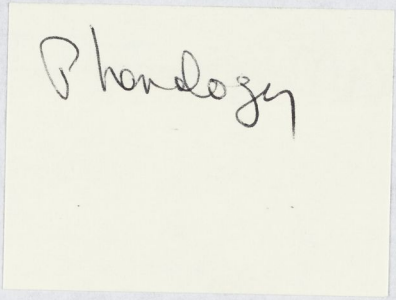
~~Eagles/Cowboys (Fri?)~~ March ?

Phenology.

You can't go by
an office calendar, so
you follow the
science of appearance. (?)



March

Little Kilboled Jack.
Not in fact one of the
best listings, + covert.
aimed at impressing
herself, not the shoopshire.
Hard to see - hiding

Phenology

Feb

~~Yesterday I didn't even know how to spell phenologist and today I am one.~~ Phenology seems to be the study/science of appearances, esp. as related to climates, and it covers all the good things - open leaves and wild iris and ripe and brood of baby birds. This is a phenological sort of climate.

(March)

Birds returning – not the birds but territory, I suspect. Insectivores will come later: phoebe, kingbirds, swifts.

Hungry season for the deer. Outside our south windows, in the morning, eating fresh grass over the septic tank – lawn may be a difference.

Cycles

(Could fit in one of the equinox articles)

Emphasize smells + connection to memory.

wet grass + women at growing trout.

wing fermentation in fall.

Hair cat much different from dog cat.

also explore thinking connection.

Each season feels right when it comes.

Ten galloping around the
wooden boards of the
porch, looking frantic.
She sounds like a ~~the~~ radio
broadcast during wartime.

whirls with [illegible] Representative Bud Shuster's dealings with a lobbyist named Ann Eppard have attracted special notice. The Pennsylvania Republican is the chairman of the House Transportation and Infrastructure Committee. For more than 20 years, Ms. Eppard was his chief of staff.

When she left in 1994, she achieved instant success as a lobbyist. According to recent news accounts, she received more than $500,000 in fees her first year, mostly to represent transportation interests before Mr. Shuster's committee. Amtrak, for example, paid Ms. Eppard $100,000 a year when [illegible] affected railroad.

Federal laws barred her from lobbying Mr. Shuster for one year — a prohibition both say was observed. But loopholes left her free to lobby the committee's chief of staff. She has also continued to do political and fund-raising chores for Mr. Shuster as a paid member of his campaign staff. She has solicited her clients for contributions for his reelection. At the same time, Mr. Shuster has regularly accepted free lodging at Ms. Eppard's home.

Common Cause has asked the Ethics Committee to determine whether Mr. Shuster acted properly. The answer will test the efficacy of House ethics standards, and of the committee.

Melting Planet 3/16/96

It has been as ugly in the Berkshires, two and a half hours north of New York City, as open, undisturbed country ever gets. One day the temperature reached 47 in the afternoon, with steady rain. The ground was frozen and still partly covered by snow, which had turned porous and grainy. A dense vapor clung to the tops of the snowbanks. Water ran in thin, scalloped rivulets across tarred roads. It streamed across the earth and pooled in every depression, where it stayed because it had nowhere to go. In every ditch, every hollow, a tea was steeping, a cold, sepia tea of last year's leaves in a basin of discolored ice. It was easy to find oneself staring into the tangled woods, wondering why exactly humans had never learned to hibernate and whether it was too late to think again.

There is a limit to how ugly Manhattan gets in that kind of weather. The light can only fail so far in the rain before buildings begin to glisten, and, oddly, the city never feels quite so immense, or so familiar, as when the fog closes in. But on a cold, wet night on the edge of the Massachusetts woods, the opacity is shocking. This isn't the deep sky darkness of December or January, when the emptiness of space seems to reach right down to the horizon. This feels like some suffocating, damp antithesis.

On late October mornings, when the grass suffers a brittle frost, the earth remains soft, though it tightens underfoot. A few days ago conditions were reversed. In the fields, the long grass looked like Ophelia's hair, caught by the current in which she drowned. Yet there was nothing pliant about the earth to which it was rooted. No give at all. The ground was still frozen solid.

On Thursday, however, all at once, the soil would take the print of a foot. Not a deep print. A walker could feel a thin layer of soil sliding over the frostbound dirt beneath it, like the flesh of the forehead over the skull. By the next day, it was treacherous walking, mud over shoes in the wet spots. On drier ground, there was suddenly a remarkable sense of leniency. The soil felt almost buoyant, like a gymnast's mat. It invited a fall.

