



THE SENSES OF PENLAND

SUNDAY, MARCH 16, 2003

From State Route 19 at Estatoe, North Carolina, the Penland Road climbs about a thousand feet into the hills, the Pisgah National Forest lying to the east and west. Small houses, pottery shops, old barns with rusty corrugated metal roofs. Forsythia in bloom. The road twists back and forth and there are regular yellow signs with snaky arrows announcing triple curves ahead. The gravel roads to left and right are black; they look as if they are bedded with coal, though they say that the local mining is for other minerals, feldspar and mica especially. A distant mountain has the white scar of a feldspar mine.

I'm here because of Paulus Berensohn and Hannah Levin. Paulus is a philosophical potter (his 1972 book, *Finding One's Way with Clay*, is about the art of making pinch pots). I met him briefly twenty years ago at the Haystack School of Crafts in Maine (where he'd hired on as a cook). Hannah Levin was a student of mine years later in a class called "Models of Artistic Practice." Hannah's father, the glass artist Rob Levin, lives near Penland, and Hannah interviewed Paulus for my class. At one point in the interview, Paulus said that he'd long felt there were more human senses than the five that we normally name. He said he had a list and that he was up to sixty senses.

When I heard that, I immediately had the fantasy of doing a children's book (*The Golden Book of Human Senses*) with one page per sense. Fantasies come and go, but in this case when Penland School of Crafts called to ask if I might come visit them and write something for their seventy-fifth anniversary, I said, "Yes, if I can spend time with Paulus, and keep a journal about the senses."

The world of craft I take to be one of the places where human contact with the physical world is honored and made into a discipline. We have just left the century that invented conceptual art, a movement started partly with Marcel Duchamp's famous rejection of "retinal painting." In English we say "dumb as a post," but in French they say *bête comme un peintre* (dumb as a painter), a phrase that Duchamp hated

for its implied separation of art and intellect. To counter it, he brought tremendous intelligence to bear on the painted world.

Bully for Duchamp. Still, one must wonder what has happened in the last seventy-five years to the poor retina, that delicate membrane, that wonder of organic response to the fact of photons. The retina, the ear drum, the damp lining of the nose, the pits and folds on the tongue, the great skin that runs from toe to head with its little mountains of nerve endings heaped around the fingers and the lips, the genitals and the anus: what has been the fate of this Gang of Five in the Kingdom of Sense since ideas about ideas took over the art world? And what has been the fate of the forgotten, or never-known Democratic Republic of sense with its scores (if we are to believe Paulus's count) of citizens?

My hunch was that the sensuality of art might have weathered our hyper-heady century by retreating, like some oppressed religious sect, to little mountain villages way south

Photos: left, Robin Dreyer; right, Ann Hawthorne



Beginning a pot

of New York where even now the cellphone signals go dead and the TV sets get twelve channels of snow.

So here I am. I flew from Boston to Asheville, and then drove sixty miles into the hills.

MONDAY, MARCH 17, 2003

Freight trains loaded with coal go along the North Toe River below the house I have been loaned, creaking all night long. A cool, cloudy day. I slept late, then lit a fire in the walk-in fireplace. Went up to the Penland campus—a wide horseshoe of big, old buildings overlooking hilly, green meadows with grazing horses and a few llamas. Got oriented, had lunch, checked my e-mail and the internet headlines. Mr. Bush has advised all the weapons inspectors to leave Iraq. He's going to start a war in three or four days. This news, or low blood sugar, or travel fatigue, or loneliness... made my spirits sink horribly; I wanted to talk to no one, wanted to do nothing. If John Locke was right to derive the mental from the sensual, then which of my senses are in charge today, oh Mr. Berensohn?

Drove down to Spruce Pine, a town of coal trains and lumberyards with squat brick buildings along a few main streets. Wandered through some junk shops; there seemed to be an inordinate number of abandoned mirrors for sale. Came back to the loaned house. The place is full of stoneware—heavy plates, huge useless water jugs, mirrors with brown-glazed frames, squat candlesticks. I hate stoneware.

In the evening, a dinner party where I meet some of the staff and artists. Tom Spleth makes slip-cast porcelain pieces and has just perfected a glaze he is happy with. He showed me a vase about eighteen inches high, shaped like a thin paper bag and almost as weightless. It is translucent and the glaze makes it seem slightly damp. It is beautiful; I wanted to own it. Tom spent much of the evening with it cradled in his lap as if he were carrying a newly-adopted baby on a bus traveling up from the underworld.

TUESDAY, MARCH 18, 2003

Now that I'm here I had better take a good look at Paulus's list of senses. He mailed it to me months ago, but I haven't really studied it. The list is handwritten on four large sheets of paper, and divided into categories: the radiation, feeling,

chemical, and mental senses. His radiation senses are these:

- 1) *sense of light and sight—including polarized light*
- 2) *sense of seeing without eyes, such as heliotropism or the sun sense of plants*
- 3) *sense of color*
- 4) *sense of moods and identities attached to colors*
- 5) *sense of awareness of one's own visibility or invisibility and consequent camouflaging*
- 6) *sensitivity to radiation other than visible light including radio waves, x-rays, etc.*
- 7) *sense of temperature and temperature change*
- 8) *sense of season, including ability to insulate, hibernate, and winter sleep*
- 9) *electromagnetic sense and polarity, including the ability to generate current as in the nervous system and brain waves*

Heliotropism? Radio waves? What have I gotten myself into? Why is “awareness of . . . visibility” a radiation rather than a mental sense? What is the taxonomy here? We seem in need of what Plato calls “the skills of a good carver.”

I am a congenital and willing heir of the empirical tradition. If someone tells me that quartz crystals have healing properties, I want to see the study that proves it. That said, I suppose that Enlightenment empiricism begins with unanswered questions about the senses. Suppose we accept the proposition that we know the world sensually: O.K., but what are the senses? If there are ten or twelve human senses, and we allow only five to attend the meetings of the Royal Society, then the fix is in from the start.

