed at the beginning of this discussion, I apply Ann Steegers's vanilla body veil, which smells edible and thick as smoke. Then Jean Laporte's Vanilla perfume, vanilla with a bitter sting. The inside of a vanilla bean contains a fíghlike marrow, and if I were to scrape some out, I could prepare spicy vanilla bisque for dinner, followed by chicken in a vanilla glaze, salad with vanilla vinaigrette, vanilla ice cream with a sauce of chestnuts in vanilla marinade, followed by warm brandy flavored with chopped vanilla pod, and then, in a divine vanilla stupor, seep into bed and fall into a heavy orchidlike sleep.*

---

**THE TRUTH ABOUT TRUFFLES**

"The world's homeliest vegetable," it's been called, but also "divinely sensual" and possessing "the most decadent flavor in the world." As expensive as caviar, truffles sell for over $500 a pound in Manhattan these days, which makes it the most expensive vegetable on earth. Or, rather, under earth. Truffle barons must depend on luck and insight. A truffle may be either black (melanosporum) or white (magnata), and can be cooked whole, though people usually shave raw slivers of it over pasta, eggs, or other culinary canvases. For 2,000 years it's been offered as an aphrodisiac, prized by Balzac, Huysmans, Colette, and other voluptuous literary sorts for its presumed ability to make one's loins smolder like those of randy lions. When Brillat-Savarin describes the dining habits of the duke of

---

*To make real vanilla extract: Split a vanilla bean lengthwise, set in a glass jar, cover with 34 cup vodka. Cover and let steep for at least six weeks. As you use the extract, add more vodka; the bean will stay redolent and continue oozing flavor for some time. Add a teaspoon of vanilla extract to French toast batter to transmogrify it into the New Orleans version called "lost bread." Vanilla sugar tastes wonderful in coffee: Split one vanilla bean from top to bottom and cut into pieces; mix with two cups of sugar; cover; let stand for six weeks. The longer the vanilla stands, the more intense the flavor.*

*Randy workers and explorers are responsible for a lot of interesting etymology. Consider the word "gasket," which comes from the Old French garcelle, a little girl with her hymen still intact.
Orleans, he gets so excited about the truffles that he uses three exclamation points:

Truffled turkeys!!! Their reputation mounts almost as fast as their cost! They are lucky stars, whose very appearance makes gourmands of every category twinkle, gleam, and caper with pleasure.

One writer describes the smell of truffles as “the muskiness of a rumpled bed after an afternoon of love in the tropics.” The Greeks believed truffles were the outcome of thunder, reversed somehow and turned to root in the ground. Périgord, in southwest France, produces black truffles that ooze a luscious perfume and are prized as the ne plus ultra of truffles, essential black sequins in the famous Périgord goose-liver pâté. The best white truffles come from the Piedmont region, near Alba in Italy. Napoleon is supposed to have conceived “his only legitimate son after devouring a truffled turkey,” and women throughout history have fed their male companions truffles to rouse their desire. Some truffle dealers use trained dogs to locate the truffles, which tend to grow close to the roots of some lindens, scrub oaks, and hazelnut trees; but sows are still the preferred truffle hunters, as they have been for centuries. Turn a sow loose in a field where there are truffles, and she’ll sniff like a bloodhound and then dig with manic passion. What is the sow’s obsession with truffles? German researchers at the Technical University of Munich and the Lübeck School of Medicine have discovered that truffles contain twice as much androstenedol, a male pig hormone, as would normally appear in a male pig. And oar pheromone is chemically very close to the human male hormone, which may be why we find truffles arousing, too. Experiments have shown that if a little bit of androstenedol is sprayed into a room where women are looking at pictures of men, they’ll report that the men are more attractive.

For the truffle farmer and his sow, walking above a subterranean orchard of truffles, it must be hysterically funny and sad. Here this beautiful, healthy sow smells the sexiest boar she’s ever encountered in her life, only for some reason he seems to be underground. This drives her wild and she digs frantically, only to turn up a strange, lumpy, splotched mushroom. Then she smells another supermacho boar only a few feet away—also buried underground—and dives in, trying desperately to dig up that one. It must make her berserk with desire and frustration. Finally, the truffle farmer gathers the mushrooms, puts them in his sack, and drags his sow back home, though behind her the whole orchard vibrates with the rich aromatic lust of handsome boars, every one of them panting for her, but invisible!