Winter always feels like the still point in the rotation of the seasons. In these tentative days of mid-March, one never knows if the snow is simply in remission. But when the frost starts to leave the ground, when a day with heavy fog holds the light longer than a clear day in late December, nothing is still any longer. A corner of the planet is melting.

PIECE OF MOTION PICTURE HISTORY."

– Joel Siegel, GOOD MORNING AMERICA

"A GIDDY, TRIPLE SOMERSAULT OF A FILM!"

– Stephen Holden, THE NEW YORK TIMES

JACKIE CHAN

RUMBLE IN THE BRONX

NEW LINE CINEMA PRESENTS A RAYMOND CHOW/GOLDEN HARVEST PRODUCTION
JACKIE CHAN "RUMBLE IN THE BRONX" ANITA MUI FRANCOISE YIP
MUSIC BY J. PETER ROBINSON EDITED BY MICHAEL DUTHIE AND PETER CHEUNG
PRODUCTION DESIGNER OLIVER WONG DIRECTOR OF PHOTOGRAPHY JINGLE MA, H.K.S.C.
EXECUTIVE PRODUCER LEONARD HO CO-PRODUCER ROBERTA CHOW
WRITTEN BY EDWARD TANG AND FIBE MA PRODUCED BY BARBIE TUNG
Golden Harvest DIRECTED BY STANLEY TONG
R RESTRICTED NEW LINE CINEMA

rds March 25 on ABC

"...CAGE GIVES A BLAZING PERFORMANCE... SHUE IS A REVELATION."
PETER TRAVERS, ROLLING STONE

"NICOLAS CAGE IS ELECTRIFYING...
ELISABETH SHUE IS EVEN MORE ASTONISHING."
GUY FLATLEY, COSMOPOLITAN

"A MASTERPIECE. NICOLAS CAGE IS EXTRAORDINARY.
ELISABETH SHUE'S PERFORMANCE IS NOT JUST THE BEST
WE WILL SEE THIS YEAR, IT IS SOMETHING TO PUT BESIDE
THE SCREEN'S BEST EXAMPLES OF VULNERABLE COURAGE IN A WOMAN."
DAVID THOMSON, LOS ANGELES MAGAZINE

"NICOLAS CAGE HAS LONG BEEN ONE OF HOLLYWOOD'S FEW TRULY
ORIGINAL ACTORS, AND HIS AUDACITY HERE IS ASTOUNDING."
JOHN POWERS, VOGUE

NICOLAS CAGE ELISABETH SHUE

LEAVING LAS VEGAS

A LOVE STORY

LUMIÈRE PICTURES PRESENTS A LILA CAZÈS PRODUCTION OF A MIKE FIGGIS FILM
NICOLAS CAGE ELISABETH SHUE JULIAN SANDS "LEAVING LAS VEGAS" MUSIC BY MIKE FIGGIS EDITED BY JOHN SMITH PRODUCTION DESIGNER WALDEMAR KALINOWSKI DIRECTOR OF PHOTOGRAPHY DECLAN QUINN
EXECUTIVE PRODUCERS PAIGE SIMPSON AND STUART REGEN BASED UPON THE NOVEL BY JOHN O'BRIEN SCREENPLAY BY MIKE FIGGIS PRODUCED BY LILA CAZÈS AND ANNE STEWART DIRECTED BY MIKE FIGGIS
R RESTRICTED LUMIÈRE AMPAS © UNITED ARTISTS An MGM Company

Visit the Leaving Las Vegas Site on the Internet: http://www.mgmua.com/vegas

NOW PLAYING AT A THEATRE NEAR YOU

Watch the Academy Awards March 25 on ABC

PHENOMENA

COMMENT & NOTES

Our wetland & water purification plant.

Wastewater Problem? Just Plant a Marsh

FOR SOME OF THE TOUGHEST ENVIRONMENTAL CLEANUPS, PLANTS CAN DO IT BETTER AND CHEAPER THAN WE CAN

BY JOHN P. WILEY, JR.

Effluent from Ethel M Chocolates in Henderson, Nevada, is treated here. Microbes in the foreground tanks begin the job; plants in the tanks at the rear finish it.

NO ONE IS SUGGESTING THAT THE plant kingdom isn't doing its fair share. All those leafy creatures are photosynthesizing their virtual hearts out producing the oxygen that keeps the rest of us going. They filter the air, and they prevent erosion by slowing the speed of incoming raindrops and by holding the dirt together with their root systems. Plants provide timber for houses and the furniture that fills them, pulp for paper (a tree died so you could read this column) and flowers for hospital patients. Tens of millions of acres produce the grains that feed our cattle, hogs and chickens.

