

*Published in the Whole Earth Catalog*  
**COEVOLUTION**  
*Quarterly* No. 41 Spring 1984 \$4.50



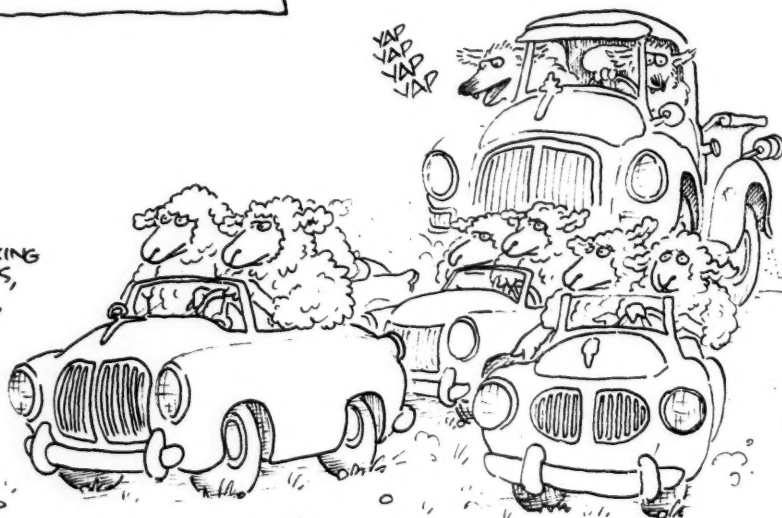
"NATURE'S BLASTING, BILLOWING ARCHANGEL" P. 80

# FROM THE SKETCHBOOK OF JAMES DONNELLY

James Donnelly draws funny, typesets great,  
rides a Triumph, and lived in Kentucky for  
only four years, he hastens to point out.  
(These are from then.) —Jay Kinney



REAL, WORKING  
FARM DOGS,  
BRINGING  
THE SHEEP  
UP FROM  
THE BACK  
PASTURE.



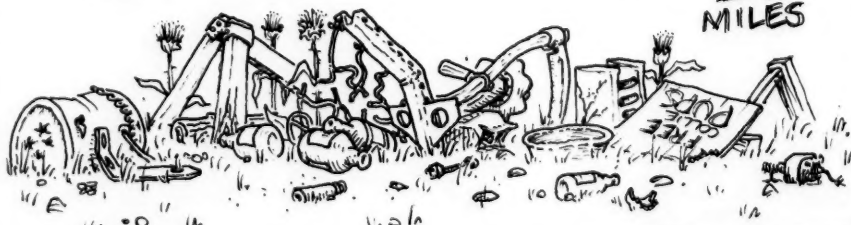
UNCLE  
BOB'S

FARM MUSEUM

GOLGOTHA, TENN.

RT. 31

ONLY 14  
MILES





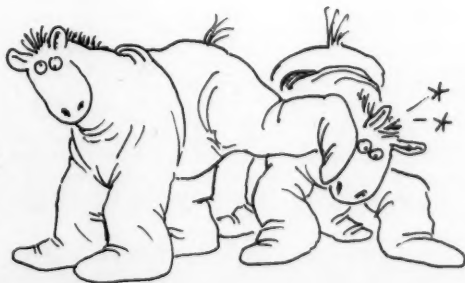
# BAD DOG.



FURTHER GREAT IDEAS OF WESTERN MAN.



TEAM KARATE  
IN HORSE-COSTUME  
DRAG.



No. 41  
Spring 1984

# COEVOLUTION

Quarterly

## FEATURES

### ARTICLES

- 1 From the Sketchbook of James Donnelly
- 4 **THE SACRED AND THE DEAD:**  
Autopsies, Embalming, and the Spirit  
by Sallie Tisdale  
*Observations of reverence and ritual in the morgue.*
- 14 **Surviving in Small Business:** Random notes from a small business junkie  
by Paul Hawken
- 18 **Huis and Means in Taiwan**  
by Richard Stites  
*A thriving community credit system based on mutual distrust.*
- 22 **DWELLING**  
by Ivan Illich  
*How to tell a resident from an inhabitant.*
- 30 **Beyond Hyphenization:** A new system for nonsexist family names  
by Anthony Weston
- 34 **Coffee Hour:** America's true religion  
by Jim Burklo
- 36 **Waiting for the Sting**  
by Donald Factor
- 44 **MU'AMMAR AL-QADHAFI:** Faces of "The Enemy"  
by Jessye Piper  
*If you think Qadhafi is just a madman, think again.*
- 62 **The Voyage of the First Ocean Pickup**  
by John Todd
- 94 **TOWARDS A THEORY OF HISTORY:** Fitness, Niche and Clutch of Homo Sapiens  
by Paul A. Colinvaux
- 120 **How to Grade Your School**  
by Ron Jones

### POETRY

- 80 **ELEPHANTS**  
by Heathcote Williams  
*A paean to Nature's blasting, billowing Archangels.*
- 134 **Westfall**  
by Sam Abrams

## DEPARTMENTS/REVIEWS

### COMMUNITY

- 21 **How to Be your Own Butcher**  
■ Solait Nonelectric Yogurt Maker
- 28 **The Social Life of Small Urban Spaces**  
■ Street Signs Chicago
- 29 **Old Money**  
■ Grassroots Fundraising Journal
- 32 **Plainswoman ■ One Teenager in 10**  
■ Valley Women

### THE POLITICS OF RELIGION

- 33 **Hasidic Tales of the Holocaust**  
■ Theology in a New Key

### POLITICS

- 42 **Washington ■ Under the Gun**
- 43 **Democratic Promise ■ The Rebel**
- 53 **The Washington Connection and Third World Fascism**

*The CoEvolution Quarterly* □ Issue No. 41 □ March 21, 1984 (ISSN 0095-134X) (USPS 077-150). Published quarterly by POINT, a California nonprofit corporation. Office of publication (editorial): Box 428, Sausalito, CA 94966 (27 Gate Five Road). Subscriptions: \$18 per year. Inquire for international air rates. Second-class postage paid at Sausalito, California, and at additional mailing offices. Claims for missing issues will not be honored later than six months after publication. Back issues are available on microfilm and as xerographic reprints from University Microfilms International, Serials Bid Coordinator, 300 Zeeb Road, Ann Arbor, MI 48106.

*CoEvolution Quarterly* is indexed by the Access: The Supplementary Index to Periodicals and by the New Periodicals Index. Recent CQ mailing list renters: Christic Institute, Common Cause, The Utne Reader, Union of Concerned Scientists, Sierra Club, New Options Inc., New Age Journal, Golden Gate Energy Center, Friends of the Earth, SANE, Planned Parenthood, Institute for Study of Human Knowledge, Cultural Survival, Greenpeace, New York Open Center, New College of California, Freeze Voters '84, Southern Exposure, People of the Earth.

Copyright © 1984 by POINT. All rights reserved.

Subscription circulation: 21,987. Newsstand circulation: 10,850.  
P.O. Box 428, Sausalito, CA 94966.

POSTMASTER: Send address changes to *CoEvolution Quarterly*,

## COVERS

This issue's front cover — shot in Tanzania — comes from the plentiful slide files of the generous folks at the California Academy of Sciences in San Francisco. It announces "Elephants," Heathcote Williams' poem in praise of pachyderms, page 80.

Alex Grey's striking back-cover painting draws upon his own experiences working in a morgue, and illustrates Sallie Tisdale's article "The Sacred and the Dead," page 4.

—Jay Kinney



## POLITICS (continued)

- 54 Access to WWII by Dick Fugett  
■ Kamikaze
- 55 A Man Called Intrepid
- 56 American Diaries of World War II  
■ Partisans and Guerrillas
- 57 History of the Second World War
- 58 The War Atlas ■ Children of War
- 59 No Middle Ground  
■ State of the World 1984

## SOFT TECHNOLOGY

- 60 Before You Build  
■ The Compact House Book
- 61 Racing Alone ■ Air-Vapour Barriers
- 69 The Cart Book  
■ Making Pollution Prevention Pay
- 70 The Vanlets by J. Baldwin
- 73 Super Solar Houses  
■ The Complete Handbook of Solar Air Heating Systems
- 74 Alternative Energy Sourcebook  
■ Pulstar ■ Insulated Glass

## LAND USE

- 74 Landscape Planning for Energy Conservation
- 75 Waiting for an Army to Die ■ Note on the Agent Orange/herbicide battle
- 76 Frysville Hybrid Poplars ■ American Community Gardening Association
- 77 Earth Garden ■ In Your Own Back Yard

## WHOLE SYSTEMS

- 78 Where Have All the Wildflowers Gone  
■ Genera of the Western/Eastern Plants
- 79 American Currents ■ The Audubon Society Field Guide to North America  
■ Seashore Creatures
- 92 Times Atlas of the Oceans ■ Skyguide
- 93 Man on Earth ■ Timescale
- 108 The Way of the Animal Powers ■ Inua

## NOMADICS

- 109 Women in the Wilderness  
■ Work Your Way Around the World
- 110 The Bicycling Book  
■ Bicycle Transportation
- 111 Secrets of the Show Cars  
■ Alex Moulton Bicycles
- 112 Japanese Handbook  
■ South-East Asia Handbook  
■ China Off the Beaten Track

## COMMUNICATIONS

- 113 Sony ICF-2002 AM-FM Shortwave Radio  
■ Teleconnect
- 114 Good Movies: Spring by Sheila Benson
- 116 Alphabet ■ Homespun Tapes
- 117 Becoming a Writer ■ The Overnight Guide to Public Speaking
- 118 The Condensed Chemical Dictionary  
■ Personal Documentation for Professionals

## CRAFT

- 119 The Dressmaker's Dictionary  
■ The Complete Book of Sewing Shortcuts ■ Imports by Clotilde

## LEARNING

- 122 The Upstart Spring  
■ Language Acquisition Made Practical
- 123 Clown ■ Register for International Service in Education ■ Directory of Sail Training Ships and Programs
- 124 Don't Shoot the Dog

## BACKSCATTER

- 125 Echoes back from CQ readers

## BUSINESS

- 131 Unclassifieds
- 134 Gossip ■ Whole Earth Catalog Update
- 136 Thank You ■ Financial Report  
■ "Or Whole Earth Access"
- 137 How to submit to CQ
- 138 Masthead
- 139 1983 Index

# The Sacred and the Dead

## Autopsies, Embalming, and the Spirit

by Sallie Tisdale

Illustrated by Alex Grey

**B**ACK WHEN I WAS EIGHTEEN AND SURE OF ALMOST EVERYTHING, death held little concern for me. Pain, yes, and the loss of friends — this I'd known. But the dead themselves, the bodies, were unconnected to this. I stepped into my Human Anatomy and Physiology class as though it was the shore of the New World, and plunged my hands into the cadavers without hesitation.

Indeed: with a gleeful, morbid enthusiasm. I took pride in the fact that I wasn't squeamish, that I was content to dissect alone in the laboratory. I suppressed any doubts. The act of learning left no room for irresolution.

Eight years have gone by and with them the surety. I am still willing to dip my hands in the dead, but now the experience is accompanied by a shifting array of uncertainties. I'm a nurse, I work with many terminally ill people, and I am with them when they die and after. As a consequence, bodies both living and dead look wholly different to me.

Death, life, the spirit, that which follows and the tenuous ties between: I run into a wall that separates my old exhilaration from qualms of a new kind. This wall is where I wash dead bodies and dress them for their journey. What, finally, do we owe the bodies of others? What do we owe ourselves that can only be expressed in how we handle the bodies of others?

To touch a person after their last breath

and heartbeat is to touch something different from you and me. Call it electrical, call it etheric, call it nonsense — but I can tell with my eyes closed, with one touch. If it could be like the movies: last words, a wan gaze, then silence. But people fade out. The cancer reaches the brain, or the kidneys fail, the liver gives out, and poisoned blood brings first confusion and then coma. A stroke will wipe the mind clean and leave the body to slowly fall away. Then lungs fill with fluid, skin deteriorates, bowels run, and the eyes flicker across the room. We, I, turn and wash and minister sometimes for months before the body finally, literally, gives up its ghost.

It is my job then to take out catheters, tubes, to bandage the holes we've made, and wash the body. We brush the teeth, bathe the skin, clean up the wastes the body purges. We talk while we do this, often of other things. But I find, to my own surprise, that when I discover death, a ceremonial begins. "It is all right," I say, "Now everything will be all right." And I cry. I feel compelled to offer

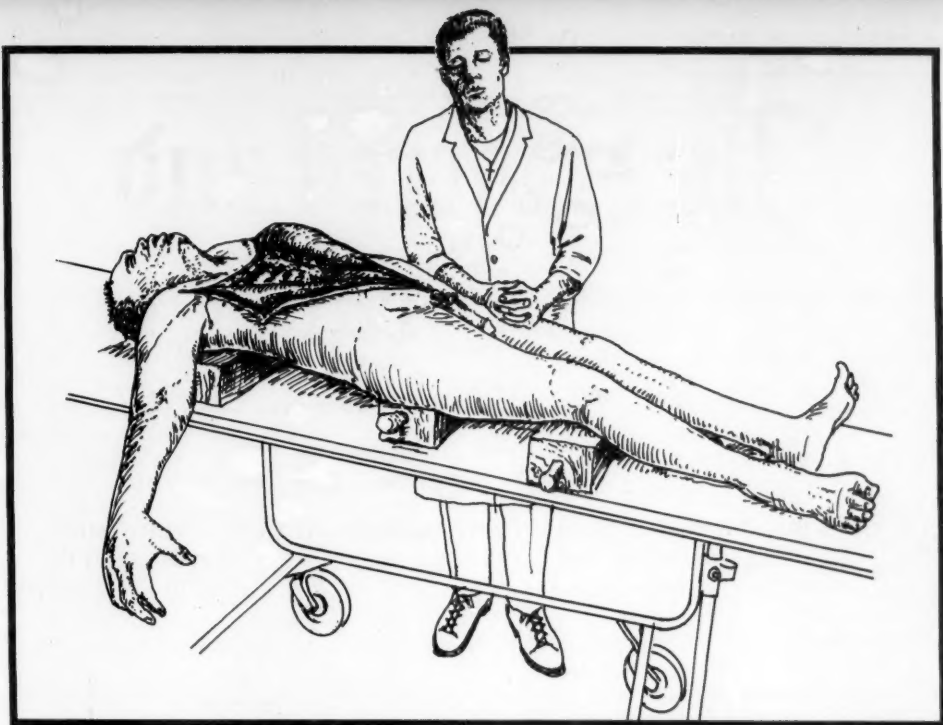
*One of the joys of magazine editing is occasionally attending the emergence of a first-class writer, which usually means a first-class experimenter. Sallie Tisdale first appeared here in Summer '83 with "Women's Work" ("Nurses are being forced to get bachelor's degrees. . ."). Then in Winter '83 with what has become almost a cult item among parents, "Handfast: the Trick of Children" ("One factor determines all else about our relationship with our children: it is irreversible.") And now with lore from the land of the dead. In our generation we have seen dying and death become permissible subjects of discussion and improvement. The dead — our corpses — are still taboo.*

Sallie Tisdale is 27, a registered nurse in Portland, Oregon.

Boston artist Alex Grey is also a regular in CQ — last seen illustrating Steven Levine's "Coma Stories" in Winter '83. Along with his drawings and back cover illustration he sent this note:

*"I used to work as a morgue attendant in a medical school. I did embalming and other preparations of the bodies — like harvesting hands or brains. Sometimes I did drawings of the bodies — a few are reproduced here. I used to talk to the dead person. I'd call them by name and get down by their ear and say 'go toward the light.' Occasionally, I felt their spirits answering me. I learned to respect the dead."*

—Stewart Brand



this eulogy, this confirmation of the correctness of the natural act. Constantly I am concerned with reverence, the parameters of right behavior, and learning that which is sacred.

But when I'm done, and the morticians and embalmers in their dark suits and proper ties have come and gone, what then of reverence and ritual? What of the pathologists, morgue attendants, dissecters? It is a life surrounded not by the dying, but by the dead.



*Peter Stenzel, 42, is a physician and professor of pathology at a large medical school and teaching hospital.*

"Each case is different from others. You have a chance to investigate things rather thoroughly. That part's fun for me; we don't often get very good answers to our questions.

"I rotate and I'm scheduled to staff autopsies a couple of times a month. And I drop in to the morgue now and then, to see what's going on, give a little cheerleading to the people who are doing the autopsies. It can get a little lonely down there.

"With a body, the face of course is the most striking part, the most human part, I suppose. But the hands are almost as human as the face. You're quite stricken by the position and appearance of people's hands. The other parts are rather mechanical. The autopsies we do are, in the main, on elderly people, or on newborns. The newborns don't have much

impact, to put me off. What does is older children, children who are past infancy, especially two to fifteen. That always — death just doesn't belong in that age group. I don't think anyone ever totally resolves that. I'm not very happy doing an autopsy on an eight-year-old girl or boy. It isn't *that* crushing; I suppose one just becomes more serious and concentrates perhaps more on the work.

"With respect to how the body is treated and how people behave in its presence, I guess I was always taught the autopsy is simply for carrying out one's business. And if one whistled while one worked, or played the radio or had conversations, it didn't bother me. I could never have any tolerance for any direct joking around with body parts, or that sort of thing. Not because I'm prudish, but simply because that's a real violation of a trust. Inappropriate. Disrespect for bodies, anonymous bodies, is, in a sense, disrespect for people, and in the individual sense very much for the survivors.

"I don't have any religion in the usual sense. I have a reverence for nature. And that translates into autopsy — I'm always quite amazed at how well things are put together, the plan that's there, quite aside from the issue of who executed the plan. I guess that's as far as religion goes.

"I respect other people's religious beliefs. We had a diener [pathologist's assistant] for awhile. I think he was a rather devout Roman Catholic, and I'm sure he found some of the business offensive, especially disposing of the





Within a few minutes he has wound up the scalp like the top of a Spam can, and gives one final tug down over the man's eyes. He could play pin the tail on the donkey now, or, perhaps, face the firing squad, properly blindfolded.

stillborn infants. I'm sure with his religious background it was very hard to adjust to it, especially as he was the person who did it. It's not crude, but it's absolutely without ceremony. You simply place them in the incinerator, close the door, and turn it on.

"When you do the autopsy, things are in terrible disarray all of a sudden. There's a big flap of skin, and it's all very colorful, it's different from any anatomy lab that way — reds and yellows and oranges and greens. And the smell — it's not different from other dead animals. It's not nearly as bad as a crab shell in a garbage can for twelve hours. If you do an autopsy soon after death, of course, they're still warm. I must have the fears subconscious, because every once in a while I'll have a real good autopsy dream.

"It's a very bad time when someone very close to you dies, and you're thinking some very kind of primal thoughts. I'm not sure you want to have that image in your mind, just then, of old what's-her-name lying on cold steel being ripped rather widely open. I can't imagine for myself both seeking the permission and doing the autopsy. . . . I'm not sure I'd want to directly answer the questions at that time about what you're going to do.

"I suspect that, if there were pictures about exactly the way an autopsy is performed, there wouldn't be nearly as many autopsies."

**T**HE TABLES ARE HIGH, COLD white steel, and shaped like spare, modernist troughs, an architecture student's ideal sewer-pipe. The body of a man lies on top, several hours dead, stiffening but full of warmth yet. He is elderly, fat, bald but for a wild fringe of gray hair circling his scalp. He has two days' growth of beard, no teeth, and his jaw hangs askew. His eyes, as well, are open, chalk-blue, and gaze benignly at the ceiling. He is naked. One leg is cut off at the mid-thigh and the stump looks ragged, torn.

Two dieners work this case. On the next table, a pathology student leads a medical student through a 'septic' case — they wear masks as well as gowns and aprons, and glance disapprovingly at us now and then. Peter Stenzel is here as well, cheerleading,

The first cut is a Y across the chest, pale skin followed by yellow, globular fat. At the muscle the blood begins to run, and doesn't stop; it pools ceaselessly in the cavities and drains down the sloping table. With two quick, rough sawcuts, the entire ribcage is lifted clear, like the breastplate from a suit of armor. The viscera are exposed, a rainbow of enamel paint, shiny, wet, slippery.

"Big heart," says a diener, picking up the tough, fat-covered organ. With the membranes cut, everything comes out in one quilted pile: heart, lungs, aorta, the liver (lumpy, mottled, "a drinker's liver"), everything: a fibrous spleen, bright green gallbladder ("that's the bile"), stomach, intestines flecked with feces. Everything: the bladder, a catheter still inserted. The diener working the abdomen, a Chinese woman in her late twenties, has her fist under the pelvic bone, tugging at the testicles. "Hey!" she calls. "You ever gotten both at once? I just did!" She holds the prize and receives congratulations.

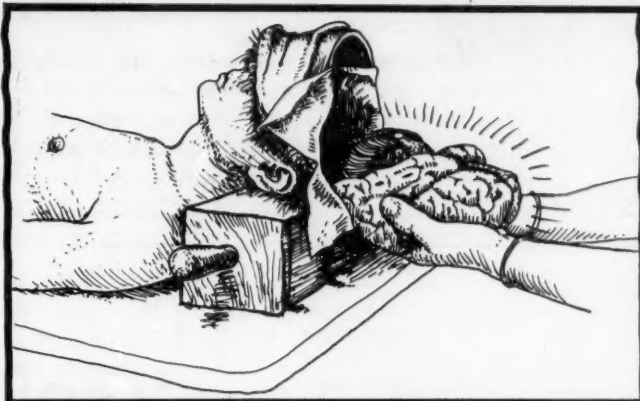
The body slides on the table, his hands bouncing with each jar. He wears a plain gold band on the left ring finger. His blood runs and runs, down the drain. Aprons, gloves and scrub suits get splashed. One watches one's eyes.

As the woman starts to open the femoral artery — the big vessel in the leg — to determine how good the circulation was in the amputated leg, the other diener moves to his head. Steve is young, good-looking, and wears a gold earring in one ear. He smiles and says he took this job because being a paramedic was "too hard."

Steve is going to get the brain, a practice not universal in autopsy. In this case, the man was confused and the neurologist is interested in the cause. This is a teaching hospital, and one never forgets the constant need for specimens. The pile of organs lying in a pan between the man's legs will go to the weekly organ conference, and then be incinerated. The brain, says Steve, "goes to Brain Cutting Conference." No mincing of words here.

He props the man's head on a block, as though the fellow were trying to see his feet. The first cut, an incision in the back of the head, is made with a garden-variety butcher

knife. As the membrane holding the scalp is sliced, Steve rolls the skin forward, ear to ear. Within a few minutes he has wound up the scalp like the top of a Spam can, and gives one final tug down over the man's eyes. He could play pin the tail on the donkey now, or, perhaps, face the firing squad, properly blindfolded. The uncombed hair, bloody now, tickles his face.



"Stand back a bit," Steve tells me. "This smells like the dentist's." He picks up a small circular saw and deftly cuts through the skullcap. Bits of blood and brain fly. "I used to feel bad when I cut the brain," he calls over the saw's whine, "but they said it didn't matter."

Done with the carving, Steve picks up a shiny steel wedge and pries at the bone, in a small triangular nick he'd prepared. "Like cutting a jack-o-lantern, so the top doesn't fall in when you put it back on." Crack, crack. In a moment the bowl pops off into his hand and he lays it aside.

Little holds the brain in place: its stem, the animal brain, site of our primitive functions, narrows to the cord as it disappears down the long tunnel of vertebrae. Here it parts with little protest. From the eye sockets lead the two optic nerves, a few millimeters wide and creamy white. Much smaller, almost threads, the many other cranial nerves hang loosely.

I am holding the brain in my hands. It is warm, soft, spongy, slippery. I see where the saw has bitten into the tissue, one vertical slice across the convoluted, space-efficient indentations. Steve puts the brain into a scale, weighing lettuce at Safeway, and I retire to the specimen room.

One side of this overgrown broom closet is divided by organ, the other by physician, for each professor owns treasures to be used again and again. On the shelves on my right, I find tongues, eyes, intestines, a whole foot, an ovary as big as a canteloupe. Without labels there are many I can't recognize, sliced and discolored as they are. Each floats in a jar of clear fluid, Mason jars, Miracle Whip jars, the white plastic buckets that pickles come in.

On the faculty side, most of the jars are opaque, labelled only with a name and sometimes a date. I see the privacy here, the holding of these unique *objets d'art* close to each doctor's heart. Here is territory.

Crackerjack boxes are nothing to these buckets, these surprises. I open a plastic tub full of brains, another of bowel, several filled with a cobwebbed, dry, grayish material. At eye level is a gallon container, white, filled with fluid and something heavy and tightly bound in that small space. The door is closed and I'm alone and the light is dim: I open the jar and it holds a newborn baby.



*Connie Neiland, 28, is a registered nurse who worked for three years as a diener, putting herself through school. She now works on an oncology floor in the same hospital.*

"I used to spend a lot of time in the morgue not working on pathology stuff. In the middle of the night I would go to the morgue to feel safe. I would go up there to type papers for school, maybe three or four o'clock in the morning, and once I was inside the morgue and the door was shut behind me, then I knew I was safe because I knew people wouldn't come in the morgue. The only way they could get in was to walk through the refrigerator and I knew they wouldn't do it.

"I'd do the first part of the autopsy. We'd get the body on the table and stuff, and then they'd do the external exam, and then everybody would leave and come back after I had the organs in the pan. And yeah, I'd think about stuff, like if someone was watching you, that person was watching you do their autopsy. I usually would [cover the face] because I didn't want to look. It's just weird when you're doing that kind of work to have that person with their eyes open and sort of staring at you. Plus it's sort of a respectful thing, too . . . . You need to depersonalize it a bit because it isn't particularly pleasant.

"I think the thing that bothered me the most working there was the jokes. A little bit



Now, if you were preserving a body for dissection — that is, creating a cadaver — you would need 20-25 gallons of fluid, perhaps a mix such as glycerin and phenol. These overinflated bodies last years, leathery, gray, the features smoothed to anonymity, gradually dehydrating as they are picked apart.

of that is okay because it is tension-relieving, and there is a stigma about dead people and dead bodies. When it got out of hand I was always the one to say, 'Cool out, you guys' — because it was always the men, and a lot of the jokes were kind of sexual . . . and being the only woman there, a lot of the time it bothered me. The other thing that bothered me is people who think that the inside of the body is dirty, and they say, 'Oooh, oooooh.' They're professional medical people, so they know intellectually that the inside of the body is clean, but emotionally they fall to pieces.

"It always kind of bothered me to take a guy's testicles. It was kind of embarrassing, if I was the only woman there and there were all these guys — you go in from the inside, right over the pubic bone, and then you pull and turn them inside out and clip around there. It's kind of hard to do and it always took me a long time, and here I was jacking this guy's genitals. It was like the ultimate infringement on this person's being . . .

"For some reason, I just think you should respect dead bodies. It was somebody's body for all the years they were alive, and we don't know what happens to a person's spirit or consciousness or whatever. Once somebody dies, they could be watching you and saying, 'I don't care about that old shell of a corpse, it's no use to me now, do whatever you want with it' — laughing at people for worrying about showing dead bodies respect. That may well be the case. But on the other hand, they may be observing the situation and feeling like, they were in that body for all those years and now they're just tossing it around and chopping it up like old dead meat — 'I kind of wish they wouldn't do that.' You *don't know*. It doesn't hurt, and I always like to play it safe.

"Doug always used to say that the old alcoholics and those folks often hang around longer than they should after they die. They just don't deal with the situation as best they could, and they'll even kind of bug you if you let them. Your best bet is to carry a clove of garlic, and I always kept a clove of garlic in my locker — till somebody said, 'Gawd, what is that smell?? It smells like garlic!' And I didn't want to confess that I was carrying this

clove of garlic around to move the spirits of the alcoholics along.

"There were a lot of pieces of a lot of people up there. [I've been told] you should wait 24 hours before you do an autopsy, because then you know that person's left their body, and that you should always try to replace all of the organs, which we didn't do! That sometimes you can actually segment a person's spirit if they're not out of their body when you start. I just hope that I've never caused something like that. But you don't know, and if that's the case, there's probably a lot of segmented spirits hanging around.

"People have belief systems, whatever, it's comforting to them, and no jerk-off doctor, or medical student as the case may be, has any business fucking with that. . . . I don't think because you're some hot-shot medical professional you have any business violating that, or saying it's wrong, because you don't know any better than that family member or whatever. I don't think they spend much time thinking about it. They're pretty much focused on cell structure, and organ structure, structure structure.

"I don't know what life after death is. I don't think you just *die*. When I die I want to be awake and ready for it. I don't want to be asleep or anything like that because I think it'll be a *rush* . . . better than a good dream.

"The inside of the body is really neat. It's a miracle, you know. Being born is a miracle, living is a constant miracle. You just think of drinking water and absorbing water and ions and food — eating a big steak and turning it into little proteins and fat globules — it's a miracle. I don't know how it does it."



*John Armstrong, 41, a former high school teacher, has been a funeral director for a busy mortuary for five years.*

"I would not have chosen this profession myself; it was not on my list of things to do. I did not get educated for it. My formal educa-

tion is in English literature and education and so forth, and I believe there is no way I would have chosen this on my own, so I really believe that God put me here. That's where I'm coming from — I'm a Christian. I think probably as much as anything it's heightened my appreciation for life . . . and strengthened me as I work.

"My first few days here, my first few weeks here, there was a kind of transition period. 'I wonder if I made the right decision.' I was probably more uncomfortable the first few times alone in the selection room with the caskets than I actually was with the bodies. That is really an irrational feeling. Those fears, those uneasy, irrational feelings, were short.

"Strange things happen, but there's a reason. For example, with some of the cadavers, the embalming process sets up a muscle reaction, and arms will move around, legs will move around. When that happens, the embalmer — you don't know which ones that's going to happen to and which ones it isn't — it's enough to make your blood run, your adrenaline run. Once the surprise is over, they're experienced and they know what it is, they know the reason for it. Nevertheless, it's a little bit unnerving, momentarily at least.

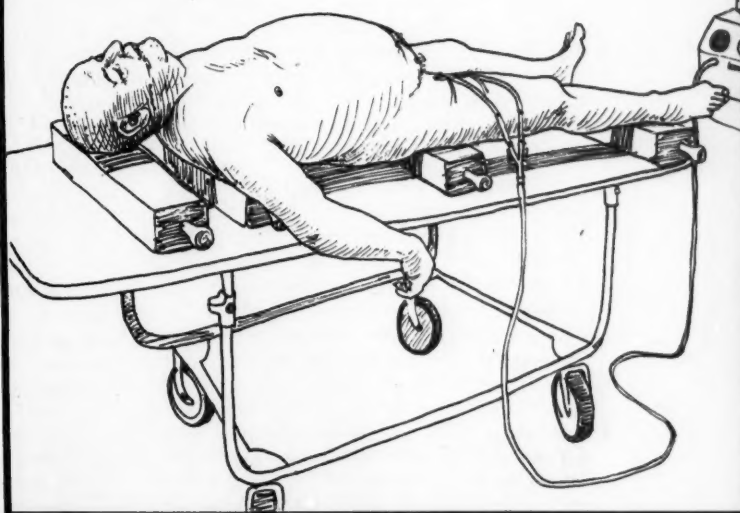
"I think [autopsy] is where a tremendous degree of professional concern, care, sensitivity, discretion play a part on the part of the doctors, the nurses, the pathologists, the medical examiner, the funeral director, right on through: They should be extremely careful in that area. For one thing, when the consent for the autopsy is signed, there is a consent to remove tissues, and that's a pretty broad consent.

"Of course, our attempt is to put things back together as completely as possible. I can think of several specific instances where autopsies were done, and in order to put things back together — well, the bone structure may not have been exactly the same. There may have been soft places where there were hard places before. So if in the visitation and viewing op-

Embalming — Stage I



After 20 Gallons — Stage II



portunities there's some extra poking around or handling of the body. . . . There are things that have to be done to make a person look somewhat whole. Not just in autopsy, but in serious accidents, too.

"Really, the family's in charge, and if they want to see that child, or that spouse or that brother or that sister, that's their prerogative. They have to make that decision and they have to live with that decision. Our basic policy is that if viewing is at all possible we will do everything we can to make that viewing an acceptable experience in the circumstances. We





**In two years at a community college, you can obtain a degree in funeral service. If you then pass your state board examination, you become a licensed embalmer. In these economically pressed times, it's a growing field.**

have people who are dedicated to doing that and skilled so they can. If there are difficulties we will be as specific as we can possibly be. You have to do that very gently. If the decision is definitely to view, we will inform them to the degree that words can communicate what they can expect to see.

"[Embalming] is the nature of what has to be done. It's a recognition of what happens if you don't. Just from deer-hunting experiences: not being able to get to an animal for a few hours after having killed it, and seeing the difference between the insides then and the insides if you get to it right away. It's just a matter of fact.

"I do believe very strongly in what Christ tells us in the New Testament: life after death, life after life. I'm familiar with some of the reports of after-death experiences of people who've come back to life, and I see consistency with those reports and with what the New Testament tells us.

"I believe we are created in God's image, and that's enough reason right there to revere this creation of His. Second, it's a body that's precious and important in most cases to a lot of people, and certainly precious to the individual. A temple of the soul, if you will. Those are reasons enough to revere the body, in a way that is different from the consideration that would be given to a dog or a cat or a deer or a cow or anything else. I think if we did not hold some degree of reverence for that body, we could not serve the family the way they should be served."

**I**N TWO YEARS AT A COMMUNITY college, you can obtain a degree in funeral service. If you then pass your state board examination, you become a licensed embalmer. In these economically pressed times, it's a growing field.

