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IMPRESSIONS OF THE TASSAJARA LANDSCAPE

by Sterling Bunnell

These mountains are young, in a geologic sense, and even now rising. Streams notch them deeply and have not had time to broaden the steep-walled canyons to gentler slopes and shapes. The sun's heat and long rainless seasons make water scarce, a condition shaping the pattern of plant distribution. The north-facing hillsides are not so dry and are covered with forests of oak, madrone, California laurel, and other broad-leafed trees. But the south-facing slopes feel the sun longer and more intensely and they support grasses, shrubs, and patches of chapparal, dominated by chamise and manzanita, all plants adapted to drought and fire.

There are many cliffs and outcroppings of sedimentary rock, once formed in horizontal layers on the ocean bottom many millions of years ago, now twisted and convoluted by the undulation and upthrust of the mountains. Waves of water roll and break in seconds, those of rock in eons.

Lower down in the canyons the granite core of the coastal ranges shows whitely through the earth's vegetational pelt, and chunks of polished granite mosaic the stream beds.

The animals who live here know their way about and must practise their art intensely to persist in the existent image. Aware foci of solar energy trapped in intricate biochemical form, they seek the conditions which will allow their flickering subjective fields to develop through transformations true to their own nature.

Around daybreak, flocks of juncos, little sparrowlike birds with dark heads, fly quickly along Tassajara Creek, darting through sycamore after sycamore for cover (hawks have watchful eyes and needs of their own) until they come to a particular buckeye tree which overhangs a series of small pools. Within this barricade of twigs they feel safe and gradually trickle down through the air one or two at a time to bathe in puddles between the stream boulders. As their confidence swells they grow quarrelsome, and dominant birds drive the others away from favored bathing sites. If any junco becomes alarmed at some sign or

thought of external danger, they all rush back to the tree, from which if calm prevails they will once again slip down to the baths.

Events occur in an awesome range of overlapping rhythms, most either too rapid or slow for us to notice. Our senses and mind are prone to grasp at those cyclically recurring patterns to which plants and animals have evolved conspicuous adaptations, to the cycles of day and year.

Leaf, bud, and deer, flower, seed, insect, rodent, and bird, all must exist in relationship and all rise, spread, and sink on the shifting surfaces of physical occurrence - wind, rainstorm, drought, heat, and cold.

The breathing, photosynthesizing hillsides catch sunlight for many months and their shrubs and grasses use its stored power to make quantities of seeds, each with an embryo holding in its cells the genetic identity of individual and species and each with a packet of life fuel for seedling or animal. A whole web of alert, moving creatures, insects, lizards, snakes, birds, rodents, badgers, and foxes exist as and by the energy derived from leaf and seed.

The acorns of the oak forest, which contain carbohydrate concentrated from vast areas of foliage, have a corresponding importance to gray squirrels and jays, and, formerly, to the indian people of California. In some years the acorn crop fails. The jays can turn to other food or leave the area, but the gray squirrels are liable to starve.

As summer dries the earth's surface, that visible stem of the water table that we call a stream drops in places below its rocky channel, leaving isolated pools. Some of the smaller ones eventually dry up, dooming the fishes and other water creatures in them, but others are large enough to last til the rains.

In the streams and pools plants and animals have food chain relationships similar to those in the woods and grasslands above the surface. Filamentous algae are the green light-catchers and there are vegetarians which browse on them and in turn support predators, scavengers, and parasites.

Mayfly larvae, caddisfly larvae, snails, tadpoles, and native minnows are the counterparts of grasshoppers, rodents, sparrows, quail, and deer, while dragonfly

nymphs, predaceous diving beetles, trout, garter snakes, and kingfishers correspond to the lizards, snakes, hawks, owls, foxes, and bobcats of the uplands, and crayfish live omnivorously like skunks and bears.

Conditions of terrain are as important underwater as above. Rocks, overhanging banks, and thick clumps and fringes of algae are refuges to little fishes as bushes are to birds. In deep pools where crayfish are beyond the reach of raccoon paws, they are bold and crawl openly about over boulders and ledges which they claim are theirs.

In some parts of Tassajara Creek the algae-covered rocks are decorated with an even distribution of circular bare patches, each with a dark spot in its center, producing a visual effect which would do credit to any craftsman. The dark centers are water pennies, peculiar flattened beetle larvae which adhere to rocks (here and in the streams of the Himalayas) and the bare areas around them are their grazing territories.

The biologist von Uexkull showed some feeling for the actuality of what seems like a limited part of nature when he wrote: "Let us take as an example a certain oak tree and then ask ourselves what kind of environmental object will that oak tree be, in the environment of an owl that perches in its hollow trunk; in the environment of a singing bird that nests in its branches; of a fox which has its hole under its roots; of a woodpecker which goes after wood-fretters in its bark; in the environment of such a wood-fretter itself; of an ant which runs along its trunk, etc. And, eventually, we ask ourselves what the role of the oak tree is in the environment of a hunter, of a romantic young girl, and of a prosaic wood merchant. The oak, being a closed planful system itself, is woven into ever new plans on numerous environment stages, the tracing of which is a genuine task for the science of nature."

Along the cliffs above the narrows in the brightest and hottest part of the day, numbers of white-throated swifts can be heard chattering and screeching in excitement as they plunge, turn, and rise again, high in the air and barely discernable as meteoric crescent-winged dark forms against the deep blue summer sky. These swifts, so superbly adapted to the ocean of air that they catch flying insects

with only a moment's effort can so easily satisfy their need for food that they may spend their time hurtling ecstatically through space in play, courtship, or companionship like the dolphins of the sea. But even they, free though they appear, are totally dependent on the living fabric of earth and stream from which arise the insects that sustain their incandescent spirit.

Each day a family of mountain quail forages carefully among the hillsides near the buildings at Tassajara. The parents and their children keep in constant contact, calling to each other with soft voices, as they gather seeds and insects or lounge and bathe in the soft earth pushed up by burrowing rodents. By August their young were down to seven, perhaps half the original number and even that too many for all to find food in the coming winter. Though so attractive to predators they judge each situation for itself and can be seen complacently scratching and peeking only a few feet from Chino Sensei as he splits logs with an axe.

One morning at dawn I stood on a hill by the Beehive trail and watched the sun rise over the ridges. Insect wings hummed and birds sang as light rays warmed and illuminated the canyons. The sound of the wooden bell came from below and I felt in an intimate way the relationship of everything perceived.

Our organs of sense are so constructed that they only respond to differences in the energies impinging on them. Our senses and mind separate the universe into different things (whereas in actuality it is unified), but we are unable to grasp the true nature of anything, including ourselves. We exist like eddy pools in a transforming river of what the physicists call energy. Like eddy pools we as separate entities have a relative reality because of a seeming persistence of form, but this energy and form do not differ in their intrinsic nature from what we call empty space.