AN ORCHID S

furnished with prickles

without horns

having a shallow notch

insect-loving

exuding

flesh-colored

somewhat pendulous, drooping, nodding

golden-shoed

golden-eared

coiled

resembling a gnat

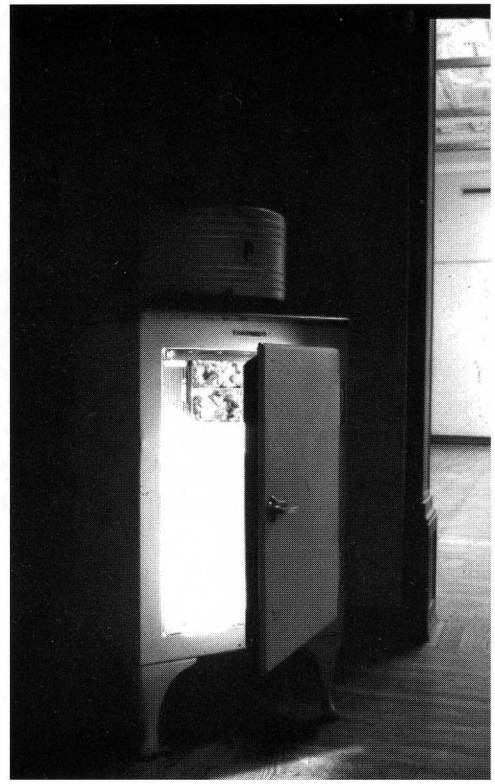
winter-flowering

having two dots or spots

a surface blistered or puckered, as the leaf of a Savoy Cabbage

imperfectly formed

deviating from the normal



Re: Hothouse: The Orchid Room, Hewlett Gallery, January 1992
Laurie Palmer

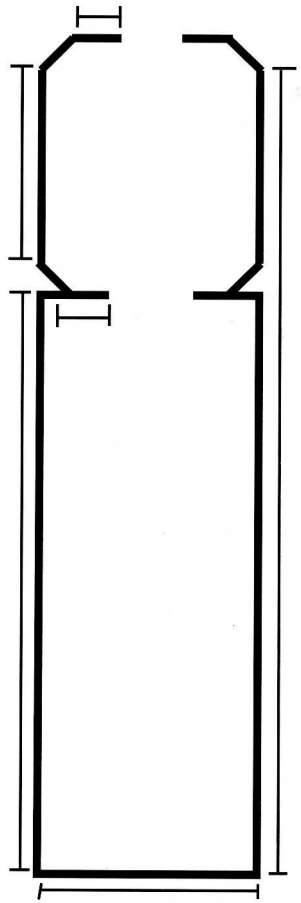
In the cloud forest, epiphytic orchids live without soil, high above ground, their naked roots dangling in air, or wrapped around whatever they have found to cling to and boost them up. A light green spongy coat called velamen on the outside of the roots absorbs moisture, while the leaves convert light–available only high in the canopy of leaves–to energy.