If your body isn't cremated, it will be embalmed. The exceptions, in this country, are rare indeed, and often illegal. The purpose, according to the industry, is "sanitation, preservation, and restoration to a natural appearance." Since most people die after a long

illness or in an accident, and since death itself has an unappealing effect on the body, that natural appearance requires a degree of finesse. Art, if you will, with the right equipment.

To begin: The body is washed, and all orifices sprayed with a disinfectant, such as Dodge Dis-Spray, one of many brands. Next, the features are "set," that is, closed in the most normal way. Eyes and jaws must often be sutured with fine stitches to hold them in place.

The preliminaries done, the body is set on a trough such as those used for autopsy, and the transfusion can begin. Embalming is simply a process of removing blood and body fluids and replacing them, ounce for ounce, with a solution which binds protein and prevents bacterial growth. One incision in a major artery to inject, one incision in a major vein to withdraw, and a machine to do the work, such as the Porti-Boy embalming machine.

Choosing an embalming fluid — called an arterial solution — is a large part of the art, and depends on both the cause of death and the condition of the body. If the blood has had a chance to coagulate to some degree, a "conditioner" such as Meta-Flow can be used initially to break up clots. Champion's Jaundextone mixed with a little Coloro is used to bring a pink color back to the yellow skin of the jaundiced. Dodge's Plasdropake adds fluid and restores a moister look to a thin, dehydrated, or emaciated body. Dodge's Introfiant-Dynachrome is "for special cases of difficult types," when decomposition has already begun. For plain ordinary bodies, Kelco makes Rejuvinol, and Royal Bond counters with Rejuvatone.

About 32 ounces of fluid mixed with three gallons of tap water is sufficient for the average adult. The pressure of transfusion, speed and duration are all the judgment of the embalmer, and will determine the final, irreversible effect. Embalming needs to be done right the first time. A really good job can last 30 or 40 years in the ground, granted a good coffin as well. I'm told that viewing of the body could be held all over again decades later in such cases.

(Now, if you were preserving a body for



dissection — that is, creating a cadaver — you would need 20-25 gallons of fluid, perhaps a mix such as glycerin and phenol. These over-inflated bodies last years, leathery, gray, the features smoothed to anonymity, gradually dehydrating as they are picked apart.)

When the transfusion is done, aspiration begins. A trocar, a long, heavy, sharp steel needle — a half-inch thick — is used to puncture the chest and abdominal cavities. The trocar is hooked to a vacuum, and as it is manipulated in the body, the needle breaks up the organs, slicing into them so that they release their cellular and intercellular fluids. The structures remaining are tiny, dry, sucked clean, and the cavity sunken and flat. A fluid is injected to further preserve as well as fill up the empty space.

If a body has been autopsied, the embalmer has a much more difficult and time-consuming job. If he has the viscera, they can be treated and returned to the cavities. If not, as is often the case, he will simply stuff the chest and belly with an absorbent cotton packing, and transfuse the rest of the body limb by limb. Saturation of the tissues is never quite as satisfactory, and the body deteriorates more quickly.

More art. Skin color is improved and evened out with cosmetics. Hair is washed or replaced, sutures hidden if possible, missing bone given a substitute. Dodge makes Feature Builder for sunken cheeks and hollow spots. I was shown a head modeled with clay and cosmetics on a simple skull that matched a small black-and-white photograph with uncanny precision; though the features were pliable and could have been deformed with a rough pat, mere observation could hardly have told the difference.

The process is done. Dentures in place, glasses on, a favorite dress. Kiss Grandma goodbye.



*Steven Blackthorne, 31, is a third-year medical student who works part-time as a nurse's aide. He was a medical corpsman in Vietnam.*

"As far as I'm concerned, life is biochemistry. When biochemistry stops, you're just dead. I don't believe in the existence of any spirit beyond life. That seems to me an invention of humans. It's understandable to want to think there's something beyond life — to think that we're simply animals like any other animal, when we die we're just dead — it's disquieting to me, but I can't bring myself



to believe in ghosts or spirits or souls.

"I'm not sure what to do with the word 'spiritual.' I'm an agnostic. You say someone's spirit and you're actually talking about their behavior, because that's the only thing you can see about someone. I do have a sense of awe toward things, a love for beauty in nature and other people; I appreciate friendships and a sense of communion with other people. I suppose I have some of the same feelings other people do . . . .

"As far as I'm concerned, where you draw the line is arbitrary. A flat EEG is satisfactory criterion for death. Even though the organs are alive, those cells are alive — the thing that makes a person a human being instead of just a collection of cells is the central nervous system that integrates the whole thing and once that system goes . . . . On a car, if you have a flat tire, you still have a car, but when the engine blows . . . .

"I think it's all biochemically mediated. I'm a scientist, I believe in cause and effect. I don't think there's any vital spark. I don't think there's anything that really sets life apart from non-life — it's all chemistry.

"What you love about the person isn't the so-called container . . . when the person is dead, the container itself is all that's left. I have some squeamishness about that, but I dismiss it as irrational.

"I try to realize that not everyone feels as I do. I don't want any reverential treatment of my body, somebody treating me very gently and being careful how they cut . . . . Use any part you can and burn or bury what's left.

"I don't want to think about an embalmer handling somebody's body. I think of funeral directors and that whole industry as slime. It repels me the way they use people's grief and manipulate their tremendous feelings of guilt or whatever to make them buy expensive gadgets and caskets.

"I think the reason medical professionals aren't as reverential is just the emotional demands, of thinking that everybody was a human being, trying to imagine what they were like, thinking of them as thinking, feeling human beings is just too demanding. If you can reduce that and think of it more like, here's an arm and certain muscles innervated by certain nerves, then it's much easier. You can deflect a lot of the emotional demands.

"I think there's this inevitable conflict that's going to happen. It's like, in any other area of science, with some fascinating specimen that's an inanimate object, you can pore over that and there's no emotional overtones . . . but then the scientific specimen is a human being, something we attach love and all these other human feelings to, it's bound to get mixed up and complicated. It's harder to think of someone's personal tragedy behind each specimen.

"I don't say that we know everything about human existence . . . I'm not that uncomfortable with being unable to explain it. I have faith that cause and effect is always in operation, that everything that occurs has a cause. I don't think we'll eventually know everything, but I think we're always learning more . . . Just because I can't explain a thing doesn't mean I have to accept somebody else's supernatural explanation.

I feel like an anthropologist a lot because . . . I don't share many people's religious beliefs. I look at those beliefs as many Americans look at African tribes in the **National Geographic**. Isn't that curious?"

**P**EOPLE DIE MORE FREQUENTLY at night than during the day. It is a simple fact. One can approach it physiologically, as most health professionals



do, and talk about lowered basal metabolic rates and decreased kidney and cardiac function. Perhaps, as Connie Neiland says, "In the daytime they can't find the time to die." But shall we also consider the witching hour?

Perhaps. Perhaps death is an active force, a seeker. We the living lose our sight, our bearings, in the dark and become vulnerable, but the dead are at home. They are powerful in the night, sightless, senseless, and we are lonely. The truth is that our bodies, miracles though they are, have a hold on animation as thin as gossamer threads. We are fragile things, balanced each moment in the rarefied air of the living, and still, still have the gall to treat the dead with disregard. This indifference

—it is chilling, and foolish.

Probably the single biggest influencing factor on my work is that, when my patients die, almost without exception, we all heave a sigh of relief. The nurses, the families, and often, I suspect, the patients themselves — we are not glad to lose their presence, but at the end of months of suffering death is a grace and a blessing. Yet the event is never trivial, in spite of jokes and seeming nonchalance at times.

What kind of world would we have, I wonder, if we had a form, a ritual, for such moments? I need a way to signify what has occurred, every time, whether I have cared for a person for a month or an hour. We deny our own need for ceremony, we let science, technology, oppose the rational and the sacred as though they were not only unconnected, but antagonists. I can say my own prayers, fulfill my own obligations, silently. As a society and as a community, I think we fail each time we don't acknowledge the passing.

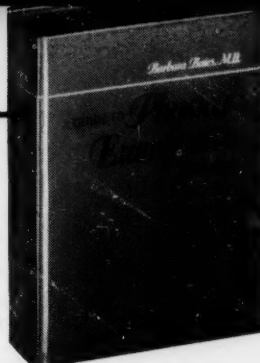
As I toured a funeral home to prepare this article, I noticed a box, a cardboard box, next to the incinerator where cremations are done. I wouldn't have paused but for the felt-penned address on one flap, the address of a local women's clinic. The clinic does abortions. The box was filled with fetuses. I felt like Pandora; I wanted to open the box and peer in, examine the contents in the light of day, and step back to let the terrible gift of the gods and demons within fly into the world once more. ■

## A Guide to Physical Examination

Barbara Bates, M.D.  
1979, 1983; 561 pp.

**\$34.00**

postpaid from:  
Harper & Row  
2350 Virginia Avenue  
Hagerstown, MD 21740



## A Guide to Physical Examination

Lange's *Current Medical Diagnosis and Treatment* (CQ Spring 1983) is an excellent reference, but it must be used in conjunction with a carefully taken medical history and careful physical examination. It's necessary to know what you're treating. When you have the patient's signs and symptoms in hand, then you go to Lange or any of the numerous other texts.

May I please recommend *A Guide to Physical Examination*? This excellent book is the central core for most courses in physical diagnosis. It is in a large, well-illustrated format with an excellent discussion of the art of interviewing a patient so that they give the story. Each system of the body is arranged by chapter, techniques for



Although transillumination is not part of a routine examination, it is often helpful when sinus tenderness or other symptoms suggest sinusitis. The room should be thoroughly darkened. Using a strong, narrow light source, place the light snugly deep under each brow, close to the nose. Shield the light with your hand. Look for a dim red glow as light is transmitted through the air-filled frontal sinus to the forehead. Absence of glow on one or both sides suggests a thickened mucosa or secretions in the frontal sinus, but it may also result from developmental absence of one or both sinuses.

examination are outlined without jargon, and abnormal findings are noted in red in the margin.

It is interesting to note that while M.D. training may spend one to two weeks covering the material outlined in Bates's book, physician assistants' training devotes four to five months on the same . . .

This book will be useful to anyone interested in any aspect of the health sciences — imagine studying mechanics without an idea of where to find the car's motor!

—John Benecki, PA

## Psychiatric Drugs: Hazards to the Brain

Bravo, Peter Breggin! I congratulate you for piercing and deflating the current myths of psychiatry and its horrific dependence on brain-damaging drugs. Without apologies your new book cuts to the quick the incredible deception and mystification that characterize psychiatry as a not-so-hidden tool of social control. It is no puzzle that so many professionals — medical, psychiatric and otherwise — have swallowed the moral and medical half-truths that form the foundation of psychiatric thinking and treatment. Through the massive outpouring of pharmaceutical and psychiatric propaganda and publicity (and with the collusion of the media), the same powerful forces that pull the strings and rake in the profits also shape the "mental health" attitudes of practically everyone. Your book is a sorely needed counterpoint to this political smoke-screen, a breath of fresh air in a polluted and stagnant environment.

Breggin's attitude towards psychiatry's "wonder drugs" runs in direct contradiction to the accepted psychiatric party line. It leads naturally into discussions of the medical/political/legal struggle for informed consent, the right to refuse treatment and the abolition of all forced psychiatric treatments. . . Breggin does not use involuntary commitment and hospitalization in his practice. Nor does he prescribe psychiatric drugs. These principles parallel my own practice, and my hope is that Breggin's book will convince many psychiatrists to choose the same course. . .

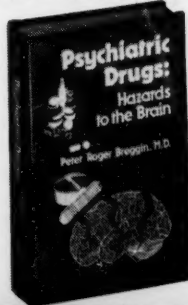
The book is filled with scientific documentation and references to psychiatric studies that support the author's

## Psychiatric Drugs

(Hazards to the Brain)  
Peter Roger Breggin, M.D.  
1983; 322 pp.

**\$29.95**

postpaid from:  
Springer Publishing  
Company  
200 Park Avenue South  
New York, NY 10003  
or Whole Earth Access



contention that psychiatric drugs, particularly neuroleptics (also called "major tranquilizers" and "anti-psychotic" drugs), antidepressants, and lithium, are chemicals that cause damage to brains and nervous systems as part of their primary effect. Although it is a scholarly work and may be difficult for nonprofessionals to digest, it is definitely worth the time and possible frustration involved. Breggin makes a very strong argument for the right to refuse treatment on medical, constitutional or moral grounds. At issue here are the right of self-determination and the sacredness of one's own mind.

All those who have been on the receiving end of drug "treatment" will feel strengthened by Breggin's powerful validation of their personal experiences of drug-induced hell. All those who never were warned about the possible effects of drugs like Thorazine, whose bodies twisted with drug-induced spasms, whose breasts secreted drug-laced milk, whose minds balked from drug-induced dysfunction, will find Breggin's book an enormous help in "setting the record straight." The righteous anger that many people feel at having been told that these effects are signs of "mental illness," "character weakness," or emotional problems, then can be directed at the abusive system that allows such chemical rapes to occur. . .

It is tragic that the pressures of pharmaceutical companies, professors, peer groups, professional journals and the press make the overwhelming majority of "mental health" professionals unwilling to recognize their own complicity in the destructive and brain-damaging practice of psychiatric drugging. Alternatives can be created. Pills can be replaced with people and chemicals can be replaced with care as the first steps toward change. To that end, Breggin's book is indeed a landmark of great value.

—David L. Richman, M.D.

The distinction between the major and the minor tranquilizers is almost wholly unknown to the public. The public's direct familiarity is with the minor tranquilizers, such as Valium and Librium, and this contact is often a pleasant one in which the individual has sought the tranquilizing effect of these substances. By contrast, the major tranquilizers do not "tranquelize" at all, and commonly produce most uncomfortable effects in the body and the mind of the patients (see Rickels, 1977, for similar distinctions).

# Surviving In Small Business



Illustrated by Don Ryan

## random notes from a small business junkie

by Paul Hawken

**I** STARTED MY FIRST BUSINESS WHEN I WAS 19. IT IS DIFFICULT TO SAY, even 18 years later, whether it was a success or not; it depends on how you measure it. The business was a natural foods company, started in 1966 — well before there was such an industry. My business had two big strikes against it: me, and the fact that I didn't have a clue as to what business I was in. The problem with me was that I didn't know anything about business, and had a positive aversion to the entire business ethic as I understood it. After all, it was the mid-sixties, and the link between corporate avarice and overseas adventurism was trumpeted every night via television footage on Vietnam, Dow Chemical, et al. Business seemed like a good thing not to do.

The second problem, not knowing what business I was in, was even thornier. Usually when you start a business, you know what it will be. If it is a deli, you have visited and eaten in dozens. You know what you like, what you don't, and what you would do differently. In the case of the natural foods business, there were no antecedents. The health food stores in my neighborhood were staffed by women in white uniforms and hosiery, looking like nurses on night duty. They (the stores that is) had strange odors and reminded me of quasi-licit pharmacies. There was virtually nothing natural in them. Everything was a concoction, full of additives that were putatively better than the ones in the supermarket. So, in that sense, I knew what not to do. But it was small help.

Nevertheless, it was the right business to be in at the right time, and it grew from \$25 per

day in gross revenues to \$25,000 per day seven years later. I have to confess, it wasn't fun. It was only fun in the beginning, when its size allowed me to be in touch with my customers, suppliers, and associates. When it reached the size that took me away from the counter and put me behind a desk, it got hard. It took me several years to figure that out, and when I did, I left it.

During those years, the business made money some years, lost it in others, hired 150 employees, bought railcars, opened stores on both coasts, set up manufacturing, almost went bankrupt, and engendered a lean and hungry group of competitors. The first lesson in small business is that you *will* be noticed if you succeed or grow, and you will be ignored if you fail. Former friends, hawk-eyed entrepreneurs, and marketing executives of corporations will all notice. And they will all try to cream

With the promotion tour for his latest book, *The Next Economy*, behind him, CQ's favorite economist, Paul Hawken, is once again a familiar sight around the offices here. This article represents the distilled essence of Paul's micro-economic savvy and the welcome return of his full-length advice to CQ's pages after a three-issue hiatus. —Jay Kinney



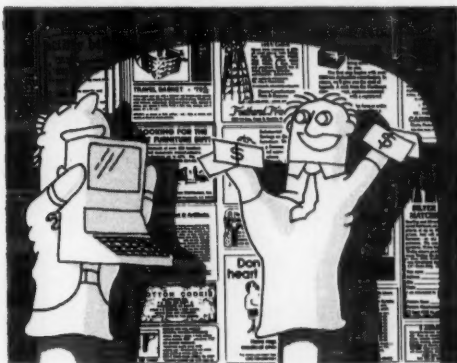
you. Sounds awful. But in fact it is merely inevitable. I remember walking into my store one afternoon and seeing four executives of a supermarket chain measure the store's square footage while tallying register totals on a notepad. They were trying to figure out our sales per square foot (which were phenomenally high for the food industry). Hi guys. Kellogg's used one of our subsidiary names for an advertising slogan to reposition its corn flakes in the market. Pet Foods walked off with our logotype and package design without so much as a tip of the cap.

After seven years, I left the country and took up the pen. When I returned to America 14 months later, what I discovered was sobering. I was unemployable. I had never been an employee. I checked the want ads in the Sunday paper. I couldn't find a job description that matched my qualifications. After all, what was I? I had sealed my fate at an early age, and not wanting to go back to college to get a job description, I went back into business. Today, after 18 years of being in small business, I have come to certain inescapable conclusions. Be careful: They may be wrong. They have worked for me, though. They are the distillation of my own experience, as well as the observations of many other small businesses with which I have consulted.

**Start at the beginning:** This is the most obvious-sounding rule of all. I wouldn't mention it if I didn't constantly see people do the opposite. Usually, when people start a business, they have an image. It may be of some other company they have seen or worked in, or it may be just a fantasy. Whatever it is, it is probably an image of where they would like to end up. So, don't start where you want to end up. If you haven't had experience in starting a business before, start small, very small, and use your minuteness and obscurity as an opportunity to learn. This means low overhead, frugal means, hands-on. I have seen many people who associate a successful business with the trappings: a carpet, computer, car, secretary. In 18 years of business, I have never had a personal secretary. (*Read Up the Organization* by Robert Townsend [NWEC p.306; \$3.95 postpaid from Fawcett/Random House, 400 Hahn Road, Westminster, MD 21157] for further elaboration on this point.) I've had the rest, but not until the business was well established. *In other words, do the business directly with as few frills and trappings as possible. You will learn faster, have a better chance of survival, and you won't be fooled by surrounding yourself with the affectations of success.*

## Entrepreneurs are risk-

**avoiders:** This is not so obvious. The commonplace attitude is that an entrepreneur is a gung-ho, three-sheets-to-the-wind risk-taker, willing to plunge ahead where others squirm. I don't read it that way. An entrepreneur is a risk-avoider. He or she usually starts by seeing a situation from an entirely different angle than someone else. They see a market, a niche, an idea, a product that is unseen or discounted by others. Whether this is a personal computer (Apple), a hub-and-spokes air delivery system (Federal Express), or housewives' needs for aerobic exercise (Jane Fonda), to these people the need for the product or service is obvious. There is no risk because they are totally identified with the end result. They are not studying the market, they *are* the market. That's a big difference. What an entrepreneur will then do is try to identify every possible risk and obstacle that could prevent him or her from achieving that goal, and eliminate as many as possible. Entrepreneurs only appear to be daring and innovative.



**Borrow a lot or none:** Money is where risk is most obvious. You and whoever else you have persuaded to join you stand to lose if you fail. If you decide to borrow, then do not borrow piddling amounts. Borrow as much as you can. Why? Because if you are leveraged to your teeth, no one will mess with you. An anecdote: At one point in my food business days, I had amassed and drawn over one million dollars on my line of credit from the bank. These were 90-day notes that customarily rolled over as well as letters of credit to overseas suppliers. The bank loans exceeded our net worth by a factor of five. When Nixon put on wage and price controls in 1971-2, interest rates soared to the historic high of 13 percent. Bank examiners from the state audited our loan package and discovered that with the high interest rates, we no longer



"qualified" for all those loans. The bank was forced to call the notes.

Disaster. As I began paying down the notes as they came due (\$30,000 to \$50,000 per week), I couldn't pay my bills. I was going broke, payrolls were kited, and suppliers were angry. The solution seems so obvious in retrospect, but it took an agonizing few weeks of tribulation before I cottoned on. One Monday morning, I called the vice-president of the bank and told him in my best Boston accent to stuff it. An extraordinary thing happened. I, who had always obsequiously minced into the bank with my hat in hand, was invited to the executive dining room on the 48th floor of the Prudential Tower. I saw Oriental art on the walls, maids scurrying about, and asparagus and strawberries accompanying the scallops (although it was still February). In other words, as soon as I became a problem, I was treated with the kind of attention that should have been accorded a good customer. I became a good customer, in their crossed eyes, when I became a bad one. In short, there was nothing they could do — which affirms the maxim of Fred Smith, the chairman and founder of Federal Express: "The worst that can happen if you borrow a lot is that you have a second partner."

The other side of that coin is to borrow nothing. Finance your start-up with savings and investments from friends that are equity investments. In other words, start with no debt



and keep it that way. This is an entirely different way to do things, and is suitable for people with faint hearts, aversions to debt, or simply those who do things the old-fashioned way. (Having tried the former, I prefer the latter.) The discipline of using only paid-in capital is that you know exactly how long your leash is. You have so much money, and you tend to do everything possible to at least preserve the amount of capital paid in.

**If it's a good idea, it's probably too late:** When you have a new idea for a business, talk it up with friends and associates. Notice carefully their reaction. First, eliminate all responses from persons

## What are your chances of survival?

Nobody knows for sure. But the statistics are sobering. The only real study of small business survival that I have found was done recently in England. Given that England is a tough business environment, I would guess the figures for the United States might be better. On the other hand, it is much easier to get into business here, so they might be worse. According to *British Business*, the magazine of the Department of Trade and Industry, the survival rate for new businesses in England since 1974 is as shown.

In other words, there is a 34 percent failure rate in the first 48 months. In the next 48 months, there is only a nine percent failure rate. After that, you are home free or you've sold out and started something else.

Year	Number of Businesses*	Percentage of Failures	Percentage of Survivors	Success:failure Ratio
1	1,400,777	10 %	90	9:1
2	1,255,357	13	87	6.7:1
3	1,097,410	10	90	9:1
4	990,560	7	93	13.5:1
5	924,342	4	96	24:1
6	884,326	3	97	32:1
7	859,687	2	98	49:1
8	845,687	1	99	99:1
9	839,132	0.2	99.8	500:1
10	837,377	—	—	—

\*Started in Year One and surviving in following years.

who always say nice, positive things. From those who are objective and will usually speak their mind, notice the drift. If they say "that's a wonderful idea John," you are in big trouble. If your friends look a little confused, and shrug their shoulders, that's looking up. If they snigger and laugh at it, you may be on to something. If you have an idea for a business and it is so good that everyone recognizes that it is great, you are too late. You may not realize it, but the fact that everyone recognizes its value is a sure sign. ("I have this great idea of starting a chain of chocolate chip cookie stores to be placed in shopping malls where all the hypoglycemics hang out." Response: "Great idea, chocolate chip cookies are really popular in my office.") Dud. And the fact is that most ideas are duds. While you may have only one idea every seven years, the rest of the world has been relentlessly probing every corner of commerce and service trying to figure out how to make a killing. In other words, don't be seduced by your ideas no matter how brilliant you think you are. In most cases, somebody is already there. I tried for ten years to convince other people and companies to do what Smith & Hawken does: import high-quality horticultural tools and sell them direct. I begged people to do it. I pointed to sources, indicated the market, and even offered assistance. No takers. After four years of doing it myself, I have five competitors, including Quaker Oats, as well as the company that originally turned it down. You see how quickly a "niche" fills up.

**Be the market:** Don't try to figure out the market — be it. The market is as fickle as fog in a swamp. It is constantly changing, and there is not any agreement yet as to how to measure it. How else can you explain the fact that the largest companies, the ones with the most money to spend on marketing, launch some several thousand new food products every year for supermarket shelves, and only a tiny fraction make it? What do they know? If you have a food passion, and can't find the right products to satisfy your passion, you have a much better chance than Ralston Purina.

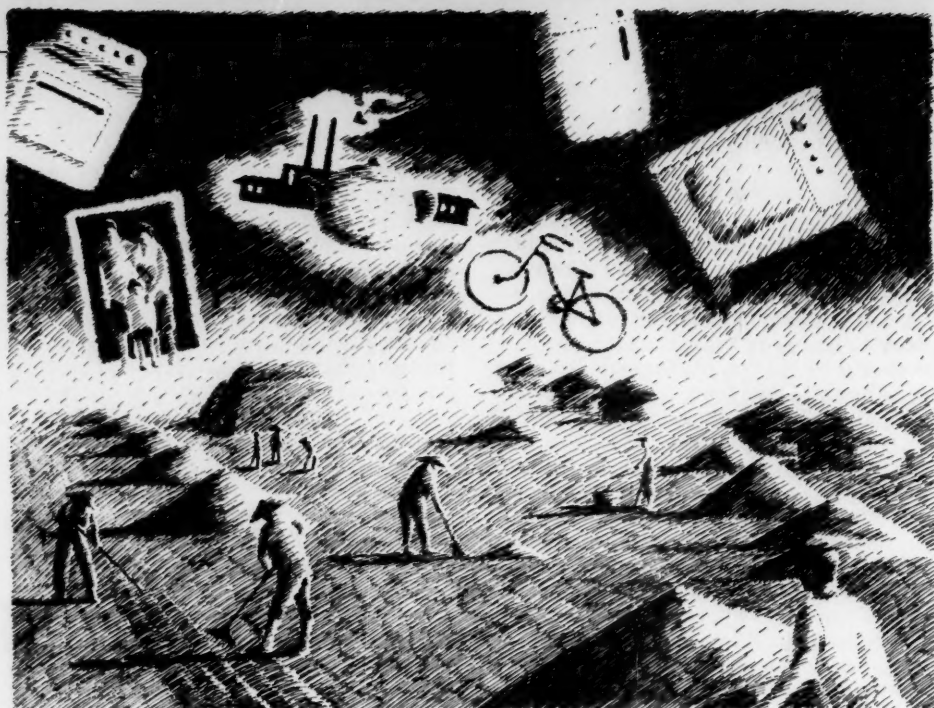
In other words, if you are looking for a business to go into, don't. Don't look. The right business for you is under your nose. It is as close to you as your hangnail. There are tens of thousands of businesses you could go into, but the one you will have fun in, the one you will be a hot knife in the lardy world of commerce in, the one that will satisfy you, is probably sitting around the house someplace. If not there it is around the yard, in the garage, or on your desk. It isn't out there.

## Businesses with "being" goals last longer than businesses with "doing" goals:

Successfully starting a small business does not mean you are going to be able to stick around. As soon as you enter the world of business, you are swimming in the seven deadly sins. You are bathed in the ambitions, conveniences, and shoddy ethical practices of your fellow bipeds. Watch out. But you don't have to become cynical to be aware because it is precisely those businesses that do treat people right that last, not the creepy ones. In *Search of Excellence* (CQ 37, Spring 1983) can be summed up in one sentence: Being a good human being is good business. That book has now outsold *Roots* to become the number one hardback bestseller. And what its authors and others have discovered is that those companies, big and small, that emphasize how to be in the world survive over those companies that have achievement goals spelled out in terms of size, growth, and means. In other words, your goal can be "Our company will provide the whitest nappies in America." Laudable. Or it can be "Our company will be the finest nappy service in America." More laudable. Given that both companies are diaper services, the one with the orientation to "being" will prevail.



**Have fun:** This is the easiest and hardest. If you are not having fun, what's the point? It is only a cruel dog-eat-dog world if you see it that way. If the business becomes a bastion of self-doubt, suspicion, and grimy Calvinism, forget it. You are on the wrong path, and your lack of fun is its testament. A good business is where people laugh. You laugh, the people you work with laugh, and so do customers. If that sense of *esprit* is missing, perspective is lost, good people leave, and the business becomes a cycle of negative reinforcement. This is not smarmy "aren't-we-great-people" advice. It is the bottom line. ■



# Huis and Means in Taiwan

## *A Thriving Community Credit System Based on Mutual Distrust*

by Richard Stites

Illustration by Ellen Sasaki

**I** LIVED IN TAIWAN for two years, one of which was spent in the town of Yingge. Yingge is small, but has a large number of factories — over 600, or about one for every ten families. “Factory” is perhaps too grand a word to describe them. Almost all are small ceramics operations, often occupying a room in the family’s home. They supply the inexpensive dinnerware and souvenirs we find in the import stores and fisherman’s wharves of America. In fact, the first factory I looked at gave me a mug decorated with pictures of Seattle. Remarkable, since at the time I was a student at the University of Washington.

After living in Yingge for a few months, I became curious as to how factories were

financed. Though not capital-intensive, a ceramics factory requires materials (clay, glazes, etc.), a kiln, and other equipment which make a start-up investment of 5,000—10,000 U.S. dollars not uncommon. It soon became apparent that the people of Yingge had a thriving informal credit system. Color TVs, refrigerators, funeral expenses, and just about any unusual costs a family was likely to incur were all handled through *hui* (pronounced more or less like the English word “way”). In its nominal form, the word usually means a “meeting” or “get-together.” In the context used here, it refers to a social and financial organization that gives people loans that (in Taiwan) are difficult to get from banks. *Hui* are a form of voluntary association with a

Richard Stites teaches anthropology at the University of California, Santa Barbara.

—Jay Kinney



history stretching back to the Tang dynasty (618-906 A.D.). In English they are usually translated as "rotating-credit societies."

## CREDIT SOCIETIES

commonly include 12 to 40 people. Groups of over 100 are reputed to exist, but are unstable. *Hui* are organized at the initiative of an individual who calls on friends and relatives to join. The rules of the game are:

1. Every month, each member contributes a maximum of  $x$  dollars. The exact amount varies in ways described below. The total amount contributed constitutes a loan. The organizer receives the loan first.
2. After the first month, those who have not yet received the loan bid for it. The bid corresponds to the amount of interest a member is willing to pay, and the highest bidder receives the loan. The amount of money paid by each member each month is figured as follows: Those who have already received the fund pay the full amount as agreed to in No. 1. Those who have not yet received the fund pay only the amount in No. 1 less the interest bid. For example, a bid of \$10 in a *hui* where the maximum monthly payment was set at \$100 will require those who have not yet received the loan to chip in \$90 apiece ( $\$100 - \$10$ ). Those who have received the loan pay the full \$100.
3. After receiving the loan, a member is ineligible to bid again in subsequent months. In other words, a share in a credit society entitles each member to receive a loan once over the time that the society operates.
4. The *hui* runs for a length of time that corresponds to the number of members involved. Twelve members usually mean a twelve-month *hui*.

Though it may seem involved, the system has several interesting features. Those who get the loan soonest pay interest, while those who get the loan latest receive interest. Those in the middle more or less break even. The only exception is the organizer who receives what he pays out, and thus has an interest-free loan. To illustrate more clearly, imagine a 12-person *hui* with a maximum contribution of \$100 per month. Chen bids \$10 the second month and gets the loan. Every member except the organizer pays him \$100 - \$10, or \$90. The organizer pays him the full \$100. His total loan is thus  $10 \times \$90 + \$100$ , or \$1000. But for the remainder of the *hui* Chen will pay out the full \$100 to other members (as he did to the organizer for the first month).

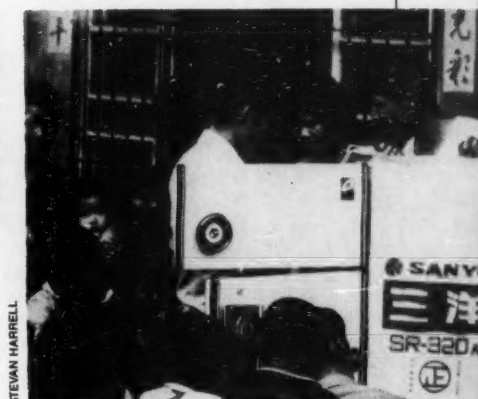
He thus pays out a total of  $11 \times \$100$  or \$1100; the extra \$100 is the equivalent of interest payments.

On the other hand, if Wang receives the fund last, he receives the loan by default, and gets the full \$1100 ( $11 \times \$100$ ). But he only pays out \$100/month less the interest bid. If the winning bid continued to be \$10, Wang will have paid out \$100 the first month (to the organizer) and \$90/month for ten months thereafter. He comes out \$100 ahead. Others pay or receive amounts between those of Chen and Wang.

The interest rate varies according to the needs and perceptions of those involved. If demand for money is high, or the perceived risks of the *hui* are high, people want to get money quickly and bid up the interest. On the other hand, members can control this by setting unanimously agreed-upon limits.

People say that in the past credit societies were safer, but the recent demand for money encourages involving people outside of normal social networks — for example, friends of friends. There have been some spectacular collapses recently. In one case, a butcher in a nearby village split town after joining multiple *hui*, starting new ones to defer payments on ongoing commitments. It is difficult to disappear in a country the size of Taiwan, but he has yet to be heard from.

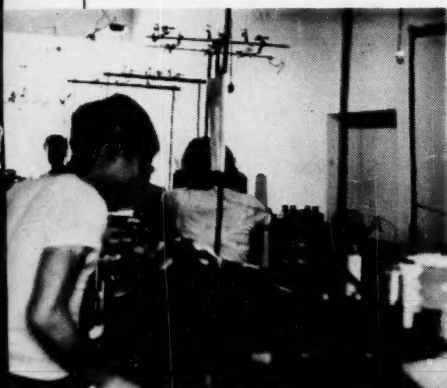
The first refrigerator in a rural village on Taiwan is initially left outside for neighbors to admire. Major expenses like this are often financed by *hui*.