For ourselves, plants are both sustenance and beauty, in either order. The news is that the plant world can do lots more for us: it can become an industrial partner, one that can clean up our mess.

The concept is known as phytoremediation, *phyto* being the Greek word for plant. Microbes are already being used to clean up such nasty things as oil spills, under the more general category called bioremediation (SMITHSONIAN, April 1993). Now artificial marshes are being planted to further cleanse the effluent from sewage treatment plants or to make the water draining from abandoned mines less lethally acidic. Specially selected species are being planted on land that has been contaminated with one or more heavy metals. Some plants will accumulate the metals—which tend to be very toxic—in their tissue. These may not only solve the problem but may become a cash crop: in the case of zinc and cadmium, the plants harvested from just one acre could be worth several hundred dollars. Still other plants will remove metals from the soil, convert them into gases and release them into the atmosphere (though this presents its own risks).

Metals are not the only contaminants that plants can help clean up. They can accumulate or break down organic (carbon-containing) compounds. Poplars planted in strips will stop plumes of underground water contaminated with petroleum. The trees will also accumulate the hydrocarbons that make up the petroleum, removing them from the ground. Poplars, and a number of other plants, can also break down compounds like TNT (left behind when the Army burns or detonates obsolete munitions) into harmless, inert compounds. There are even plants that will accumulate radioactive nuclides: *Science News* reported last year that sunflowers floating on rafts with their roots dangling in the water are being used to remove cesium 137 and strontium 90 from a pond at Chernobyl. The plants themselves become radioactive waste, which can be handled, and the water is cleansed. It costs $6 or less per thousand gallons of water, far less than the more "advanced" technologies that exist.

In most cases, these processes are more complicated. Suppose, for exam-

Without Intel's Video Phone, you could get the wrong impression about the new arrival.

Phone calls will never be the same. But then, neither will PCs. The Intel Pentium® processor with MMX™ technology, combined with a video phone, makes PCs more exciting and fun to use. Using an Intel Video Phone with ProShare® technology, which takes advantage of MMX media enhancement technology, will give you smoother video right over your existing phone lines.*

Talking PC-to-PC feels more like talking face-to-face. To see a demonstration of Video Phone on a PC that has a Pentium processor with MMX technology, visit your computer retailer. And see what everyone's been talking about. ► www.intel.com

intel®

The Computer Inside.™

What attracts me most is the idea of turning a messy problem into a garden.

ple, you have a piece of land that is saturated with lead. In normal soil, no plant will take up much of that lead. But if you amend the soil with a substance that will bind to the lead, the resulting compound will be taken up nicely by Indian mustard (*Brassica juncea*). *Environmental Science and Technology* recently reported that on a New Jersey site where batteries once were made, the lead was nearly gone after just one summer of this treatment.

The potential cost savings are attractive. Cleaning dirt on-site can cost $10 to $100 per cubic meter. Taking it off-site to clean can cost three times as much. Tending the plants doing phytoremediation comes to about a nickel a cubic meter. The financial incentive can also lead to environmental largess. New York City has decided to spend nearly $1 billion to protect the Catskill watershed that naturally purifies most of its drinking water. A treatment plant to purify the water would cost $4 billion to $6 billion to build.

This duckweed-covered pond is the result of sewage treatment—and a popular attraction—at a nature center in Cedar Rapids, Iowa.

What attracts me most, however, is the idea of turning a messy problem into a garden. Take acid mine drainage. It contaminates streams from Pennsylvania to Alabama. The process of mining exposes pyrite (fool's gold) to air and water. Iron and sulfur in the mineral are transformed into iron-laden sulfuric acid. The acid then dissolves other metals—such as manganese and aluminum—from the surrounding rock. Water from rainfall and underground streams washes these contaminants into streams, turning them bright orange and red. The acidity is so strong that it kills fish and aquatic vegetation. The coal industry has been spending more than $1 million per day to treat the effluent with alkaline chemicals, such as lime. But the late, lamented Bureau of Mines had a better idea. The bureau began encouraging the planting of artificial wetlands, using primarily the common cattail *Typha latifolia*, in places where the acid drainage would go through them. A typical site costs $20,000 to build. It can reduce cleanup costs by $20,000 to $60,000 a year compared with the industry's usual practices.