Ginger, and Other Medicines

On a voyage to the Antarctic in tempestuous waters, I become seasick and crawl into my cabin for a rest. But my cabin is aft and high on the cruise ship, and rolls far around the moment arm of the ship, then leaps up with each wave and crashes down, rolls and leaps again, occasionally throwing in a shimmy for good measure. Unscrewing a small jar of stubby brown knots, I roll one out, place it in my mouth, suck on it to soften it, then methodically begin to chew as a pleasant searing oozes over my tongue. Ginger has a long history of medicinal use in China, where they drink ginger tea for colds, flu, and other ailments. Chinese fishermen chew on ginger root to prevent seasickness.

Over the past few years, researchers around the world have been testing ginger’s folkloric reputation, and have found this knotty root to live up to its legend. Researchers in Japan discovered that ginger is indeed a good cough suppressant; furthermore, it acts as an analgesic, lowers temperature, stimulates the immune system, and calms the heart in general, while at the same time strengthening the beating of the atrium, just as digitalis does. Nigerian scientists found that it acts as an antioxidant, and can kill salmonella. In California, scientists discovered that it works as a potent meat tenderizer and preserver. In a joint study at Brigham Young University in Utah and Mount Union College in Ohio, researchers learned that ginger acts better than Dramamine to keep motion sickness at bay. In Denmark, experiments showed that ginger keeps the blood from forming clots. In India, they discovered that ginger lowers cholesterol.
With all the edicts about what to eat when and what to avoid, it sometimes feels as if we're medicating ourselves rather than dining. Aluminum pots are out, since microscopic particles of aluminum can get into the food, and aluminum has been implicated in Alzheimer's disease. Butter, cream, and saturated fats are out, since they can lead to heart disease. Fiber is in, since it can help prevent rectal cancer, but not too much fiber, which can be equally damaging. Green, leafy vegetables are in for their antioxidant effect—but not if you're on a blood thinner, because they contain vitamin K, which clot blood. Fish oils are in, because they're important for the heart, but fish are often found to contain pollutants. Fresh fruit is important for its vitamin C, fiber, and other elements, although frequently sprayed with insecticide that's carcinogenic. Beef is out because of its high fat content, which has been implicated in everything from polyps to breast cancer, and, anyway, grilling meat produces carcinogens. Poultry is often fed hormones that aren't good for us, and frequently contains salmonella. Shellfish, as a light low-fat source of protein, is all right, but one must be careful to order oysters that haven't come from polluted harbors; and it is really safe to eat lobster and shrimp, both high in cholesterol, which are scavengers, i.e., creatures who eat the putrid remains of other creatures? In this morass of paradoxes, how on earth can one guiltlessly consider taste?

As a culture, we are mesmerized by the idea of the medicinal quality of food, swearing by yogurt, bean curd, carrot juice, ginseng root, raw honey, and many other items as they drift in and out of fashion. We forget that, in our not-too-distant past, the landscape was our pharmacy; it still is for many native peoples, as well as for the most sophisticated drug companies, who continue to send people into the rain forests to gather leaves for all manner of drugs. "Tell me what you eat, and I shall tell you what you are," Brillat-Savarin once said, but we understand his maxim in a broader sense than he did, picturing all the vitamins that heal, proteins that strengthen, fibers that scour and protect, carbohydrates that calm, sugars that energize. Children of the industrial age, we still think of eating as fueling our bodies, stoking the tiny furnace in each cell. We picture our body as a factory, and sometimes even use that word when we talk about its processes. Many of our creations resemble us. For a while, neurologists railed against comparing the brain to a computer, because it seemed terrifyingly automatic, amoral, and mechanistic. Now the computer simile is back in vogue, because the similarities are so obvious as to be undeniable. The brain is the computer; religion, prejudice, bias, and so forth are all software. The neurologists haven't become more coldblooded all of a sudden; computers have just become more familiar and less frightening entities. Yes, we say, brains that needed to store more information than they could hold invented artificial brains that merely reproduced the filing system that was familiar to them. No surprise in that. When we wished to create energy outside of our bodies, we also copied the only model we knew: You put fuel into something and it empowers it for a while, excretes wastes, and needs to be fed again to do more work. What great analogies we are. It's part of our greatest charm as a species that we can look at the footprint of an elephant in the dried mud beside a waterhole, see how its steep sides trap water, and say: I could use one of those to carry liquids. In Henry IV, Part II, Shakespeare has Falstaff say that the body serves as our model of society as well, that the body has its own politics and classes. But analogies can run both ways, like an alternating current. Not only do we create mechanical powerhouses on the principle of the body, we eat candy bars called Powerhouse to power our body. And, whatever our age, we all eat some foods we secretly detest, because we suspect they're therapeutic. We prescribe foods: "Eat your broccoli," we insist, thinking of its gifts of vitamins and fiber, not that it looks like a small forest floating in the pot. "It's good for you."