• • • •

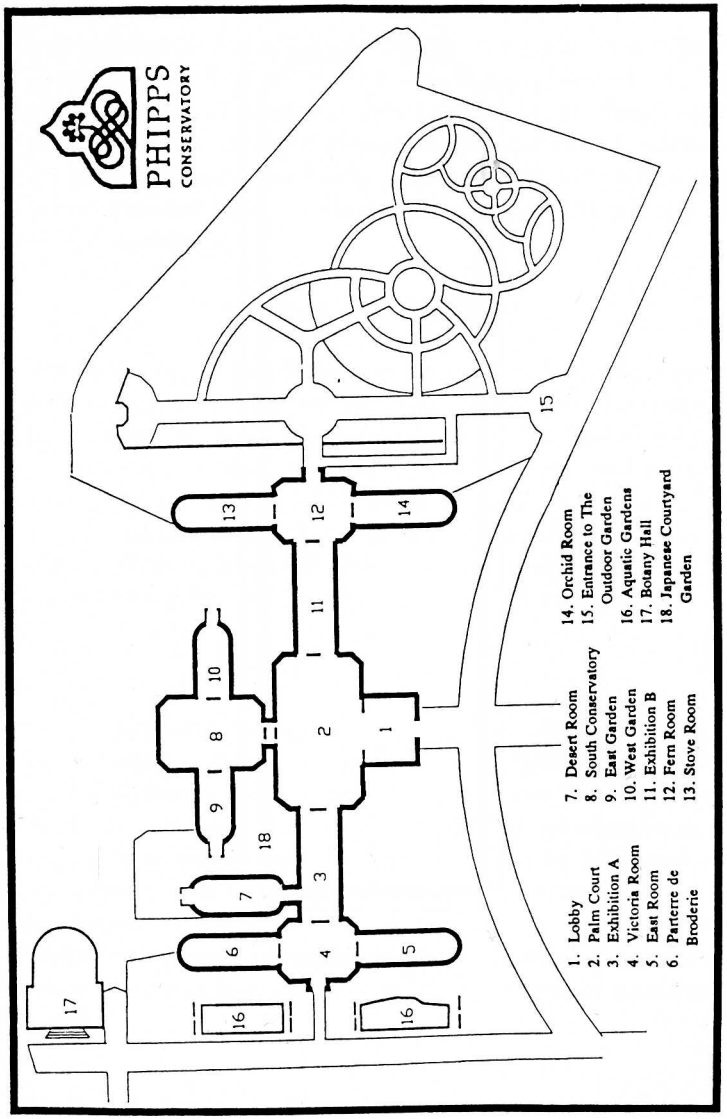
Ten years ago in San Francisco I bought what looked like a root at a garden store and put it on the mantel. The person at the store had said it needed nothing. I had just moved in with someone and this self-sufficiency interested me. Three weeks later it had a long shoot coming out of it, though I can't remember if it was green, then a fat bud, which, when it popped, filled the apartment with such a smell that we rushed it to the dumpster, like a dead rat.

• • • •

Every morning on my way to work at the University I passed a giant garage out back of the sculpture department with a wall of windows. Inside was a planet-walking robot. Sometimes it was outside on the parking lot exercising in the early morning mist. Wooden boxes were arranged on the asphalt as fake rocks and the robot's instructions were to maneuver between, or to lift and carry, the plywood rocks. Young men sitting on fences applauded energetically when the robot performed without stumbling or squashing a rock.



Hewlett Gallery



The Hewlett Gallery is a long narrow room, with high skylights and decorative plaster molding. Its formal arched entrance opens onto the marble-floored hallway, lined with neoclassic statues, of the College of Fine Arts of Carnegie Mellon University. Across the street the thin blue-coated woman at the desk in the anteroom of Phipps Conservatory charges 2 dollars to walk around inside her glass house. That is, if you have a Pittsburgh ID, a utility bill, or a library card. The walks are circumambulatory, they twist back and forth, like a walk in the country. The original structure, "clad in tax-free glass, and paved with pounded shell", cost $100,000 in 1893–that was seed money from Henry Phipps, who held the purse strings of US Steel during its heyday. Phipps was responsible for "counting pennies at the gate" - and with those pennies, he gave the city a giant glass house. Andrew Carnegie, who grew up next door to Phipps in Allegheny, PA, proposed a division of civic responsibilities: "I'll take care of the libraries, Henry, if you take care of the conservatories".

In 1909, Mrs. Angie Means was photographed standing on a Victoria regia water lily leaf, its edges bent up like a party favor, in the middle of Phipps Conservatory's central pond. She was wearing an empire waist dress on her tiny frame, and her long hair was brushed out like a tubercular victim in a symbolist painting.

"The sight of immediate reality is an orchid in the land of technology. . ." 1

What is an orchid?