I sat for an hour today watching the glassblowers. The glass artists work in pairs, many of the tasks taking two people, often one at each end of the long rod that holds the molten material. It is very noisy: they play the radio loudly. Later someone told me that is because the work, going back and forth to the ovens and so forth, requires rhythm. A nice idea, though it seems vestigial: the radio I heard offered no rhythm.

Everyone was wearing dark glasses. The room smelled of dry flames. Is there lung knowledge as they blow into the ball of glass?

So how many senses are there? Do we count the complex and subtle, such as a sense of loss, or grief, or a sense of right and wrong? Perhaps. But let us begin close to the body with things equivalent to the retina. What are the organs of sense?

The paleoanthropologist Alan Walker once told me that human beings have accelerometers in their heads, organs that sense changes in speed. (All automobiles now have accelerometers in them: they are the devices that detect when your car is stopping too fast, and set off the airbags.) To prepare for my trip to Penland I wrote to Alan to make sure that I had remembered correctly. I asked him how many human senses he thinks we have. He replied:

Physiologically speaking, many, and they grade into each other. So a numerical count is difficult. If one were to count the many smells we can sense, then of course the number is huge. If one counts the functions of the two types of smell receptors—one for normal smells and the other for pheromones, then the number is smaller. Probably all of us when born have synesthesia (senses muddled up) and some people keep some of that.

As for accelerometers, Alan explained that we have them in our ears. Actually, all animals have some organ that is sensitive to gravity and all of these organs are built on the same principle. A lump of something heavy—it can be a grain of sand—floats in jelly encased in a sack. The sack is lined with hairs, each connected to a nerve. If the animal moves, the inertial resistance of the grain of sand will press it against one wall of the sack, allowing the nerves to sense both the change in motion and the direction.

Humans don't have grains of sand in their ears; we have otoliths, ear-stones, tiny six-sided crystals of calcium that float on a bed of jelly shot through with little sensory hairs. The whole apparatus is called an otocyst. The otocysts are our accelerometers. They sense changes in linear motion (up-down, left-right, backwards-forwards).

I brought along a book about human perception that has filled me in on all of this and that tells a strange story about the related organ in the crayfish. Crayfish shed their shells to grow, and when they do so they shed their version of the otocyst (called a statocyst). The lumps of something relatively dense in the crayfish statocyst actually are grains of sand, and when the crayfish has shed its old shell it must pick up a few grains of sand with its claws and put them into its new statocysts. As if that weren't strange enough, some mad scientist has of course played with the poor naked crayfish, providing it with iron filings instead of grains of sand so that the beast ends up with statocysts subject to magnetic influence. Pass a magnet over its head and the thing thinks the tide is coming in fast.

In any event, yes, we have accelerometers. And how can it be that in twenty years of schooling I never learned that “I” am partly packets of nerved-up calcium crystals? And if I have otocysts and never knew about them, what else do I have? Heliotropism? Radio waves? I should be patient with Paulus’s list.

WEDNESDAY, MARCH 19, 2003

I arranged to meet Paulus for lunch. His house is on the Penland road, behind “a house with a folk-art bear.” He greets me on the front path, smoking a pipe, his white hair in a ponytail. The trees around the house are leafless but their leaf buds are fat.

Mr. Bush announced last night that he will be going to war in Iraq. Paulus reports a friend’s observation that Baghdad, in the ancient Mesopotamian river valley, is the site of the origin of metallurgy, and that the U.S. military is about to beat it with thousands of pounds of special metals, including depleted uranium, denser than lead.

It turns out Paulus’s work on the senses has several antecedents. Joan M. Erikson has a book, *Wisdom and the Senses*. Rudolph Steiner also wrote about the senses—he thought that there were twelve. Then there is Guy Murchie (*The Seven Mysteries of Life*) whose list has thirty-three senses, and one Michael J. Cohen, who got the list up to fifty. Paulus’s list is a mixture of these, plus some of his own.



Glass plate printing

He recites a Rumi poem for me: "For millions and millions of years I lived as a mineral, / then I died and became a plant. / For millions and millions of years I lived as a plant, / then I died and became an animal. / For millions and millions of years I lived as an animal, / then I died and became a man. / Now, what have I ever lost by dying?"

We are heirs of the plant and animal senses. This explains Number 2, above, the "sense of seeing without eyes such as heliotropism or the sun sense of plants." For Paulus, our upright posture is a consequence of heliotropism. As he makes this declaration, I look out the window and see, true enough, that all the trees and weeds have upright posture, and they have it because they are sun-seekers. Myself I am of such a plodding scientific mind that I would simply say that heliotropism, if we have it, is a subset of sight—sight lets us follow the light. Now I wonder. Paulus is sitting on an odd backless stool, a black cushion ball, and his posture is erect and elegant. Well, why not say that the erect spine is a version of the cellulose bones of corn and elm, and that we embody, incarnate, and display the heliotropic sense? I would like to have Paulus's posture. I am, after all, suffering from back pain and tension these days, due to a wicked hard winter with serial deaths of familial loved ones. The earth has pulled them down into the ashy ground, and I am the survivor, slumped in a chair.

I confess my addiction to empirical science, and then explain to Paulus about the otoliths. He has not heard of them. Has not had "the sense of acceleration" on his list.

Back at Penland I go to the studio where Julia Leonard is teaching a class on making books by hand. When I come in, the students are looking at samples of handmade books brought by a local artist, Dan Essig. A few have print in them, but mostly the pages are blank; the point is the way the thing is made. Many of Dan's covers are wood and Dan is explaining that he likes mahogany best. Mahogany is "buttery." It is "stable." When you drill it the bit doesn't jump around the way it does with an open-grained wood like oak. But then, some people are allergic to mahogany. I look up at one point and Dan is smelling one of his books. It smells like cigarette smoke, he says.