**HOW TO MAKE MOOSE SOUP IN A HOLE IN THE GROUND, OR DINE IN SPACE**

In a small bedside bookcase, I often keep bare-bones survival texts like *A Pilot's Survival Manual*, from which one learns the correct side of a nomad's tent to enter after crash-landing in the Gobi
Desert, or Bradford Angier's *How To Stay Alive in the Woods*, with this recipe for moose soup made in a hole in the ground:

You've just killed a moose. Hungry, you've a hankering for nothing quite as much as some hot soup, flavored perhaps with wild leeks whose flat leaves you see wavering nearby. Why not the sharp end of a dead limb and scoop a small hole in the ground? Why not line this concavity with a chunk of fresh hide? Then after adding the water and other ingredients, why not let a few hot clean stones do your cooking while you finish dressing out the animal?

Indeed, why not? I particularly like the recipe's opening: *You've just killed a moose*. It reminds me of a recipe I once read for stir-fried dog, which began: *First clean and eviscerate a healthy puppy*. If, like me, you try not to eat mammals unless pressed by an unknowing host or necessity (a knowing host), neither dish will make your mouth water. But I like the idea of quietly brewing moose soup in a mossy pit. This book assumes that though clothed, armed, and equipped with a compass, one may have forgotten matches. Cooking, while not essential to survival, certainly makes it easier, so there are many plans for starting a fire with water (used as a magnifier), watches (hold "the crystals from two watches or pocket compasses of about the same size back to back..."), a drill made out of a bow, sparking a hunting knife against flint and other paraphernalia, including a gun.*

Think what the survival manuals for space travel will include! Much of the pleasure of taste is smell; we can smell something only when it evaporates. So, I imagine there are fewer scents in weightlessness. And that would mean food wouldn't taste as good. Nonetheless, competition is keen to cater the Soviet and American space shuttles. One likely supplier for the next Soviet shuttle is Belème, a company jointly owned by a French astronaut, a biologist who studies weightlessness, and the chef and owner of L’Espérance, a three-star Michelin restaurant near Paris. The orbital menu would include such haute delicacies as artichoke chips and *poulet à la Dijonnaise*, presented in tubes and cans. Belême already supplies polar and desert explorers, mountain climbers, racing-car drivers, and other gastronomically aware adventurers with gourmet foods appropriate to the environment they'll be in. When we think of cuisines, we picture steaming plates of curry, crawfish, peanut soup, chili, fettucine, or some other savory dialect. But there is also, in its infancy, a space cuisine. I've eaten NASA's freeze-dried space peaches, which taste like sweetly citric wasp's nest, and read astronauts' accounts of other foods; space cuisine is nothing to write home about. But wonder flavors things better than any condiment, so for short hauls freeze-dried fare may do just fine, until space travel is no stranger than a stroll along the Rialto in Venice, and we dare to dine al fresco at a cozy little spot whose menu offers moon on the half shell and a side order of stars.

**ET FUGU, BRUTE?**

*FOOD AS THRILL-SEEKING*

A nation of sensation-addicts might dine as chic urbanites do, on rhubarb and raspberry tortes, smoked lobster, and hibiscus-wrapped monkfish, wiped with raspberry butter, baked in a clay oven, and then elevated briefly in mesquite smoke. When I was in college, I didn't eat goldfish or cram into Volkswagens, or chug whole bottles of vodka, but others did, in a neo-Roaring Twenties ennui. Shocking the bourgeoisie has always been the unstated encyclical of college students and artists, and sometimes that includes grossing out society in a display of bizarre eating habits. One of the classic Monty Python's *Flying Circus* sketches shows a chocolate manufacturer being cross-examined by policemen for selling chocolate-covered baby frogs, bones and all ("without the bones, they wouldn't be crunchy!") he whines, as well as insects, and other taboo foods sure to appal western taste buds. I've met field scientists of many persuasions who have eaten native foods like grasshoppers, leeches, or bats stewed in coconut milk, in part to be mannerly, in part out of curiosity, and I think in part to provide a good anecdote when they...
returned to the States. However, these are just nutritious foods that fall beyond our usual sphere of habit and custom.