STEVEN HARRELL

**D**ESPITE THEIR perceived risks, *hui* are ubiquitous in Yingge. Everyone participates, from little old ladies to school children. My neighbor, a teacher, invested almost all of her \$200 monthly salary in various *hui* and had access to more credit than I did with MasterCard and VISA. About 30 percent of the factory owners that I

talked to used them to finance their operations, and they are probably underreported since bank loans have more status. *Hui* are a "shadow" system of credit that I have seldom seen evaluated, or even mentioned, in any economic work on Taiwan. Nor is the practice limited to Taiwan. David Wu lived among the Chinese community in New Guinea, and reports that a small influx of cash after the Second World War shifted the Chinese there from artisan/service occupations to commercial ones. The sudden buying spree induced the Australian government to investigate, since it was rumored that "huge amounts" of capital were being funnelled in from mainland China. But the investigation discovered that what had occurred was only some cooperative pooling of cash (see Wu, David in bibliography).



Rotating-credit societies are not only sources of money for consumer goods but for the capitalization of small businesses as well. This picture shows a small knitting factory near Yingge.

STEWAN HARRELL

**I**N ESSENCE, THEN, we are talking about a tool that allows money (which is individually limited) to be efficiently pooled to allow people (in Marxian terms) to gain access to the means of production. Or simply to buy refrigerators. Since it works so well in Chinese society, we might ask two questions: 1) Would it work here? and 2) If it could work, would it be worthwhile? I am doubtful on both counts, but not entirely certain. I present my thoughts on the matter to the CQ readership on the chance they see possibilities I have overlooked.

Regarding the first question, we can ask what makes *hui* work in Taiwan. Much as I hate to say it, the ideal of "trust" based only on friendship is uncommon. Cooperation is so important in Chinese society that people can't afford to blindly trust one another, and distrust is more the order of the day. In other words, since credit societies are informal organizations that exist outside of the domain

of contract law, people look for other kinds of guarantees. The glue that makes cooperation possible is the community context and, specifically, community sanctions. Though occasional cases come up (witness the butcher in the example above), most people live and die in the same village, and go to extreme lengths before alienating their friends and neighbors. Any businessman who fails to pay up in a *hui* can write off doing business in Yingge. People have to uphold their reputations in order to maintain their livelihood. Friends and neighbors work on these assumptions. In the U.S., such communities are rare; it is easier to disappear and start a new life in another area. Perhaps this is not always bad, but it makes *hui* unlikely to emerge as an alternative to banks. In our society, livelihood, for most, has a much less direct connection to personal relationships.

Which brings us to the second question: are *hui* worthwhile, even if possible? We already have impersonal and widely available sources of credit such as banks and credit cards. They aren't always pleasant or cheap, but they are built-in and dependable, in a bureaucratic sort of way. In order to make *hui* economically worthwhile, groups would have to agree on interest rates between what could be earned in banks or money markets and the rate of interest charged by banks, credit cards or whatever the alternative source of money may be. In addition, *hui* require people who can be counted on to come up with the monthly dues. The larger the group, the more difficult this is to control.

On the other hand, there is a social element to *hui* that makes them appealing. People can learn from them, and relationships can be established and deepened by participation. I mentioned above that trust apart from social sanctions is difficult to find in Yingge, yet there are some families who have reputations as *hui* organizers that go back three generations. Dealing with them in a credit society is rather like dealing with Lloyd's of London. People recognize that by participating in a *hui* they extend their own social network, and build up their credibility for future events where cooperation will become important. In this way, *hui* are an exercise we can all learn from. ■

#### BIBLIOGRAPHY

Wu, David.  
"To Kill Three Birds With One Stone."  
*American Ethnologist* 1, 3 (1974):564-585.

Yang, L.S.  
*Money and Credit in China*. (\$4.50 postpaid from Harvard University Press, 79 Garden St., Cambridge, MA 02138), 1952.



## How to Be Your Own Butcher

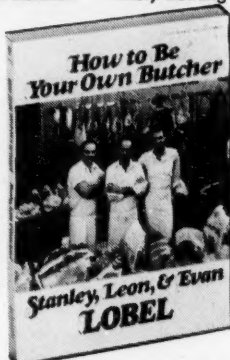
A fact-packed book written by fourth and fifth generation professional butchers. Emphasizes independence, health and saving money as reasons for learning home butchering. Describes the tools you'll need and how to choose and care for them. Tells how and where to obtain animals. Great advice on how to select animals, transport carcasses, butcher the beasts, and wrap and store the cuts of meat. Lamb, chicken, beef, veal, pork, game birds and variety meats are all covered in detail. Plenty of step-by-step illustrations to inspire confidence and guarantee success. For the price of a good steak, you really can become your own butcher. —Mary Bowling

### How to Be Your Own Butcher

Stanley, Leon,  
and Evan Lobel  
1983; 119 pp.

**\$7.95**

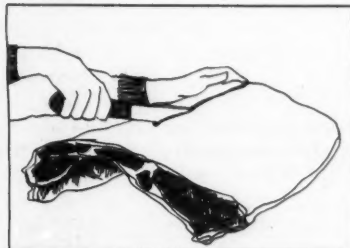
postpaid from:  
The Putnam  
Publishing Group  
1050 Wall Street West  
Lyndhurst, NJ 07071  
or Whole Earth Access



If you are purchasing a section of beef, the outside fat should be milky-white and fresh-looking to the eye. Avoid meat with yellow or deep-yellow outside fat. Even on an entire forequarter, you will be able to see the eye of the meat itself at the rib end. The meat should be amply grained, with a pink-red, alive tonality. Avoid meat that is dull or deep red and lusterless in tone. This indicates a lack of proper diet to produce the kind of beef you want. Inside the bones, the color should be a



B-1. FOREQUARTER CUT INTO 2 MAIN PIECES



B-2. CUTTING DIRECTLY ACROSS CENTER RIB-PLATE SECTION

good, strong red, and between the bones, the meat should look bright and healthy. A pale color and the absence of a strong red in the bones indicate lack of quality and youth.

But here, as with retail buying, you will do best with a supplier whom you can trust and whose meat comes from good sources. Remember, even dressed-down beef is large and weighty. Make sure your facilities for handling and transport match your ambitions. From the standpoint of pure economy, the best purchase would be an entire forequarter as a start.

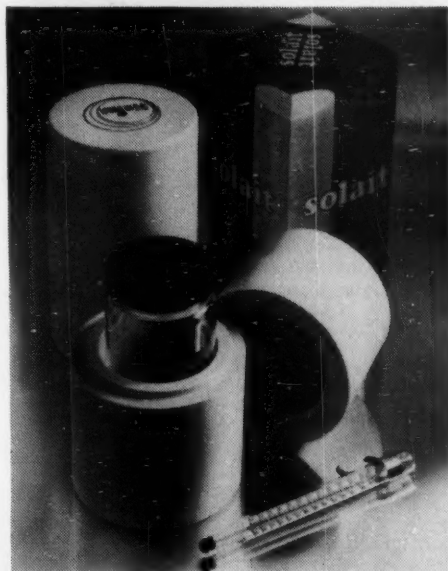
## Solait Nonelectric Yogurt Maker

I would like to recommend the Solait Kitchen Dairy for review in *CoEvolution*, for at last a well-designed yogurt maker and process has arrived.

To make yogurt an even incubating temperature of 90 to 120 degrees is needed for six to ten hours depending on how tart you like your yogurt. This process of "culturing" yogurt can either be easy and satisfying or a real pain.

The electric jobs don't appeal to my ecological consciousness and washing out those delicate jars can only be equal to washing out a catsup bottle. I've tried a myriad of other techniques to keep my culture warm, including: in the oven, in warm water, under the wood stove, over the wood stove and in the sun, all with mixed results. Someone would stoke up the stove and I would have cooked plaster of Paris or the sun would go in and I would have a semi-clotted soup. But at last help has arrived for us frustrated yogurt makers in the Solait Kitchen Dairy.

This heavy plastic nonelectric yogurt maker has consistently produced excellent yogurt weekly for over a year. Whether I make my yogurt super rich with cream or with nonfat milk, mild (six hours) or tart (ten hours), the Solait produces great yogurt. The Solait even has a "culture and cool" method which allows me to be away when the yogurt it done "yoging." The Solait comes complete with dairy thermometer, one-quart culture jar, yogurt and creme fraiche starter and a very complete recipe/instruction book. This gem also makes great cheeses, sour cream and buttermilk. —David Brooks



**Solait  
Kitchen Dairy**

**\$26.95**  
postpaid from:

Crayon Yard  
Corporation  
75 Daggett Street  
New Haven, CT 06519

# DWELLING

## How to tell a resident from an inhabitant

by Ivan Illich

Illustrations by Mark Fisher

**T**O DWELL IS HUMAN. Wild beasts have nests, cattle have stables, carriages fit into sheds and there are garages for automobiles. Only humans can dwell. To dwell is an art. Every spider is born with a compulsion to weave a web particular to its kind. Spiders, like all animals, are programmed by their genes. The human is the only animal who is an artist, and the art of dwelling is part of the art of living. A house is neither nest nor garage.

Most languages use *living* in the sense of *dwelling*. To put the question "Where do you live?" is to ask for the place where your daily existence gives shape to the world. Just tell me how you dwell and I will tell you who you are. This equation of dwelling and living goes back to times when the world was still habitable and humans were in-habitants. To dwell then meant to inhabit one's own traces, to let daily life write the webs and knots of one's biography into the landscape. This writing could be etched into stone by successive generations or sketched anew for each rainy season with a few reeds and leaves. Man's habitable traces were as ephemeral as their inhabitants. Dwellings were never completed before occupancy, in contrast to the contemporary commodity, which decays from the day it is ready to use.

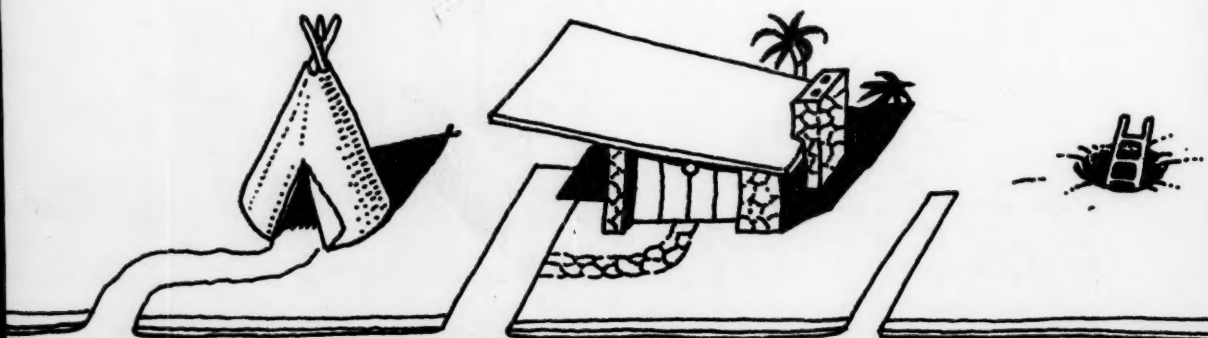
A tent had to be mended daily, it had to be put up, stretched, pulled down. A homestead waxes and wanes with the state of its members: you can often discern from a distant slope whether the children are married, whether the old ones have already died off. Building goes on from lifetime to lifetime; rituals mark its prominent stages: generations might have passed since the laying of the cornerstone until the cutting of the rafters. Nor is the quarter of a town ever completed; right into the eighteenth century the residents of popular quarters defended their own art of dwelling by rioting against the improvements that architects tried to foist on them. Dwelling is part of that moral economy which E.P. Thompson has so well described. It succumbed to the king's avenues, which in the

*Ivan Illich has become civilization's best critic. No one else has his range — education, energy, medicine, communications (see "Silence is a Commons" in the Winter 83/84 CQ), economics, even gender. No one else is simultaneously so radical (original, penetrating), so conservative (protective of the native, the vernacular), or so theoretically self-consistent. Everywhere the chill of human institutions threatens the warmth of human life Illich eventually shows up with his wolf grin. Here, in the beleaguered dwelling.*

—Stewart Brand

*Mark Fisher, whose drawings of various domiciles start immediately below, is based in Cambridge, Massachusetts. He previously illustrated Gary Snyder's "Good, Wild, Sacred" in CQ, Fall 1983.*

—Jay Kinney



name of order, cleanliness, security and decorum tore up the neighborhoods. It succumbed to the police which in the nineteenth century named streets and numbered houses. It succumbed to the professionals who brought sewers and controls. It was almost extinguished by welfare, which exalted the right of each one to his own garage and TV.

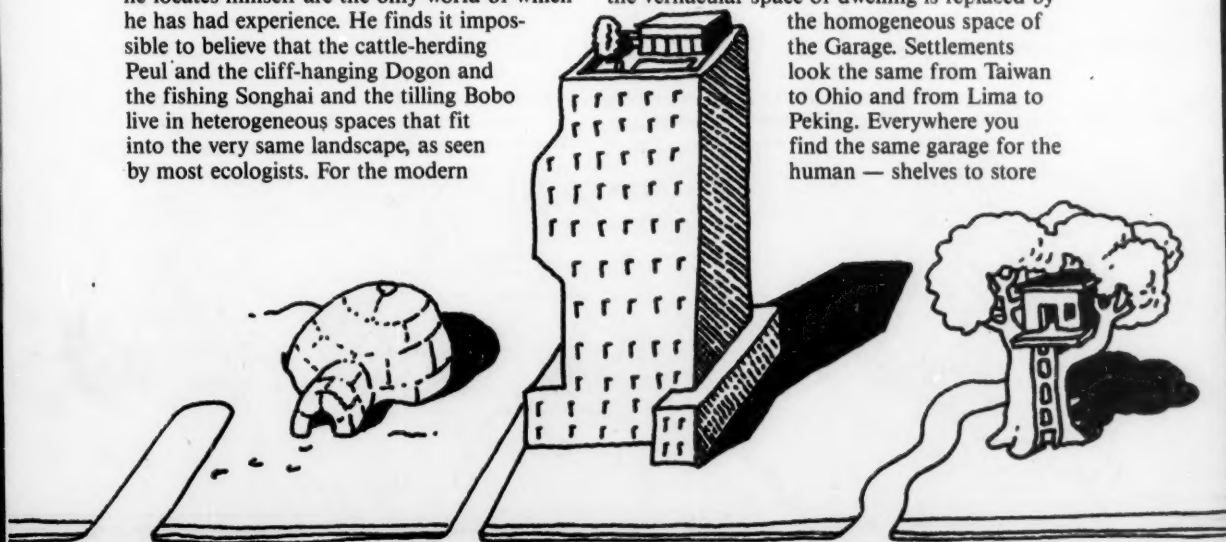
Dwelling is an activity that lies beyond the reach of the architect not only because it is a popular art; not only because it goes on and on in waves that escape his control; not only because it is of a tender complexity outside of the horizon of mere biologists and system analysts; but above all because no two communities dwell alike. *Habit* and *habitat* say almost the same. Each vernacular architecture (to use the anthropologists' term) is as unique as vernacular speech. The art of living in its entirety — that is, the art of loving and dreaming, of suffering and dying — makes each lifestyle unique. And therefore this art is much too complex to be taught by the methods of a Comenius or Pestalozzi, by a schoolmaster or by TV. It is an art which can only be picked up. Each one becomes a vernacular builder and a vernacular speaker by growing up, by moving from one initiation to the next in becoming either a man or a woman inhabitant. Therefore the Cartesian, three-dimensional, homogeneous space into which the architect builds, and the vernacular space which dwelling brings into existence, constitute different classes of *space*. Architects can do nothing but build. Vernacular dwellers generate the axioms of the spaces they inhabit.

The contemporary consumer of residence space lives topologically in another world. The coordinates of residential space within which he locates himself are the only world of which he has had experience. He finds it impossible to believe that the cattle-herding Peul and the cliff-hanging Dogon and the fishing Songhai and the tilling Bobo live in heterogeneous spaces that fit into the very same landscape, as seen by most ecologists. For the modern

resident a mile is a mile, and after each mile there cannot be another, because the world has no center. For the dweller the center of the world is the place where he lives, and ten miles up the river might be much closer than one mile into the desert. According to many anthropologists, the dweller's culture distorts his vision. In fact it determines the characteristics of the space he inhabits.

The resident has lost much of his power to dwell. The necessity to sleep under a roof for him has been transmogrified into a culturally defined need. The liberty to dwell has become insignificant for him. He needs the right to claim a certain number of square feet in built-up space. He treasures entitlements to deliveries and the skills to use them. The art of living for him is forfeited: he has no need for the art of dwelling because he anyway needs an apartment; just as he has no need for the art of suffering because he counts on medical assistance and has probably never thought about the art of dying.

The resident lives in a world that has been made hard. He can no more beat his path on the highway than he can make a hole in a wall. He goes through life without leaving a trace. The marks he leaves are considered dents — wear and tear. What he does leave behind him will be removed as garbage. From commons for dwelling the environment has been redefined as a resource for the production of garages for people, commodities and cars. Housing provides cubicles in which residents are housed. Such housing is planned, built and equipped for them. To be allowed to dwell minimally in one's own housing constitutes a special privilege: Only the rich may move a door or drive a nail into a wall. Thus the vernacular space of dwelling is replaced by the homogeneous space of the Garage. Settlements look the same from Taiwan to Ohio and from Lima to Peking. Everywhere you find the same garage for the human — shelves to store



the working force overnight, handy to the means of its transportation. Inhabitants dwelling in spaces they fashion have been replaced by residents sheltered in buildings produced for them, duly registered as consumers of housing protected by the Tenants' or the Credit Receivers' Act.

To be put up in most societies is a sign of misery: the orphan is taken in, the pilgrim put up, the condemned man imprisoned, the slave locked up overnight and the soldier — but only since the eighteenth century — billeted in barracks. Before that even the army had to provide its own dwelling by camping. Industrial society is the only one which attempts to make every citizen into a resident who must be sheltered and thus is absolved from the duty of that social and communitary activity that I call dwelling. Those who insist now on their liberty to dwell on their own are either very well off or treated as deviants. This is true both for those whom so-called "development" has not yet untaught the desire to dwell, and for the unpluggers who seek new forms of dwelling that would make the industrial landscape inhabitable — at least in its cracks and in its weak spots. Both the nonmodernized and the post-modern oppose society's ban on spacial self-assertion, and will have to reckon with the police intervening against the nuisance they create. They will be branded as intruders, illegal occupants, anarchists and nuisances depending on the circumstance under which they assert their liberty to dwell: as Indians who break in and settle on fallow land in Lima; as *favellados* in Rio de Janeiro, who return to squat on the hillside from which they have just been driven — after 40 years' occupancy — by the police; as students who dare to convert ruins in Berlin's Kreuzberg into their dwelling; as Puerto Ricans who force their way back into the walled up and burnt buildings of the South Bronx. They will all be removed, not so much because of the damage they do to the owner of the site, or because they threaten the health or peace of their

neighbors, but because of the challenge to the social axiom that defines a citizen as a unit in need of a standard garage.

Both the Indian tribe that moves down from the Andes into the suburbs of Lima and the Chicago neighborhood council that unplugs itself from the city housing authority challenge the now-prevalent model of the citizen as *Homo castrensis*, billeted man. But with their challenges, the newcomer and the breakaway provoke opposite reactions. The *indios* can be treated like pagans who must be educated into an appreciation of the state's maternal care for their shelter. The unplugger is much more dangerous: he gives testimony to the castrating effects of the city's maternal embrace. Unlike the pagan, this kind of heretic challenges the axiom of civic religion which underlies all current ideologies which on the surface are in opposition. According to this axiom, the citizen as *Homo castrensis* needs the commodity called "shelter"; his right to shelter is written into the law. This right the unplugger does not oppose, but he does object to the concrete conditions under which the right to shelter is in conflict with the liberty to dwell. And for the unplugger this liberty when in conflict is presumed to be of greater value than the commodity of shelter, which by definition is scarce.

The conflict between vernacular and economic values is however not limited to the space on the inside of the threshold. It would be a mistake to limit the effects of dwelling to the shaping of the interiors; what lies outside one's front door is as much shaped by dwelling, albeit in a different way. Inhabited land lies on both sides of the threshold; the threshold is like the pivot of the space that dwelling creates. On this side lies home, and on the other lies the commons: the space that households inhabit is common; the dwelling of the community rather than that of its corporate members. Just as no two communities have the same style of dwelling, none can have





## Those who insist on their liberty to dwell on their own are either very well off or treated as deviants.

the same commons. Custom rules who may and who must use the commons and how and when and where. Just as the home reflects in its shape the rhythm and extent of family life, so the commons are the trace of the commonality. There can be no dwelling without its commons. It takes time for the immigrant to recognize that highways are neither streets nor paths but resources reserved for transportation. I have seen many Puerto Ricans who arrived in New York and needed years to discover that sidewalks were not part of a plaza. All over Europe, to the despair of German bureaucrats, Turks pull their chairs into the street for a chat, for a bet, for some business, to be served coffee and to put up a stall. It takes time to forgo the commons, to recognize that traffic is as lethal to business as to gossip outside the doorway. The distinction between private and public space for the modern shelter consumer does not replace but does destroy the traditional distinction between the home and the commons articulated by the threshold. However what housing as a commodity has done to the environment has so far not been recognized by our ecologists. Ecology still acts as a subsidiary or twin to economics. Political ecology will become radical and effective only as it recognizes that the destruction of the commons by their transformation into economic resources is the environmental factor which paralyzes the art of dwelling.

One demonstration of the destruction of commons is the degree to which our world has become uninhabitable. As the number of people increases, paradoxically we render the environment uninhabitable. Just as more people need to dwell, the war against ver-

nacular dwelling has entered its last stage and people are forced to seek housing which is scarce. A generation ago Jane Jacobs effectively argued that in traditional cities the art of dwelling and the aliveness of the commons increase both as cities expand and also as people move closer together. And yet during the last 30 years almost everywhere in the world powerful means have been employed to rape the local community's art of dwelling and thereby create an increasingly acute sense of scarce living space.

This industrial rape of the commons is no less brutal than the poisoning of water. This invasion of the last enclaves of dwelling space by housing programs is no less obnoxious than the creation of smog. This ever-repeated juristic prejudice in favor of the right to housing, whenever this claim conflicts with the liberty to explore new ways of dwelling, is as repressive as the laws which enforce the lifestyle of the "productive human" couple. However, it needs to be proclaimed. Air, water and alternative ways of cohabitation have found their protectors. Curricula offer them training and bureaucracies offer them jobs. The liberty to dwell and the protection of a habitable environment for the moment remain the concern of minority citizens' movements; and even these movements are all too often corrupted by architects who misinterpret their aims.

"Build-yourself" is thought of as a mere hobby — or as a consolation for shantytowns. The return to rural life is dubbed romanticism. Inner-city fishponds and chickencoops are regarded as mere games. Neighborhoods that "work" are flooded by highly-paid sociologists



until they stop. House-squatting is regarded as civil disobedience, restorative squatting as an outcry for better and more housing. And all this might be true to a degree. In the field of housing, as much as in the fields of education, medicine, transportation or burial, those who unplug themselves are no purists. I know a family that herds a few goats in the Appalachians and in the evening plays with a battery-powered computer. I know an illegal occupant who has broken into a walled-up Harlem tenement and sends his daughters to private school.

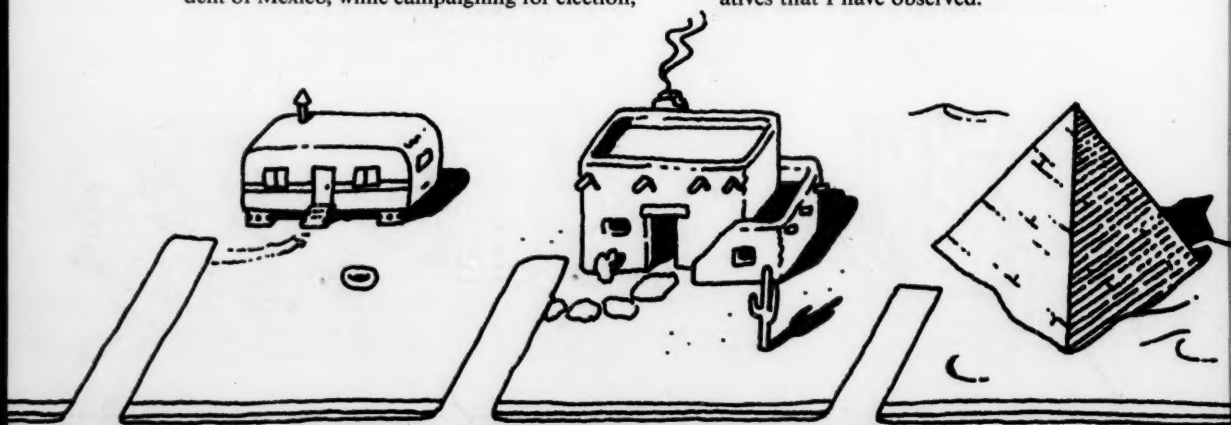
But neither ridicule nor psychiatric diagnosis will make the unpluggers go away. They have lost the conscience of the calvinist hippies and grow their own brand of sarcasm and political skill. Their own experience tells them that they enjoy the art of living which they recover by dwelling more than they enjoyed the comfort they left. And increasingly they become more capable of putting into pithy gestures their rejection of the axioms about *Homo castrensis* on which industrial society partly rests.

And there are other considerations which make the recovery of dwelling space seem reasonable today. Modern methods, materials and machines make build-yourself by citizens ever so much simpler and less tiresome than it was before. Growing unemployment takes the stigma of the asocial away from those who short-circuit the building unions. Increasingly, trained construction workers have to completely relearn their trade to ply it in a form of unemployment which is useful to them and their community. The gross inefficiency of buildings put up in the seventies makes previously unthinkable transformations seem less odious, and even reasonable, to neighbors who would have protested a few years ago. The experience of the Third World converges with the experience in the South Bronx. The president of Mexico, while campaigning for election,

stated without ambiguity: the Mexican economy cannot now nor in the future provide housing units for most of its citizens. The only way in which all Mexicans will be agreeably housed will be via provision in laws and of materials that enable each Mexican community to house itself better than ever before.

What is here proposed is enormous: the unplugging of a nation from the worldwide market in housing units. I do not believe that a Third World country can do this. As long as a country considers itself underdeveloped, it takes its models from the North, be this the capitalist or the socialist cheek. I cannot believe that such a country could really unplug itself, as a nation, from the ideology for which the worldwide market in housing units is but a symbol — the ideology based on *Homo economicus*, whose needs as "billeted man" are just one manifestation of his impotence. I believe that liberty to dwell, and the provision of the instruments — legal and material — to make this choice feasible, must be recognized first in the countries that are "developed." Here the unplucker can argue with much more conviction and precision why he places this liberty above the entitlement to a garage. Let him then look to Mexico to learn what adobe can do.

And the arguments that place the recovery of vernacular power to dwell over the impotent claims to personal storage are on the increase. As we have seen they are consistent with the direction the ecological movement takes when it gets out from under the wings of economy, the science of scarce values. They are consistent with a radical analysis of technology that distinguishes between tools given to people to build with and tools shaped by people to remedy their defective ability to dwell. But more important than these is the argument that has not yet been properly formulated but that I read into many of the concrete initiatives that I have observed.



---

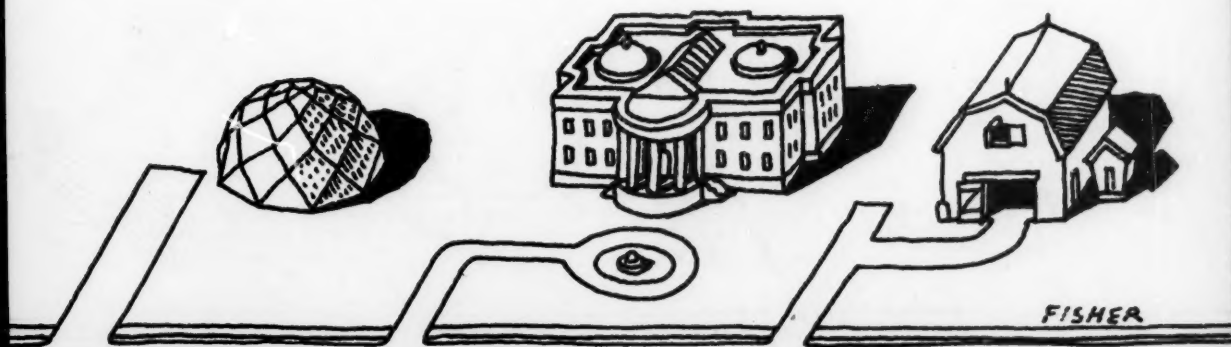
## I know an illegal occupant who has broken into a walled-up Harlem tenement and sends his daughters to private school.

---

Space fit to bear the marks of life is as basic for survival as clean water and fresh air. Human beings simply do not fit into garages, no matter how splendidly furnished with showers and energy-saving devices. Homes and garages are just not the same sort of space. Homes are neither the human nests to which sociobiologists would reduce them, nor shelves, on which people cannot survive regardless of how well they are cushioned. Garages are storage space for objects that circulate through the homogeneous space of commodities; nests are shaped and occupied by animals whose instincts tie them to their territory. Humans dwell. They have inhabited the Earth in a thousand different ways, and copied from each other the forms of their dwellings. What had determined for millennia the changing character of the dwelling space was not instinct and genes but culture, experience and thought. Both territory and dwelling space are, admittedly, three-dimensional in character, but as to their meaning, they are not spaces of the same kind — no more than dwelling space and garages. None of the sciences that we now have can properly grasp this variety of topologies — neither sociology, nor anthropology, nor history as now mostly undertaken can abandon the central perspective in which the differences that count disappear. I do believe that the disciplined opposition of human experience under the reign of vernacular values and under the regime of scarcity is a first step towards

clarifying this difference — which counts. And without the recovery of a language in which this difference can be stated, the refusal to identify with the model of “billeted man” and the search for new vernacular dwelling space cannot become politically effective.

And so, when the act of dwelling becomes a subject of politics, it comes inevitably to a parting of the ways. On the one side there will be concern for the “housing package” — how to entitle everyone to get their share of built cubage, well situated and well equipped. On this side the packaging of the poor with their housing unit will become a growth sector for social workers when there is no more money left for the architects. On the other side there will be concern for the right of a community to form and accommodate itself according to its ability and art. In the pursuit of this goal it will appear to many in the North that the fragmenting of the habitat and the loss of traditions has caused the right to a dwellable habitat to be forfeited. Young people who insist on housing themselves will look with envy southwards, where space and tradition are still alive. This budding envy of the underdeveloped must be cured with courage and reflection. But in the Third World survival itself depends on the correct balance between a right to “build-yourself” and the right to possess a piece of land and some things such as one’s own roof rafters. ■



## The Social Life of Small Urban Spaces

"Make the world safe for loitering!" cried the great French film director Jean Renoir, thinking of the leisurely and congenial streets of Paris. But in American cities we are very short of spots suitable for meeting, chatting, outdoor lunch eating and the creative loitering that is the special charm of city life. The genius of Whyte and his colleagues is that they have developed a method of determining how people really use open areas, ledges, benches, fountain-edges, and other features of the downtown scene. They set up automated cameras at strategic points and make day-long speeded-up film records of how people linger, lounge, talk, sun themselves, doze — or just hustle through without stopping — and draw systematic conclusions. Some findings are surprising, especially about the mini-ballets of meeting and milling around in heavy pedestrian traffic; New Yorkers, at least, like it best right in the middle of the flow. But even the nonsurprising results (sunny spots are the most popular in the chilly canyons of skyscraper cities) are nice to have scientifically confirmed; maybe some politicians will listen. The Whyte findings have led to New York City regulations that specify how wide and how far off the sidewalk ledges must be (so people can actually sit on them), how much sitting space must be provided to get points allowing a higher building, etc.; other American city planning departments would do well to adopt them. This book joins Christopher Alexander's *A Pattern Language* as a practical, useful tool for design that relates intelligently to human uses of public places.

—Ernest Callenbach

One of the big contributors to Seagram plaza's success is Gus, the vendor who can be found day after day, year after year at the corner of Park Avenue and 52nd Street.

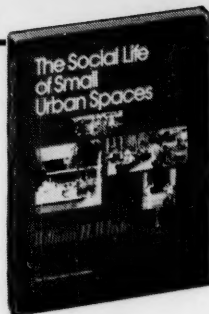


## The Social Life of Small Urban Spaces

William H. Whyte  
1980; 119 pp.

**\$9.50**

postpaid from:  
The Conservation  
Foundation  
1717 Massachusetts  
Avenue N.W.  
Washington, DC 20036  
or Whole Earth Access



If you want to seed a place with activity, put out food. In New York, at every plaza or set of steps with a lively social life, you will almost invariably find a food vendor at the corner and a knot of people around him — eating, shmoozing, or just standing.

Vendors have a good nose for spaces that work. They have to. They are constantly testing the market, and if business picks up in one spot, there will soon be a cluster of vendors there. This will draw more people, and yet more vendors, and sometimes so many converge that pedestrian traffic slows to a crawl. In front of Rockefeller Plaza during the Christmas holidays, we've counted some 15 vendors in a 40-foot stretch (most of them selling hot pretzels).