Do people always talk like this, and I am only noticing because I'm trailing the senses? Then there is talk of nostalgia, and the nostalgia brought on by handmade books, now being compared to reliquaries. Myself, I have always smelled books. I love the physical presence of a book I am reading and sometimes, as I slow down to chew on some passage, I



Adding beads
to a quilt

will put the book to my face, bury my nose in the spine, and inhale. Then I am there with the book, as if I have taken my seat. Later, Julia and Dan confess that they too smell papers. Dan likes the smell of an old book taken apart.

Smell is “taste at a distance.”

One of Julia’s books has a papyrus cover—many sheets glued together cross grained, like plywood. Someone in Iowa has made papyrus from cornhusks. It is a very bumpy kind of paper; I stand around feeling the papyrus.

Later I tell Julia about Paulus’s list. She says that Paulus loves numbers. Of course! It’s a certain kind of mind. The eight of this; the ten of that; the sixty senses. She says that Paulus used to lead a body-awareness workshop. “‘Stand,’ he’d say, ‘and place a hundred percent of your weight in the soles of your feet. All your weight is there, your whole body is pressing down on the soles of your feet. Now rise in the body. Feel how fifty percent of your weight is in each leg.’ He would keep going up, dividing the weight, until soon you were at twelve-and-a-half percent.” Julia is laughing, enjoying her parody of Paulus. “‘Now your fingers. Half of six-and-a-quarter percent is in each thumb.’ You’d keep losing your concentration trying to do the math.”

It is daffodil spring here. Crocus spring. Very wet. The sun has not appeared in four days and today it rained hard. It will rain all day tomorrow. The radio asks its listeners to be prepared to go to higher ground. It’s like the Pacific Northwest only I gather we aren’t really in a rain forest, just

in mud season. When I walk out into the dark after dinner the air is alive with the sound of spring peepers. The volleyball field outside the dining hall is a frog swimming pool.

The potters show slides. Silvie Granatelli is the clay teacher this session. Her show begins with slides of her home, then some images of decorated bodies—tattoos, mud paint, scarification. “A form articulated.” Clay like skin. A picture of a student who made a dress of porcelain tiles like fish scales. The shapes of everyday objects like tobacco pipes and oil ewers. Pots that look like bodies giving birth, bodies copulating.

One of Silvie’s pots is for tea, but it will make just one cup. People usually put a tea bag in a cup but here they will have to put the bag in the pot, then pour the tea into a cup. It will slow them down. The piece is a slow-down piece, then. It is made to engage time, to mark the temporality of a tea break.

THURSDAY, MARCH 20, 2003

The Bush-Cheney war on Iraq began around 10:15 last night, though it is impossible to get any real news about it. There is a lot of talk about “precision,” and the TV stations play films that the government has given them showing the missiles and airplanes in flight.

Rainy with lifting clouds. Mud spring.

I talked with the students who are creating handmade books. They fell into a discussion of the grain of paper, and how you know which way the grain goes, and of papers that have no grain. Julia waves her closed hands up and down to show how she fans a sheet of paper to feel its properties. “I orient myself to them.” A sense of direction in the material, and of needing to know its direction.

Things have natures; anciently then there were thousands of natures, not the single Nature we now speak about (that comes with monotheism). Papers have natures. Clay has a nature. Wood has a nature. Pigments have natures. The work begins with a dialogue between the maker and her material, the maker letting the material tell her what it is.

Someone mentions a book by Rupert Sheldrake about how dogs know when their masters are coming home. In another book Sheldrake makes a claim for “morphic resonance,” meaning that all natural systems have a kind of memory. Myself, I find such assertions faintly plausible, but wonder why we jump so quickly to the paranormal when we have hardly noticed the normal. I did my otolith lecture for the

students and they seemed astounded; one woman said, "You mean we have crystals in our heads!?" Yes, you really do. But then the conversation drifted to premonitions of death and sensing the moods of your friends half a world away.

The potters say that when you wedge clay you are getting its tiny lozenge-shaped particles to line up. You know when you have succeeded because when you cut the clay it is homogeneous. The thing about the lozenge-shaped particles is lore, passed along from potter to potter. None of the potters I spoke with have actually seen the particles.

After "the radiation senses" on Paulus's list we get "the feeling senses," as follows:

- 10) *hearing, including resonance, vibrations, sonar, and ultrasonic frequencies*
- 11) *awareness of pressure, particularly underground, underwater, and to wind and air*
- 12) *sensitivity to gravity*
- 13) *the sense of excretion for waste elimination and protection from enemies*
- 14) *feel, particularly touch on the skin*
- 15) *sense of weight, gravity, and balance*
- 16) *space or proximity sense*
- 17) *coriolis sense or awareness of effects of earth's rotation*
- 18) *body movement sensations and sense of mobility*

I like Number 13, a sense of excretion. Many animals, toads and birds for example, will excrete when threatened. This is not so much a "sense" as a response to a sense of danger. It both disgusts the attacker (sense of disgust) and lightens the threatened one for flight. That old joke—"I didn't know whether to shit, run, or go blind"—actually lists animal defenses, a beast like the rabbit "going blind," which is to say, freezing as if that could cancel sight. The organs of excretion are full of nerves that tell us of our needs. "Sight, hearing, touch, smell, taste, and the need to take a dump."

Sense of shame.

But why aren't 12 and 15 better integrated? "sensitivity to gravity" does not differ much from "sense of weight, gravity and balance," and actually "balance" is more complicated than "weight" and "gravity." Where is the sense of taxonomy?

Coriolis force. From one Gaspard G. Coriolis, a nineteenth-century French engineer. It is the deflecting force that acts on an airplane, missile, or other body in motion due to the rotation of the earth. Do the ragged lines of migrating geese sense it? Do the whooping cranes take it into account? Hard to feel in the mountains.