We don’t always eat foods for their taste, but sometimes for their feel. I once ate a popular duck dish in Amazonian Brazil, pato no tucupi (Portuguese for pato, “duck” + no, “within” + tucupi, “extracted juice of manioc”) whose main attraction is that it’s anesthetic: It makes your mouth as tingly numb as Benzedrine. The numbing ingredient is jambu (in Latin, *Spilanthes*), a yellow daisy that grows throughout Brazil and is sometimes used as a cold remedy. The effect was startling—it was as if my lips and whole mouth were vibrating. But many cultures have physically startling foods. I adore hot peppers and other spicy foods, ones that sandblast the mouth. We say “taste,” when we describe such a food to someone else, but what we’re really talking about is a combination of touch, taste, and the absence of discomfort when the deadening or sandblasting finally stops. The thinnest line divides Szechwan hot-pepper sauce from being thrilling (causing your lips to tingle even after the meal is over), and being sulfurically hot enough to cause a gag response as you eat it.* A less extreme example is our liking for crunchy or crisp foods, like carrots, which have little taste but lots of noise and mouth action. One of the most successful foods on earth is Coca-Cola, a combination of intense sweetness, caffeine, and a prickly feeling against the nose that we find refreshing. It was first marketed as a mouthwash in 1888, and at that time contained cocaine, a serious refresher—an ingredient that was dropped in 1903. It is still flavored with extract of coca leaves, but minus the cocaine. Coffee, tea, tobacco, and other stimulants all came into use in the western world in the sixteenth and seventeenth centuries, and quickly percolated around Europe. Fashionable and addictive, they offered diners a real nervous-system jolt, either of narcotic calm or caffeine rush, and, unlike normal foods, they could be taken in doses, depending on how high one wished to get or how addicted one already was.

---

*Water won’t work as an antidote because it doesn’t mix with oil, the binding in Chinese food, plain rice is the best remedy.

In Japan, specially licensed chefs prepare the rarest sashimi delicacy: the white flesh of the puffer fish, served raw and arranged in elaborate floral patterns on a platter. Diners pay large sums of money for the carefully prepared dish, which has a light, faintly sweet taste, like raw pompano. It had better be carefully prepared, because, unlike pompano, puffer fish is ferociously poisonous. You wouldn’t think a puffer fish would need such chemical armor, since its main form of defense is to swallow great gulps of water and become so bloated it is too large for most predators to swallow. And yet its skin, ovaries, liver, and intestines contain tetrodotoxin, one of the most poisonous chemicals in the world, hundreds of times more lethal than strychnine or cyanide. A shred small enough to fit under one’s fingernail could kill an entire family. Unless the poison is completely removed by a deft, experienced chef, the diner will die midmeal. That’s the appeal of the dish: eating the possibility of death, a fright your lips spell out as you dine. Yet preparing it is a traditional art form in Japan, with widespread aficionados. The most highly respected *fugu* chefs are the ones who manage to leave in the barest touch of the poison, just enough for the diner’s lips to tingle from his brush with mortality but not enough to actually kill him. Of course, a certain number of diners do die every year from eating *fugu*, but that doesn’t stop intrepid *fugu*-fanciers. The ultimate *fugu* connoisseur orders *chiri*, puffer flesh lightly cooked in a broth made of the poisonous livers and intestines. It’s not that diners don’t understand the bizarre danger of puffer-fish toxin. Ancient Egyptian, Chinese, Japanese, and other cultures all describe *fugu* poisoning in excruciating detail: It first produces dizziness, numbness of the mouth and lips, breathing trouble, cramps, melodic itchiness as of insects crawling all over one’s body, vomiting, dilated pupils, and then a zombie-like sleep, really a kind of neurological paralysis during which the victims are often aware of what’s going on around them, and from which they die. But sometimes they wake. If a Japanese man or woman dies of *fugu* poison, the family waits a few days before burying them, just in case they wake up. Every now and then someone poisoned by *fugu* is nearly buried alive, coming to at the last moment to describe in horrifying detail their
own funeral and burial, during which, although they desperately tried to cry out or signal that they were still alive, they simply couldn’t move.