The civic establishment deplors all this. There are enough ordinances to make it illegal for vendors, licensed or not, to do business where business is good. Merchants always get on the backs of the police to enforce the ordinances. In midtown and downtown the most frequently observed police activity is giving summonses to food vendors.

## Street Signs Chicago

Lew Kreinberg spent almost 20 years as a neighborhood activist, then stopped for a year to figure out what it all meant. He wrote a book which says Chicago, the "city of neighborhoods," has no real neighborhoods.

Lew and coauthor Charles Bowden put together a book which is at once an essay on the problems of contemporary urban Chicago (and, by extension, urban America) and a history of the city's development. They start with the bog on the lake found by Father Jacques Marquette and Louis Joliet in 1673 and follow three main forces that pushed Chicago's growth: geography, cheap resources, and greed. Now, our contemporary developers, they complain, ignore the loss of one essential force: cheap resources. Where city movement and growth was once cold and exploitative, it is now, additionally, misguided. And for the common people, taking control is difficult.

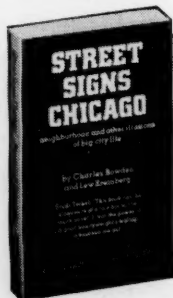
—Richard Engling

## Street Signs Chicago

(Neighborhood and Other Illusions of Big-City Life)  
Charles Bowden and  
Lew Kreinberg  
1981; 188 pp.

**\$9.40**

postpaid from:  
Chicago Review Press  
213 West Institute Place  
Chicago, IL 60610



Drink too much beer in the night, pour on the black coffee in the dawn and still it comes down to one thing.

Look behind all the categories, the glass towers, the slums, the old neighborhood, the mainline, the redline, the bad wires, broken pipes, inspect, inspect, and there it is, the power. Peel back the labels of city, peel back community, urban renewal, peel back neighborhood, and then you will find the power to make and break buildings, lakes, rivers and people.

Power moves in currents above and beyond places called neighborhood; power moves in money sliding down LaSalle Street to the Chicago Board of Trade, cruises around in limousines waving real estate plans, flashes by in electric lines nourished by nuclear fires, explodes in metal cylinders that drive automobiles, trucks, boats.

Power makes things happen. Neighborhoods have things happen to them. Big banks don't belong to neighborhoods. Skyscrapers don't belong to neighborhoods. Power plants don't belong to neighborhoods. The forces that determine cities like Chicago don't belong to neighborhoods.

People belong to neighborhoods, because they can't find much else to belong to. Neighborhoods are occasions, places where people hang their hats until they get the chance to move on. They lack the persistence, the organization and the strategy of the groups that exercise power. That's why they lose.

No magic here, no smoke, no mirrors, no rabbits, no hats. Can't drink enough beer at night, swallow enough black coffee at dawn. Remember something simple when the politicians, the real estate brokers and city planners start talking about the renewed city, the fixed-up city, the model city, the way the city will be if you give them their head. They've never built a city for people. When they start that talk about community, watch out.

Put your hand on your wallet.

Dead bolt that door.



## Old Money

Recently Stewart Brand and I began discussing a question: At what point does money become toxic? We know that too little money is like malnutrition. People suffer. But when is money too much? We are constantly treated to stories about entrepreneurs, stars, writers, and software geniuses who have become overnight millionaires. *People* magazine shows them frolicking with their Arabians.

*Architectural Digest* informs us who decorated their villa. *Fortune* regales us with their latest coup in the world of finance. These must be the lucky few. And these stories inspire countless millions to doggedly pursue fiscal dreams. But my experience tells me otherwise. When Steven Wozniak spent \$12 million on the US Festival, all reports were that he had a miserable time of it. In most cases, when individuals receive large sums of money, their lives are changed irrevocably, rarely for the better. The creators become the created, the shadow of their wealth. What would you be like if you earned \$100,000 a year? \$250,000? \$500,000 or even \$5,000,000? Really?

Since the conventional wisdom is that more money makes life easier, how many who have had the opportunity to receive very large sums of money have walked away from it? Few. *Old Money* is about that choice. Although fiction, it is written by an heiress whose life closely parallels the story. And because it is fiction, she is free to write in a way that comes far closer to the truth than sociology would.

Nothing in *Old Money* is what it appears to be: motives are buried by appearances; largesse cannot mitigate unplaceable guilt; the will to be is eroded by who one must be. The book is a mystery. I found it haunting. Characters and scenes are just out of reach. They live in worlds insulated by the penumbra of a financial dynasty. *Old Money* is for three types of readers: those who think they want money and that it will make them happy; those who have inherited wealth and wonder what it all means; and anyone wanting a very good read.

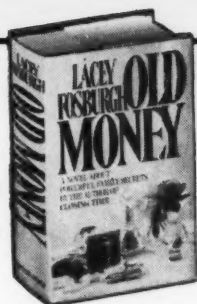
—Paul Hawken

## Old Money

Lacey Fosburgh  
1983; 425 pp.

**\$17.95**

postpaid from:  
Doubleday  
and Company  
501 Franklin Avenue  
Garden City, NY 11530



Max and Bostrine, like their three nephews, had first made the journey north to Weather Tree as infants in the arms of Irish maids. They had been wrapped in cashmere in mid-June and had their faces covered to protect them from the germs. The trip required four days then, with a minimum of eight changes of clothes and twelve meals. In the cramped quarters of the private railway cars, children saw only a bit more of their parents than they ever did at home.

First the troops of servants, trunks and relatives all set out by steamer from the port of New York. The entire staff, as well as the family bankers, lawyers and physicians were on hand to wave them off. Once underway, they journeyed up the Hudson to a point above Albany, where they transferred to the railway cars, which were already stocked with food and drink and an appropriate selection of paintings. They chugged across the flats, sometimes stopping at the house in Saratoga for lunch or a rest, and then they went on up into the mountains. They traveled by train as far as the tracks went, and there, where the line ended in the middle of the woods, they disembarked and switched to a caravan of carriages and buckboards. The last lap, along the state road and then finally over their own road, twenty miles of dirt and rock, was always, even now, the hardest but most satisfying part of the journey.

It cemented the belief that the world ahead at the other end was not only wilderness, but theirs.

## Grassroots Fundraising Journal

This journal follows in the footsteps of the best book in the field of the same name, by Joan Flanagan. Getting all the back issues would be worth it for anyone who has to raise money on a regular basis. Each issue gives concrete examples of experience and always relates it back to the basic issues: Your supporters are the best source of funds, they need to know what you are doing and that you have a role for them that is useful and interesting. Details to carry this out range from good mailing-list maintenance to accurate records to imaginative events and persistence.

—Michael Phillips

•

To begin the exercise, each person imagines asking someone for a large amount of money (anything over \$50). Going around the room, each person says out loud what they fear will happen to them. What will the

person they are asking think of them? What will they think of themselves? The facilitator writes down all the feared outcomes. After four or five minutes, there will probably be a list that includes the following:

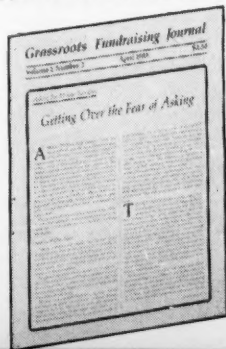
- The person will say no.
- The person will yell at me (or hit me).
- The person will give me the money, but won't really want to, and will resent me.
- I know the person doesn't have the money.
- It is imposing on our friendship for me to ask, and we won't be friends anymore.
- The person will think that the only reason I was nice to them was to get money.
- The person will say "yes" and then ask me for money for his/her cause.
- I don't know if my group really deserves the money as much as some other groups might.
- The person will ask me questions about the organization that I can't answer.

After this brainstorming session, the group should look at the fears that are listed and notice that they fall into three categories: A) fears of responses that are extremely unlikely to happen (e.g. I'll be punched, I'll be sued, I might have a heart attack), B) fears of things that might happen but could be dealt with if they do (e.g. the person will ask me for money, the person will ask questions I can't answer) and C) those fears of things which will definitely happen occasionally (e.g. the person will say no).

## Grassroots Fundraising Journal

Kim Klein and  
Lisa Honig, Editors

**\$15/year**  
(6 issues) from:  
Grassroots  
Fundraising Journal  
P.O. Box 14754  
San Francisco, CA 94114



# BEYOND HYPHENIZATION

A New System For Nonsexist Family Names



by Anthony Weston

illustrated by B. S. Beaver

**W**E TEND TO UNDERestimate the transience of our naming conventions. Actually, it was not until the 16th century that the use of surnames became general practice. We now sport the names of some distant male ancestor who, perhaps, made swords ("Smith") for Henry VIII, or who happened to live in the hills ("Vandenberg") trying to stay out of the way of Smith's handiwork. Even then one's name was liable to change in one's lifetime: Frank Farmer became Frank Fisher when he lost his land. Naming conventions were also dependent on biological theories. When Apollo tries to justify Orestes' murder of his mother to the Eumenides, Aeschylus makes him argue:

Not the true parent  
is the woman's womb  
That bears the child; she doth  
but nurse the seed  
New sown: the male is parent;  
she for him,  
As stranger for a stranger,  
hoards the germ  
Of life . . .

Man sows the seed; woman merely nurtures it, like the soil — this was the accepted theory for much of European history. The metaphor was perfectly "natural." Everyone understood planting firsthand. Besides, men obviously produce semen; that women also produce part of the "seed" was harder to discover. But if the "seed" is the father's alone, it makes sense for the father alone to pass on his name.

We know better now: Our genes are combinatorial, and both parents contribute equally. Thus, we might say, there is a genetic foundation for hyphenating names, for combining the two parents' names, or perhaps for simply naming the child something completely new, as some people have done, since each genetic combination is, after all, unique. And of course there are social and political reasons for wanting to undo the traditional patriarchal naming system.

Hyphenation has its own social history. The British did it, occasionally, for centuries, but not because they are great

feminists. It was done when the wife brought property to her husband. American women did it, less frequently, for feminist or professional reasons, and of course it has become quite common recently. Still, hyphenation is not very satisfactory. In the first place, it is often only the woman who hyphenates: Ann Smith becomes Ann Smith-Jones, for instance, but Oren Jones remains Oren Jones. It is strange that this is done so often, since it is surely almost as objectionable as the old system. There are other disadvantages even when both partners hyphenate. Not all names go together. "Ringelstetter-Snodgrass" does not exactly roll off the tongue — neither does "Smith-Jones," for that matter. Even worse is the task of the poor offspring learning to spell, who have enough trouble with just one last name. Finally, it is not clear that a hyphenating system can work beyond the first generation. Ringelstetter-Snodgrass-Smith-Jones? Possibly children could carry only one of their parents' names into marriage — a male his father's and a

Here's another go at devising a reasonable approach to naming the children of modern marriages. According to his own description, Anthony Weston is a part-time philosophy professor at Vassar and a part-time jack-of-(some)-trades.

—Jay Kinney

female her mother's — but this system seems unnecessarily divisive. Children should be able to retain a sense of connection with both parents.

Some couples do not change their names at all at marriage. This may be the best available system, although there are still times when one wishes for some kind of shared name. But how to name children is not at all clear. Their names could be hyphenated, for example, but then all of the problems with hyphenation would simply crop up one generation later.

Here I want to propose an alternative. It too is less than perfect, but it may at least serve to show that there are better solutions than the present ones. It has two main features:

- When two people marry, they would choose a common *middle* name. Presumably it would be a name which has some symbolic meaning for them, which sounds nice with their other names, and so forth. Suppose Ann Smith and Oren Jones treasure a certain woods: Ann Smith might become, say, Ann Oakwood Smith; Oren Jones correspondingly becomes Oren Oakwood Jones.
- Children would take their parents' married (i.e., middle)

name as their last name. Suppose Ann and Oren have a daughter named Adrian; her full name would be Adrian Oakwood. A provisional middle name could also be given: If she married, she and her partner would choose their (new) middle name.

One attraction of this system is that it would allow a person both to keep the name he/she has grown used to (one retains the same first and last names throughout life) and to share a name with his/her spouse. It can be very flexible in this regard. For professional purposes a person might use only his/her first and last names; when identifying oneself as a parent or spouse, on the other hand, the stress would go on the shared middle name. One's name would also stress (or not stress, as one wished) the fact that one is or isn't married. It might also make for some nice names.

The other main attraction of this system is that everyone in a family would share the same, manageable name. In fact one would share a name both with one's children and with one's own parents. It is true that no name would link grandparents and grandchildren. As it is, though, only one of the four grandparents passes his name to the

grandchildren, and it is hard to imagine any workable naming system which could do better than two.

Some people would probably prefer not to have to choose their married name, though others no doubt would appreciate the chance. It is worth reflecting, however, that parents already choose much more important names, at least for their children: their *first* names. It is also worth remembering that there are any number of books available to help parents make these choices: This proposal only expands the market. Some people would want to pick married names which reflect events or places of particular significance to the relationship; others perhaps will pick poetic terms, as the Japanese do, or the names of birds, or, among the astrologically inclined, stars or constellations. Something will of course be lost — contemporary names do embody a fascinating and occasionally useful social history — but there will be greater gains elsewhere: a better fit, perhaps, between name and self; certainly a social history of a different sort; and, most importantly, a naming system which does not build sexist assumptions into the very sounds by which we know each other. ■

## Silver Threads Among the Gold

*One legacy of '60s youth-culture days that many of us still lug around is a tendency to hang out only with other people our own age. The days of cross-generational extended families where kids, adults and elders rubbed elbows daily is long gone. Instead we have a stratified set of institutions ranging from daycare centers to nursing homes which tidily sequester people by age and class.*

*Silver Threads Among the Gold*, by Judy Sheppard, is a well-written "guide to inter-generational contact" which details specific steps to take in setting up weekly and biweekly visits to nursing homes by school kids. This handbook uses the Silver Threads program developed in Clackamas County, Oregon, as a model, threading anecdotes among the tips. This is a well-done and inspiring guide.

—Jay Kinney

(Suggested by Warren Hatch)

### Silver Threads Among the Gold

Judy Sheppard  
1980; 52 pp.

**\$3.10**

postpaid from:  
Clackamas Community  
College Foundation  
19600 So. Mollalla Ave.  
Oregon City, OR 97045



With the first program, it took a few weeks for most of the residents to fully accept the children and go beyond "just enjoying" them. After all, taking children to the nursing home is not a novel idea. Church youth, scouts, and similar groups occasionally visit nursing homes, especially at holiday times. What was different with Silver Threads was the essential regular weekly contact, with the focus of the program exclusively on nursing-home residents. After about four weeks, the residents began to recognize the children and say to themselves, "These children are coming back to see me every week." This was when the anticipation and the bonding started. The foundation for Silver Threads was laid. It is with this in mind that I encourage programs to have weekly contact initially, and then go to bi-monthly visits if desired.

### Yells

Many nursing homes have residents who yell out loudly. This can be shocking to hear unexpectedly. To explain this to children, I asked them a simple question: "How many of you have ever sneezed?" We would briefly talk about sneezes and how difficult it is to stop them. Then I told them about residents who have something similar to a sneeze — only it's a yell they can't stop. I assured them such residents weren't being hurt or wouldn't hurt them — and if they heard a yell, to think of it like a sneeze.

## Plainswoman

### Plainswoman

Elizabeth Hampsten,  
Editor

**\$10/year** (10 issues)

from:  
Plainswoman  
P.O. Box 8027  
Grand Forks, ND 58202



North Dakota is a blend of tradition and devil-may-care, rather like a gambler in an old sweater (blackjack is legal; two-dollar maximum bet). Year after year, with the same air of sensible recklessness, Elizabeth Hampsten assembles, on her kitchen table in Grand Forks, a regional magazine that celebrates the lives and accomplishments of women on the Great Plains. In down-home English, *Plainswoman* describes the challenges of living well, and living right, in a land most of us would rather

be from. Special issues have been devoted to pioneers, native Dakota peoples, rebels and other pathbreakers. A yearly fiction contest garners short stories and poetry that are sprinkled throughout like prairie flowers. The style of contributors (munificently paid with two free issues) may not be riveting but the stories ring true. "Oversimplification is the prime tool of those who lack moral passion," John Simon once said. These stories are too real, and thus too important, to be simple. —Jeanette Ross

**Age 17.** During the summer of this year before my senior year, I ran away from home one night. Dad was yelling at Mom and they were having a terrible fight so I left and I walked to town, 12 miles. I hid in the ditch every time a car came by. I went to some people I knew a little bit. They lived in the train depot and I asked them if they would buy me a ticket on the train to St. Paul to my Grama's. They did (and I know I've never paid them back). The train went clear to Duluth before it went to the cities. I don't know how I got to Gram's from the depot. I only knew I was scared out of my mind. She was so surprised to see me but she let me stay all summer. Don't know how come Dad did.

## One Teenager in 10

*One Teenager in Ten* is a collection of writings by young, gay men and women about what it is to be a teenager and gay. This is a good book for parents, families and social workers who want to better understand what kids coming out go through, in their own heads and in society. It is also a great, supportive group for young people who think they might be gay to relate to. (The publishers also have an under-21-only pen pal club to hook up teenagers who would like to talk about gay issues with people their own age.)

The stories vary a lot — some teens found supportive friends at school, others lost them all. Some found one parent to be understanding and were able to feel good about themselves — and others were beaten, arrested, and institutionalized. Many were sent to psychiatrists. But all seem to have survived with a sense of identity.

—Annette Jarvie

**Jim, male, 17, Chicago**

I come from a mixed family. That is my father is an extremist — status symbols, perfection, etc. My mother is a conservative — stretches the dollar, and is also a perfectionist. This combination of ideals caused sheer hell when I decided to come out.

It was July, and I had just turned seventeen. I had begun driving my car which I had purchased with my money. I already knew my sexual feelings and had accepted them. So I began to use my car and fake I.D.s to investigate "my world." I had gone to a youth group,

but the one I went to was full of hustlers and queens. So I began to go out to bars, porno houses for gays, etc. Many times I really had to speed home to make my midnight curfew. My parents assumed that I was dating someone (a girl) so, at first, they never questioned my going out. But then they got curious and kept bugging me to tell them why and where I was going out. This went on constantly, even on our vacation. They said to tell them and everything would be all right.

Well, it bugs me to hold something back, so the day after we got back from our vacation I had a conversation with my Mom.

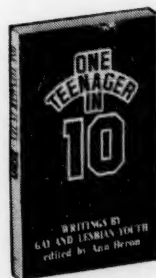
"Mom, I always hide something when I'm trying to protect you and Dad. What I mean is, all the times I leave I've been going on dates with guys because I'm gay!!"

### One Teenager in Ten

(Writings by Gay and Lesbian Youth)  
Ann Heron, Editor  
1983; 119 pp.

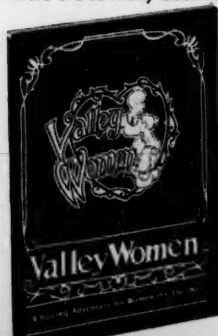
**\$4.80**

postpaid from:  
Alyson Publications  
P.O. Box 2783  
Department B-26  
Boston, MA 02208  
or Whole Earth Access



## Valley Women

Two Fresno women put out this catalog covering a broad range of books (and products) of interest to women. There are so many book titles they distribute, most with



### Valley Women

Catalogs: 1983-84  
1984-85 (scheduled  
for July 1984)

**\$3.75**

postpaid from:  
Valley Women  
919 East Sussex Street  
Fresno, CA 93704

short descriptions, that reading the catalog is much like browsing in a women's bookstore. Their categories are somewhat arbitrary (an anthology of lesbian fiction could be in almost any category) but if you're not necessarily looking for a particular book and just want to browse, and there isn't a women's bookstore nearby, then this is a good place to do it.

—Annette LaBette

### Period

by Jo Ann Gardner Loulan, Bonnie Lopez,  
and Marcia Quackenbush  
Paperback \$6.00/Cat. No. YA5

"A book on menstruation by three women who apparently remember exactly what they wanted to know when they were young girls. This is perhaps the only satisfactory book existing on this important topic . . ." National Science Teachers Association, Children's Book Council Joint Committee.



# THE POLITICS OF RELIGION

## Hasidic Tales of the Holocaust

An old Jewish legend says that the shelves of the Library of Heaven are already completely filled. However, when a new and worthy book appears, all the volumes press themselves closer together to make room for the newcomer.

*Hasidic Legends of the Holocaust* is one of the few books in recent years that seems appropriate to the legend. Here is a collection of 89 tales about our fellow human beings, who were forced to participate in the living hell that saw two million Gypsies and six million Jews systematically annihilated. These are tales that have been kept alive orally for the last three decades among the survivors and their families. They deal with the dark days and burning nights of life in the ghettos, the breakup of communities and families, slave labor, and the horrific daily round in places like Auschwitz and Bergen Belsen — places where death was a constant companion.

The accounts of the beatings and twisted bodies and the cruelty of the executioners tear at the heart; yet in story after story we find kindness, friendship, faith, and hope. Again and again we come face to face with the living proof that staying alive has a great deal to do with staying human, or as one father put it, "My children, be human in this inhuman valley of death."

There are miracle tales and tales of madness (How could there not be?), and there are bizarre tales too. Also many stories of women, not as secondary participants in their roles as wives or mothers, but as heroines in their own right because of their strength and courage.

A remarkable and inspiring book, one to be absorbed into our blood and bones — or at least into our minds and hearts. There is a deep grief and anguish in these stories, yet out of the ashes comes a light and a hope that can only make us reach for the very best in ourselves.

—Steve Sanfield

### Hasidic Tales of the Holocaust

Yaffa Eliach  
1983; 312 pp.

**\$5.20**

postpaid from:  
Avon Books  
Mail Order Dept.  
959 Eighth Avenue  
New York, NY 10019



### Good Morning, Herr Muller

Near the city of Danzig lived a well-to-do Hasidic rabbi, scion of prominent Hasidic dynasties. Dressed in a tailored black suit, wearing a top hat, and carrying a silver walking cane, the rabbi would take his daily morning stroll, accompanied by his tall, handsome son-in-law. During his morning walk it was the rabbi's custom to greet every man, woman, and child he met on his way with a warm smile and a cordial "Good morning." Over the years the rabbi became acquainted with many of his fellow townspeople this way and would always greet them by their proper title and name.

Near the outskirts of town, in the fields, he would exchange greetings with Herr Muller, a Polish Volksdeutsche (ethnic German). "Good morning, Herr Muller!" the rabbi would hasten to greet the man who worked in the fields. "Good morning, Herr Rabbiner!" would come the response with a good-natured smile.

Then the war began. The rabbi's strolls stopped abruptly. Herr Muller donned an S.S. uniform and disappeared from the fields. The fate of the rabbi was like that of much of the rest of Polish Jewry. He lost his family in the

death camp of Treblinka and, after great suffering, was deported to Auschwitz.

One day, during a selection at Auschwitz, the rabbi stood on line with hundreds of other Jews awaiting the moment when their fates would be decided, for life or death. Dressed in a striped camp uniform, head and beard shaven and eyes feverish from starvation and disease, the rabbi looked like a walking skeleton. "Right! Left, left, left!" The voice in the distance drew nearer. Suddenly the rabbi had a great urge to see the face of the man with the snow-white gloves, small baton, and steely voice who played God and decided who should live and who should die. He lifted his eyes and heard his own voice speaking:

"Good morning, Herr Muller!"

"Good Morning, Herr Rabbiner!" responded a human voice beneath the S.S. cap adorned with skull and bones. "What are you doing here?" A faint smile appeared on the rabbi's lips. The baton moved to the right — to life. The following day, the rabbi was transferred to a safer camp.

The rabbi, now in his eighties, told me in his gentle voice, "This is the power of a good-morning greeting. A man must always greet his fellow man."

## Theology in a New Key

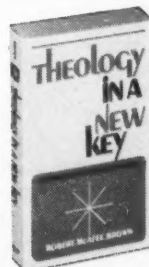
I recommend this book for people who wish to read an excellent overview of liberation theology. In addition to his presentation of the challenges to North American Christians raised by Latin Americans, Brown provides a lengthy annotated bibliography of the major works on liberation themes. The winds of change are blowing in from the South. How we prepare our hearts now will determine if we'll sail towards new visions or flounder on our mistaken notions of self-interest. —Douglas Spence

### Theology in a New Key

(Responding to  
Liberation Themes)  
Robert McAfee Brown  
1978; 212 pp.

**\$6.95**

postpaid from:  
Westminster Press  
Order Dept.  
P. O. Box 718  
William Penn Annex  
Philadelphia, PA 19105



The starting point is the present reality of violence, and the need to do something about it. For liberation theology the possible use of violence is not a first step but a last resort. The case of Camilo Torres (so often cited by critics as a typical exponent of violence) is instructive. Torres was a Catholic priest in Colombia who tried every conceivable way of "working through the system" to change a repressive regime: he wrote, spoke, organized, marched and voted. He gradually saw that those holding power remained unresponsive, and would resist violently any effort to bring about nonviolent change. After much thought and agony, and the gradual elimination of other alternatives, he concluded that in that situation no change could come by peaceful means, so he joined the guerilla forces and was shortly thereafter killed in battle. His decision was a last resort, not a first step.

It is crucial to recognize the reality of violence within the unjust structures of contemporary society. How one deals with such violence is an issue no one can avoid. And little help is given by quick dismissals of those who live daily with such dilemmas and conclude that the use of counterviolence might one time become a moral necessity.

# COFFEE HOUR

America's  
True Religion

by Jim Burklo



**H**ER HANDS GRIPPING THE fingers of a 70-year-old man, a child jumps and does a heels-over-the-head flip back onto the linoleum. Nearer the aluminum coffee percolator where a line of people wait to fill their styrofoam cups, a young engineer talks about the contracts his firm is seeking while a high-school girl and her stepfather listen over the animated tones of a cluster of people behind them. The church janitor, a middle-aged school administrator, the widow of a college professor, and a phone company executive and her two children speculate on the reasons for the success of the recent rummage sale against the poor showing of last year's.

**Rule of thumb:** *The folks who stay after worship for "coffee hour" are the ones who run the American church.*

If you want to comprehend the politics of American religion, "coffee hour" is a first course. The disparate doctrines, structures, and worship forms of American Christianity distract us from proper respect for this informal time in the social hall after worship. I began to appreciate the importance of this phenomenon when I tried to schedule a seminar immediately after the church service. Ignoring my pleas to come into the classroom, people continued to hang out together by the coffee

pot until after several Sundays of futility I concluded that coffee hour was a permanent fixture of Christian orthodoxy. This has proven true in each of the churches I have served since.

The Baptists and the Catholics, the Unitarians and the Pentecostals all drink from a common styrofoam cup. Coffee hour has a function in America that transcends the divisions of the church. This is a huge and lonely country. New people keep moving in, and the rest keep moving around. The American local church is an extended family, a clan, for people whose natural clans are scattered and lost. It is a family for people who would otherwise be strangers to each other. It is a place for teenagers to know elderly people, for new parents to inherit baby clothes, for newly divorced women to hear about part-time jobs from business people, for single newcomers to town to meet people.

The clan conducts its affairs most intensely during the coffee hour. Stories are swapped, dates are made, plans are laid. It becomes obvious over several coffee hours that certain people know most of the others. These people, regardless of their official titles in the church or lack thereof, are the ones who have the greatest political influence in the church. Denominational officials make it their business to know these people and to consult

*The Politics of Religion isn't all spark and spittle; it definitely includes the quieter side of things as well. This "exposé" of who really runs our mainstream churches comes from CQ subscriber Jim Burklo, who does ongoing research as associate minister of First Congregational Church in Palo Alto, CA.*

—Jay Kinney

them, as well as the officers of the church, on the state of the church. These are the people who can introduce you to other people during coffee hour; the informal network that is the real foundation of the church is in their hands.

The dominant political system of the Christian churches of the United States is "congregationalism" — local church autonomy. The Baptists (in all their many flavors), the Congregationalists, the Disciples, most Pentecostal churches, and many other denominations totalling the largest number of American churches are structured so that each local church owns its own building, chooses and fires its own pastors, and determines its own doctrines and by-laws. This system has crept into the Presbyterian churches, the Methodist churches, the Episcopal churches and others with a more centralized political system; these denominations are giving in increasingly to local church demands for control over ministerial appointments, budgets, and worship forms. Americans are drawn to churches more because of their local characteristics than their denominational affiliations. This year, for the first time, the delegates to the World Council of Churches meeting joined together in a common celebration of the mass. Why is this possible? Because years ago, their local church constituents concluded that coffee hour was more important than creedal purity. Christian hierarchs have for a long time convinced themselves against the evidence that they still lead the church, while the people years ago began to ignore them while forming up behind the aluminum urn.

The staggering variety of American religious forms displayed in the hour before coffee still have, of course, important functions, not the least of which is the primal need of any clan to have a unique, identifying ritual. The ritual may have lost much of its original intrinsic meaning, but it remains potent as a way for the community to recognize itself. The hymnal of my church consists of the top ten hits of the 1840s, but while even the strongest defenders of the use of the hymnal would be hard-pressed to explain the meaning of the words, its value is primarily as a means for the church to express its identity. Is the minister or priest or elder really in charge of the worship service? I find the opposite. I am strongly subordinated by the liturgy itself, and thus by the congregation.

**Rule of thumb:** *The more obscure and dated the worship, the more democratically is the church run.*

Why do more Americans go to church than Europeans? It is certainly not because our worship is more meaningful. It is because cof-

fee hour is as much a feature of our social landscape as shopping malls, fast food, and baseball. America is set up in such a way that people need coffee hour. You can worship at home, praying before a candle or turning on a TV preacher. But what is there to replace the church potluck, the ladies' bazaar, the rummage sale? How many other places can you mingle with people of such diverse ages and life-situations?

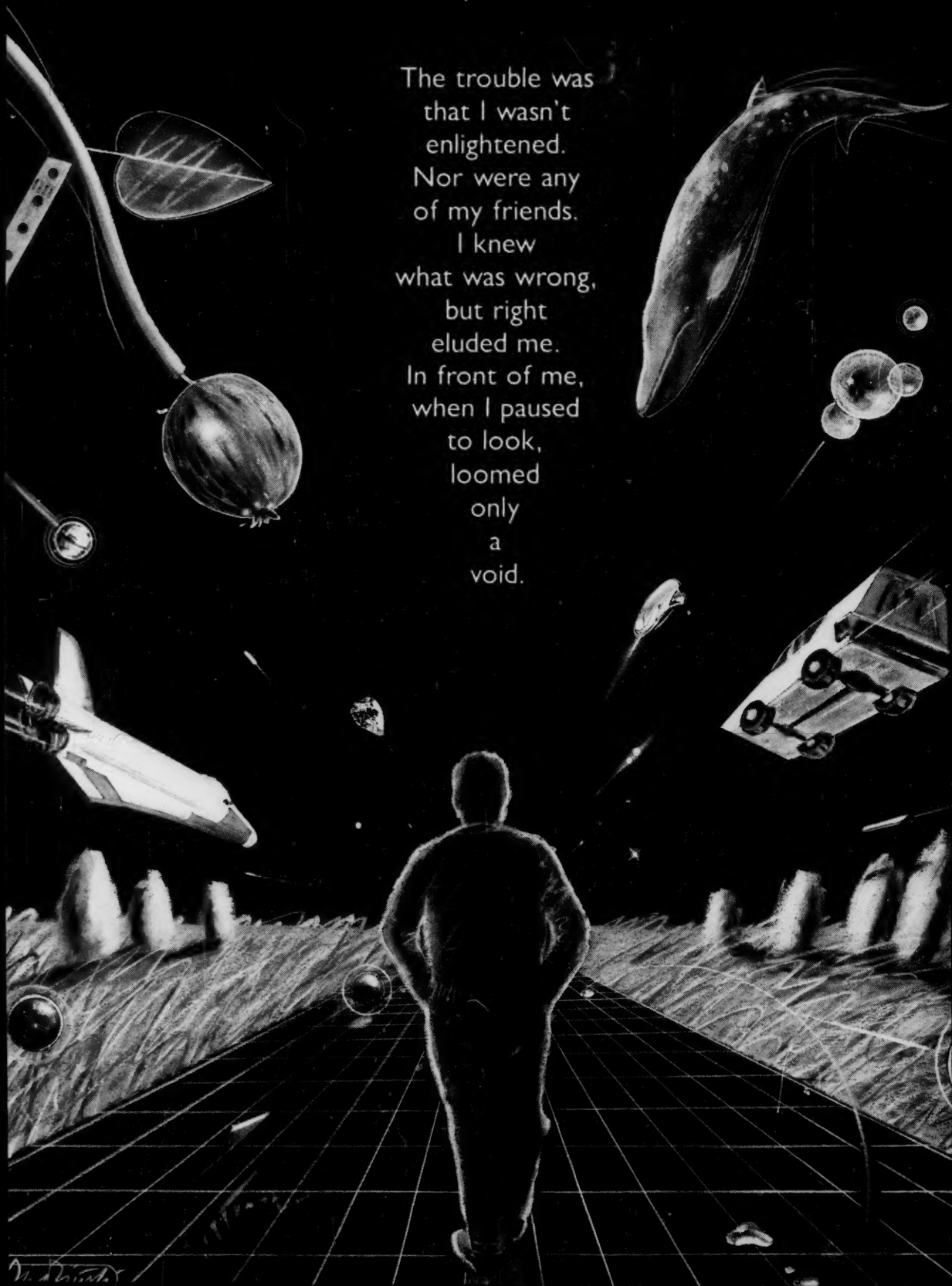
I am in agreement with the political persuasions of my denominational leadership. However, as a parish pastor, I know that it matters very little to my church members whether I lean to the right or the left, as long as I love them. The preacher's political religion and religious politics can be ignored or affirmed as long as they do not prevent people from enjoying each other's company in the social hall afterward. It has amazed me how little I have bothered people with what I say from the pulpit. There are folks who completely disapprove of my convictions while getting along warmly with me on a personal level — which is the level they seek in coming to church in the first place. Coffee hour does not force any political point of view on anyone; thus, in a time of radicalization of the pulpit, the social hall has become the sanctuary of the church. Radicals and Reaganites can carry on about anything from Kierkegaard to croquet as they sip coffee after church.