upright

resembling a hedgehog

having remarkably swollen joints

having the margin cut into rounded scallops

shaped like an old-fashioned sandal

cross-shaped

the color of blood, or with blood-colored spots

purse-shaped

resembling ice in solidity or translucency

resembling a cucumber

shaped like a knife blade

wedge-shaped or triangular, with the narrow end at the point of attachment

tipped with a sharp rigid point

boat-shaped, convex

resembling fingers

We took a taxi to Tapanti National Park, up the Rio Macho Valley, past the hydroelectric works, and past hills and hills of coffee. I had forgotten Costa Rica meant coffee. Tapanti was deserted when we arrived at 8 am. It was jungle-like but the canopy was low–no cloud-forest in the likeness I had anticipated. We walked to the river looking for orchids and found instead lizards, wetness, and an impermeable front of green–being inside it, we could distinguish nothing from it. But when we returned to San Jose I bought a tangled orchid root on the street for five bucks. There it was clearly defined against the cement and the people. San Jose was low roofed; the streets were packed full of pedestrians and stopped up by cars without catalytic converters. The plant I bought had big fleshy pseudobulbs lashed to a chunk of bark by a handful of sinuous roots. The pseudobulbs store water, like a camel's hump. I wrapped it in sweaters and it survived the airplane ride and customs too. It survived also the night we spent in San Jose, in a small humid room, below sea level, or below the level of the ground outside, a courtyard torn up by construction. Some students from Germany played cards in the lobby on metal chairs. We cooked spaghetti in the cramped kitchen while a Swedish woman made beans for herself and her husband. They had come to Costa Rica to explore the jungle but decided to stay in San Jose when they discovered an amazing new liposuction treatment that was illegal in Sweden. The woman was ecstatic, and had convinced her husband to spend their vacation having their stored fat sucked out of them.

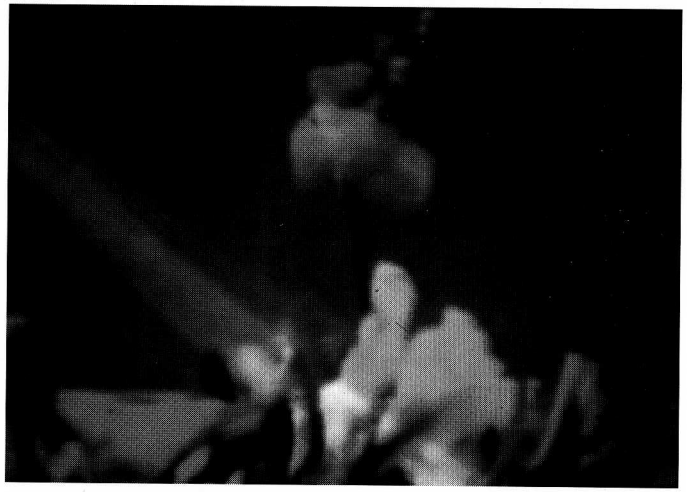
Pittsburgh's steel industry was directly dependent on the rich Pennsylvania coal veins, and on the rivers–the Allegheny and the Monangahela, coming together to form the Ohio. But it took Andrew Carnegie's vertical buyouts to turn it into empire. The city's transition from steel to computers has been discontinuous–skills and facilities can not be converted. Class after class of art students learned how to trespass on the sites of abandoned works. I took my classes to visit one of the last mills still in operation. After the slag had been boiled out, we watched steel pour molten red from the crucible to the train cars, shaped like bullets, fat rolling slugs of solid metal. A man who used to work there told us that when someone fell in, production did not stop, but the remains of the body would be poured with the steel into one of these train cars, and they would bury the entire slug, a 1000 ton casket.

"The mineral wool spun from blast furnace slag might someday join vermiculite, peat moss and styrofoam as a growing medium for bedding plants', a Penn State University researcher says.

'We're finding that mineral wool is an ideal growing medium for plants . . .', said Jay Holcomb, professor of floriculture. The waste material, which resembles fiberglas, holds water well and releases nutrients efficiently.

If the research proves the worth of mineral wool, steel makers may have an alternative market for this byproduct, while green house operators–faced with a shrinking supply of natural soil–would have a new growing medium at a reasonable price..."

– Pittsburgh Press, September 1991



In Hewlett Gallery, I built a 24 foot long trellis below the skylights, lined it with mineral wool, and planted it with epiphytic orchids. Plastic sheet contained the moisture within a rectangular space directly under the glass. A video camera inside the trellis offered live but indirect visual access to the plants via a monitor in the gallery below, and an empty refrigerator contained disembodied orchid scent. The only access to the actual orchids was through the attic room upstairs, which you entered through a locked window. The gallery director and I shared a key. It was freezing up there in the middle of January in spite of all the light streaming through the glass roof. The floor of this room was the skylight of the gallery below, so the only areas that could withstand weight were a narrow catwalk around the periphery and two bridges suspended over the glass. Still, all the gallery's pedestals and extra hardware were stored up there. To water the orchids you had to squat on the catwalk, secure one foot, and lean precariously over the glass to an open pane, lower the watering can into the hole, tilt, and blindly pour. Of all this you could see nothing downstairs except what the camera had been positioned to look at.