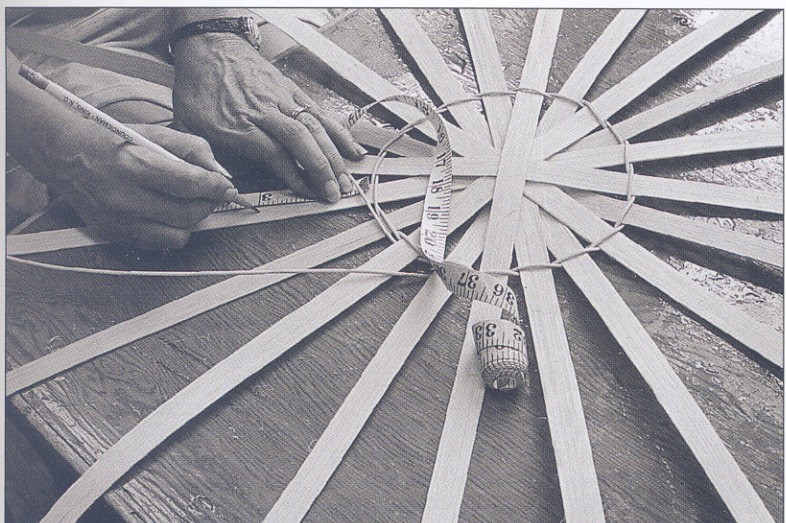
FRIDAY, MARCH 21, 2003

First day of spring. The clouds over Penland lifted in the afternoon. Many craftspeople wearing printed cloth swatches saying "No Attack on Iraq." But the attack goes on. Oil fields burning.

At dinner last night a discussion of learned or schooled senses. With our sense of time especially we get deeply acculturated. In England in the eighteenth century many clocks only had an hour hand. The exact minute of the hour was not something anyone needed to know. But industrial factories need synchronized labor, and they need workers who show up on time, so in the nineteenth century the minute hand descends upon the mind. Cultures without the clock figure time as "task time." If the task is to cut a field of hay, it has a



Filing a knife



Beginning a basket

certain inherent amount of time. Or the time to shoe a horse. The time to make bread. In this culture we drive ourselves nuts cross-graining task time and clock time which simply makes all tasks seem too fast or too slow. One of the book-makers said yesterday, "This took me all day!" judging herself to be slow. But what exactly does it mean to say "it took all day?" It means the culturally learned sense of time has separated you from the thing you are doing.

The crafts are the work where little temporal anchors drag against the tides of a speeded up world. Factory time is all about efficiency, not about the nature of the materials. The task-time of sewing the signature of a book cannot be altered, nor can the task-time of letting a blown-glass jug cool in the annealing oven. The materials contain their time, and the craftsperson learns it from them. Part of the pleasure may be that in this way we must slow down, get off the clock.

By the same token, the economy of craft will bring a kind of poverty if the dominant economy runs on factory time. So, Penland is in these mountains where it is hard to tell the shacks of the poor folk from the shacks of the potters. Ezra Pound used to complain that Europeans knew how to have dignified poverty, or dignified simplicity, but Americans did not. America has never had good Bohemias, and—in the cities—as soon as one appears the chain stores come in like hermit crabs. These mountains may be the best we can do for Bohemia, the population being too thin to support a Banana Republic.

SATURDAY, MARCH 22, 2003

Yesterday was at last a warm, clear day. It is willow-leaf spring. None of the other trees are in leaf, but the willows on damp ground are a limy green. In the bare woods the poison ivy vines, thick as a man's wrist and furred with hairy roots, climb the trees. Groves of leather-leafed mountain laurel.

Baghdad is in flames, or at least its government buildings are. In Jordan, where the king is described as having a "shaky throne," the TV reporter interviews an engineer, educated in Connecticut, who is so mad at the United States that he can imagine joining an attack against it. The reporter has trouble believing this. "But he spent four years in Connecticut," he keeps saying.

My wife, Patsy, and I went to have tea with Paulus yesterday morning. He was smoking his pipe when we arrived, and playing classical music on the hi-fi. We sat on the porch in the sun at what seemed, under the circumstances, to be an ele-

gantly rotting picnic table. Paulus has several notebooks of work on “touch” as a sense, with drawings of the hand and palm cartography from various traditions. There are ninety thousand sense receptors at the tip of the finger.

We somehow get to his sense Number 5, the “sense of awareness of one’s own visibility or invisibility and consequent camouflaging.” Actually, it should be camouflage and advertisement—if I don’t wish to be eaten, I need camouflage; if I wish to attract a mate, I need to advertise. Or, if I am poisonous to eat, I might show off. Either way, key here for Paulus is Rilke’s “Archaic Torso of Apollo,” which ends: “Everything / is looking at you. You must change your life.” So the demand follows from the sense of being regarded. It must be that this then wakes self-scrutiny, and a concern with matching what you thought you were with what you actually are. The eye of the other calls out camouflage or display.

This is one of my understandings of the function of workshops in the arts. You are given a chance to hear what others think of your work. A community of artists offers the opportunity to acquire a sense of the others’ regard.

In Paulus’s understanding of shamanism, the shaman stands between the landscape and the inscape and helps them to communicate with each other. “Everything is looking at you,” meaning *everything*, including the plants and the animals. So the shaman imitates the gestures of the plant and animal world, letting these inform the human. The fat textbook on the senses I have with me says that honey bees and perhaps pigeons have a sense of the earth’s magnetism to help them navigate. There is some indication that humans have this sense too, only if we do it is “fragile.” If it is there and fragile, it could be schooled. If someone had fragile hearing, we would go to great lengths to improve the sense; why not improve our sense of the earth’s polarities?

As Paulus speaks he keeps gesturing with his left hand. He was once a dancer, and has a dancer’s fullness of gesture. He scoops himself out as he talks, ladling from the thorax and then tipping the hand forward.

Paulus makes unfired clay pots and buries them in the earth. He says that a professor somewhere out west has discovered that if you hit a pound of clay with a hammer it will glow with ultraviolet light for a month. Can this light come into your body as you work with the material? He hopes to teach a workshop with this as one of the puzzles. So, it is the same enterprise as the imagined shaman, landscape of clay, its emitted light illuminating the inscape by way of the million receptors in the fingered hands.