**Rule of thumb:** *Brew two cups of coffee for every three people attending worship. This allows for the abstinence of children and those who had their coffee early in order to make it through worship.*

If democracy is the free and equal exercise of power by each citizen, then coffee hour surely qualifies: Most churches do not charge for their coffee, and you can help yourself until it runs out. This is certainly the most important form of democracy — economic democracy.

So, to understand the political life of the American churches, one must begin by recognizing that their members are primarily attracted by the fellowship life of the church, and are largely immune to the belief systems and lines of authority which form their facades. How many Catholics use birth control? How many Southern Baptists ignore Jerry Falwell? How many members of the liberal Protestant churches that have condemned nuclear weapons production are still working for the defense industry? More than the supposed leaders of Christendom would care to admit. In fact, Christianity in America is completely out of control of anyone except this Sunday's coffee host. ■

The trouble was  
that I wasn't  
enlightened.  
Nor were any  
of my friends.  
I knew  
what was wrong,  
but right  
eluded me.  
In front of me,  
when I paused  
to look,  
loomed  
only  
a  
void.







R

4

1

# Waiting for the Sting

by Donald Factor

Illustrated by Andrej Dudzinski



ABOUT EIGHT YEARS AGO I FOUND MYSELF BEING DRAWN, against all of my best intentions, into what I then saw as just another spiritual group. I won't mention its name, because I feel rather protective of the people involved. There's nothing secret about them; they've been around quite openly for over 50 years, although I suspect that very few of you will have heard of them. There is a fluidity that is difficult to grasp. This is one of the things that has kept it so interesting.

I met them in London. Or more precisely, I met a very lovely man named Paul. I had no idea of his associations. He had the look of an Old Testament prophet with a full, grey-streaked beard, and dark, piercing eyes. He was Jewish, a Cockney from Soho, and he had been a computer programmer back in the days when computers were great, hot, noisy monsters, and programmers did much of their work on their knees with sleeves rolled up and sweat pouring from their brows. For a man approaching sixty, he seemed to have phenomenal energy, and what impressed me as much as anything was that he tended to laugh a lot. He gave every impression of really enjoying life. In those days, I wasn't.

It was Anna, my wife, who found him. She was in a state of what I can only call spiritual desperation, and somehow their paths crossed. My approach didn't satisfy her. I had been following my own path for a couple of years. I was an Arican. I had done the Arica 40-Day Training and then the Advanced Training in New York. Before that, it had been radical politics, then Gestalt at Esalen, and Roling, and massage, and a little bit of acid, and my own made-up meditations. I had learned a lot. I knew that what most of the world valued was only the result of subjectivity, old tapes

still running. We even had names for it, "three grand" or "six grand" — very low levels of consciousness. I felt very superior. I could laugh at all of those dimwits still possessed by their painful imaginings of the way the world ought to be. Old burdens of guilt and responsibility, the heritage of a middle-class, Jewish upbringing, were lifted from my shoulders. I don't know if this is what Arica intended, but it was the message that some of us got. I felt safe in this new state of consciousness; I was in good company. Amongst my colleagues were professionals — psychologists, scientists, even some successful Hollywood types. And it freed me from the limitations of the old order that had staked out my previous boundaries. You could do whatever you did — get laid, smoke dope, rip off your competitors — and you still felt you had a good chance of getting enlightened.

The trouble was that I wasn't enlightened. Nor were any of my friends. I knew what was wrong, but right eluded me. In front of me, when I paused to look, loomed only a void. So, when Paul entered my life, I was filled with questions. Of course, I knew a great deal. The Arica work and years of reading had given me a potful of answers. I would, I thought, be able to spot any weakness in Paul's argument,

---

*Along with all the discussion of "cults," spiritual groups and gurus, a lot of nonsense has come down the pike about the role of brainwashing in unorthodox religious movements. Donald Factor, a CQ reader from Devon, England, provides an antidote of sorts with this first-person account of his ongoing immersion in a spiritual group, intended, he notes, to overcome "the great difficulty (if not impossibility) of judging the workings of a spiritual movement from outside [its] world-view." We're preserving the anonymity of the group at the request of the author and because what is important here is the universal experience of conversion, not the specific identity of this group.* —Jay Kinney

any gap in his knowledge of things higher, any subtle allegiances to old conventions that I had already learned were nothing but the products of outmoded conditioning. But he never gave me an inch. Our conversations would generally last far into the night, and would end something like this:

Me: C'mon, man, what is the truth?

Paul: You know the truth.

Me: Dammit, if I knew the truth, I wouldn't be asking.

Paul: But you do know the truth. You are the truth.

Very frustrating. I would drag myself off to bed swearing to have nothing more to do with this guy; but we'd be back at it again within days.

He had been clear from the start that he represented a large body of others who not only shared his particular approach to life, but involved individuals who were very much advanced of him in what he called "spiritual maturity." I was curious. There was nothing to do but go along with him, cautiously, one step at a time.

I attended a meeting in a tiny, nondescript house in Hammersmith. About twelve of us sat together in straight rows of hard-backed chairs. Most of the others were young, considerably younger than me. A few were older. Most were women. Paul introduced the evening, mentioning that we would be sharing a recent service from somewhere in the States; I didn't quite catch the place. I didn't like the word, "service." I was uneasy in this too-rigid, old-fashioned setting. I preferred cushions on the floor, and chanting, and group dynamics. He turned on a small, portable cassette recorder which sat next to a vase of flowers on a table in front of us. He sat down on a chair beside it. "So," he said, "you can have someone to focus on while you're listening."

Within ten minutes I had fallen asleep. I was awakened suddenly by the sensation of being about to topple off of my chair. I looked around, shamefaced, but nobody else seemed to have noticed; they were all listening earnestly. The voice from the recorder was saying something about the first sign of spiritual maturity being when one stopped asking questions and began giving answers. This intrigued me. It is all I remember of that first evening.

I continued to attend the meetings; not regularly, because they were held on Sunday mornings, and Sunday was my day for lying in

bed and reading the papers. Anna went more often. I also had problems with the language — there was much talk of Christ and loads of Biblical quotations. The others who hung around the house struck me as nervous youngsters barely out of the nest, boring, totally unaware of the grandiose visions that had been promised me by Oscar and acid and the East. Basically, they seemed to be losers, attracted to a neat, tidy, new religion that would bring them the security they so sorely craved. The whole thing smacked of a small, Bible Belt, religious sect, complete with hymns and affirmations following the lesson. Very nice, I thought, but no, not for me.

But Anna's continuing interest, and my friendship with Paul, kept me fairly close. He never objected to my absence from the meetings. I mentioned that I just couldn't relate to the prissy religiosity of the people around the center. He just laughed and said, "Wait till you meet some of the others."

Then, one day, he announced that he was leaving for West Africa. He felt a need to offer something to a group of people in Ghana who already shared his spiritual approach, but who, it seemed, lacked a point of focus. I couldn't tell if he was being sent there by this church, or whether it was his own idea. His son, he told us, would be coming from Canada to take over his work in London. He was keen for us to meet him.

Manning duly arrived. He was very different from Paul — blond, balding, very American, a teller of endless bad jokes, and passionate about movies — but with a similar expression of love for life and all that it contained. I liked him immediately. He made me laugh. His enthusiasm for the services, for sharing the words of this man whose voice I had heard on the tape recorder, and which would arrive in printed form every two weeks, was infectious. I began to attend services again. He would read the papers with such an obvious pleasure that I was more often able to stay awake, and began to hear, buried in the grand, Biblical phrases, ideas that impressed me. Now I began to sense that behind this veneer of old-time religion there lay something that might be profoundly true; the next step beyond Arica, maybe; one of the mystery schools I had read of, possibly.

Manning would pass the papers along to me, and I would read them myself at home. I began to love what they had to say; but in looking around the London center, I could see



no one behaving in the way that this man was suggesting. He spoke of leadership, of the necessity for a body of spiritually mature people to work together in agreement, expressing the truth of themselves; "the Spiritual Expression approach," he called it. He was opposed to anyone hanging onto the coattails of a master or guru, himself included. He saw every human being as essentially divine, already perfect, but caught in a trap of conditioning that kept this truth well hidden.

To my eye, the group that had formed around Manning treated him as its leader, and accepted a hierarchy beyond him. Some of them followed willingly; others complained, but followed anyway. They made donations to help support him. They bought him a car, and gathered round, hanging on his word and command. I admired Manning; he was teaching me much, but now I decided that what was happening here could be no different from what must be going on in the rest of the multitude of spiritual groups that had blossomed during the early seventies. I was after a more personal truth, one that I sensed must be available, somehow; but this was all too easy. Manning had become a father figure for his followers, and he in turn seemed to long lovingly for those higher than him "in the design." Here was just another example of a comfortable haven for those who seemed to be desperately looking for a safe alternative. I wanted something that would provide me with a solid base for my own integrity. Dependence on a group was not, as far as I could see, the thing for me. The words of the services seemed to back me up, to offer clues to the progress of my seeking, but what I saw around me just didn't add up. These groups were all offering something of value, but I couldn't settle for the soft option that appeared to be the main attraction of this one. I was looking at the people. They seemed anxious to give their integrity to someone else — to Manning, or to those above him. The message conflicted with what was actually happening. I decided that I would partake of that part of the message that resonated with the strings of my own longing, but any commitment to a particular school or teacher

would limit me, would keep me in the nest with all the other chicks. Options had to be kept open. I had felt let down by Arica, and I was not again about to become a spiritual groupie.

I explained all this to Manning. He agreed with my criticisms, but insisted that nothing could change if I were to stay away. He continued to pursue our friendship. He seemed prepared to include me whether I included myself or not. He told me about the mailing list, and suggested I put my name on it. There was no official form of membership other

I had been  
hustled  
by experts,  
and this  
attitude of  
open,  
undemanding  
acceptance  
began to reek  
of a sting  
to come.

than this. It would allow me to receive the services directly. There was no charge or other obligation for this, although donations were always appreciated, and one was expected to write regular letters of response back to the man in America. He never pressured me. The fact of his willingness to let me go, and to maintain our friendship, troubled me. I felt a pressure; something I couldn't name. It was trying to draw me back. What were these people up to? My paranoia was aroused.

The fact that I had some money, and a name that smelled of considerably more, reinforced my suspicions. I had been hustled by experts, and his attitude of open, undemanding acceptance, began to reek of a sting to come. Things just didn't work this way. The organization, I had been told, ran large communal centers in North America, and various of the higher-ups travelled around all over the place giving talks and seminars. Someone had to be paying for all of this.

An invitation to a one-week residential seminar arrived in the mail. Aha, here comes the brainwashing, I thought. "Leaders Wanted" the brochure read. It was followed by a telephone call from Manning encouraging us to come. It seemed that some of the very dynamic and exciting people that both Manning and Paul had spoken of were coming over from the States to make up the faculty — an opportunity not to be missed. Anna was keen. I was curious to meet these new personalities; but I was also fearful that it would only bring me another step nearer to the inevitable ripoff. Anna insisted, and I went along.

Like so many other workshops and seminars I had attended, where one is given a safe space to indulge his own longings and aspirations rather than the routine demands of ordinary life, the experience turned out to be rich and enjoyable. The Americans lived up to their reputations. My head was filled with a myriad of exciting new ideas and possibilities.

One of the faculty, a man called George, was the first member of this group who seemed interested in my experience of drugs and meditation and the transformation movement. My own culture-heroes, people like Watts and Ram Dass and Lilly, were totally unknown to the people in London. They were totally disinterested, even Manning. Their man was it; nothing else counted. But George actually knew some of them. He had actually shared platforms with them, and unlike the others, he was sympathetic to their intentions. He told me that his own spiritual quest had led him along many paths, but each one had ended with a ceiling beyond which he couldn't rise. This time, he said, he hadn't come anywhere near the ceiling. If he did, he would look elsewhere.

He told me more about the workings of the organization. There were two large centers, one in Canada and one in the western United States. Each had over a hundred people living and working together. The man whose voice sounded the tone of this organization travelled between these two places in his own private plane. He was known as the Bishop. Some people spoke of him as the Lord. I wondered just what they meant. There were many more smaller centers scattered over the rest of North America, and a few more in Africa and Europe. The church — it was registered with the IRS as a church — was presided over by a supreme council, a group of spiritually mature men and women who, along with the Bishop, coordinated its far-flung activities through a number of people called Servers in various parts of the world. Manning was one of these. Just what those activities were, and how they were financed beyond the very reasonable fees for classes and the small donations collected on Sundays, I was unable to glean. The intention, as stated, appeared to be nothing less than to bring about the restoration of man to his rightful place in God's Kingdom.

What was I to make of all this? What did they mean by "the Lord"? Was he to be the ultimate chief? His own words didn't sound that way, but these followers implied

something different. I had been reading Krishnamurti, and had become convinced that any institution, any large organization, had ultimately, regardless of its original intentions, to become self-serving. If you have overheads, you have to keep coming up with ways to cover them. This organization, as it turned out, owned businesses and real estate in at least four countries, kept an airplane, produced its own literature, audio tapes, and more recently video tapes, and I had no idea how much else. It seemed more like a multinational corporation than a spiritual school. And what did it want of me?

Again, in spite of or possibly because of my misgivings, I moved closer. I couldn't resist. There was a mystery here. I knew that somebody must be getting rich from all of this; somebody, this Lord, probably, had to be getting something for his trouble. I had visions of Swiss bank accounts and such, yachts on the Mediterranean. Then a request went out for funds to buy a newer, bigger airplane. Its need was justified in profound spiritual terms. It all sounded very convincing. But why can't they ride the airlines just like the rest of us, I wondered. Something close to a million dollars was required. I objected. I was angry. I decided to expose this exploitation; but everybody else dug deep, happily. Nobody insisted that I participate. Nobody pushed me. Manning understood my feelings, and our friendship remained unchanged. It was all very strange.

I was treading in very unfamiliar territory. My every objection kept slipping away. My whole vision of the thing kept changing shape. Every time I thought I had it pinned, it seemed to dissolve and then reform looking very different. I began to see the seemingly massive organization as only one part of the story. There was something more behind it all, something very powerful, very effective.

I attended more classes. I met the rest of the higher-ups, even the Bishop. He lived quite well, but modestly. He seemed nothing like any bishop I had met before — very ordinary. It seemed that he had supported the organization himself during the early days, out of his own pocket. Later, others who shared his vision arrived to help. I was impressed with what I was coming to understand as their trust in the spirit. What was needed would come their way. They couldn't prejudge what that might be, and they refused to manipulate. For whatever came, they were sincerely thankful.

They called it "Spiritual Expression." That was all.

I discovered that the less I treated them as higher-ups, the less I kowtowed, and the more I was willing to risk sticking my own two cents into the bank of their lofty spiritual awareness, the closer I was drawn to the core. Their job, as they saw it, was to accept responsibility in their own lives, and to encourage others to do the same. Only in this way could they help others to drop the veil of self-centered delusion that kept them from seeing their true, uniquely individual place in the divine design. There was none of the attitude of "them and us" except as I maintained it, except as I continued to see them as separate or somehow different from myself. Respect and friendship seemed to be the key. And the closer I looked the truer it became. Something was happening, not to them but to me.

A part of me was still waiting for the sting. I knew it had to come. But another part was fast becoming one of them. Nothing in my prior experience could provide a model for what was happening. All the material props were there; all the familiar temptations that might enfold me in a nest of conventional security were still around; all the doors were open; but as I reached out for them they dissolved.

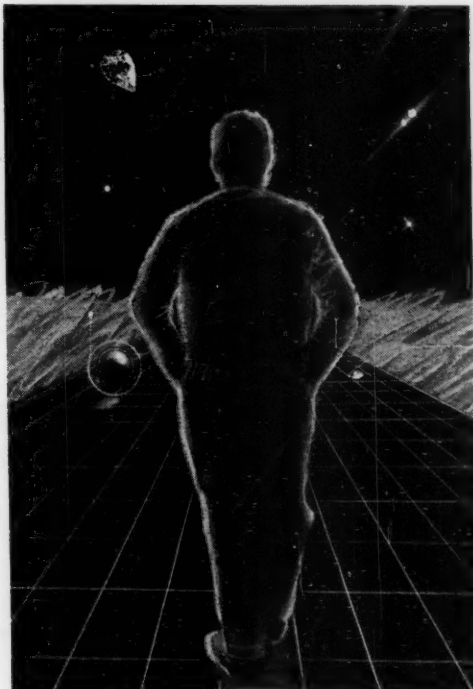
There was still much I could criticize, but somehow it seemed less and less important to do so. I began to see my own fulfillment in this new world as coming, not from inclusion in the herd, nor even in trying to alter it, but from being myself, and from increasingly discovering what that really meant.

If I disapproved of something, I was free to withdraw my support. I could, without fear of retribution, even blow the whistle on anything I believed to be harmful or destructive. But I found no cause. The usual rules no longer seemed to apply. I grew increasingly interested in watching how things worked out; withhold-

ing judgment; discovering that as I did this, I would know what was needed as it was needed. Although there was no pressure to conform to any group ethic I found myself happy to work together with the group. The fact that some of the others still seemed not to be sharing my experience, but were willingly or grudgingly following along, became less significant. That was the level at which they could work, for the moment. Every movement toward taking personal responsibility

was encouraged. Unconditional love was the order of the day. Nobody could claim to be exploited by anything other than their own unwillingness to claim their birthright. What counted was what I was doing, the quality of my own expression. What anybody else did, even the higher-ups, was of no importance as long as I was doing what was required. Unconditional love for the whole and all that it contains. Only that could make the difference. Only that can make the difference.

That's where I've come to. If I had attempted to tell this story a couple of years ago it would have been completely different. I wonder how it will appear a couple of years from now? It certainly won't be the same. Whether I've changed, or the world that I experience has changed, is something I can't answer. I used to think I could. I do know that something is changing. For me, it gets better; it gets richer. There are some people who are convinced I'm crazy. Maybe. I still don't know if we should have bought the airplane, but it's there, and it's proved useful. I don't know whether this tale will help to clarify anything, nor whether it can explain why Bhagwan Rajneesh really needs 27 Rolls Royces. I do know that the world out there, if it exists anywhere, exists first in our own consciousness. And as our consciousness changes, it changes. Our finest judgments can, at most, be taken as nothing more than tentative working hypotheses. Beyond that, well, I'll have to let you know. ■



## POLITICS

### Washington

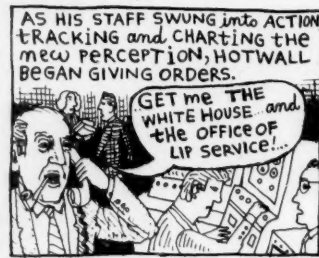
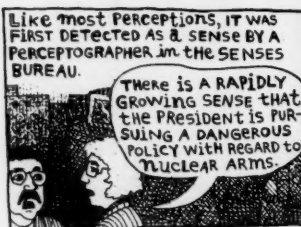
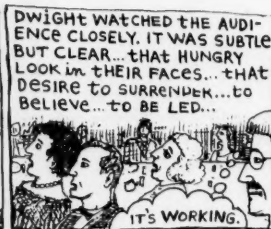
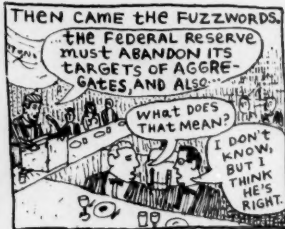
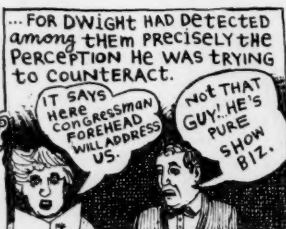
Mark Alan Stamaty has faithfully reported the real news from our nation's capital for the *Village Voice* since the spring of 1982. Cleverly disguised as a cartoon strip called *Washington*, his news reports have yet to be picked up by the major wire services and news networks. The exploits of such notable public figures as Rep. Bob Forehead, Colonel Arrestes Torturo Annoyu of Tyrania and Gerald V. Oxboggle, president of Glominoid Corp., have escaped the public's attention, but not for long. This recent compilation of Stamaty's reportage will result, I hope, in a greater public awareness of the intricacies of the Washington political scene. No well-informed person's library should be without this book. —Casey Monahan

### Washington

Mark Alan Stamaty  
1983; 144 pp.  
**\$7.95**  
postpaid from:  
Congdon & Weed, Inc.  
298 Fifth Avenue  
New York, NY 10001  
or Whole Earth Access



The Annual Convention of the National Association of Wall Socket Adjusters provided an ideal testing ground for Bob's new Fuzzwords.



### Under the Gun

Here's a first — the only balanced, reasonable, non-polemical discussion of one of today's most emotionally charged debates, the gun controversy. Virtually every other book on the subject embraces one party line or the other, either the National Rifle Association's view that guns prevent crime, or the gun-control organizations' view that they cause it. This marvelous testament to unprejudiced research and level-headedness says, "Stop, you're both wrong." The authors conclude that privately owned firearms "neither cause nor prevent a significant amount of violent crime." Of course, the word "significant" leaves lots of room for argument, but no matter what you think of the gun issue, *Under the Gun* will surprise, challenge, provoke, and astound you. One

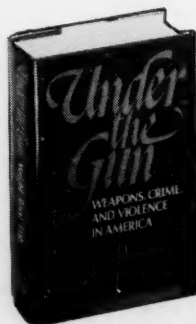
caution: This is no beach-blanket romp; it's a dense, statistics-filled academic book. But it's great. I was spellbound.  
—Michael Castleman

### Under the Gun

(Weapons, Crime, and Violence in America)  
James D. Wright, Peter H. Rossi, Kathleen Daly  
1983; 347 pp.

**\$24.95**

postpaid from:  
Aldine Publishing  
Company  
200 Saw Mill River Road  
Hawthorne, NY 10532  
or Whole Earth Access



The daily newspapers and the pro-control literature are rife with accounts of homicides resulting from the most unimaginably trivial incidents — shoot-outs between two motorists over a dispute about positions in the gasoline line, a man shooting his wife to death because his supper was not quite up to expectation, a homicide that results from a dispute over a borrowed cigarette, or a teenager who blasts his mother with a shotgun because he was denied the use of the family car for the evening. In the face of these kinds of incidents, it is very hard to doubt that some large fraction of all homicides results from very little thought or advance planning, and that such incidents ultimately turn lethal not so much because anyone intended them to be, but simply because the weaponry at hand, a gun, is intrinsically lethal. That these kinds of incidents would be much less likely to result in death if the participants did not have access to firearms seems, on the surface at least, as firm a conclusion as anything could possibly be.

On the other hand, that such incidents occur tells us nothing about their relative frequency. People shooting one another to death over trivialities surely makes for good newspaper copy, and so these incidents tend to receive much publicity, perhaps more than their relative numbers would justify. Here, as in all other areas of public policy, episodic evidence and common sense are poor substitutes for serious scientific research.



## Democratic Promise

This book by Lawrence Goodwyn captivated and educated me about that moment in our history when Populism showed its promise for a democratic society. The movement did not succeed and declined in the 1890s. Goodwyn introduces the book by bringing us up to date, stating "This book is about the decline of freedom in America." And so it is, as the radical reforms the Populists put into action and based their political platform on — cooperatives, a democratic financial system, and a call for restraint on monopolies — could not overcome the powers to be. Since then our economic and personal freedoms have eroded.

This lengthy, scholarly account is a positive statement of grassroots organizing strategies that worked, of people empowering themselves, and of successful (in some cases) political action. Although times were different in the 1880s and 90s — an agrarian society, vast numbers of tenant farmers, new lands being opened to cultivation, different technologies, and even starvation — the struggle against monopolies and the question about the control of wealth and capital are still unresolved problems facing us today.

Goodwyn has also written a shorter account without the references and so much detail: *The Populist Moment, A Short History of the Agrarian Revolt in America*.

—Kelly Kindscher

• But while indignation and sometimes bristling radical anger was a part of the message of reform, there was another and far more elusive ingredient at work in Kansas in 1890. Comprised of many diverse elements, it can perhaps best be described — in counterpoint to the

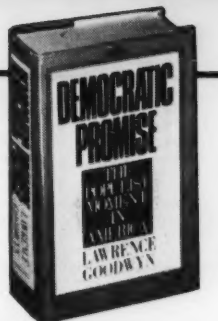
## Democratic Promise

(The Populist Moment in America)

Lawrence Goodwyn  
1976; 717 pp.

**\$29.95**

postpaid from:  
Oxford University Press  
16-00 Pollitt Drive  
Fair Lawn, NJ 07410



politics of reform — as the pageantry of reform. Poring through the newspapers, scrapbooks, pamphlets, and speeches of the agrarian revolt, one comes away with the certain knowledge that something decidedly distinctive for nineteenth-century America materialized out of the Kansas countryside during the summer and fall of 1890. It has been called a "pentecost of politics," a "religious revival," a "crusade," and it was surely all of those things. But it was also mile-long parades of hundreds of farm wagons and floats decorated with evergreen to symbolize "the living issues" of the Alliance that contrasted with dead tariffs and bloody shirts of the old parties. It offered brass bands and crowds "so large that much of the time it was necessary to have four orators in operation at one time in order for all to hear." It was 2000 bushels of wheat being donated by hard-pressed farmers to help finance their political movement. And it was parades composed simply of the Alliance itself. Some industrious soul counted, or said he counted, 7886 persons and 1500 vehicles in one six-mile-long procession through the city of Wichita. One wonders how the townsfolk of Wichita regarded this vast tide of people. Were they intrigued? attracted? frightened?

## The Rebel

Hustler publisher Larry Flynt has recently thrust himself into national politics with both guns blazing, and after a short-lived presidential candidacy, this new newsweekly seems to be the arena from which the eccentric pornographer has decided to take his stand. By applying the same audaciousness to politics at *The Rebel* that he has employed with sex at *Hustler*, Flynt has come up with an incredibly irreverent muckraking journal the likes of which hasn't been seen since the heyday of *Confidential* magazine in the fifties. As I write this there have been five issues out so far, which frankly is four more than I expected would see the light of day. Perhaps that means it will be around for awhile, which I hope is the case, because already *The Rebel* has opened several cans of worms which may have as great a potential as Watergate did for changing the current political landscape. (These include the alleged presence of Reagan administration leaders on the Vicky Morgan videotapes in Flynt's possession, and the alleged organized crime connections of Republican national chairman Sen. Paul Laxalt.) Whatever else one might say about Flynt — and one might say plenty — the guy is a scrapper with a genuinely populist touch. His theories about his own shooting may border on paranoia, and I would be careful about taking every allegation in *The Rebel* as the gospel truth, but

where there's smoke there's usually fire, and *The Rebel* is the best smoke-eater around since the demise of *New Times* several years back. Since Flynt owns his own magazine distribution company, *The Rebel* has fairly decent newsstand distribution, and I urge you to seek it out and buy a copy. At \$2.95 a pop, *The Rebel* isn't cheap, but with its subscription rate at \$120/year and an uncertain future ahead, I can't really recommend subscribing.

—Jay Kinney

• Wityczak went to work for Rockwell in 1973 at the firm's Space Transportation and Systems Group facility in Downey, California.

In 1977, Wityczak told *The Rebel*, he and other employees were ordered to bill time they spent working on fixed-price contracts for the B-1 Bomber, the Teal Ruby and P80-1 spy satellites and the Global Positioning System navigational satellite to the space shuttle cost-plus contract.

Wityczak says he complied for a time, but in late 1977 informed his supervisors he would no longer mischarge on time cards.

During the same period, Wityczak says, he noticed that material ordered from outside suppliers was being billed to projects whose blueprints didn't call for the items. He pinpoints 12 orders for \$150,000 worth of gold tape used for electrical circuits. The tape, he says, was billed to the space shuttle but taken by management officials who made personal use of it or sold it for profit. He also revealed that Rockwell officials Daniel Brown and Joseph Cuzzipoli ordered an expensive hydraulic paper-cutting machine for a printing business they owned on the side, and charged it to the space shuttle.

Wityczak gave documents indicating the mischarges and theft to company officials in 1978. They promised to turn them over to the FBI, but Wityczak was never contacted by that agency.

## The Rebel

Larry Flynt, Editor

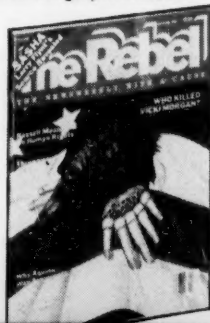
**\$120/year** (weekly)

from:

Flynt Subscription Co.

P. O. Box 67068

Los Angeles, CA 90067





# Mu'ammarr al-Qadhafi: Faces Of "The Enemy"

By Jessye Piper

Illustrations by Spain Rodriguez

**C**OLONEL MU'AMMAR AL-QADHAFI, revolutionary leader of the Socialist People's Libyan Arab *Jamahiriyah*\*, is said to be a madman. It is a term thrown around somewhat carelessly in the Western media and even by the U.S. government. Most people, if asked, would know very little about him, about Arabs, about Islam, or even where Libya is, but most of them could tell you Qadhafi is a madman.

Judgment concerning his mental health is not the real issue when such a blanket indictment of Qadhafi succeeds in distracting us from other important questions. Often while he is being attacked in the Western press, events which deserve our attention are going on at full tilt in the background: the destabilization of Africa continues, from internal wounds, the grand U.S.—U.S.S.R. tug-of-war, and Israeli and Cuban bids for power there; starvation continues in the face of drought, famine and enormous food aid cuts by the U.S.; the Organisation of African Unity threatens to rip along the seams from the

strain of the moderate-progressive rift. Today's Africa is a tragedy of epic proportions, and many hands have made it so. Qadhafi can be held accountable for his actions but not for all the turmoil of modern-day North Central Africa.

Viewed out of context nearly anyone can be indicted as a madman. Cultural differences alone can be used to create powerful evidence of insanity. An ethnocentric view results in a prejudiced assessment which serves to distort real issues and may lead to an increase in conflict. While it is appropriate to oppose terrorist activity, it is not justifiable at this point in history, with the wealth of information available to us, not to try to understand the "enemy's" points of view.

It is possible that Qadhafi's point of view is not the out-of-control, irrational raving that it is often presented to be in the Western media. His intellectual evolution has curious gaps but some of these are as much the product of our own misconceptions as of shortcomings in his reasoning. Some of his outpourings are dismissed as "half-baked" and not worth investigation but much is dismissed simply because it threatens us. To have aims, insights,

\**Jamahiriyah* is a term used to imply the collective power of the masses.

*Jessye Piper is an American currently living in London. Two journeys across the Sahara Desert in the early seventies and a stay in Algeria at the completion of the Algerian Revolution's first five-year-plan sparked her interest in Arab culture and current affairs. By the time this appears she'll be back in North Africa on an extended journey, from which a further report may result.*

—Jay Kinney

---

## If Qadhafi rattles us, it is perhaps because his motives and attitudes spring from a far richer basis than he is given credit for.

---

and values which conflict with the Western dream and to find it impossible to function within the framework defined by us as the right one does not of itself constitute insanity.

The media caricature of Qadhafi creates a lack of dialogue and prevents us from seeing a full picture of events which are passed off in the press as Libyan "trouble-making" or "adventurism." If Qadhafi rattles us, it is perhaps because his motives and attitudes spring from a far richer basis than he is given credit for.



### QADHAFI THE TERRORIST

This is the dominant media persona, the "most dangerous man in the world," "the Libyan menace," "Washington's *bête noire*," "an international scourge." This is the one driven by a "Messianic desire" to build a "pan-Islamic empire." His methods constitute a "diplomacy of subversion," an "international terrorist campaign." We see a montage of hijackings, hired assassins, ex-C.I.A. advisors, guerrilla training camps for international revolutionaries and, of late, the mercenary aggregate he calls the Islamic Legion.

Qadhafi's initial association with terrorist means was probably a direct extension of the revolutionary structure in which he and his colleagues came to power in 1969. In the

The Qadhafi persona of the press is actually two personae in one which are played against one another to create the popular image of the madman. There are, however, other Qadhafi personae which the media seem not to explore, and this is curious because they are the ones that may answer questions about his motives and actions which are not accounted for in the standard characterisation.

Perhaps it is worthwhile to take a look at a few Qadhafis.

period following their takeover of the Libyan government, legal measures in the form of constitutional provisions were taken to "safeguard" the revolution and to ensure that acts of aggression would not co-opt its aims. The new regime found itself in the web of the international intelligence network from the very beginning. The U.S., encouraged by Qadhafi's vehement denunciation of the Soviet Union as an atheistic and imperialist force, felt it in their interest to protect Qadhafi in the first post-revolutionary years. The C.I.A. was instrumental on at least two occasions in warning him of coup attempts against him, one from within his own government and the other by elements associated with the former regime. There are rumours from this time also that C.I.A. agents in Libya helped to increase the anti-Soviet sentiment by circulating anti-Islamic propaganda that had originated in the Soviet Union. This was also a period, following the 1967 Egypt-Israeli War, of intense C.I.A. — MOSSAD (Israeli Intelligence) collaboration.