Here's my favorite example of plants coming to the rescue. According to the trade journal *Land and Water*, the Indian Creek Nature Center in Cedar Rapids, Iowa, was in a bind. They had planned for an annual attendance of fewer than 10,000 visitors a year and they were getting more than 40,000. The septic system was overloaded. The center is located at the confluence of Indian Creek and the Cedar River, surrounded by flood-prone land, which meant that a conventional leaching field was not possible. They decided to build wetlands instead. An engineering firm donated the services of an engineer who had designed wetland systems for years. Foundations put up the money, the Cedar Rapids Parks Department did the grading, and members of the Cedar Rapids Garden Club volunteered to buy and plant a wetland garden.

The waste stream first goes to a conventional septic system. But then the effluent goes through three basins. The first two are filled with pea gravel. Water does not reach the surface, but wetland plants extend their roots into the dirty water. The combined surface area of the gravel and the root systems of the plants provides a substrate for the bacteria that break down the sewage. The water, now clean, then flows into a third basin, a pond, which has inadvertently become the biggest attraction at the center.

That description is not very inviting. But consider what you would see if you were there. The first basin is planted with cattails and bulrushes. In the second are growing arrow arum, blue and yellow iris, water plantain, cardinal flower, great blue lobelia, ironweed, swamp milkweed, and sweet and marsh blazing-star liatris. In the pond itself are water plantain, arrow arum, sweet flag, marsh marigold, lizard's tail and arrowhead. Along its banks are slender goldenrod, grass-leaved goldenrod, pale purple coneflower, yellow coneflower, sky-blue asters and shrubs. It's really just a sewage treatment plant, and yet I find myself wanting to be there.

Something like that has already happened to me. A few years ago (*Phenomena*, May 1989) I went back to Aruba, the formerly Dutch island off the coast of Venezuela where I had grown up. Years before I lived there, flat ponds had been dug to evaporate seawater for the salt. By 1989, I discovered, those ponds had been turned into a tertiary sewage-treatment system. My friend and I had asked for the hotel closest to a nature center and got what we wanted—the hotel closest to the sewage-treatment plant. Except it was deep green with vegetation (the island is otherwise very arid) and loaded, just loaded, with birds of every kind.

Most of these phytoremediation schemes are still experimental. Yet the idea of using fields of flowers rather than brute-force mechanical methods seems so intuitive, so attractive, that I can't help thinking that in the long run, we will be hearing more about it.

As a MATTER *of* FACT WE DID REINVENT *the* WHEEL.

{*And* EVERYTHING ELSE, TOO.}

{Split-folding rear seat}

{CD player}

{Leather seating areas}

{Remote keyless entry}

{ABS brakes}

{V6 engine}

{All for under $20,000}

INTRODUCING THE ALL-NEW 1997 CUTLASS.™ We started with all the details you would expect from its higher-priced competitors and added a few more personal touches. Like cruise-control functions mounted on the steering wheel, remote keyless entry and a host of other intelligent features. The result is a totally re-engineered car at a very surprising price. The all-new Cutlass. At under $20,000*, it's quite an invention.

The New Cutlass

totally rethought Oldsmobile

*M.S.R.P. Tax and license extra.

www.cutlass.com 1-800-255-OLDS

make on file
d/ .012 t .dft.

MARCH.old

[Transfer stuff from here to new March chapter]

FREE CONFERENCE 8/93

Don't want to pose here as something I'm not. I was led into the wilds by my hunting instinct, like other humans forever, and liked being there. They even called me "nature boy" at my work, but it was in foreign affairs -- a most unnatural science. When I left that line work, my intention was to write about affairs of the heart -- not environmental affairs, which are nastier than foreign kind and much less disciplined.

Unfortunately, there is a time in life when you have to look after your mother, and Mother Nature is in trouble. It helps to give her a hug, no doubt, but you've also got to be sure that she has a place to live. And so you get drawn into the brawls. You take sides. You start worrying about means as well as ends. (Or maybe you don't -- Jack Turner.)

The comparison between foreign and environmental affairs is discouraging in two ways.

1. FA is an old discipline, practiced as well a hundred years ago as today. Has rigorous standards and lots of discipline, for one reason: when you play sloppily, it's not just the aspens that die.

2. FA has no friends, no constituency -- at least in America. Americans would like to abolish the world outside our

borders. Mother Nature, on the contrary, has friends -- 535 of them just on Capitol Hill -- and the friends do as much damage as the enemies. Maybe more.

Which gets to YP. We're loving it to death. Well, maybe not to death, but to a less diverse ecology -- a kind of game ranch.