At dinner last night someone said he once got to see the structure of clay particles as revealed by an electron microscope. "They looked like gravel," he said. "They didn't have any regular shape." Someone else said, "Oh, Paulus. He gets his facts wrong." And I had meant to pester him a bit about the confused taxonomy of his list, but as I sat there by the rotting picnic table it seemed pedantic and beside the point. Taxonomy has been robust since Linnaeus. The more interesting and difficult task is to bring imagination to bear on the stuff of this world.

MONDAY, MARCH 24, 2003

Clear, warm day; the horizon line of distant mountains is crisp. There are several llamas in the meadows below the school, and at lunchtime they settle themselves on the dome of one of the hills, as if they know that they are ornamental and that their long necks are meant for hilltop spires.

Mr. Bush is telling us that the war will last longer than people expected (which people?), and at the same time submitting an emergency supplemental military budget to the Congress asking for \$75 billion, based on the assumption of a one-month war.

A group of craftspeople meets here occasionally to speak about spirituality and craft, and I was invited to their coffee this afternoon. I explained some of my interests here; Paulus, in describing his inventory of the senses, called it a list of "the senses of the more than human world." I feel like a dope for not seeing that: it isn't a list of our senses, it is a list of



Shoemaking

the senses, which means it can include such things as the honeybee's sense of magnetic forces, or the pit viper's acuity with heat. "The world senses us," says Paulus, and then the issue is reciprocity: can we awaken to the ways in which we are being sensed? Surely the llamas know we see them, and their sense of that contributes to their display.

On the road below the dining hall someone once painted a message: "We Mourn the Death of Penland's Soul." This message has been almost obscured with black paint. Now it is two messages: someone mourning and someone erasing. Paulus said he felt the soul of Penland was not in danger. "I smelled it when I first came here in 1968 and I can smell it still." Someone else said that these arguments (the road painting is not the only example, I gather) derive from someone's having had a precious experience at Penland and then responding to changes in the place as if they were wounds to that experience. I gather that a lot of the tension around "Penland's soul" comes from changes wrought when you need to raise large sums of money to preserve decaying buildings. One woman tells a story of a friend who called to say that she had been accepted for a summer workshop but did not want to come unless she could have the same bedroom she had before, and that an important feature of the bedroom was a dripping faucet. Could they please check to see that the faucet still dripped?

What does the "smell" of Penland's soul consist of, I asked. Good food; good studios; right relationship to the ecosystem; an absence of toxic competition.

Paulus's senses, continued:

The chemical senses.

19) *smell with and beyond the nose*

20) *taste with and beyond the tongue*

21) *appetite and hunger*

22) *hunting, killing, or food-obtaining urges*

23) *humidity sense, including thirst, evaporation control
and the acumen to find water*

24) *hormonal sense, as to pheromones and other
chemical stimuli*

As Alan Walker suggested, smell can be divided into parts, and one part senses pheromones. Most senses can be thus divided. Touch is not the result of one kind of nerve in the skin. There are nerve-containing capsules called Meissner's corpuscles on the tips of fingers, and there are Pacinian corpuscles which are found near joints and feel pressure, and there are Merkel's disks and Ruffini's endings and heat sen-

sors, and more. (I get this from Diane Ackerman's *A Natural History of the Senses*; that's also where one can find the "true" number of sense receptors on the fingers: "nine thousand per square inch.")

A promotional postcard for Penland shows a group of butterflies and moths, all local, all dead, dried, and lying on a bed of leaves. Included are the three great silk moths of North America: the Cecropia, the Polyphemus, the Luna. These moths have huge feathered antennae for picking up the pheromones of their mates. The Cecropia has no mouth: it never eats, it just follows its feathered nose to its mate. Smelling the soul.

TUESDAY, MARCH 25, 2003

Calvin Tomkins recently wrote an article for *The New Yorker* about teaching art. He says that in 1995 when Harvard University finally decided to get serious about teaching painting and hired Ellen Phelan as their first Professor of the Practice of Studio Arts, Phelan arrived to discover that the department had no budget to buy art materials. In the old days, art students painted with oils and carved in wood or stone. What was taught were the properties of the materials, and the techniques by which to manipulate them. In America in mid-century, several things happened to change that, especially the Duchampian intellectualization of the practice. "In order to become an academic discipline . . .," Tomkins writes, "craft and technique were subordinated to verbal analysis, problem-solving, and critical theory." Thus might Harvard hire a painter but forget to buy her any paint.

It was seventy degrees or more here today. Tiny-blue-butterfly spring. The ten billion ladybugs have woken up. A sandstorm in Iraq has brought everything to a halt. Preacher on the car radio tells me that America is just and Iraq is evil and, even though America is a land of sinners, God's hand may be at work in this war.

I wandered into the fabric workshop just as a woman from the Golden Paint company was beginning a long demonstration of Golden acrylic paints. Two hours on the properties of the materials, and the techniques by which to manipulate them. For example, the binder (the polymer emulsion) can be loaded with the old mineral pigments like burnt sienna, burnt umber, or cadmium, whereas the binder can carry less of the modern pigments, all the ones with chemical-sounding names like phthalo blue and quinacridone crimson. These therefore look more glossy and transparent.

The zinc white is more transparent than the titanium white. The former thus makes colors lighter while the latter makes them a bit creamy. Golden makes a series of paints that reproduce historic colors, such as sap green (a fugitive green once made from buckhorn berries) or India yellow (which was made by force feeding mango leaves to horses, and then distilling their urine—a process now illegal).

I confess that my eye prefers the old oil colors and the acrylics that imitate them. Why? It may just be habit and a snobby fondness for patina. It may also be that the eye evolved for the colors of nature, for the browns of dirt, the greens of waxy berries, the yellow of piss. Fugitive colors are the colors of time. It is comforting to see time and beauty sharing a single body, whereas an unfading, snappy acrylic like the pyrrole orange makes me feel ashamed to be growing old.