Talk of a proposed union of Libya and Egypt no doubt focused extra attention on the area. A lack of rapport between Qadhafi and Egyptian president Sadat and the incompatible social atmosphere of the two countries obstructed the union. The personality clash of Sadat and Qadhafi grew into a state of animosity with each of them regularly accusing the other of assassination and overthrow attempts.

Continual rumours, intelligence leaks from all camps, and shifting alliances created an atmosphere of complete suspicion in which it

was perhaps impossible to know who was cooperating with whom. Such conditions led to the realisation on the part of the Libyan leadership that it would be useless to try to defend the revolution by standard military and political means when counteractivity was by means of covert intelligence operations. Qadhafi gave priority to the build-up of Libyan intelligence. In the mid-1970s, the Libyan role in global terrorism, mainly through association with elements of the P.L.O., was apparent, and the West began to cool its relations.

It was during this period that two deactivated C.I.A. agents, Frank Terpil and Edwin Wilson, set up shop as free-lance international arms

dealers and experts in terrorist devices. They made commercial agreements with Libya which involved selling U.S. intelligence expertise and training of terrorists in a specially-created school in Libya. Though retired from service, they seem to have made use of contacts in the C.I.A., and even recruited training officers from the U.S. Special Forces who left the U.S. service to train guerrillas in Libya. It has become evident since that some of the C.I.A. contacts who aided Terpil and Wilson believed at the time that the Libyan program was a bona fide C.I.A. operation. It was from this period of general intelligence free-for-all that the Libyans emerged with their unsavory international reputation.

---

**If Qadhafi is as ineffectual as he is made to look from Western ridicule, then certainly too big a noise is made about him and too much energy wasted.**

---



### **QADHAFI THE INEPT**

This is the continually-meddling buffoon whose every coup attempt, every commando raid, every Arab merger backfires and blows up in a puff of contradictions. At such times the U.S. suddenly seems to drop its stance of grave concern and resorts to ridicule that has at times a blatantly racist edge.

"We'll have Qadhafi pulling metal out of his cous-cous till the end of time."

"We'll catch him in his own burnoose."

"He's back in his box where he belongs."

Qadhafi is famous for shaking someone's hand in public and launching a scathing attack on Radio Tripoli an hour later. He is known to be full of ironies, contradictions, moods, and whims. Added to his "terrorist" and "inept" faces and his hard-line Arab and African unity stance, this adds up to the casual insinuation that the Colonel is an actual madman.

In this characterisation, Washington and the Western media successfully confer a dual image on Qadhafi:

1. the demented being with unlimited capacity to do evil, vs.
2. the pesky egotist who can easily be humiliated back into his place.

If Qadhafi is as ineffectual as he is made to look from Western ridicule, then certainly too big a noise is made about him and much energy wasted.

If he truly does have effect and power, then not enough responsibility or diplomacy is shown in dealing with him as a head of state.

How confusing all this must be to another Qadhafi persona, the Bedouin. In his eyes, dangerous men are to be respected, and to be shamed is the greatest threat of all.



---

**The Bedouin has a connotation that is romantic and steeped in enigma, but what it really embodies is a sparse and puritanical lifestyle very foreign to us. Courage, dignity, honor, vengeance, and independence mean more to him than the constructs of civilisation or the temptation of luxury.**

---



### **QADHAFI THE BEDOUIN**

Qadhafi was born in his father's tent in the Sirte Desert, the traditional home of the Qadhaf tribe of Libya. He was the only son, and all the family resources were used to get him an education. In the school at Sirte he was looked down on by many of his classmates because he was Bedouin. He slept in the mosque at night and on holidays journeyed back to the family encampment. Family and tribal ties remained strong for him. Years later while an officer in the army he often continued to make the weekend journey home to the Sirte. To this day members of the Qadhaf tribe are said to comprise a key element of his personal bodyguard.

The Bedouin has a connotation that is romantic and steeped in enigma but what it really embodies is a sparse and puritanical lifestyle very foreign to us. Courage, dignity, honor, vengeance, and independence mean more to him than the constructs of civilisation or the temptation of luxury. In his world, there have always been shifts in allegiance, swings of balance in power, endless mergers and fallings out. This has always been the case in the larger Arab world and is still reflected today in the seemingly endless shifts in Middle East alliances which serve a purpose at a given

moment rather than honoring any age-old agreement. Alliances may be built temporarily on shared aims but they are just as often built by joining forces with the enemy of one's enemy to consolidate strength in the face of a common foe. Qadhafi demonstrated this in his shift to the Soviet camp after years of denouncing the atheistic imperialism of the communists. Following a period of what he considered extreme provocation by the U.S. he warned that further incidents would force him to join forces with the enemy of the U.S. He drifted closer and closer to the Soviet Union in friendship and trade agreements. Under the Reagan administration, U.S. belligerence reached an all-time high and, declaring that "dialogue with the U.S. is like dialogue with the deaf," Qadhafi moved completely to an Eastern bloc alliance.

The Bedouin world is one of dynamism, it is impassioned, it is never static. There is no margin for error in the desert: Those whose moves are swift and bold are those left standing. The day is seized over and over. In his revolutionary doctrine, **The Green Book**, Qadhafi says: "Horsemen who hold the reins of their horse have no seats in the grandstand at the race course."

The socialism of Qadhafi's speeches and **The Green Book** sometimes seems like a nostalgic yearning for the simplicity and egalitarianism of his Bedouin society. The notions of shared, unowned land, distribution of resources according to need, rule by consensus, are all strong elements of the pastoral tribal life that was rent so severely with the advent of the foreign capitalistic system that grew up around the oil wealth of the '50s and '60s. Qadhafi's exposure to other systems has been limited and he has continued to draw his ideals from the social codes, economics, and laws of the Bedouin long after it has become apparent that such a simplistic picture does not keep up with the pace and scale of modern life. But the form of direct representation in tribal matters, the concept of consensus, and the dynamism of the Bedouin lifestyle still deeply influence Qadhafi's notions of the perfect society.

---

## **Qadhafi knows that in 30 years or so when the oil runs out, no one in the Western world will give a damn about the sands of Libya.**

---



### **QADHAFI THE REVOLUTIONARY**

This is the young man about whom King Faisal of Saudi Arabia is reputed to have said, "God save us from this boy's burning zeal. He will ignite the whole world."

He is an earnest and determined revolutionary who has now dedicated the better part of his life to this struggle and is not going to relinquish his hold over the fate of Libya. It is to him a vital link in a chain of worldwide revolution against imperialist exploitation.

In attempts to consolidate this larger revolution, Qadhafi over the years has given financial aid and moral support to a wide array of revolutionary groups, including the P.L.O., the northern Chad liberation movement, Corsican and Basque separatists, and liberation movements in Angola, Mozambique, and Zimbabwe. He dropped his initial support of the I.R.A. when he decided they did not constitute a group genuinely struggling to gain independence from an imperialist oppressor and denounced their acts as "senseless violence."

Qadhafi grew up in a Libya rife with a corrupt officialdom and dominated by foreign interests. Rich oil strikes in the Sirte desert lured the small independent companies who had difficulty breaking into the oil territory of the Middle East, which was dominated at the time by the major companies. In a highly competitive situation created by the Libyan government's doling out of limited concessions,

secret deals and payoffs to bureaucrats became standard operational procedure. The government also granted access for military bases to the U.S., Great Britain, and France, causing resentment among the population which viewed them as staging points for the Western world's military support to the state of Israel.

Qadhafi saw the only resource of his desert nation being squandered for the enrichment of foreigners and a small group of corrupt ruling elite, while the general population remained impoverished and illiterate.

From neighbouring Egypt, on the airwaves of Radio Cairo, came the voice of Gamal Abdul Nasser, fanning the flames of a new Arab nationalism, imploring his oppressed brothers all over the Middle East and North Africa to join together and rise up against the imperialists and to take the place in world affairs that their history accorded them. Qadhafi seems never to have doubted the call.

He began at about the age of 15 to form his plot to overthrow the monarchy of Idris I, the king who had reigned in the 18 years following Libya's independence from Italian colonial rule. His plan took shape step by step, worked out methodically over a period of years, drawing in loyal schoolmates who went on with him through the ranks of the Libyan army. The young revolutionaries believed the army was the only context in which major change could occur in Libya. Political and social means of bringing about change would undoubtedly provoke sharp resistance from the members of the population who were benefiting from the old regime and from the foreign interests themselves. Time was also of the essence because Libya's one chance for self-sufficiency lay in its oil, a finite resource whose proper use as a political and economic tool was imperative. In their eyes, a bold unquestioned seizure of power was the only viable means of setting Libya on an independent course.

On September 1, 1969, after years of planning and strengthening the revolutionary structure, the Free Officers Union of the Libyan Army, under Lt. Mu'ammarr al-Qadhafi, staged a military takeover. The officers and troops acting under their orders occupied the radio stations, airports, and other key areas in Tripoli and Benghazi. They disarmed the

police and other armed forces. The king, the queen, and the king's counsellor were all out of the country, but other members of the royal family and government officials were arrested. Within four hours one of the most important oil-producing nations in the world was under the control of the newly-formed Revolutionary Command Council (R.C.C.) formed by Qadhafi and his fellow officers.

Within weeks the bureaucracy of Libya had been completely transformed. Leading government officials were dismissed, their positions given over to department workers, major wage increases were announced for workers all over Libya, alcohol was banned as an enforcement of Muslim law, and the foundations were laid for a working welfare system that would bring education and medical care to all citizens. The R.C.C. made a dramatic sweep of the old order and immediately challenged the power structure of foreign business. Within a year's time, Qadhafi threatened to nationalise the oil industry if companies would not agree to increase Libya's share of the profits. When the companies were finally forced to give in to the new regime's demands, it signaled the rest of the Arab world to accelerate the bargaining process that would gain them more favourable terms, thus bringing to an end the monopoly of power enjoyed by the major oil companies who were operating in the Middle East under the oligopoly known as the Seven Sisters.

Qadhafi's taste of success in using oil as a political weapon spurred him on to a greater desire for Arab unity, which he viewed as the logical front against Western intervention. Other Arab leaders, suspicious of his methods

and motives and bogged down in their own internal affairs, backed off from his overtures. In their eyes, Qadhafi has always been too radical and uncompromising. To Qadhafi, they have betrayed the Arab revolution with their conservative stance and have allowed themselves to be co-opted by Western interests. He has of late turned back to Africa in his quest for unity.

Due to the isolation imposed on Qadhafi both by his provocations and by the Western world's distortions, it is now very difficult to know what is going on inside Libya or to know what role Qadhafi is actually playing in the struggles of North Central Africa. This isolation has influenced Qadhafi's behaviour more than many realise. To a man who was constantly seeking a place to make his views known and who has attempted on many occasions to broaden his outlook, the denial of constructive feedback and criticism has had a strong effect. Constant rebuffs, intended to put him "back in his box," have only forced him to seek different means of finding his way out. Many of his unorthodox moves can be viewed in this light as the only means left to a determined fighter.

It can be assumed that, given his passion for the fight and his hatred of being manipulated by the superpower tug-of-war, the Revolutionary will be thinking, planning, evolving, while we make our nearsighted guesses.

This Mu'ammar al-Qadhafi knows that in 30 years or so when the oil runs out, no one in the Western world will give a damn about the sands of Libya.



### **QADHAFI THE MUSLIM**

Followers of Islam who abhor the use of the religion as a political tool and those who are aware of the ways in which Qadhafi has challenged certain traditions would be offended by the discussion of him as a Muslim.

He has made waves at times in his attempts at reconciling religion and politics and forging an Islamic state which can find its place in the twentieth century.

Islam is not a static religion. It appears ever capable of renewing and reapplying itself. But while details of application may be adjusted as necessary to fit changing needs and circumstances, the basic principles are to be considered unalterable as they were made known by divine revelation of the Qu'ran to the prophet Muhammad over 1300 years ago. Islam is presently involved in a very evident struggle for power between moderate and progressive factions and figures in the political issues of many nations (Sudan, Pakistan, Lebanon, Iran, and India, to name a few).

Though Qadhafi does not mention Islam by name anywhere in **The Green Book**, he makes a telling declaration there: "Religion embraces tradition which is an expression of the natural

life of the peoples. Thus, religion, embracing tradition, is an affirmation of natural law. Non-religious non-traditional laws are invented by one man for use against another."

Qadhafi's search for a definitive natural law caused him to modify, or replace some of the current practice with reforms which he defended by claiming they stripped away superfluous layers that had built up to obscure the fundamental values of Islam. To base the religion on anything other than the Qu'ran, he said, was blasphemous. He attacked the *ulama*, the "clergy" of the mosques, saying that they had grown too powerful, that Islam was a faith whose members were supposed to strive for direct communication with God and the presence of intermediaries robbed people of their equality before God. He questioned some of the oral traditions about the prophet, saying the codes contained in them were man-made, not Qu'ranic.

There is a basis for some of these challenges which needs some explanation. First, it must be noted that Islam is a religion with a central focus on the community of believers, known as the *umma*, whose conduct in their daily lives is guided by the teachings of the Qu'ran. Emphasis on a bond of faith and brotherhood has always been the strong current running through Islam throughout its many renewals and reforms over the centuries.

In a speech given in 1971, Colonel Qadhafi acknowledged the social character of Islam, stating, "Today I declare that the Arab nation is honored by being the precursor of socialism, since socialist principles are found in the Qu'ran. Neither Marx nor Lenin, nor other theoreticians and philosophers, have succeeded in devising a better system in the economic, social, and moral fields."

The Qu'ranic teachings revealed in Muhammad govern spiritual and ethical matters, social legislation, and politico-moral principles for preserving the *umma*. A social system of caring for the less fortunate through distribution of community assets is built into the teachings. Islamic doctrine also incorporates pre-Islamic tradition, the *sunnah*, "a clear and well-trodden path," which further articulates the community's code.

There are two other fundamental principles of Islam that relate specifically to Qadhafi's attempted reforms. The first is the concept of *ijma'*, which is defined as "the consensus of the community." The accepted interpretation of the Qu'ran and the traditional path are to be arrived at through *ijma'*. At various times this has been reduced to a static principle with the effect that further dialogue ceased, but

increasingly, of late, an active debate has taken place on theory and its practice. *Ijma'* is closely related to another principle, *ijtihad*, a concept which states that every individual has a duty to exert the self in an active and methodical process to truly understand the teachings of the Qu'ran and their application to the present problems of life.

The concepts of *ijma'* and *ijtihad* are reflected in Qadhafi's attempts to urge the Libyan people to engage in active participation and dialogue about the future and the needs of the *umma*. The principle of *ijma'* demands that the *umma* actively seek a consensus on the interpretation of the Qu'ran and *sunnah* teachings. *Ijtihad* brings with it the responsibility of engaging in an active process to consciously apply the consensus to current problems and circumstances. In this sense, Qadhafi's stress is on basic adherence to the Qu'ran, and attempts at debate and reform are accounted for within a traditional framework although they are broached in his characteristically radical manner.

The Islamic concept which does the most to intimidate Westerners is the same one which makes Qadhafi such a menace in our eyes: the controversial principle of *jihad*.

Often interpreted as "Holy War" or "Holy Struggle," it is apparently translated simply as "striving." There are several kinds of *jihad*, the idea of Holy War being related to *jihad fi sabeel Allah*, striving on the path of God. It is the duty of the faithful Muslim to uphold the teachings of the Qu'ran and to struggle against and, if necessary, make war against injustice, oppression, and attempts to break down the faith. Orthodox Muslims in the era following the death of Muhammad adopted the view that rebels within a Muslim state must be brought back to submission through *jihad*; so, *jihad* as holy war must only be practised when there is a grave threat to the *umma*.

Qadhafi's reason for pursuing *jihad* and means of doing so can be clarified by two points. One is that he considers the Islamic peoples to be under direct ideological (and in some cases physical) attack by a corrupt and materialistic West, and by this justifies his supporting armed freedom movements as a sacred duty. Second, *jihad* is basically a means of protecting the *umma*. The *umma* is a community bound by faith, not space and time. Thus, it has no geographical boundaries.

Qadhafi obviously feels that Islam is a powerful means of consolidating and extending the revolution, and in his stress on the ultimate authority of Qu'ranic teaching he also seems aware of the ability of Islam to provide a social fabric in changing times.



---

**Qadhafi is said by some to possess *baraka*, a magnetic property that may be defined as something more than charisma, verging on the mystical.**

---



#### **QADHAFI THE MAN OF WORDS**

Qadhafi over the years has exhibited an almost phenomenal urge to communicate face-to-face with the people. Transcripts of his collected speeches fill eleven volumes, each 700 to 1300 pages in length. In one of his first addresses to the Libyan people just after the September 1 revolution, Qadhafi states: "I have come to you without a programme for I wanted simply to meet you with heart and soul," and further on in the seemingly-improvised talk he declares, as he will on many occasions, "We will always meet."

Often eloquent, filling his text with traditional references, and drawing on his study of world history, he has spoken continually over the years, to crowds assembled in the public squares, at the inaugurations of various agricultural and industrial projects all over Libya and, always, on Radio Tripoli.

With his magnetic voice, his uncompromising passion to get to the heart, and his Bedouin credentials, Qadhafi through his words has seemed capable of moving the people to direct action and of creating a sense of trust in difficult periods of transition. It is the familiar format of a chieftain but writ large to a tribe of three million. But something else animates this voice, something perhaps unknown to Westerners. Qadhafi is a man said by some to possess *baraka*, a magnetic property that may be defined as something more than charisma, verging on the mystical. When a man with *baraka* speaks it is possible that it is

a force which goes beyond mere reason, and even beyond powerful rhetoric.

Although authority in the Libyan *Jamahiriya* has ostensibly been given over to the people, to fulfill the ideal of popular democracy described in *The Green Book*, the Colonel's voice with them is so deeply rooted he can almost be viewed as the subconscious of the country. His voice is especially strong with the younger generation which is emerging from secondary schooling with a strong exposure to the philosophy of *The Green Book*.

According to popular definition, it is incorrect to refer to Mu'ammār al-Qadhafi as the Libyan leader since the Libyan *Jamahiriya*, said to be without state or government, is an experiment in popular democracy governed by people's committees which make up larger popular congresses. Qadhafi is more correctly termed the ideological voice and the leader of the Revolutionary Committees. It was these committees which called for the "liquidation of the enemies of the revolution" during two separate periods in the last several years. Libyans living abroad who were suspected of harming the revolution were ordered by Qadhafi to return home to come before the People's Committees. When they failed to do so, they were tried *in absentia* and some were sentenced to death. Qadhafi encouraged these pronouncements, saying various elements living abroad had aligned themselves with enemies of the Libyan people and were carrying out acts hostile to the revolution with funds they had illegally transferred abroad.

The Libyan "hit squads" which supposedly operated in Europe and the U.S. attacked at least 14 Libyan citizens, killing many of them in an attempt to carry out the liquidation campaign. According to Amnesty International reports, most of the assassins who were arrested and tried in the countries where the attacks occurred were not professional killers but were zealous revolutionary appointees or, in many cases, volunteers. Most had taken it upon themselves to make this contribution to the revolution, urged on by Qadhafi's claim that all Libyans must share in the responsibility of safeguarding the revolution.

While it was the People's Revolutionary Committees which held the trials, passed sentence, and attempted to carry out the

executions, the weight of Qadhafi's words in the matter certainly figured greatly.

Continued use of terrorist means understandably alienates the Western world from questions about Qadhafi's Libya and obscures other elements of life in the *Jamahiriyah*. But Libyan scholars are aware of other threats to the revolution. The falling price of oil in the last three years has affected the economy to the degree that serious rethinking must be done about the vast amount spent on arms purchases and foreign ventures such as the Chad intervention and arms support to the Druze militia in Lebanon.

The diminished oil income and fall in reserves also seriously effects large-scale agricultural and industrial projects that were the central focus of the revolutionary government's vision of a self-sufficient Libya. Agricultural projects that have long been known to be unfeasible or unable to produce on the intended scale have been heavily subsidised over the years by oil revenues. With its vast amounts of oil-generated capital, Libya has succeeded in buffering itself from some of the unrealistic aims of its planning which were in turn based on an unrealistic assessment of the resource base. After fourteen years, revolutionary Libya has fallen short of its agricultural and industrial objectives. Critics blame a combination of the drain of capital

overseas in arms purchases and foreign ventures and a lack of realism in planning.

In the light of the further economic difficulties for Libya with falling prices in a glutted world oil market, there is some hope that planners and leadership will become more realistic in domestic policy. Some compromise may be called for in the state appropriation of land for large-scale public-sector farming in order to encourage small-scale farmers in the private sector who have shown much initiative and perseverance. Some observers have even commented that if Libyan leadership would put as much fervour into encouraging agricultural and industrial creativity on this level as it does into its antiimperialist campaign, the people could be moved to become more actively involved in devising and carrying out new reforms. It is difficult to say whether this assessment of Qadhafi's motivational power is realistic. In any case, critical insight in long-term planning is called for.

As a man of words which are somehow infused with his *baraka*, there is no end to the influence Qadhafi seems to exert on the Libyan people. Whether loved or hated, whether his words are based on an inspired inner vision or a deluded fantasy of some kind of lasting Libya, the Colonel's voice is ubiquitous in the ongoing revolution.

## CONCLUSION

All these images of Qadhafi are mere sketches, but all point to the fact that he is a complex and intriguing force to be reckoned with. It may be tempting to write off any human aspect of him because of the association of his name with acts of terrorism. But each new convulsion of the world makes it smaller; we cannot continue to dismiss everyone we do not understand or whose values clash with ours as terrorists and madmen. When the dialogue ends, a process of annihilation begins. With the threat of escalated war and the nuclear innuendo becoming increasingly focused, maybe it is time to face "the enemy." Viewing him in context can help to provide a clear image of the real threat he poses without resorting to the easy accusations which evoke reflex responses and put an end to further dialogue. It is in our interest to come to terms with the aspects of him we do not understand that may have unexpected repercussions if handled inappropriately. And above all, viewing in context can help us to see the larger issues at stake that may not be visible through ethnocentric prejudices.

There are questions the media have the power to ask and not to ask. When a stan-

dardised view of any world situation replaces healthy inquiry, the media forego the power they have to investigate and inform. To remain uninformed, at a time when close contact with varying cultures and ethos is inevitable, is to leave ourselves in a vulnerable and reactionary position.

The West is quick to denounce the lack of freedom of the press and of self-expression which often characterises repressive foreign regimes. But a society which backs off from what it does not understand and which refuses to face its fear can afford to grant total liberty to all its media and all its dissidents because its own repression is rooted in the static outlook of the society itself. When ethnocentricity is protected to the point that it cannot be penetrated, we become victims of our own isolation. Though repression of this sort is less visible than overt acts of terrorism and tyranny, it can nevertheless have grave repercussions in our dealings with foreign cultures as well as in our own society's evolution.

No matter what the final verdict may be on Mu'ammar al-Qadhafi, he should be respected for the challenge that he represents to the Western mind. ■

## The Washington Connection

I once spent a couple of months in Cuba, and although my main chore was cutting sugar cane, there was time enough to absorb the flavor of living in a socialist country. The cane is long since harvested but rewards still come from events I paid little attention to at the time. One was reading *Granma*, the state newspaper. It wasn't the liveliest paper I'd ever picked up but as a confirmed news junkie I had no choice, so at the end of each day I'd latch onto *Granma* for the Cuban version of world affairs. For backup I had my trusty Phillips transistor and every morning I'd get the 6 A.M. news from capitalist Miami before walking to the fields at sunrise for a hard day of whacking on communist sugar cane.

Back then the sixties were going full blast and stateside news was filled with action — inner-city riots, attacks on police stations, anti-war demos, drug busts and of course Viet Nam. By reading *Granma* I was kept well informed on the many weaknesses of the U.S., and might even have concluded that the end was near for both the republic and its capitalist economic system.

The trip ended and I came home via Canada since the whole affair was illegal. I was better traveled but still a news junkie and now I could read all the stuff about Cuba as presented by the U.S. press. The tables were turned.

It didn't take much reading before I realized I was seeing a mirror image. Yup, it works both ways. Here in the States I found all the news about socialist Cuba was sinister — half the people were in prison and the other half were starving, all due to inherent weaknesses in an economic system reliably reported to be on the verge of collapse. Since I'd just returned from seeing an island full of healthy and surprisingly happy people the contradiction pushed me to a new understanding — harhar! Neither side could 'fess up to their own weaknesses. Each was happy to expose the problems of the opposition but somehow unable to focus on their own. Sources representing themselves as unbiased were actually filling my mind with Their Opinions, assisted by selected facts. Whether the source called itself the "free press" or not had little bearing on actual truth, for both messages were based on a bias that was not meant to be seen.

Given this situation, what does a person do for the other half of the news? Shortwave radio is available to occupants of either bloc, and here in the U.S. if you're willing to dig you can come up with an occasional new perspective, like *Empire as a Way of Life* (Summer '83 CQ), or this one, *The Washington Connection and Third World Fascism*. It's by MIT professor Noam Chomsky and is an excellent and thoroughly researched book that looks into topics rarely mentioned by mainstream media.

We are given a detailed look at the nature and actions of what Chomsky calls "subfascism," regimes that lack the popular support such as Mussolini had but remain in power because of U.S. military and economic aid. Using everything from Amnesty International reports to Commerce Department statistics he shows the correlation between human rights and investment climate — the worse it gets for the local inhabitants the better it looks to the multinationals. If you've ever suspected that the strongest voice in foreign policy comes from the investment community you'll find this book enlightening.

Chomsky's review of the 1965 massacre in Indonesia is an example. By numbers it was the second largest holocaust in this century, having taken the lives of somewhere between 500,000 and a million people, yet few have ever heard of it. Why is that? Slaughter is news, why wasn't it mentioned? Why is it that Indonesia today is a country described as a "paradise for investors?"

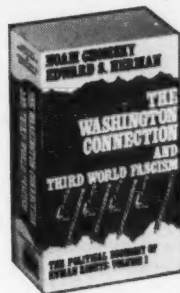
Ours is not a police state with censors in the editorial

## The Washington Connection and Third World Fascism

(The Political Economy of Human Rights, Volume I)  
Noam Chomsky and Edward S. Herman  
1979; 450 pp.

**\$7.50**

postpaid from:  
South End Press  
Box 68, Astor Station  
Boston, MA 02123  
or Whole Earth Access



offices, even though they're being introduced into many government agencies. Yet there's a remarkable inability to focus on certain imbalances. Why does the arrest of a labor leader in one country make front-page headlines while the murder of another in a different country rates no space at all? Why do political prisoners make network news based on the political affiliation of their oppressors rather than on their genuine hardships? Why do invasions of small countries by large countries create cries of outrage sometimes but sanctimonious rejoicing other times? Why is one nationalist labeled a freedom fighter and another a terrorist?

Good questions, for the people who control our information control our decisions. Neither *Granma* nor the *New York Times* aim at raising basic questions in the mind of the readership, but this book might.

—Dick Fugett

• The nationalist not only does not disapprove of atrocities committed by his own side, but he has a remarkable capacity for not even hearing about them.  
George Orwell, "Notes on Nationalism," 1945

• When somewhere between 500,000 and a million people were butchered in the anti-Communist counter-revolution of 1965-1966 in Indonesia, almost total silence prevailed in Congress and in editorials in the U.S. press — a few tut-tuts, many more "objective" statements of how this is beneficially affecting the structure of power in Southeast Asia, how it shows the effectiveness of our Vietnam strategy, which is providing a "shield" for "democracy in Asia," and some suggestions that the "Communists" got what they deserved in a spontaneous uprising of "the people." This bloodbath involved approved victims and a political change consistent with U.S. business and strategic interests — what we refer to as a "constructive bloodbath" . . . Even today, as regards East Timor, where our corrupt and brutal Indonesian satellite (authors of the 1965-1966 butcheries) has very possibly killed as many people as did the Khmer Rouge, there is a virtually complete blackout of information in the Free Press. This is a bloodbath carried out by a friendly power and is thus of little interest to our leaders. It is a "benign bloodbath" in our terminology.

• In regard to the states to be treated negatively (e.g., postwar Indochina), refugees or other victims are taken as the primary or exclusive source of information, even when other sources are available, and neither the selection of refugee testimony, the circumstances under which it is obtained, or the credibility or bias of those transmitting their version of this testimony is subjected to critical analysis; whereas in the case of subfascist clients (Indonesia in East Timor, Guatemala, Brazil, etc.), the victims of terror are almost entirely disregarded as sources of information and the officials administering the terror or their public relations services are relied upon for "the facts."

# ACCESS TO WWII

by Dick Fugett

I'VE NEVER YET DECIDED why it is that I keep studying World War II, but certain factors are obvious. I was a kid when it happened and I've got kid memories of how the grown-ups acted. They were really impressed with the drama, like the air raid warden in his red and white steel helmet knocking on the door at night 'cause a shade wasn't drawn and the Japanese planes might home in on that very ray of light coming from our living-room window and bomb us. Or the grocery store butcher collecting the fat that each patriotic housewife had rendered into containers of solidified grease and brought to the meat market counter. Fat somehow made nitroglycerin, which made bombs. In those days the government approved of citizens making bombs.

Myself, I was busy scrounging in vacant lots and trash piles, for if I hauled in enough pounds of waste iron and steel I could get in free to the Saturday afternoon matinee at the local theatre. Nowadays it's called recycling but back then it was a scrap iron drive, and our haul would soon be turned into war machines. At school there was the daily hustle in which our first grade teacher tried to separate us from our few nickels and dimes so we'd buy savings stamps, a ton of which would eventually get an \$18.75 war bond. Eons later the minuscule interest would make it worth \$25. Good thing for the war effort that money markets weren't in vogue.

But my main memory is that of being swept up along with the general population's group high. The war was not only total, it was popular, and it gave people a common purpose. All who joined the cause gained the rewards of working for something larger than the individual.

Part of the surge was the media, fully mobilized to increase the war energy, mainly by glorifying it. In my memory John Wayne stands out above the rest. He was the highlight of the Saturday matinees and did more than anyone else to make war attractive to me. Errol Flynn was a poor second. Ronald Reagan was a make-believe officer stationed in Hollywood turning out the same kind of doodah flicks, but they must have been pretty lame, 'cause I don't remember a single one.

Besides being drawn to war memories I have always enjoyed the diverse teachings that human behavior has to offer, and there's no better situation in which to observe human behavior than under pressure. Intense situations are where we learn the most, and the pressures of war supply them in abundance. It's also true that those situations produce a kind of kinship among the survivors, whether the test is a widespread disaster or some private event that involves only a few. Either way, the common experience produces a unity among the participants (after the pressure decreases). It's easy to understand why veterans' groups keep meeting decades after the armistice was signed.

Books on World War II outnumber the battles fought to win it, and only a few are both well known and good, such as Norman Mailer's *The Naked and the Dead*, or any of Cornelius Ryan's works. How about some that are equally good but less well known? Here are a few of my favorite books that convey not only events but a taste of the human element. If you've got your own let me know.

But never get caught up in the glory, for the most noticeable aspect of war is that it hurts. As Robert E. Lee once observed: "It is well that war is horrible — we would grow too fond of it."

## Kamikaze

The English language gained several words from Japanese as a result of World War II, the best known being kamikaze<sup>1</sup>. Another that's well used is hanzo, which reached our shores spelled honcho and referred to the person who's the leader, supervisor or top dog of some project. This book gives us an intense look at both kamikaze and hanzo, and surprisingly I learned much more about the war from the latter.

The hanzo was equivalent to our sergeant or non-commissioned officer and was the key figure in Japanese military training, the intensity of which explains a lot about the nature and actions of the individuals it produced. Stories of Japanese brutalization of Allied POWs began with the well-publicized Bataan death march and didn't end until the war did. Everything indicated that the Japanese were a fanatic, murderous people, and the fact that Japanese prisoners were seldom taken alive due to a preference to die in suicidal banzai<sup>2</sup> charges confirmed the theory.

Then I came upon *Kamikaze*, which describes Japanese military training as a character-warping experience that made my training at the Ft. Campbell jump school look like hedonism in uniform. By the time coauthor Yasuo Kuwahara had completed his three months of basic training, nine recruits had committed suicide because it seemed an easier way out. The frequent beatings, humiliations and degradations so modified the minds of the participants toward the brutality of the

samurai/macho trip that their later actions seem in keeping with what they'd been taught to be standard behavior.

Another unusual feature of this book is that we can easily follow the author's emotional development, for he gives us his feelings quite openly. Imagine a military type able to tell how he felt, not just how he responded. Books that cover both combat and inner responses are rare.

Then come the closing chapters, and some of the strongest impressions that I've had from the printed word. It's 1945 and both Japan and its military machine are disintegrating. Kuwahara, age 16, is now a veteran Imperial Army Air Force fighter-pilot with two kills to his credit. For weeks he's flown escort for kamikaze flights and watched his friends dive to their deaths, canopy open, the traditional white scarf whipping in the prop blast.

Finally he's chosen to do the same and begins the ritual for this stylized, ultimate assignment. It includes a two-day pass, so he starts out for a last visit home. On his way he passes through Hiroshima, and as he looks up at a B-29 in the sky, the whole world turns into a fireball. If you've ever wondered about nuclear war from a participant's view then this chapter alone will be worth the price of the book.

1. Kamikaze: Divine wind, the name given to a typhoon that stopped a Mongol invasion in 1281 A.D.
2. Banzai: A greeting, battle cry and cheer meaning "May you live 10,000 years."



## A Man Called Intrepid

No survey of World War II could exclude the topics of espionage and intrigue, for they were vital. Japanese codes broken before Pearl Harbor produced strategic results later in the war, as well as a controversy that continues to this day — if we could read the codes, why didn't we prepare for Pearl Harbor? It's an entire subject in itself.