Though it has a certain Russian-roulette quality to it, eating fugu is considered a highly aesthetic experience. That makes one wonder about the condition that we, in chauvinistic shorthand, refer to as “human.” Creatures who will one day vanish from the earth in that ultimate subtraction of sensuality that we call death, we spend our lives courting death, fomenting wars, watching sickening horror movies in which maniacs slash and torture their victims, hurrying our own deaths in fast cars, cigarette smoking, suicide. Death obsesses us, as well it might, but our response to it is so strange. Faced with tornadoes chewing up homes, with dust storms ruining crops, with floods and earthquakes swallowing up whole cities, with ghostly diseases that gnaw at one’s bone marrow, cripple, or craze—rampant miseries that need no special bidding, but come freely, giving their horror like alms—you’d think human beings would hold out against the forces of Nature, combine their efforts and become allies, not create devastations of their own, not add to one another’s miseries. Death does such fine work without us. How strange that people, whole countries sometimes, wish to be its willing accomplices.

Our horror films say so much about us and our food obsessions. I don’t mean the ones in which maniacal men carting chain saws and razors punish single women for living alone or taking jobs—although those are certainly alarming. I don’t mean ghost stories, in which we exhale loudly as order falls from chaos in the closing scenes. And I don’t mean scary whodunits, at the end of which the universe seems temporarily less random, violent, and inexplicable. Our real passion, by far, is for the juiciest of horror films in which vile, loathsome beasts, gifted with ferocious strength and cunning, stalk human beings and eat them. It doesn’t matter much if the beast is a fast-living “Killer Shrew” or a sullen “Cat People” or an abstract “Wolfen” or a nameless, acid-drooling “Alien.” The pattern is always the same. They dominate the genre. We are greedy for their brand of terror.

The plain truth is that we don’t seem to have gotten used to being at the top of our food chain. It must bother us a great deal, or we wouldn’t keep making movies, generation after generation, with exactly the same scare tactics: The tables are turned and we become fodder. All right, so we may be comfortable at the top of the chain as we walk around Manhattan, but suppose—oh, ultimate horror!—that on other planets we’re at the bottom of their food chain? Then you have the diabolically scary “Aliens,” who capture human beings, use them as hosts for their maggotlike young, and actually hang them up on slime gallows in a pantry.

We rush obsessively to movie theaters, sit in the cavelike dark, and confront the horror. We make contact with the beasts and live through it. The next week, or the next summer, we’ll do it all over again. And, on the way home, we keep listening for the sound of claws on the pavement, a supernatural panting, a vampiric flutter.

We spent our formative years as a technologyless species scared with good reason about lions and bears and snakes and sharks and wolves that could, and frequently did, pursue us. You’d think we’d have gotten over that by now. One look at the cozy slabs of cow in a supermarket case, neatly cut, inked, and wrapped, should tell us to relax. But civilization is a more recent phenomenon than we like to think. Are horror films our version of the magic drawings on cave walls that our ancestors confronted? Are we still confronting them?

Fugu might not seem to have much to do with nuclear disarmament or world peace, but it’s a small indicator of our psyches. We find the threat of death arousing. Not all of us, and not all the time. But enough do often enough to keep the rest of us peace-loving sorts on our toes when we’d rather be sitting down calmly to a sumptuous meal with friends.

**BEAUTY AND THE BEASTS**

In Jean Cocteau’s extraordinary film version of the classic fairy tale “Beauty and the Beast,” a sensitive beast lives in a magical castle, the walls and furnishings of which are all psychosensitive. On the back of the Beast’s chair, in Latin, runs the motto: *All men are beasts when they don’t have love.* Every evening, the literate, humane beast
must go out hunting for his dinner, chase down a deer and feed on its steaming flesh, or die of starvation. Afterward, he suffers the most bitter anguish, and his whole body involuntarily begins to smoke. The unstated horror of our species reveals itself in that moment. Like the sensitive Beast, we must kill other forms of life in order to live. We must steal their lives, sometimes causing them great pain. Every one of us performs or tacitly approves of small transactions with torture, death, and butchery each day. The cave paintings reflected the reverence and the love the hunter felt for his prey. In our hearts, we know that life loves life. Yet we feast on some of the other life-forms with which we share our planet; we kill to live. Taste is what carries us across that rocky moral terrain, what makes the horror palatable, and the paradox we could not defend by reason melts into a jungle of sweet temptations.

Hearing

I was all ear. 
And took in strains that might create a soul
Under the ribs of Death.

John Milton, "Comus"