Before dinner I watch the glass teacher Hugh Jenkins and his son make a large glass bowl. The boom box plays a loud rhythmic guitar blues. They move back and forth between the furnace and the working table with a rhythm related to how quickly the glass hardens and softens. At the end, one of them taps the bottom of the glass; it cracks at the stem and falls into the other one's gloved hands; he puts it quickly into the annealing oven, where it will spend a day losing two thousand degrees.

WEDNESDAY, MARCH 26, 2003

We come now to Paulus's list of "the mental senses," and we are off and running for they are numbers 25 through 60. As most people know, in China there are six senses: our five, plus the mind. All week long the mind category has perplexed me because it seems so raggedy big. Is everything we "know" a mental sense? Is intuition a "sense," or is it what the mind does with what the gross senses offer it?

The first ten of Paulus's mental senses:

- 25) *pain, external and internal*
- 26) *mental or spiritual distress*
- 27) *sense of fear, dread of injury, death or attack*
- 28) *procreative urges, including sex awareness, courting, love, mating, paternity and raising young.*
- 29) *sense of play, sport, humor, pleasure and laughter*
- 30) *sense of physical place, navigation senses, including detailed awareness of land and seascapes, of the positions of sun, moon, and stars*

31) *sense of time*

32) *sense of electromagnetic fields*

33) *sense of weather changes*

34) *sense of emotional place, of community, belonging, support, trust, and thankfulness*

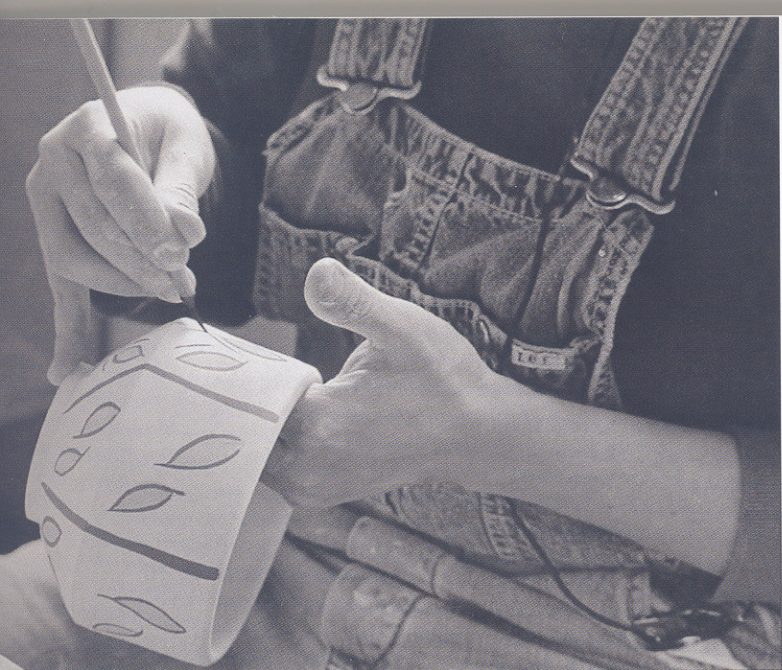
If a human sense is that which has a clearly dedicated organ (as the sense of smell has the nose), then it is right to speak of a sense of time, for temporal perception arises from the organs that enable memory, especially the frontal lobes and the hippocampus.

There are many kinds of memory. From Aristotle on, we get memory as we now have it, "recollection," the recovery of what has in fact happened. The other stream of Western memory practice starts with Plato and survives for centuries (you find it in Emerson and Thoreau). Platonic memory is the knowledge of eternal truths, those not in fact available to the more incarnate body senses. Platonic memory is a faculty that can perceive justice, truth, beauty. Aristotelian memory gathers the facts, but it doesn't know what to do with them. "The senses give us representations of things," Emerson once wrote, "but what are the things themselves, they cannot tell." If you want to know *what things are*, you need Platonic memory, or intuition, or imagination.

And then there is smell-memory. There is a part of the brain called the rhinencephalon, the smell-brain. It recognizes and remembers smells. But it is apparently very ancient, and not linked up to the other parts of the brain's memory systems, which is why smells are so evocative, on the one hand, but also so elusive (you cannot call them to mind the way you can call an image to mind). Smell-knowing would be hard to abstract. You can do an art history class with slides, but you couldn't easily design a course based on the smell of art through the ages.

Each studio at Penland has its smell. After they have opened the pottery kilns they clean the shelves by grinding the dripped glazes—smell of ceramic dust. The crafts summon their crafts people, and do so sensually. Someone from the cloth-work class was telling me at dinner that certain textiles simply attract her. I myself work with wood and I have sometimes wondered if the smell of cut wood doesn't get me a little stoned.

That Cecropia moth following the pheromones of its future mate: that is Platonic memory in the moth-world.



Decorating a pot

THURSDAY, MARCH 27, 2003

Periwinkles are blooming all over the Penland campus. Periwinkle-spring. Sunny, cool, some clouds; a flag-lifting breeze. Mr. Bush keeps speaking of being “firm.” Why are there no Iraqi dissidents explaining how much they long for the “liberation” of Iraq? If Mr. Bush were going into Cuba, there would be plenty of Cubans on the radio.

Paulus spoke to the pottery students yesterday. His attack is on the idea that clay is inert. Fond thus of any story that points toward clay’s liveliness, and links to life. Says NASA has a “life from clay” theory, connecting clay to the evolution of DNA. Tells the students the report that clay can give off ultraviolet light (says the scientist is Leah Coyne at San Jose State). We cannot see this light, but we are imaginative creatures so we nonetheless receive it. Says “porcelain” comes from “vulva”: it is the virgin form of clay. “Her brothers float downstream gathering impurities and become stoneware.” Advises throwing on the potting wheel while standing up. Tells the story of his first real pinchpot: he had been at week-long sitting meditation and was having trouble quieting the mind; went to the pot shop and sat with a ball of clay while trying to meditate; a half hour later found that he had pinched a pot.