But in *A Man Called Intrepid* we're given the story of Enigma, the German coding device which was painstakingly reconstructed in England from bits, pieces, clues and deductions at a time when the entire European continent had fallen, England was being bombed daily and an invasion was imminent.

These were desperate times and the pressure for both personal and national survival produced extremes in human behavior. *Intrepid* follows the efforts to break Enigma, but along the way it also tells of individuals and how they responded. This personal element is what makes it rewarding.

I read the book years ago and one chapter has stayed in my mind ever since, not because of any military significance but rather from a personality described there, one I'd known before. From a Sufi book I remembered a dedication to Noor Inayat Khan, calling her the "first Sufi saint in the West," but it wasn't until I read *Intrepid* that I understood it. Stevenson devotes an entire chapter to "Madeleine," the code name for a beautiful young woman who'd been born in Russia and raised in India and was fluent in French. From being a writer of children's books she went to British Intelligence training in telegraphy and espionage and was then



Noor Inayat Khan, codenamed MADELINE.

flown into occupied France in 1943. After four months of deadly hazardous work she was captured by the Gestapo, interrogated and tortured, then escaped but was recaptured and taken to the Dachau concentration camp in the suburbs of Munich.

She made a lasting impression on everyone who met her and was awarded England's highest civilian honor, the George Cross. Like many World War II awards it was given posthumously.

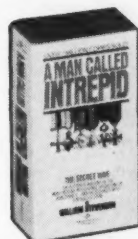
This is a book rich in strategic stories as well as personal extremes and if you can forgive the author his occasional cold-war political editorials you'll find it worthwhile.

### A Man Called Intrepid

(The Secret War)  
William Stevenson  
1979; 541 pp.

**\$4.50**

postpaid from:  
Ballantine Books  
400 Hahn Road  
Westminster, MD 21157



### Kamikaze

Yasuo Kuwahara and  
Gordon T. Allred  
1957, 1982; 187 pp.

**\$3.50**

postpaid from:  
Ballantine Books  
400 Hahn Road  
Westminster, MD 21157



Once a woman called to me. She lay on the ground, unable to rise. Attempts to help her were useless, for my slightest touch caused her agony. Her body was blistered past recognition. The hair had been burned to charcoal, and layers of her flesh were peeling off like old wallpaper. One side of her throat was scathed and laid open so that I could see the delicate blood vessels pulsating with tortured blue life. Her lips were trying to form words. What were they? I listened to the dry buzz of her breath, and then understood: "Kill me. Please kill me."

Transfixed, I stared at her, my mouth open wide. The light in those eyes was dying. Suddenly my entire body shook with a great moan. I threw my hands to my face, then staggered to my feet and stumbled on — lost. Innumerable forms appeared, all suffering from the same hideous skin condition. Like lepers, they were falling apart.

One of the world's great secret-ink experts, Dr. Stanley W. Collins, of London, set up an operation in Bermuda's hot and humid vaults, where the pace of work was such that English girls fainted from a combination of fatigue and heat. So discreetly were these arrangements handled that it was more than three decades before it was partly acknowledged: "Britain's decision to intercept traffic from the United States to Europe brought the first big change here," wrote Bermuda's official historian and editor of the *Royal Gazette*, W. S. Zuill, in 1973. "Ships were herded into port. Aircraft waited while the mails were examined. Large numbers of experts and linguists moved into the Princess and Bermudiana hotels and their work exposed German spies already 'in place' in the United States. Art treasures stolen by the Nazis in France and shipped through neutral ports to be sold in New York for Hitler's war machine were confiscated. In one case, the American Export Lines' ship *Excalibur* carried valuable paintings in a sealed strong-room. When the captain refused to open it, the British burned it open like safecrackers, took the paintings and stored them in the Bank of Bermuda vaults until they could be returned to the Paris owner who got all 270 of these Impressionist works back intact, to his own considerable astonishment."



## American Diaries of World War II

What would it have been like to be there when it was happening to you, not years later when the survivors were writing memoirs and trying to fill in the blanks in their recollections? Here's an unassuming book that has some clues, being nothing more than a collection of war diaries, the daily life of PFC Joe Nobody who never got any medals but represented the majority of the participants. These are notes from the guys who paid the price but never tasted the rewards of fame, and stayed closer to honesty for lack of an audience.

War is described as long periods of unpleasant drudgery and boredom, sometimes interrupted by flashes of high energy so strong they could be fatal. Short entries like this from the skies over Italy remain in my mind:

"March 16, 1944: Flew spare. Saw two ships collide and explode. Chet Angell, V. F. Miller & Wise. My buddies all dead. Flew back to field. Sick. 13 good men dead. Can't stand it much more. Guess I'm a sissy."

The notes kept at great risk by POWs are strong stuff, too, for no glory at all came their way. John Wayne never got captured and Stalag 17 was another happy Hollywood fantasy with well-fed actors. This is what it was like, by the people who had it happening to them.

APRIL 20, 1943

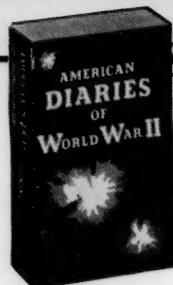
Left Stalag 5B today for a large construction job at Freiderichoffen where the Graf Zeppelin was built. Here

## American Diaries of World War II

Donald Vining, Editor  
1982; 430 pp.

**\$14.50**

postpaid from:  
The Pepys Press  
1270 Fifth Avenue  
New York, NY 10029



we live two hundred and fifty men in one barracks. The bunks are about two feet apart in double decks. We have mattresses of wood shavings.

At night our pants and shoes are taken from us. The shutters and doors are closed and locked. Police dogs prowl the area. There is no plumbing or no ventilation at all. The air becomes very foul. There are no facilities for bathing or laundry. Everyone has lice in abundance.

The work is hard construction labor. We work six days per week. At this date, our daily routine is as follows: Roll call and to work at 7 A.M. One half-hour rests at noon while the guards have lunch. We return to the barracks at 6 P.M. At 7 P.M. we are given our only food which consists of a slice of dark bread and a thin soup which is a barley concoction with a few leaves of spinach added. Sometimes we get about one pint; sometimes not so much. After this comes roll call and orders for the next day. Punishment for any misbehavior comes at this time also. Now to bed, to sleep if you can.

We have each lost twenty-five or thirty pounds of weight and are getting pretty weak.

## Partisans and Guerrillas

World War II was like a huge emotional wave that engulfed entire areas of the globe, one of which was the Balkans, where Albania, Greece and Yugoslavia had the misfortune to be. After Mussolini's tanks wiped out Haile Selassie's Ethiopian cavalry the Balkans, just across the Adriatic, looked like more easy pickings. Italian troops landed in tiny Albania which couldn't resist them<sup>3</sup>, but the campaign came to an embarrassing halt in Greece and only the introduction of two German armies by Hitler saved the Italian lard. Three weeks later Yugoslavia and Greece had fallen, but not the spirit of the people. Partisan groups formed resistance movements in the mountains, an old tradition in an area that had known invaders for centuries.

The effort required was as high as the risk factor, for resisting the massive and unbeaten German army with minimum equipment and no transport across the snowy mountains except your own cold feet produced staggering casualty figures. But the pressure of Nazi occupation motivated many to take the risk.

World War II in retrospect is always presented as a classic case of good vs. evil, but at this point we're introduced to subtlety and shades of grey. Many partisans who'd organized to fight the invader spent just as much energy slaughtering each other, for there were old scores to settle. And then in late 1944, when the Germans finally retreated, the British pulled 50,000 troops out of combat in Italy to violently suppress the Greek partisans who were attempting to reclaim their country. A few weeks earlier these same partisans had been well-supplied allies, but now the war was ending and the British Empire was intent on continued domination of the Mediterranean. Since the partisans had a noticeably red tinge, Churchill decided to eradicate them.

Greece was eventually made "safe," and Yugoslavia,

Grinning Ustashi storm troopers show off a severed head in Bosnia in 1942.

after losing 11 percent of its population in the war, came under the control of the mysterious Josip Broz, whom we know as Tito. Albania joined the socialist camp and eventually became China's only ally in Europe.

These were times when just staying alive was a test



## History of the Second World War

Books analyzing the war are countless, and each has something to offer, but the clearest summary I've read so far — at least from the Allied point of view — is this by Liddell Hart, a meticulous English historian whose insights were assisted by his personal acquaintance with many of the leading figures of the event. He gives us definitive answers as to what was going on where, and when, and why.

The book accentuates theory and disregards human effort, so like many other scholarly works it tends toward dullness, for the real battles were fought in the trenches. But since the larger decisions were made in more comfortable surroundings, this volume will reward those who have heard of the battles and are now looking for the themes.

Hart's research, which included interviewing most of the German generals shortly after the war ended, gives us a new look at events like the famous escape from Dunkirk, and why the German army just sat around watching the British sail away when they could have bagged the whole lot of them.

There's also the question of why Japan attacked Pearl Harbor. Studying it will soon bring your mind to contemporary issues, for we all know that World War III could easily be ignited by an industrial nation being cut off from its petroleum. If anyone cut us off we'd be quite justified in retaliation, right? Well, the attack on Pearl Harbor came just four months after the U.S., England and the Netherlands embargoed all oil exports to Japan.

that many failed, and any student of either human behavior or the Balkans will be rewarded by their study. The book is not only a good read but is loaded with excellent photos that are stark, grim and vivid, just like the war was. They remind me that I'm lucky to be here now, instead of there, then.

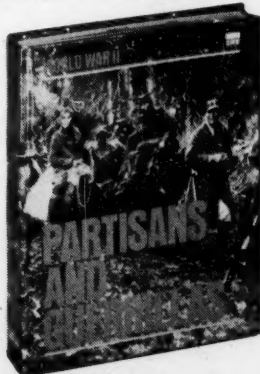
3. As Albania fell, its self-made and wonderfully named King Zog left the homeland, along with a good portion of the national treasury. To this day Zog remains a sinister, outside force in the body politic.

### Partisans and Guerrillas

Ronald H. Bailey  
1978; 208 pp.

**\$22.60**

postpaid from:  
Time-Life Books  
541 North Fairbanks  
Chicago, IL 60611



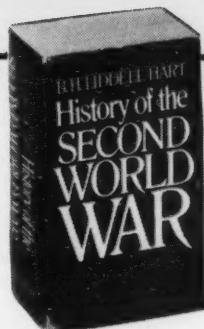
The brutality took on added ferocity as ethnic and religious groups turned against one another, and even the Germans professed to be shocked by the atrocities Yugoslavs inflicted on Yugoslavs. The Ustashi — an organization of Croatian Catholics who sided with Hitler — massacred 60,000 Jews, 26,000 Gypsies and 750,000 Orthodox Serbs. They chopped off victims' noses, ears, breasts and limbs, poured salt into their wounds, gouged out eyes, and buried or burned people alive. "We Ustashi are more practical than you Germans," said one of the collaborators. "You shoot, but we use hammers, clubs, rope, fire and quicklime. It's less expensive."

## History of the Second World War

B. H. Liddell Hart  
1980; 768 pp.

**\$10.95**

postpaid from:  
Putnam Publishing  
Group  
1050 Wall Street West  
Lyndhurst, NJ 07071



We labeled the Japanese response a "day of infamy," but would we use the same label if it were us attacking Syria or Libya?

When you've read enough of the bits, pieces and adventures and want to begin putting it all together into some kind of big picture, this is a worthy book to begin with.

... President Roosevelt demanded, on July 24, 1941, the withdrawal of Japanese troops from Indo-China — and to enforce his demand he issued orders on the 26th freezing all Japanese assets in the United States and placing an embargo on oil supply. Mr Churchill took simultaneous action, and two days later the refugee Dutch Government in London was induced to follow suit — which meant, as far as Churchill had remarked, that 'Japan was deprived of a stroke of her vital oil supplies.'

In earlier discussions, as far back as 1931, it had always been recognised that such a paralysing stroke would force Japan to fight, as the only alternative to collapse or the abandonment of her policy. It is remarkable that she deferred striking for more than four months, while trying to negotiate a lifting of the oil embargo. The United States Government refused to lift it unless Japan withdrew not only from Indo-China but also from China. No Government, least of all the Japanese, could be expected to swallow such humiliating conditions, and such 'loss of face.' So there was every reason to expect war in the Pacific at any moment, from the last week of July onwards.

If Fugett will allow me an addendum to his worthy gloss of the values of understanding World War II, I'd like to add this. For Americans the whole second half of the Twentieth Century was invented, in detail, by the Two Ocean War (as Samuel Elliot Morrison, I think, called it). Not only obvious stuff like nuclear peril and the pax atomica (peace through gargantuan defense), but most of our technology and no small amount of the science and politics that makes us go.

Space? "Werner Von Braun: he aimed at the stars ... and hit London." (And also hit the stars.) Computers? Invented under duress in the control centers and gun-aiming mechanisms of battleships and aircraft carriers. Soviet paranoia? Tattooed on the Russian soul by Hitler's Barbarossa, the biggest and nastiest surprise attack in history. Espionage and eavesdropping as a national way of life? Do read **A Man Called Intrepid** — spying has enormous yield ... to the party with the best. Test: check any really driving trend of these decades and see how much it owes to the last noble war.

To Fugett's list I would add only Herman Wouk's **Winds of War and War** and **Remembrance** and the trilogy of James Jones, **From Here to Eternity**, **The Thin Red Line**, and **Whistle**. It should be mentioned that both Fugett and I used to bayonet dummies and jump out of airplanes as rear-cold warriors for the U.S. Army.

—Stewart Brand





## No Middle Ground

**No Middle Ground** is an important third voice in the ideological arguments raging over U.S. involvement in the Southern Hemisphere. If you've felt a justified repugnance for the right-wing regimes and death squads running the show in much of Central and Latin America but hesitated to give full support to every opposing leftist guerrilla group, **No Middle Ground** may be for you. The magazine is put together by two groups of anarchists and libertarian socialists in San Francisco and New York but draws on reports from local libertarian clusters in several Latin American countries for facts and perspectives you aren't likely to find anywhere else. The most recent issue spotlights Chile and Brazil, though the article I found most noteworthy was a first-person account of a month-long visit to Nicaragua by a Bay Area woman. The report rings truer than most ardent Sandinista supporters' accounts, in part because it admits to an ambivalence about the revolution that goes against the usual stock sentiments (either pro or con). **No Middle Ground** is still a young, somewhat scruffy journal; I hope it sticks around for a good long while.

—Jay Kinney

### No Middle Ground

(Anti-authoritarian Perspectives on Latin America and the Caribbean)

**\$6/year**  
(4 issues)

from:  
Libertarian Aid  
for Latin America  
c/o P.O. Box 692  
Old Chelsea Station  
New York, NY 10113



• That the Sandinistas are in fact the rulers of Nicaragua is an undeniable fact. Despite occasional rhetoric about "democracy," "popular power" and "workers' state," Sandinistas directly control most institutions in the country, and reserve the right to censor all media. I would tentatively characterize it as a "benevolent dictatorship," albeit one that has broad support among the population. I should point out that the great majority of the people I met in Nicaragua, even those who were critical of the Sandinistas, did not want to see

## State of the World 1984

The Worldwatch Institute (NWEC p.49) has chosen an ominous yet auspicious year to begin annual book-length reviews of how this planet and its living things are doing. The emphasis is on the interplay between resources and economics, and the goal is to inform and guide policy. Different subject areas will be treated each year — the batch this first time includes soil erosion, the decline of the nuclear power industry and the future of cars. For those unfamiliar with the excellent publications this outfit produces: This is not Chicken Little stuff, but a steady, unhysterical marshalling of very readable facts, alternatives and solutions.

—Richard Nilsen

• In the United States, where the [nuclear] industry has been plagued by nightmarish cost overruns, no new reactors have been ordered since 1976 and some 87 reactor orders have been canceled. Barring any more new starts, U.S. nuclear power may peak in the early nineties. The country that led the world into the age of nuclear power may well lead it out.

• Twelve countries in Europe have brought population growth to a halt. More importantly, China, home to 22

Somocismo back. Even those whose independent natures revolted against the excessive chauvinism and authoritarianism exhibited by Sandinistas, those who referred to Sandinista militants as "fanatics," tended to put a high value on the social and economic programs of the government.

During the first few days of my stay in Nicaragua, I was struck by the ubiquitous presence of men and women in military service. There are actually three different organizations: the police, the army, and the militia, all of whose members wear military-like uniforms. The similarity of the garb makes it hard for newcomers to distinguish between them, especially since their functions often overlap. Having just arrived from Mexico, where an encounter with the military is enough to strike terror into the heart of anyone, the abundance of people in uniform made me very uncomfortable.

But I soon learned that the day-to-day relationship between people and the law was quite different from anything I had experienced in other countries. Aside from one brief incident, I didn't witness any instances of harassment by men in uniform. Indeed, chances of being arbitrarily harassed by men in uniform are far greater in San Francisco's Haight district, where I live, than in the cities I visited in Nicaragua.



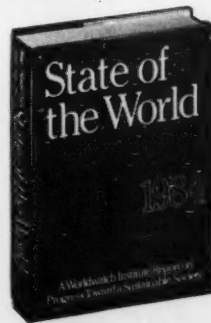
percent of the world's people, has reduced its population growth to just over 1 percent per year, comparable to that in some industrial countries. In a near desperate effort to break the momentum of its population growth, China has shifted from birth planning and the adoption of birth quotas at the commune or production-team level to the national goal of a one-child family.

### State of the World

(A Worldwatch Institute Report on Progress Toward a Sustainable Society)

Lester R. Brown, et al.  
1984; 262 pp.

**\$15.95**  
postpaid from:  
W.W. Norton  
and Company  
500 Fifth Avenue  
New York, NY 10110  
or Whole Earth Access



# SOFT TECHNOLOGY

## Before You Build

The Owner Builder Center in Berkeley is one of the first and certainly the largest of such enterprises. They've taught nearly 10,000 people to do such home work as being their own contractor, making house plans, and executing just about every job involved in building. They've also spawned about 20 similar organizations and doubtless inspired many more. They are strongly nonsexist. All this experience has led to the making of this essential book. Above all, the authors stress being realistic about your dreams, competence, attitude, time and finances. The worked-through examples tend to be Californian, but the information is useful anywhere. We're fortunate in having it all laid out so nicely. If you're considering a building project, this book is step one.

—J. Baldwin

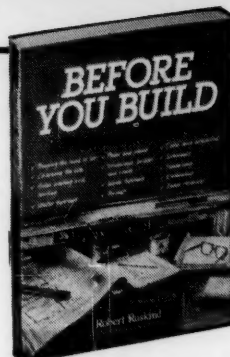
Be careful of that beautiful old oak that convinced you to buy this piece of land so that you could build your house under it; it may one day fall through the roof. One of our summer projects in Nevada City, California, was a beautiful 1500 sq. ft. house that was designed to wrap around three trees that we wanted to keep both for their aesthetics and summer shading. The entire house design was based on the location of these three trees. One tree had to be cut and to our surprise the entire inside was rotten even though the tree looked healthy. We are now wondering about the health of the other trees. Also, the needed excavation for the foundation has exposed and cut some of the roots making the situation even more precarious. We know of other students who bought five acres of pine forest and built

## Before You Build

Robert Roskind  
1981; 148 pp.

**\$8.95**

postpaid from:  
Ten Speed Press  
P.O. Box 7123  
Berkeley, CA 94707  
or Whole Earth Access



their home there. Now, due to the powder post beetle, their beautiful pine forest is a lawn of stumps. Trees are a wonderful asset to a site both for beauty and shade, but they are alive and therefore, like all of us, vulnerable to change.

The distance materials have to be carried may seem like a small matter, but it can tremendously influence the building process. If supply trucks cannot get close to the site, all of the materials will have to be carried in, which adds hours to each work week. Few people really understand the amount of time, energy, and persistence it takes to build a house unless they have already built one. If materials have to be carried in to the building site, it does not mean that the project is not feasible, only be sure that you understand that you are adding another element of time and labor to an already immense task.

## The Compact House Book

The horrifying cost of a new house has finally goaded architects into developing designs that are nongrandiose in size. As with smaller cars, it is still possible (and probable) that efforts will be made to ensure that small can still be grandiose in spirit. This book shows 33 designs of less than 1000 square feet. Only a few could be said to be modest in concept or cost, but you'll get some ideas of what can be had from such a small floor plan. These designs were developed for a competition sponsored by the publisher of this book. That's a good way to see what architects think we want, but I'd sure like to see a book of designs that folks have built and are living in. I'd guess that such a book would show more modesty and cost-conscious work, as well as more cleverness. The designs shown here lack the fiendishly adept use of waste space one sees in yachts, travel trailers and Scandinavian architecture. Too bad. But it's a start. Like fat cars, the fat house is on the way out.

—J. Baldwin

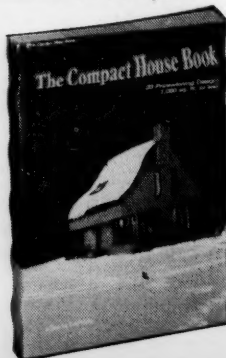
The Solar Staircase House addresses several issues often ignored in the rush for efficient plans and low heating bills. Siting is very flexible, and the solar staircase/hearth is a unique way of providing environmental comfort and several useful small spaces which make the compact house enjoyable to live in.

**The Compact House Book**  
(33 Prizewinning designs)  
Don Metz, Editor

1983; 193 pp.

**\$12.95**

postpaid from:  
Garden Way  
Publishing Company  
1515 Ferry Road  
Charlotte, VT 05545  
or Whole Earth Access



## Siting

The corner porch entry along with a careful sequence of landscaping allows the house to be sited with any combination of site access/solar orientation while offering a warm and inviting entry and maintaining privacy for outdoor living/working areas.

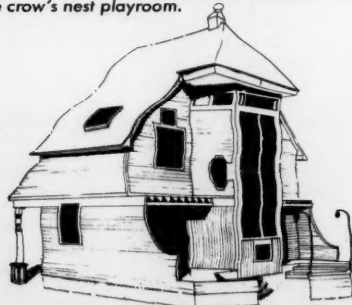
## Environmental

The staircase is slightly inflated to serve as a solar collector/storage unit filtering light into the living areas and offering a window seat in the sun.

This solves the compact house dilemma of not having enough square feet for a usable sunplace, but not wanting a direct gain situation where the living areas are hot, stuffy, and full of glare.

## Social

The house is very open, but care was taken in the planning to respect the needs for privacy, and to provide a place for children. Bedrooms are cozy, private, and large enough for a study. Under the solar staircase we find a secluded window seat (doubles as a sleeping nook for a guest) and below that a "children's cave" with its own window. Above the bath is an area for a future crow's nest playroom.



Michael Wisniewski's Solar Staircase House. 988 square feet. Estimated cost to build (1981): \$44,460. Estimated heating/cooling costs: \$215/year.

## Racing Alone

You'd never guess from the title, but this book is about one man's development of an obvious and wonderful idea: build a house from adobe or other mud brick and then fire it hard by equipping the entire house to be a temporary kiln for itself. You end up with a house made of one big brick, but apparently no pictures — the book is all narrative. Pretty good narrative though; the author takes us through his shedding of conventional values as he builds up determination to see his idea through. It's an architecture by and for people, even the very first try. The story is infectious and encouraging. I'd still like some pictures though. (I've seen some elsewhere — this is for real.)

—J. Baldwin

We reach the kiln. Children climb all over the roof and the walls.

"What was this building used for before?" I ask the old man of the village aloud, while everyone is trying to guess.

"It was a kaval kiln. In my childhood time I saw it fired," says the old man.

"How long ago was that?" I ask.

"Oh, maybe forty or fifty years ago, maybe even more. I don't know how old I am now." He laughs as he says that.

I let them play around with the walls and touch the rocklike pieces.

"They used to fire it right from underneath on this big hole. They used to burn wood, animal dung, or anything they could burn. Yes, see, right around the

## Racing Alone

(A Visionary Architect's Quest for Houses Made with Earth and Fire)  
Nader Khalili  
1983; 241 pp.

**\$16.45**

postpaid from:  
Harper & Row  
2350 Virginia Avenue  
Hagerstown, MD 21740



or Whole Earth Access

firepit the soil is melted to rock," the old man says while he tries to break a piece but can't. A younger man kicks a piece with his boot; he can't break it either. Everyone laughs.

Then I stop them and ask them in a low voice, facing the old man and trying to have them observe silence. "Amoo, why have all your houses collapsed but this roof hasn't collapsed? Yet you plaster your roofs every year and you say that this roof is just left under the rain and snow for thirty years."

"Not thirty but fifty years," he says.

"Okay, fifty years. Why is it still standing?" I ask.

A middle-aged peasant answers in a loud voice from behind: "Don't you understand? This is fired and baked to a rocklike brick. Even a cannonball can't break it."

Then there is a few seconds' silence. Several have already made the connection. My architectural students and engineer friends make the connection first, but before they start to explain what I am trying to say, someone in the crowd says, "So this is the puzzle?"

And in a few seconds everything falls into place.

## Air-Vapour Barriers

The Canadian government brings us this handbook of well-proven cold-climate details for vapour barriers and insulation. Particular attention has been paid to the especially difficult areas such as where walls meet sills and roofs. The drawings are big enough to see, too. There's a lot here I have not seen before; just about every problem

you could think of has been dealt with. ("Vapour" is like "vapor" in Boston and plain old "vapor" elsewhere. Also, note that such things as R values are in Metric.)

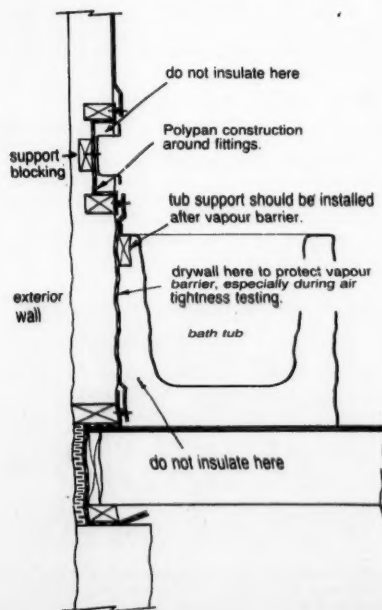
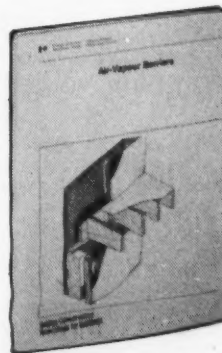
—J. Baldwin

## Air-Vapour Barriers

D. Eyre and D. Jennings  
1983 (4th Edition);  
84 pp.

**\$6**

postpaid from:  
Energy, Mines and  
Resources Canada  
Energy Conservation  
and Oil Substitution  
Branch  
460 O'Connor Street,  
11th Floor  
Ottawa, Ontario,  
Canada K1S 5H3  
Attn.: Mark Riley

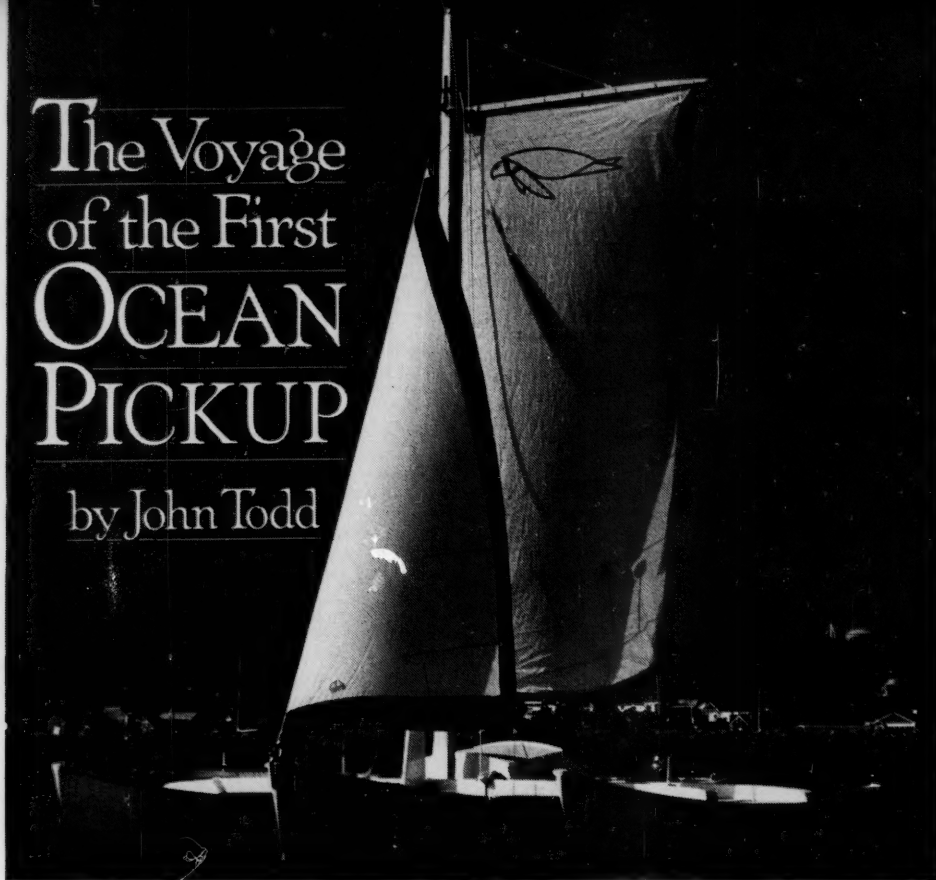


This diagram shows the main features of a bath tub installation against an exterior wall. Note that the tub support should be installed after the vapour barrier is in position. Fittings such as soap dishes should be installed on partition walls if convenient. If not, they should be installed inside a Polypan construction as shown.

The support blocking for the fitting has the effect of reducing the insulation level outside the Polypan. Because of this, and because of the high humidity levels that occur in bathrooms, there is a risk of moisture build-up inside the Polypan. To minimize this risk, insulation should not be installed inside the Polypan. This will have the effect of moving the dewpoint position outside the Polypan. The reduced level of insulation will produce a cold spot around the fitting, but this is preferable to the long term drywall damage that might otherwise occur.

# The Voyage of the First OCEAN PICKUP

by John Todd



RICHARD NEWICK

*"It was the very best butter!" wailed the dormouse in Alice In Wonderland, at a loss why his butter had not fixed the Mad Hatter's broken watch. So it goes with many attempts to be of help in the Third World. Here is an account of a different approach, working backward from what the watch wants.*

John Todd, cofounder of the New Alchemy Institute in Woods Hole, Massachusetts, has been at this particular task for a while now. In the Fall '79 CQ Todd fantasized a 210-foot "Ocean Ark" of radical design by Philip Bolger as a sophisticated biological Hope Ship and commercial sail vessel. In the Winter '79 CQ were reports by Todd and by J. Baldwin of the sea trials of a 50-foot model — the design had problems. Todd was: 1) making mistakes (good, otherwise no news); 2) making the right mistakes (they were radical enough to be interesting, and they were bouncing vigorously off the real world); 3) learning from the mistakes.

However, CQ probably hindered John's progress by reporting "half-finished work" — the process of development long before the triumphant product. So when he started work on the "one-ton ocean pickup" sail-fishing boat, we held off reporting until there were Third World fish guts on the deck. Triumphant, they're there, and more to come. For details, you might want to make a contribution of \$10 or more to Ocean Arks International (10 Shanks Pond Road, Falmouth, MA 02536) and receive, four times a year, the *Annals of Earth Stewardship*, edited by Nancy Jack Todd.

—Stewart Brand

ON JUNE 1, 1983, I FLEW to Bermuda to join the *Edith Muma* and sail her some 2200 miles to Guyana on the northeast coast of South America.

The *Edith Muma* is our prototype sail-powered fishing vessel, a trimaran we call the 1.5-ton Ocean Pickup. I was met at the airport by my son Jonathan, who with the skipper, Russ Brown, had sailed her from New England. We repaired to the bar, and Jonathan filled me in on the story of his crossing. It was a brief reunion, as he was headed out on the same plane I had come in on. We were to meet again soon in South America.

The Ocean Pickup had been launched the previous November. During the winter we fished her as a bottom trawler in the waters off Cape Cod. It had been well worth the physical discomfort and cold as we had demonstrated that a sail-powered trimaran can trawl for bottom fish in relatively shallow waters.

In March I received word from the government of Guyana, known officially as the Cooperative Republic of Guyana, that they would like us to bring the Ocean Pickup to South America



and try it out with their fishermen. The Canadian International Development Agency, through the high commission in Georgetown, offered to support the project. Since a major purpose of Ocean Arks International's Ocean Pickup project is to help fishermen in tropical countries, I agreed. The *Edith Muma* had a job.

For the long ocean voyage, which would take her over 3500 miles, the boat was altered from a sprit sail to a loose-footed gaff rig. We built a small cabin over the five-foot wide by eight-foot long forward cockpit. A lot of attention was paid to safety preparations. We installed an Emergency Position Indicator Beacon (EPIRB) which, when activated, sends a signal to aircraft or satellites. Emergency gear included survival suits, a solar freshwater still, and a survival kit with rations and tools which would only be used during a crisis at sea. The tool kit included a saw that would allow us to cut a hole in the main hull and live "upside down" should we be capsized by a rogue wave or breaking sea. All of the emergency gear was tied to the inside of the hull so it wouldn't float away when the boat was upside down.

It took us several months of intense preparation to ready the *Edith Muma*. At 9:00 A.M. on May 7 she set sail from Martha's Vineyard en route to Guyana. I watched her sail up Vineyard Sound from the deck of the Woods Hole ferry. She was pointing well and moving right along. Russ and Jonathan saw me standing alone on the upper ferry deck and waved. Some inexplicable well of emotion rose up in me, and I prayed for their safe journey.