twining, rolling, turning

distended, swelling, especially on one side

with small holes

veined

clothed with soft hairs

bearing a flag or banner

well-marked

full of grease or tallow

having sharp teeth pointing downward

zebra-striped

naked

shaggy

smooth-shaved

having a flat surface, like a table or a board

as if bitten off at the end

jagged, as if gnawed

Ancient Greeks believed that orchids grew where excess semen from copulating satyrs fell on the forest floor–*orchis* = testes–or sprang from the seminal effluvia of a hanged man: *dead man's fingers; gallows root*. Now, 95% of all orchids sold are produced in laboratories. More than 75,000 hybrid orchids have been registered on *Sanders List* since 1893. Anyone can learn from a glossy book how to slice open an ovary, extricate, and place the pollen, without the vaguer wanderings of a bee. Once a hybrid is born, you don't need to wait for the logical progression, a flower, and then seed; you can clone from a section of stem. Most growers have a warm sterile room full of test tubes in which they culture orchids on agar agar, a nutrient jelly. Hybrids bloom more frequently - some continuously - and are bred for specific colors and shapes. The language for classifying orchid hybrids is constantly re-tuned to reflect new subtleties of difference. Some orchidists believe there are still species to be discovered in the wild; but even these optimists concede that they are probably not significant. All the good ones–with the biggest blooms, showiest foliage, most commercial potential–have been found, and it is entirely up to the hybridists to create the new frontier.

"The dwarfs are sometimes called cocktail orchids, or art shade orchids. These plants are suitable for coffee tables, bookshelves, and other display areas."

Meanwhile, I've been trying to track down information on an Australian orchid *phyanthella gardneri* that germinates, flowers, and dies underground.

Orchids by Hauserman is a giant complex in Villa Park, IL, a suburban sprawl outside Chicago. The strips are there–endless expanses of gas stations, car dealerships, burger kings. Following directions from 290 a giant billboard greeted me: ORCHIDS BY HAUSERMAN, OPEN SIX DAYS A WEEK, with a big pink cattleya bloom. Two other giant signs flanked the entrance to the driveway. And another said park here. There was plenty of parking space. Hauserman must have twelve or fifteen green houses, all connected, all painted white on the outside. Most of the plants I saw were the popular and easy hybrids, big bloomers–cattleyas, dendrobiums, and phalaenopsis. House after house of these, in pots on tables, moss lining the dirt floor between the concrete pilings, steel pipe, or terra cotta tubes that serve as legs. Some rows had black broadcloth drapes gathered along the edges of the table, as if in preparation for mourning. The hanging orchids were mostly in pots too, vandas and some cattleyas, with long white dangling roots, green-tipped. Hauserman propagated species orchids by cloning or forced pollination. Some of these had "self" written after them–orchids are hermaphrodites. One was *angraecum sesquipedale*, without a bloom. This is the orchid that galvanized Darwin's ideas about evolution–he hypothesized that the 11 1/2 inch nectar-filled spur at the base of this flower could only have developed in the presence of an insect with an equally long tongue. When a night-flying moth from Madagascar with a 11 1/2 inch long proboscis was discovered, evolutionary theory hopped forward. Although no one has ever seen the moth and the flower engaged in this act.

Darwin describes the development of orchids as a blind walk into the future, reluctant, braked, like the bee trying to exit the tubular flower whose scent and shape made entrance sweet and easy. The bee tries to back out the way it came, but it can't push adequately against the downward pointing hairs that line the flower tube, like tire slashers in a one way parking lot. So the bee has to go forward, blindly, not the way it came in, looking for escape, deeper into the flower, coating itself with reproductive dust. By the time it finds the back door, its entire body is coated with pollen. And all the time it wants to have gone out the way it came in, back through familiar territory, back towards the light, according to its memory's map; instead it is moved by the form of the flower, a rebirthing it could hardly want to revisit–but does–

[1] Benjamin, Walter, *The Work of Art in the Age of Mechanical Reproduction*

twisted upon or around itself

tongue-shaped

large-lipped

resembling jaws

necklace-like; having alternate swellings and constrictions

boat-shaped

blunt-leaved

resembling the beak of a bird

shaped like the outline of an egg

halfway between two other things

containing milk or a milklike substance

entirely underwater

snoutlike

shaped like a dagger

floating

cloudlike