Imagination struggles against inertness. Stimulate it by asking questions that don’t have answers. What is clay? What is the hand?

Today, late, I went to the studio of the glass artist Rob Levin, fifteen miles away. The intense fire of the glory hole;

the batch of glass itself heated to 2100 degrees. What is heat? What is the light given off? What is a photon? What is the eye to receive it?

I asked Rob about sensual awareness in glassblowing. There is a lot of touch involved as, for example, when he is spinning a bulb of glass in the fire he can tell by the torque on the rod how soft the glass has become. But mostly, he said, "it's a matter of touch," and then he would look at his upraised palms in a slightly puzzled way as if the information was there, in the hands, but hard to make into words. It isn't verbal; the hand and the mind are a single organ, and if one works with glass for years, the understanding is in the hands. It's a matter of touch.

When Paulus taught clay he used to suggest that students put their faces in the slip bucket and then go sit in the sun and feel the slip drying, the sun drawing the moisture from the clay and the clay drawing it from the skin.

Rob helped me make a bit of blown glass. I like the way glassblowing works with gravity. When hot, the material flows toward the center of the earth; you try to engage that flow and shape it, rather than pushing the material. Glassware is made with heat, lung muscle, and gravity.

There was no music in Rob's studio, just the hiss of the gas jets, and an occasional comment from a black and white cat. The ten senses of the day from Paulus's list:

- 35) *sense of self, including friendship, companionship and power*
- 36) *domineering and territorial sense*
- 37) *colonizing sense, including receptive awareness of one's fellow creatures—sometimes to the degree of being absorbed into a super organism*
- 38) *horticultural sense and the ability to cultivate crops, as is done by ants who grow fungus, by ants who farm algae, or birds that leave food to attract their prey*
- 39) *language and articulation sense, used to express feelings and convey information in every medium from the bee's dance to human literature*
- 40) *sense of humility, appreciation, ethics*
- 41) *sense of form and design*
- 42) *reasoning, including memory and the capacity for logic and science*
- 43) *sense of mind and consciousness*
- 44) *intuition or subconscious deduction*

Sense of self. My own writing project right now has to do with "cultural commons," that vast, unowned body of art and

ideas inherited from the past (everything from the poems of Keats to the chemistry of aspirin). Included are many questions about the self. How shall we imagine the self that makes a poem? A remark that Goethe made to a friend in 1832 asks this more fully:

What am I then? . . . My works have been nourished by countless different individuals, by innocent and wise ones, people of intelligence and dunces. Childhood, maturity, and old age all have brought me their thoughts...their perspectives on life. I have often reaped what others have sowed. My work is the work of a collective being that bears the name of Goethe.

In studio classes, the student acquires the technique by watching the teacher and imitating. The touch is acquired by standing side by side. I would not have known that you can cut hot glass with shears, like cutting leather, if I had not watched Hugh and then Rob doing it. If I later have the touch, I may well ask "What am *I* then?" and "What have *I* accomplished?" Where, for that matter, does *touch* come from? What is my body?

FRIDAY, MARCH 28, 2003

Cool and cloudy much of the day with a little rain. Clouds hanging on mountains give the space definition. On the radio Christopher Dickey, in Jordan for *Newsweek*, explains that for the Arabs, "this is an invasion. Nobody in this part of the world uses the word liberation." Mr. Bush is quoted as saying that he finds the media reporting of the war "silly."

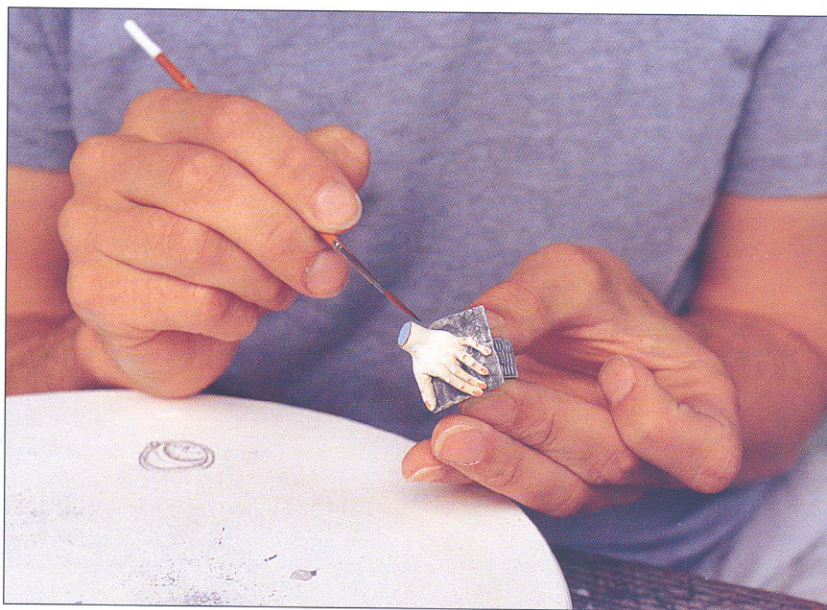
I went to Rob Levin's studio in the morning to pick up that bit of glasswork that he helped me make yesterday. I had thought it was a little vase; now it appears to be a paper-weight. Thinking about time again, the time that glass takes to cool in the annealing oven. Thirteen hours for thin pieces; days for thick ones. It takes days to go from Basra to Baghdad, even when there are no snipers on the road. A human life is eight decades, give or take. The materials teach their temporality, which is really a kind of fate.

I went down a dead-end road that turned out to lead to the Mitchell County High School. At the gate a sign reads: "No Weapons Allowed Beyond this Point."