Mind you, Yellowstone still looks magnificent, at first glance -- at least in summer, when the grass is high and most people visit. My impression: YP is clearly in better shape than the majority of private ranch land in Montana. Much of that stuff is awful.

On the other hand, I know of an old-time private ranch north of the Park -- so old-time that there are no debts to pay off. The owner loves the land, and it shows. Grazing is light -- truly sustainable (something that cannot be said about most American agriculture).

-- Good all-age aspen stands with grouse in them.

-- Healthy stream-bottoms with native cutthroat trout.

-- Even lots of native range plants -- a rarity, these days.

What I'm giving you is not the result of a scientific study. There have probably been no scientific studies of the place. But I'd love to put that rancher in charge of Yellowstone's elk herd.

Don't want to blame YP's administrators for what's gone wrong. If the nation can no longer take serious decisions on bigger problems, how can we expect him a career civil servant to commit careericide over the northern range?

The Sup is, from all accounts, intelligent and decent. He

surely has the best of intentions, like the USFS people mentioned by Randall O'Toole (p.70). Hasn't written anything quite as silly as the Sup of RMNP's letter to Karl Hess -- claiming credit for hiring a scientist to study the long-term effects of global warming (after getting rid of those embarrassing biologists who were studying the impact of elk today).

If you've seen the abstract of research being circulated, you'll see what does bother me. Call it research interpretation -- a pretense that everything is going well in YP -- a dearth of critical detachment.

1. Proving that elk were always in the park in numbers -- without mentioning the seasons when they were present. Why would they have stayed at high elevations in the winter back when they were free to migrate?

2. Circular reasoning on "range". (It's plants that can survive grazing -- and what do you know, there are lots of them around.)

3. Attempt to avoid discussion of biodiversity. Where are those beavers? (Nobody else can find them on the NR.) Grouse? Bighorn sheep? Mule deer?

4. Short form of willows.

5. Too far north for aspen.

6. It was always this way.

When you read this stuff, you just don't know what to believe anymore. Same was true after the great fires of '88. There were positive aspects -- but how can you sort them out when

what you get from the authorities is PR instead of science?

There is some important history. Till '64, the elk herds were kept down -- by rangers. Wasn't popular then either, but when the NPS produced the research, the public at least tolerated the program.

Thee public -- and therefore Congress -- would revolt today. And I see no alternative management mechanisms. The incentives would be perverse under any scheme that stands a remote chance of being accepted.

Core problem -- I'd argue -- is that the issue being managed is not biological but religious. YP is Eden -- term I chose carefully. USPS is not like USFS, which manages timber and grazing and hunting and fishing, among other things. YP Sup's product is a warm glow for a public that needs to believe in a paradise somewhere.

What can we writers give our readers instead of Eden? Because there never was a real paradise -- a time when Adam did not think that Eve looked extra-good in the altogether.

We do have one sin to repent, as writers. We helped to convince the public that there bas a balance of nature just about the time that scientists discovered there wasn't. The BON is doctrine now, like virgin birth. Maybe we can at least work on correcting that.

Suggest that our task (or mine, anyhow) is to help swing the pendulum toward an acceptance of management -- to write about means as well as ends -- the practical side as well as the

spiritual. We won't have a cathedral out there unless we lay some stones.

Seems to me, above all, that Eve is someone with whom you have a give-and-take relationship. You don't just peek at her from a distance. (Limberlost and the covered footprints). Public view of nature now is pornographic -- something you watch on a screen, without fig leaf but also without understanding, commitment, or engagement / responsibility.

Education is a very slow way of making progress, but what else can we do?

[dry fly]

The dries also catch difficult fish. I lived a total of eight years in two European countries where the brown trout had been educated ever since the first humans followed retreating glaciers. Streamers rarely work today; wet flies and nymphs work sometimes; dry flies catch trout consistently. They sometimes catch fish the locals can't move with bait (and the Europeans have some tricks with bait that I hope Americans never learn). Our fishing is increasingly coming to resemble that in Europe, so I would expect the dry fly seems to remain important.

[The dry fly is a child of the English language. English is as obvious as a floating fly: you don't have to worry about things like case and gender or strike indicators. There is a straightforward logic and a basic vocabulary that beginners grasp quickly. But then there are irregularities, pitfalls, subtleties, the weight of history, the optics of the surface, the

problem of drag, and twice as many words [] as any other language. You get proficient here and there, but you never learn the whole thing.]

A recent poll discovered that only five percent of Americans are "scientifically literate." Perhaps a poll of fly-fishermen would have shown more grasp of the scientific process, because our flies increasingly make use of it. We postulate that trout take these flies because they look like natural food (a theory not widely accepted in other kinds of fishing with artificial bait). We offer both imitative and non-imitative flies to selective trout -- which is testing the theory empirically against nature. We write volumes on our results. We have not proven the theory, but then respectable theories are not supposed to be easy to prove.

[move to discussion of ecosystem, or July/vast chain]

When you snoop around nature, you find different plants and animals together. You are not surprised, for example, to find It is perhaps even a system, in some loose sense, because these various living things -- and a great many more that you may not see, let alone identify -- are in some way interacting.

MARCH.LFT

11/18/97

> No one knows, till he tries, how easily the habit of walking is acquired. A person who never walked three miles will in the course of a month become able to walk fifteen or twenty without fatigue.
>
> Thomas Jefferson

The numbers suggest that Jefferson was walking on roads, which in his time were measured but not paved. Stephen Ambrose writes that "nothing moved faster than the speed of a horse" in 1801 and, "as far as Jefferson's contemporaries were able to tell, nothing ever would."[1]

One wants to picture our third President in a fairy-tale world amid sunbeams and butterflies, with deer, rabbits, and squirrels out to greet him. Butterflies excepted, however, these animals had been hunted for thousands of years without benefit of game laws, and deer in particular might have been harder to find in 1801 than they are today.

Jefferson, moreover, was a man of purposes.

- He might have been traveling -- going from one place to another by shanks' mare.
- He would certainly have been looking out for scientific specimens or dinner. "As to the species of exercise," he wrote, "I advise the gun. Let the gun, therefore, be the constant companion of your walks." []

Fast forward. Two centuries later, walking remains the best exercise for human bodies, and most areas have good trails. I would like to report that hiking on them is a good way to encounter wildlife, but you might see more by driving slowly

along country roads. Cars, being unnatural, do not seem to arouse natural suspicions, and you can cover more miles on wheels.

Now for a reality check. Dog and I are alone out here because you are somewhere else: probably in a landscape of people, not partridges. You don't need a companion for the long hunt. You might get by with a close-working pointing dog -- a small Brittany, say, of recent French breeding. But it would still hate to be kept in storage between weekends.

Look into a Labrador retriever. It will have been bred for storage, of a kind -- lying in duck blinds, waiting for something to turn up. No other dog will surpass your pal Micawber in patience and good humor.

Of course there are trade-offs. The Labrador is big in everything. It is the biggest-selling breed in the country at this writing, and may, by no coincidence, have more genetic defects than any other. So do your research. Look for an old-fashioned Lab that is sound, calm, and short of leg: perhaps the offspring of recent British imports. Micawber will have a thick, oily coat and a tail that may sweep your coffee table, but only once. He will understand what you want. He will want to chase sticks. A criminal in your yard will risk being exhausted by a dog eager to play fetch.

Sometimes my human companion on the no-kill hunts is Tom Eversman -- a landscape artist with brushes and pointing dogs. His paintings are better than ever but his hair has faded some, like mine, and his knees are no longer Jeffersonian. He could use a dog that would hunt within human purview. He would catch fewer

landscapes, perhaps, but he would find plenty of game with a Lab that would push into every patch of brush.

Tom shakes his head. Watching a Labrador, he says, is like waiting for paint to dry on canvas. And then he heads for a white speck on the horizon. Might be a snowdrift or one of his setters on point.

[Link this with other, less intensive management]

> Are not two sparrows sold for a farthing? and one of them shall not fall on the ground without your father.
>
> Matthew 10:29

We put up a feeder of suet and another of seeds for the birds, or rather for ourselves. The chickadees are bright sparks in a cold gray dawn. They flit in from willows in our yard, flip upside down, catch the mesh with their feet, and pick upward at slabs of suet. Turns out that chickadee's brains grow larger in winter when food is hard to find. [research] He was a diligent researcher who discovered that one.

Does the chickadee's trick have any parallel in the evolution of us primates? Our food/brain connection is not easy to see today, when the brain tells you to avoid stuffing yourself with suet. Even during the first thanksgiving in 16 [], however, humans had to look hard for their food, and technology was less important than individual knowledge. It appears that [] the Indians had to teach the Puritans [] something about hunting.

[The pecking order, magpie at top.]