Today's senses from Paulus's list:

- 45) *aesthetic sense, including creativity and appreciation of beauty, music, literature, form, design and drama*
- 46) *psychic capacity, such as foreknowledge, clairvoyance, clairaudience, psychokinesis, astral projection and possibly certain animal instincts and plant sensitivities*
- 47) *sense of biological and astral time, awareness of past, present and future events "next" (left brain)*
- 48) *the capacity to hypnotize other creatures*
- 49) *relaxation and sleep, including dreaming, meditation, brain wave awareness*
- 50) *sense of pupation, including cocoon building and metamorphosis*
- 51) *sense of excessive stress and capitulation*
- 52) *sense of survival by joining a more established organism*
- 53) *spiritual sense, including conscience, capacity for sublime love, ecstasy, a sense of sin, profound sorrow and sacrifice*

"Sense of pupation"—the body's task time. In the world of butterflies and moths, the caterpillars get restless before they pupate, and begin to wander. If you see a caterpillar crossing a path, it probably has the pupation itch. The wandering may be protective: if you always pupate near your food plant, predators will learn how to find you. Better to pupate "away."



China painting

Could the shaman bring this over to us humans? Art requires enclosure, some sort of circle drawn around the work, keeping everything else away for a spell. Go to an isolated house. Turn off the phone, the mail, the TV, the Internet; do not speak unless spoken to. Do that for a week. Make the work.

They call the current period at Penland the "Spring Concentration." Exactly. In summer there are two week "sessions," a word derived from the Latin *sedere*, to sit. In the summer at Penland, one can do the two-week iron sitting, or the textile sitting, or the wood sitting. Pupation with a cocoon of matter, matter that takes its own sweet time.

SATURDAY, MARCH 29, 2003

My last day. As I sat drinking my coffee in the loaned house I looked out along the gravel driveway and there was a wild turkey displaying himself for his mate. He is the American peacock, a peacock done in earth tones. The Arts and Crafts peacock. There seemed, at a distance, to be some green about him, and bold brown and white marks on the fanned tail. He was erect. He was flowering. A thin feather bib hung from his chest. Red inflated bulbs goitered his neck. When I tried to approach, he and the hen walked off into the woods. The rest of the morning found me distressed by how empty the driveway seemed.

Flowering-turkey spring.

The newspapers say that Mr. Bush's army is using depleted uranium shells in the war. A United Nations resolution classifies munitions made of depleted uranium as illegal weapons of mass destruction. They are carcinogenic and are listed as a probable cause of the "Gulf War syndrome" that followed the 1991 war.

The final senses on Paulus's list:

- 54) *sense of awe*
- 55) *sense of imagination*
- 56) *sense of tension and release in the body*
- 57) *sense of chi*
- 58) ~~*sense of humor*~~ *sense of balance*
- 59) *sense of story and how it links us up with the cosmic—the universe story*
- 60) *sense of being known—Bushmen "wherever they went they felt they were known"*

I suppose "sense of humor" is crossed out because it appears in Number 29. Then again, "balance" is in Number

15. In any event, I was thinking about “sense of story” today because I was browsing in *The Twelve Senses* by Albert Soesman, “an introduction to anthroposophy based on Rudolf Steiner’s studies of the senses.” Steiner’s twelve are: touch, life, movement, balance, smell, taste, sight, warmth, hearing, thought, word, and “I.” The “I” does not mean being aware of one’s self; it means being aware of another human being.

Silvie, the pottery teacher, has an exercise that she does with her class that I had not thought to describe in terms of “the sensuality of craft,” but now I see that it fits if the senses are opened up in this fashion. Silvie is a bit of a gourmand; her slides showed pottery *with food on it*. In the class, she asks each student to describe a food that he or she likes to eat, and to describe the ideal circumstances of this eating. I might like an afternoon snack of thinly sliced, crisp apple with equally thin slices of aged Asiago cheese. I might like to be eating it below the wall of an Italian hill town, near the place where the stonework indicates there was an ancient laundry.

Each student does a short description and then puts it into a hat for a random drawing. Each anonymous culinary fantasy is thus in someone else’s hands, and that person must now design and make a serving vessel appropriate to the thing described. This session (this sitting) Silvie herself had drawn one from a person who likes to watch TV late at night in a big stuffed chair, eating popcorn. The writer wants a popcorn vessel that could be tucked between the thigh and the arm of the easy chair.

Sense 1 in Steiner: “Touch: determining one’s boundaries.” Sense 12: “I’ sense: breaking through another’s boundaries.” In Silvie’s assignment the whole thing is much more invitational. “Imagine me eating strawberries.” “Imagine the solace of popcorn.” Silvie likes a bit of whiskey late in the day, and a fat pretzel lightly touched with Dijon mustard.

The latest use of depleted uranium in the current conflict came yesterday when an American A10 tankbuster plane fired a depleted uranium shell, killing one British soldier and injuring three others in a “friendly fire” incident.

I had a final coffee with Paulus in the afternoon. I had given a lecture earlier in the week that included an explication of the Indo-European *ar* root from which we get “art.” I usually take the root to be a noun “joint,” and Paulus wanted to know if it could be a verb, “to join.” Actually, that’s probably what it is. His point, though, was that art is activity, something we do. It isn’t an object. We have too many objects. At

Penland, every mantelpiece has an abandoned cup gathering dust, and a bit of blown glass, and something that looks like a goat's head made of unknown material. At the end of any session, there are tables of the stuff. But the stuff isn't the point; the point is the activity, and this is why the stuff is sort of depressing. Don't fix the work, therefore; don't harden it. Paint with sand on the belly of the earth. Paint with rice flour on the street outside your door.

Now I see better why Paulus has given up firing pots. He makes a pinch pot, lets it dry, then "tithes" it back to the earth, sometimes with seeds in it. "Not end-gaining, but living in the means whereby" (a line from Alexander technique body work). The senses as verbs (to touch, to see, to tell a story), and being alive as an activity. I kept thinking of that Tom turkey, shaking his feathers. The feathers had an iridescence that could not possibly be reproduced in paint or photograph or film. The show needed sunlight and the shaking body. The turkey hen and I were allowed "to see."

SUNDAY, MARCH 30, 2003

Snow as I drove down the mountain. Three inches in Asheville. Blossoms-bent-by-snow spring.



Paulus Berensohn