The downy [] woodpecker has learned to feed on suet too, but Cassin's [] finches can't get the hang of it, literally. (The feeder has a wooden roof and a mesh bottom on which the fat sits.) We put grain a different kind of feeder for the finches, who are joined by the chickadees, and the tree sparrows hop around the ground to clean up spills. For them, this is the sunny south, [] miles south of their summer habitat in the Canadian [].

The feeders are just outside my window, so I cannot avoid hearing occasional thumps. They are soft, in the winter, and the birds are rarely killed: just knocked groggy, for a few seconds, or perhaps not affected at all. They are full-grown now and more wary.

We made the songbirds our guests at all seasons, for two years. Of good reasons there were plenty -- [list] robins in summer, yellow warblers, [] grosbeaks, even the occasional western tanager. [] It was the thumps that stopped us. We -- humans or dogs -- would hear a bird hit the window, and then Anna or I would dash out and try to rescue the victim before a cat arrived. Sometimes, too, our dogs would bring us a songbird that would recover.

The sharp-shin got occasional birds us too, but did not wait around for them to fall. Trust cats to learn about easy prey.

We are still feeding birds and wanting to believe that, if we are putting some in harm's way, we are saving enough others to compensate. Surely we are endangering no populations, if only because none of our visitors are rare species. But we are not helping their populations either. We are not concerned with

populations. Birds that accept our hospitality become individuals to us.

[Repeats April] Perhaps we had builded [] better than we knew. The house has three clusters of aspens hiding deep, shady porches which in turn shade big windows. We put falcon silhouettes on the glass, which seems to work for some houses, but not here. Rabbits, ground squirrels, and wasps colonized the porches with few consequences. But then we did not feed them.

Farm crops can be better than available wild rations. The ducks, deer, and pheasants (in about that order) tell us so, clearly. But grain is spread over wide areas where ducks can elude their natural predators -- and windows.

Wild things may be helped by artificial feeding, in some places. I have not seen them. [state law?]

[You can't own running water, but you can spend your energy on it and borrow from your future. You can worry about the rest of the world too, but a world is hard to help. You know what the stream needs when you're in it.]

Muskrats, for example, are no problem on natural wetlands, but on this particular spring creek -- structure weakened and denuded by grazing -- muskrat tunnels are collapsing banks that nature took thousands of years to build. You call in an expert trapper who catches eighty of the rodents and fails to catch many more. It is not a solution, but it is a respite that nature needs in her convalescent stage.

[The spring creek has become a mortality trap for some trout. They are drawn upstream by water that is clear year-round and food that is relatively available, even in winter. The original deep, narrow channel would have provided these advantages and protection as well. Today's stream has few pools that provide year-round shelter.]

The secret is not that Nature knows best but that nature knows nothing, and is therefore perfectly random [] in the dispersion [] of seeds, as Thoreau figured out. [note] A gardener would know too much.

[Move to March.]

We did not train him to carry the pad around -- and wish he wouldn't -- but there it is, shortly after I sit down in a new place. Huck watches for a minute or two, sighs, fetches his bed, flops it at my feet, and stretches out. He is not neat. The pad may be upside down or curled, but it is soft and it is where he wants it. He knows what he is doing, and why. Huck and I hunt together perhaps two hundred days a year. Some of the hunts are with no gun, off-season, and even at peak-season the gun is in use for perhaps one-tenth of one percent of the time. Some days we don't get lucky at all. That's venery for you.

[Huck has more distance on him now than some cars in the junkyard, but still he finds what we came for. And I still try to keep up.]

On one point there is a firm rule. Huck hunts only with me and then birds, only birds, and not many kinds of birds at that. Dogs have a sense of right and wrong, but it has to be developed -- like ours. When Huck indulges in a forbidden sniff of hare

now, I chide him and he feels guilty.

When a pup grows up like this, something different happens. He does not need to be reminded that I am the alpha male. Once in awhile there is a sharp "no," as with human children, but most of the usual training commands rust in peace. "Whoa," for example: Kennel-raised dogs certainly need it, and so does Tess, but it would have been redundant for Huck.

Staunchness is not as safe a bet as retrieving, but on wild birds it comes. A pup may need to be steadied on point -- usually with a pen-raised bird, so that the trainer has control over the circumstances. In that case Pup learns to hold as a matter of obedience, though he reckons that he could catch that stupid bird, and is probably right. A wild bird is different.

Pup learns to point it because he needs human help to get what he can't catch otherwise.

Personalities, and the match thereof, come first in picking a pup. Not its coat. Not its color. Not its breed, either, and certainly not its social stratum. A human who wants a dog with class usually gets it.

One guide comes from Larry Michnevich, [] founder of our local dog club. He has run dogs in field trials for all three kinds, and he puts the differences this way:

- Winning retrievers (most of them Labradors) are 20% genes and 80% training.
- Winning spaniels (most of them springers) are 50% genes and 50% training.
- Winning pointers are 80% genes and 20% training.

Larry likes spaniel trials best because they balance genes and training, testing dog and human equally. Sound reasoning, if you like training and trials.

I don't. Even pointer trials are usually artificial (in America) because they use pen-raised birds, which a real hunting dog wants to pick up and fetch without benefit of shot. When you train your pup for such a trial, you train it not to use its head. I did this with Huck and he won our all-breeds pheasant trials two [three?] years in a row, which I report to show that sour grapes are not at the core of my objection. But Huck had learned real venery before the imitation and was able to switch rules as needed.

We need field trials because we are kennel-blind, all of us, and some objective test must show us which dogs are worth breeding. The problem is that dog people, breeders especially, have come to accept the field-trial paradigm as the real thing.

had so thoroughly perforated, trampled, and pooped upon that the cattle could not make a decent living.

bring out the difference between wilderness and farm rules.

[I don't think so, but ask me again in a couple of hundred years.]

A dog will work for the common good, if you give it a chance, and be uncommonly restless if you give it no job, or one that is not designed to do.

Ignore his advice if you want a drooling blonde aristocrat, or a terrier with nothing left but its temper, or a pet that makes a statement about your lifestyle.

[Most families in this valley have domestic animals -- and most of them look like impulse buys.]

A dog is what it does -- not what its ancestors did. Purebred dogs came into being for specific tasks that were important, in the days before beauty contests.

[Laughter works in all languages, human and canine.]

What I thought wanted, back in the dachshund days, was just a pet. A cat would have been a better choice. It might have been less intelligent than most dogs, but perhaps no dimmer than dog-show dachshunds.

• Don't start with a breed that has lost its function. You won't see a real dachshund today, unless in Europe; a working wolfhound unless among Asian tribesmen; or a functional bulldog anywhere.

America would be in trouble if our soldiers were as

incompetent as our dogs.

Your dog won't just stand there. It will do something. One dachshund caught a rat and put it down, much the worse for wear, in the middle of the carpet. Leave it to a dachshund to break up the Christmas party.

Picture the gander: vast, conspicuous, loquacious, available -- one of conservation's success stories. As children, we would run outdoors to hear to him leading his gaggle north. We feared that he would go extinct, along with the deer, elk, moose, and bison.

Now picture the anti-goose: small, cryptic, quiet, and scarce. Montana's greatest defect is that it has no woodcock. If we lived in the northeastern states or Maritime Provinces, I would have a setter that could find woodcock nests and stand on point as long as it might take me to band the hatchlings. The birds could then be tracked on their migration to the southeastern states, where they seem to be running into trouble. It will take this kind of work to save the species.

Here at home the problems are different, for reasons that will come up as the months go 'round.

> I am a terrible dog trainer because the trait I like in dogs is the same I like in men: namely, civil disobedience.
>
> Guy de la Valdéne[2]

Huckleberry trained me. Call it a conjunction of

personalities, each of which found training as exciting as lawn-mowing and weeding broccoli. If I turned out to be a hopeless teacher, however, I was good at showing my feelings in the fields where feelings evolved. Most of our wants -- Huck's and mine -- turned out to be hard-wired. We just had to find the switches. Call it personal anthropology: the pattern of the wolf and the savage, extremes of exertion and rest but no tedium, no caffeine, no focus that you had to think about.

Huck has the drive -- worse luck for Mitzi. She's there when he's bored, but let me open the garage door and who needs sex? He'll stand by the truck, hoping that it too will open for him.

One thing is clear now: You cannot train a dog to hunt. You can teach it obedience, steadiness on point, heeling, even retrieving, but skill in the field comes only with exposure, and then only if your dog has the urge. It turned out that Huck and I wanted to do exactly the same thing, and quite a bit of it.

[The beaver, then, has turned from a theoretical benefit into a natural disaster.]

[Cows can be managed. Beavers can't.]

(1) Ambrose, Stephen E. Undaunted Courage. NY: Simon & Schuster, 1996. p.52.

(2) NY: Atlantic, 1995. p.

Naming?

~~The spider~~

Stream chemistry
(Call Prof. Donald Reichmuth, MSU)

Climate: pull "Going to Extremes."

Move Trout + Virtue
to April?

See May for worms.
Even they are probably
Eurasian, by now