On May 22 they set out for Bermuda and were barely away from the Cape Hatteras and Cape Fear area when the first bad weather set in. It lasted the whole way. Just over 700 miles and seven days later, they sailed exhausted into the harbor at St. George, Bermuda. The *Edith Muma* was proving herself at sea.

After I said goodbye to Jonathan at the Bermuda air-

port, friends drove me to St. George and down to the docks. The harbor was a forest of yachts, and for the longest time I couldn't pick out the *Edith Muma*. Swinging at anchor among the flotilla she looked incredibly tiny. With her narrow hulls and low mast, she seemed overwhelmed by the pleasure craft.

Russ and I began provisioning the vessel and carefully stowing the food, water, and outboard fuel. While we were doing the job, more than one sailor came by to question whether a small, open-cockpit trimaran was the way to go to South America. I consoled myself with a reply made by her designer and builder, Dick Newick, to a skeptic several months earlier: "The Ocean Pickup has almost twice the stability of my more conservative racing trimarans, and she is unsinkable. It is possibly one of the safest small work boats at sea."

By late Thursday, June 2, we were ready to go. Russ and I went to a pub and then, as a last hurrah, ate an expensive Italian dinner. Just after dinner we motored out of St. George's harbor and near the outer entrance dropped anchor to sleep. At dawn we set sail from Bermuda. By mid-afternoon we had to haul in the sheets as we beat through mounting seas.

On the second day I experienced my first squalls. A large bank of black clouds came toward us, and sailing under it was like sailing through a tunnel. Four times the wind changed direction completely, and each time I had to tack. In the tunnel the wind blew violently, fell calm, then blew violently again. By the time it passed I was dog tired. Before the end of my watch I was rewarded with the stars. They were so bright and intense they seemed to kiss the sea.

In the Sargasso Sea we began to be plagued with light, fluky winds. We motor-sailed toward Africa in the hope of picking up the trades. Our southeasterly course took us 400 miles east of Bermuda to a line due north of Georgetown, Guyana. We used 15 gallons of fuel making the long tack east. That was the last time we used the outboard.

For most of the trip the winds were south of east rather than the northeast trades shown on our pilot chart. This meant we were close-hauled most of the time and were drenched with spray. The pocket-sized cabin could hold only one of us at a time. We alternated sleeping and sailing. Russ navigated and I cooked on a single-burner Sterno device.

Reading over my diary, I remember how much of the drama of the voyage was in the sky. Comments like: "Lightning fills the sky to the south, vast cumulus banks ahead, and the sky is black to the west." Each day we would scan the sky for the puffy clouds which characterize the trade winds, but instead we met with volatile clouds and weather. While preparing dinner one night, I wrote, "A tropical rainstorm is forming to the east of us. It looks like a huge aircraft carrier bearing down on us. It is dark gray, flat on top, and its bow is a rainbow. Rain is pouring in sheets down its sides. It passed just astern of us in a glory of cloud power."

For the entire voyage we were scarcely able to leave the tiller except to adjust the sails, grab some food, or pee. Our autopilot, which Russ affectionately called "tiller buddy," stayed on the fritz for the whole trip. This meant that our single solar panel, which charged a battery which in turn ran our lights, the compass light, and log and depth sounder, produced too much power without the autopilot drawing on it. From time to time we had to disconnect the panel to run down the battery.

A lot of the sailing was wonderful. By June 7 we were averaging over seven knots. That evening I wrote, "8:00 P.M. Sailing hard and fast with a roostertail astern. A trimaran at speed must rank as one of the penultimate sport sensations. The story of this vessel in some funny way begins here now and moves backward and forward at the same time." By 10:30 P.M. my reflections on what I was doing, and why, were over. "I am worried that we are sailing too fast, we are starting to emulate the little flying fish around us too closely." I doused the jib and

eased the main. At 1:30 A.M. I collapsed into the bunk exhausted.

That night, before the demands of sailing had taken over my thoughts, I had been musing on the experiences that led to my being out in the middle of the Atlantic, headed south, to develop a sail-powered commercial fishing vessel in the first place. It really had begun when Nancy Jack Todd and I, in our travels in the South Pacific, Java Sea, Indian Ocean, and the Caribbean and Central America, came to understand some of the problems faced by fishermen throughout the tropics. Within the last few years, one fishing community after another has begun to suffer from a lack of spare engine parts and fuel, which are costly or in short supply. Modern fishing vessels are getting harder and harder to maintain. In Guyana some fishermen have to own five outboard engines to keep one running and in spare parts.

It's not likely to get better. Since the 1950s most fishing nations have started to modernize. They have obtained fast boats and efficient gear, and most of them have caught enough fish to pay for the changeover. Modernization made them dependent upon the industrial nations for boats, gear, and fuels. It was based, however, upon international borrowing and national solvency removed from and independent of the fishing communities. Many tropical countries, like Guyana, are essentially going broke, as they have little in the way of foreign exchange. Without hard currencies they are unable to import. The service networks as well as the industrial infrastructure of the fisheries are beginning to fall apart, in some cases rapidly. Around the world growing numbers of small-scale fishermen lack the wherewithal to ply their trade.

It seemed to me that there had to be an alternative. With Nancy, I founded Ocean Arks International and started to look for regional solutions that applied scientific and engineering knowledge within the context of tropical countries and peoples. I set four basic guidelines or objectives for a project to help fishermen with the development

of a new type of working vessel.

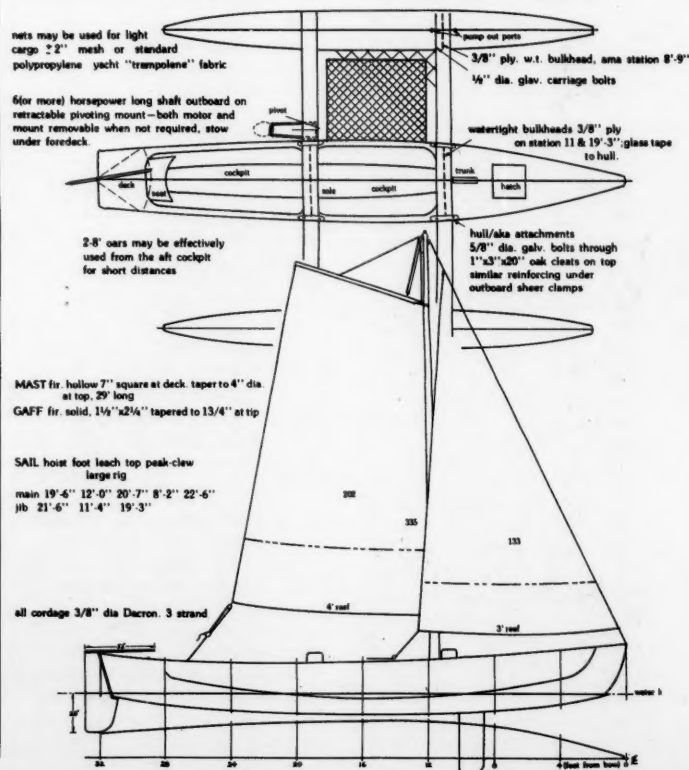
They were:

- our fishing boat had to be primarily wind powered, but at the same time as fast as most of the motor boats it was to replace;
  - the construction technologies had to be suitable for building in the tropics, within the communities themselves;
  - the primary construction material had to be derived from fast-growing trees that would be part of reforestation projects we intended to promote;
  - and finally, imported components must be less than 20 percent of the overall costs of the vessel.
- Then, if tropical countries exported one in five of their vessels to hard-currency nations, they would be able to sustain their fishing fleets.

Our objectives would have been almost impossible to meet if it hadn't been for naval architect Richard C. Newick. Dick is known in yachting circles for his record-breaking proas and trimarans, which seem half-bird and half-boat and look like space-age sailing craft. His major

interest is sharing his design skills and technologies with the poorest of fishermen to help them have sailing work boats.

The first 1.5-ton Ocean Pickup represents the marriage of three technologies: constant camber molding, wood/epoxy composite building materials, and vacuum bagging with the naval designs of Dick Newick. Constant-camber molding, a process invented by Newick's associate, Jim Brown, allows for identically shaped, mass-producible wood strips to be fabricated into compound, curved hulls. It fuses engineering capability into wood production, and manufacture is possible in small, rural boat shops. Modern epoxies make constant-camber molding possible. When the epoxies are combined with the wood strips, they produce a composite construction material that can be extremely strong, very light, rot resistant, and long lived. The epoxies will permit us to utilize fast-growing, soil-building trees in boat building instead of the disappearing noble woods like



mahogany. Vacuum bagging, the third technology, permits the hull panels to be fabricated in one piece without nails or staples. Ten years ago it was an industrial technology, but in recent years it was simplified by Newick, Brown, and their associates so that it can be employed inexpensively in small fishing villages. Putting these techniques together, Newick was able to create the Ocean Pickup. It is as radical as it is simple. At 32 feet it weighs only a ton but has the ability to carry a ton and a half of gear safely. My only concern was that the Pickup would seem too strange to the Guyanese fishermen. It would be more at home in the South Pacific, where multihulls are common.

By the evening of June 9 the *Edith Muma* was being slowed by bad weather. I reefed down to jib alone, and Russ came on deck to put on the storm trysail. The waves were large and some of them were breaking. We were low in the water, like a canoe, and I was unable to tell their height accurately. I was anxious but, at the same time, coming to respect the vessel's sea-handling ability. I was also beginning to develop what every writer on the sea describes — a loss of time and a blurring of days. The watch had become my reality.

On the afternoon of the 14th another squall hit, but with the wind screaming unlike any before. I doused the jib, let go the main, and called for Russ. Together we doused the main, tied the big Newick sea anchor onto our anchor line, and set it out over the bow. The wind and spray were horizontal and the waves mounting fast. Our bow wouldn't face into the waves so we removed the rudder — which helped. The *Edith Muma* began to ride into the biggest waves so far.

In less than two hours the blow was over. We hauled in the sea anchor, reinstalled the rudder, and sailed along under reefed main. We tuned in Radio Barbados to see how widespread the storm was. All we got was the news that the cricket matches had been postponed by unseasonably foul weather — pity. Later we

were again headed by the wind. Dinner was delayed by the arrival of rain and squalls. Russ seemed depressed. There was no conversation. It was bottom for us.

Lights appeared astern, bearing slowly down on us. It was a freighter. I turned on our masthead light. Russ woke up and called the freighter on the radio. There was a reply. It was the captain of a Danish vessel, the *Ring Danniken*, bound for Port-of-Spain in Trinidad. We asked for a position, which he said he couldn't give us because the owners of the vessel were too penny-pinching to outfit their freighter with \$10,000 worth of satellite navigation equipment. He used a sextant as we did. He went back to his charts to give us an estimate of our position — 11° 46.8 N and 58° 24 W. He was curious about the Ocean Pickup and invited us to visit him when he got to Georgetown in two weeks. Half an hour later his stern light disappeared off to the southwest. The contact had lifted our spirits.

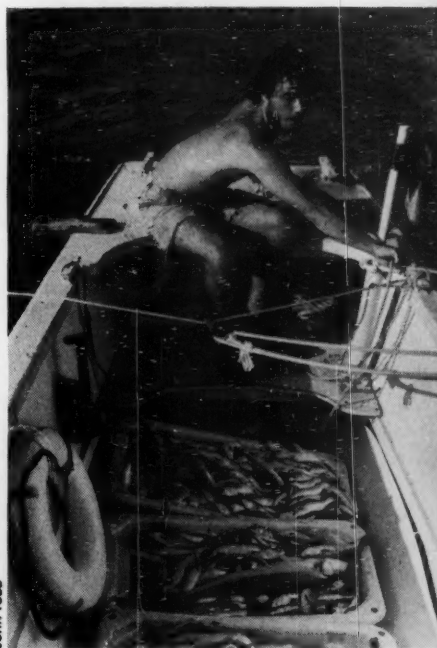
The next day we were really moving. For the first time it felt like tradewind sailing. I bathed and we started preparing for the end of the voyage. In retrospect, it had been a fast trip. We were inside Guyana's territorial waters. Immediately we started to see fishing boats, the first since Bermuda. Beyond the continental shelf we spotted a snapper/grouper long liner rolling in the large seas. Later in the day we spotted the first shrimp trawlers working in pairs or clusters. During the night, as we closed in on the South American coast, more boats appeared. At one point the beacons I thought might be the Georgetown entrance lights turned into bobbing kerosene lights marking the extremities of huge fishing nets set on the surface. During this last night at sea I had the distinct pleasure of slowly sailing past a freighter on the same heading. It gave me hope for an age of commercial sail.

At dawn on June 17, after two weeks at sea, I found myself weaving through a phalanx of fishermen's traps, lines, and gill nets trying to hold the course

Russ had set. As it turned out, his navigation through those current-filled waters had been flawless. The land in that part of the world is so low that from a boat like the *Edith Muma* it is invisible eight miles offshore. Finally, I spotted the Pegasus Hotel, the landmark that indicated that we were right on course after more than 2000 miles. I woke Russ, and we called the lighthouse keeper on our handheld radio. His voice was friendly; he said he would telephone Robert Williams, the head of Guyana Fisheries Limited.

It was a different world as we entered the Demerara River. The *Edith Muma* sailed past the big market, close to an aging ferry, sardine-packed with people who stared at us, and on up to the shrimp-boat docks, where we dropped sail. Waiting there to meet us were Neil Wray, the Guyanese coordinator of our project; Steven Drew, a master fisherman who was to work with us before taking up his teaching position in Fisheries at the University of Rhode Island; and

Jonathan Todd with a load of fish



JOHN TODD



JOHN TODD

Replacing the worm-shoe on the *Edith Muma* in Guyana

Jonathan Todd and Rob Robinson, who were going to crew during the fishing trials. Russ Brown left us to fly to St. Croix for a vacation.

Without delay we began to ready the boat for fishing, which would continue, except for an interruption for repairs and painting, until late August. Our first task was to incorporate the Ocean Pickup into an existing fishery under the guidance of a local fisherman whose gear we were to use.

The first fisherman to work with us, Henry Bosdeo, was a propitious choice. He lived in Zeeburg on the West Demerara coast and was one of the best at his trade. There was mutual respect from the beginning. Henry Bosdeo is a member of the artisanal fishery, which fishes from open boats with drift gill nets. The majority of these vessels are large, flat-bottomed skiffs, up to 35 feet in length and powered by 40- to 55-horsepower outboards. Some of them have small cuddies forward to help protect the crew from the elements. Fishermen like Henry use mile-long gill nets to fish on the surface of the shallow waters of the continental shelf. Usually they stay within 15 miles of the shore. Henry Bosdeo and his neighbors burn a lot of fuel, up

to \$90 Guyana per day. They fish about 20 days a month, which works out to about \$1800 Guyana per month. In U.S. currency this represents an annual fuel bill of over \$7000 for an artisanal fisherman. Many of the fishermen use auxiliary sails to reduce their costs. The skiffs do not carry ice; it is not available normally. Men like Henry Bosdeo feel their duration and range at sea are constrained both by the lack of ice and by fuel costs.

The Guyanese have a small number of larger diesel-powered drift gill netters with deck houses, crew quarters, and ice holds. These vessels range further afield and fish with large, 1200-pound, one-and-a-half-mile-long nets. They carry ice and fish the productive middle grounds. Some also long line for snapper on the edge of the continental shelf 100 miles offshore.

Despite the fact that Neil, Jonathan, Rob, and Steve were sick, our first day of fishing with Henry was a success. In a three-hour set they caught gray snapper, shad, ocean catfish, and one mackerel. The catch sold in the Georgetown market for \$153 Guyana. Henry was so delighted with the boat that he relieved the ailing crew and sailed it smartly home. Once ashore he offered to

buy the vessel. In subsequent trips with Henry our catch rate climbed to 300 pounds of marketable fish per hour. On one occasion we set and hauled the mile-long gill net in conditions too rough for the rest of the fleet to leave the shore. The *Edith Muma* was starting to make friends.

My biggest problem was unforeseen. Once ashore after several hours of toasting the *Eddie Bucket* with rum, my crew started to look very green around the gills. The more friends the boat made, the harder it was for Jonathan and Rob to get up in the morning. Henry topped it off by announcing he was adopting Jonathan as his son. Since he had a household of half a dozen daughters I could see his point.

Henry Bosdeo and other fishermen told us that they would modify their fishing if they had an Ocean Pickup. They would be able to sail further out to the richer, scarcely fished middle grounds and also, following our example, take up trolling. Steven Drew had rigged the Pickup so we could troll four lines while travelling to and from the fishing grounds. Every time out we caught small numbers of the prized king mackerel, *Scomberomorus cavalla*, and on one occasion we landed a yellow-fin tuna, *Thunnus albacares*. With motorboats, trolling is too fuel-consuming to justify economically, but fast trimarans, capable of sustained trolling speeds of six to seven knots under sail alone, might open up a new pelagic fishery for Guyana. In any case, a number of the fishermen we worked with understood the new potential inherent in fuel independence. Some of them said they would use an Ocean Pickup to smuggle spare parts for outboards from Trinidad for those who were still dependent upon such things. One of them talked about bringing in wheat flour, a substance currently banned by Guyana's "self-sufficiency" policy. Flour is found only in the black market. Lack of it is a source of contention with the people.

The proof of our project ultimately will hinge on the economics of the Ocean Pickup.



The following table is a preliminary attempt to assess the economic viability of a 1.5 ton Ocean Pickup built in Guyana and operated in the gill net fishery. The catch value is based on the average price we were paid for our fish, but the figures do not include valuable pelagic species caught while trolling.

An Ocean Pickup could net an owner/skipper close to \$12,000 U.S. a year. The official exchange rate is \$3 Guyana for \$1 U.S. I suspect these calculations might be conservative as they are based upon catch rates of 200 pounds per day, whereas some of the better drift gill netters, with comparable hold capacity, catch an average of 300 pounds per day.

It is also possible to view sail power in the drift net fishery by the fuel saved. Fuel savings alone would pay for an Ocean Pickup in the 10-fathom, 20-mile distant fishery in as short a period as two years. In the middle ground fishery in depths of 20 fathoms, annual fuel savings over a 55-horsepower outboard would be close to \$12,000 U.S. a year, about the price of a Guyana-built Ocean Pickup.

Under Steven Drew's direction we managed to experiment a bit with our long-lining and shrimp- and fish-trawling gear, although there really wasn't the time to

debug the gear and prove much about trawling from a Pickup or long lining for sharks, which is Steve's specialty. However, we did get a chance to test the *Edith Muma* against one of Guyana's biggest food loss problems — the destruction of fishes in the shrimp-trawling industry.

Guyana acquires urgently-needed foreign exchange by selling valuable shrimp to the American market. Most of the shrimping is done by U.S. companies. Often up to 80 percent of the catch of the shrimping vessels is fish, which they get in their trawls. Because shrimp processing is expensive, the shrimpers can't afford to take up time and space with less expensive fish, so the fish killed in the trawl are usually thrown overboard. The fish by-catch, as it is called, would be an important local food source if it could be returned to shore. So far all attempts to find cost-effective ways of retrieving the fish have failed, although the government insists that the trawlers keep a percentage of their fish catch and return it to Georgetown.

A year ago an international fishery consultant had suggested that an Ocean Pickup might help solve the by-catch problem. We decided to run an experiment and rendezvous with a trawler at sea, transfer the fish, and return them



Transferring fish that would otherwise go to waste from a shrimp trawler to the Ocean Pickup

### Preliminary Economic Projection

1.5 Ton Ocean Pickup

Owner/Skipper

Based Upon Cost — \$11,000 U.S. (Built in Guyana)

#### Operational Costs/Year:

Depreciation — 10 years .....	U.S. \$1,100
Interest at 7% .....	770
Repairs at 5% .....	550
Fuel .....	200
Overheads at 10% .....	1,100
Insurance at 3% .....	330
One crew at \$333/month .....	4,000

**TOTAL COSTS** ..... **\$ 8,050**

#### Income:

Fishing: 250 days/year

Yield: Average Catch — 200 lbs/day  
= 50,000 lbs/vessel/year

Sales Mixed Catch at \$ 0.40/lb ..... **\$ 20,000**

**NET ANNUAL EARNINGS** ..... **\$ 11,950**

to the processing plant. The odds were long against a rendezvous taking place at all. We arranged to meet with a number of trawler captains, including Captain Robb of the shrimper *Weremsha*. Without a radio direction finder, or a single-side-band radio to communicate with, it was a pig-in-a-poke task to find a boat in that expanse of sea.

My dead reckoning put us in the predetermined area, and after several hours of circling we made contact with the *Weremsha*. Our first attempt to rendezvous and transfer in a rolling sea was slightly hair-raising. As the shrimp trawl, filled almost exclusively with fish, was hauled onto the shrimper, we doused sail and motored slowly alongside. The motion of the trawler was different from ours, and the whole procedure was potentially dangerous until we had the idea

of tying up, not alongside the trawler, but to the bridle which hung from the trawl doors at the end of the boom. Tied this way, we were freed of the hazard of being right against the heavily rolling boat, which dwarfed the *Edith Muma*. Jonathan and Rob jumped aboard the trawler and helped load and transfer eight boxes of fish. The whole task took us an hour. Filled with good cheer, we set sail for Georgetown, and the trip back was a flying journey — the winds and tide in our favor. Four hours later we were tied up at the fish-processing plant on the Demerara River.

By this time it was dark, and it was then that our troubles began. Looking under the dock, I could see the water bobbing with people, treading water and trying to hide behind columns, obviously intent on our catch. Neil Wray whispered to me not to leave the boat. The night superintendent of the fishing plant, a large, officious lady,

announced that she had no notification of our arrival and refused to unload the *Edith Muma*. We explained that her boss had been notified by the executive director himself. She wouldn't budge and kept her crew at bay. Finally, in a fit of pique, she yelled, "I won't take fish from a boat like that!"

Neil Wray, a small but determined man, was enduring a hard time on our behalf. The fish were beginning to smell, and the freezer was just feet away. Finally, after what seemed an endless session of wrangling, she capitulated to Comrade Wray's higher authority. We were thankful to escape from both the fierce night superintendent and the people treading water under the dock.

The 1.5-ton Ocean Pickup may be too small to be optimal for a by-catch boat. The *Edith Muma* lacks an insulated ice hold necessary to ensure the return of high quality fish. Dick Newick has designed a big sister to the *Edith Muma* which can carry up to three tons of ice and fish in its insulated hold. This three-ton Ocean Pickup, if used as a by-catch boat, would have the communication and navigation gear for easy rendezvous at sea.

A sail-powered by-catch boat in Guyana would be cost-effective provided it made 100 trips a year and the difference between the price of fish paid to the shrimp trawler captains and the price received for the fish was at least 17 cents a pound. My calculations do not take into account fish caught while trolling to and from the shrimping grounds. The three-ton Ocean Pickup would be a very adaptable vessel. Like the smaller boat, it could be employed as a multipurpose fishing vessel for drift gill netting, trolling, trawling, and long lining. It could be used for coastal trading as well. It would be easy to build the Ocean Pickup in two sizes as they would be made from panels from the same master mold.

Part of my work in Guyana was to try to assemble a cast of characters from the government, the international development agencies, and the private sector to build a fleet of Pickups. The role of Ocean Arks International

will be to provide the designs and training in the construction methods. We would like to do more experimental fishing as well. Robert Williams, the executive director of Guyana Fisheries Limited, has been quoted in the press as saying that he would like to see at least 200 Pickups built in Guyana. However, the wheels of government grind slowly anywhere, and in that Guyana is no exception. My hope is that within a year or two the Ocean Pickup will be a common site on Guyana's fertile sea.

As I write, Dick Newick and I are getting ready to sail the *Edith Muma* to Costa Rica, via Trinidad and Tobago, Curacao, and the Spanish Main, a voyage of 2000 miles. In Costa Rica we will join Bill McLarny, NAISA, and his colleagues on the Talamanca coast. There they have already planted groves of boat-wood trees — albizia, sesbania, eucalyptus, and melina. The melina has grown to boat-wood size in less than three years. Preliminary tests show it to be compatible with the epoxies.

Several of the Talamanca fishermen await our arrival expectantly. Farther up the coast there is interest from the fishermen as well. Winston Crawford, the manager of La Cooperativa de Pescadores del Litoral Atlantico, Costa Rica, wrote us just over a year ago:

Dear Sir:

We are very much interested in doing sea trial of your one-ton Ocean Pickup vessel. Our association is composed of 208 inshore artisanal fishermen (from the coast of Atlantic Limón, Costa Rica) with a lot of economic problems.

We think this boat will be of great help to resolve some of our critical conditions, such as high cost of fuel, and replacement parts for use of our outboard. Owing to these facts our activity became non-profitable.

We sincerely hope you will give us the opportunity of testing one of these boats.

So the voyage continues. ■



Guyanese fisherman Henry Bosdeo at the tiller of the Ocean Pickup

STEVEN DREW

## The Cart Book

Bet you can't list from memory as many different types of carts as are shown in this nifty book. Everything from dogpower to bike-towed campers is dealt with — many ideas graced with plans and good directions for construction. The variety is interesting and inspiring. For instance, one man has built a portable bike-repair shop and makes house calls. Others have fashioned a surprising selection of mobile-vendor stands. Horsedrawn sulkies, patio flower wagons, and bike-powered recycling pick-ups are featured in photo and drawing. It's pleasant to have a subject treated so well. (Be sure to pay attention to the author's advice on strengthening bicycle wheels for garden-cart use; bike wheels are not intended to accept heavy side loads.) —J. Baldwin

### The Cart Book

William L. Sullivan  
1983; 274 pp.

**\$13.50**

postpaid from:

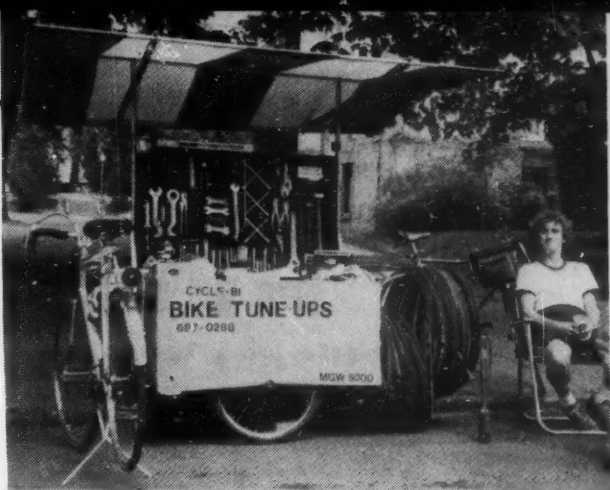
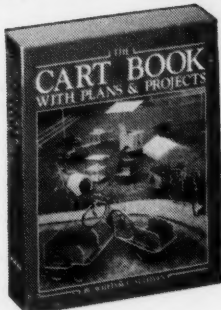
TAB Books

P.O. Box 40

Blue Ridge Summit

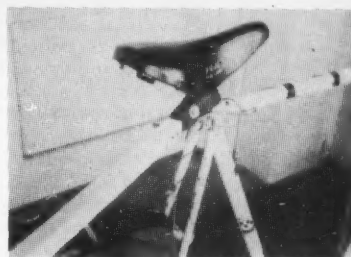
PA 17214

or Whole Earth Access



His bike cart unpacked, Larry's ready for business. He charges 25 cents a minute for his work, clocked by his digital watch.

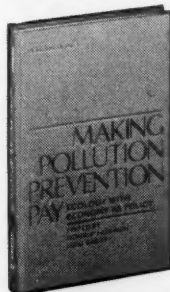
A piece of tire sidewall or neoprene makes a simple, flexible hitch. A strip of industrial belting is left bolted to the seat post; it's attached inside the cart's tongue with a removable pin.



## Making Pollution Prevention Pay

The pen may or may not be mightier than the sword, but for sure a book can be used as a weapon. This book is ideally suited for the purpose of helping to win pollution issues. It's written in the same language and to the same standard as polluters use, and the justification is money, not soft-headed emotion. That's what they want to hear, and that's what they'll react to. Skewer their arguments with positive proof that pollution management will pay. Perhaps the high price asked for these Xeroxed, hard-covered papers is part of the credibility act?

—J. Baldwin



### Making Pollution Prevention Pay

Donald Huisingsh and  
Vicky Bailey, editors  
1982; 156 pp.

**\$26.25**

postpaid from:

Pergamon Press

Maxwell House

Fairview Park

Elmsford, NY 10523

What many people fail to realize is that recycling cannot succeed as an add-on, post hoc device for turning garbage into goods. Once you are geared up to make garbage, any recycling attempt will fail. But that is not a failure of recycling — only a failure of an amateurish approach. Recycling becomes spectacularly successful when the production of by-products becomes the goal right from the start. Think of a particular waste stream or process you are familiar with, one which you cannot imagine any recycling process for. Ask yourself why that waste exists. What design decisions were made which assumed a garbage waste would be produced? How is the material even collected? Do the employees refer to a "slop-bucket"? To what extent did the existence of a nearby dump influence decisions?

The confusion between post-hoc recycling and process design for by-products has been exploited by the dumping industry in a calumnious campaign which is widely echoed by the press and uninformed agency bureaucracies. It begins when hearings are held on an upcoming piece of legislation affecting chemical excesses and the only industrial representatives invited are from either the dumping industry or the chemical industry, neither of which has anything to gain by encouraging recycling or educating the public concerning it. This has happened innumerable times in Congressional hearings and EPA hearings. It continues when these witnesses state vociferously that "about 5%", or some ridiculously low figure, of current chemical excesses could be reused. What they mean, of course, is that if our society continues to design its manufacturing processes from the point of view that unnecessary chemical entropic degradation is acceptable, then the untangling of the resulting mess by add-on chemical processing will be so expensive that only a tiny fraction of it can be treated this way. This is like the prediction, made a hundred years ago, that petroleum would never be more than a curiosity because it was too expensive to refine it. Instead, I estimate, and in the past seven years many others have joined me, that 80% of what now goes into landfills should be removed from waste streams altogether by the mere application of chemical and regulatory common sense.

## Tercel Lives On

Our Toyota Tercel 4x4 wagon reported in Spring '83 CQ now has about 20,000 entirely trouble-free miles, has averaged 31 mpg in varied use, and has proven to be a pleasant, versatile car. Best features: competent, obedient nature, especially in poor driving conditions; spacious useful interior; good quality. Worst features: dirt-magnet upholstery; severe resonant vibration on certain washboard roads; appliance-like character. A two-wheel-drive version is now available for about \$900 less. Owners wave to one another. —J. Baldwin



Practical wheels  
are here at last.

# The Vanlets



by J. Baldwin

**C**ONSPIRACY IS AN UGLY WORD, BUT how else would you describe the refusal of the auto industry to offer its customers a truly versatile vehicle? By versatile, I mean a family car that can haul a family complete with cocker spaniel and luggage, yet be able to serve as a sort of truck that could handle, for instance, a bunch of bicycles indoors out of harm's way, or a load of fireplace logs and compost. It should be able to accommodate a variety of custom interiors such as a campmobile or small trade shop without much conversion hassle. Of course it'd be a reasonable size for urban agility and psychological peace of mind, but still have good manners on the open road. Fuel mileage should be respectable as should comfort. A big order.

Well, it certainly is possible to have at least some of the foregoing — witness the early VW Microbus and its early '60s American counterparts. The V-Dubs were the first to appear, but they had some serious flaws. Though handy and economical, their exceptionally stupid basic design (design is the overall concept; styling is the looks) rendered them villainously unstable while at the same time sacrificing much interior space to a hump in the floor that could easily have housed a large V8.

No such luck though: the hump sheltered an overworked, shrieking little engine that would have had trouble pulling a greased eel out of a

lard pail. The domestic vans had slightly better performance, but shared the instability and awkward engine covers of the VW and added a remarkable lack of traction on slick surfaces. All the early vans left safety to your personal karma.

In round two, domestic vans grew short hoods out front, giving better stability, safety, and interior space utilization. But they also just plain grew — into trucks, and hungry ones at that. Folks who needed a small van either put up with the monsters or tried pickups. These are certainly versatile, and they come in a variety of sizes. But life in the back room in most pickups is usually too hot, too cold, isolated, jiggly, and noisy. Like conventional front-engine rear-wheel-drive vans, trucks are not at all at their best on roly-poly or slippery roads.

VW tried again with the **Vanagon**, but repeated too many of the failings of the older model to be satisfying. Until this year. The new one has a water-cooled engine of noticeable power at last. It's quiet, doesn't fry itself in the desert nor freeze the van's occupants in winter. It must have the longest radiator hoses ever seen, because the engine still lives under a now-modest hump in the floor at the rear. The hump has a lid in it for access to the surprisingly uncrowded engine room. To look in there, you'd have to unload the load, but checking the oil can be done without such shenanigans. The new **Vanagon** handles well — like a car.

The **Vanagon** comes only as a plush, seven-passenger wagon or as an equally plush and very clever camper — both expensive. The forward placement of the front seats results in a huge

Toyota  
VAN WAGON





## ◀ Volkswagen VANAGON

interior — much larger than other vehicles of comparable outside dimensions but of different design. An empty, much less costly truck version is not available in this country because of the "chicken tax," a punitive surcharge levied on foreign trucks in retaliation against the Germans, who refused a boatload of American processed chickens about 15 years ago. At the time, VW was the only truck importer, so the tax was well-aimed. To get around it today, most foreign trucks, including the ubiquitous Japanese pickups, are assembled here.

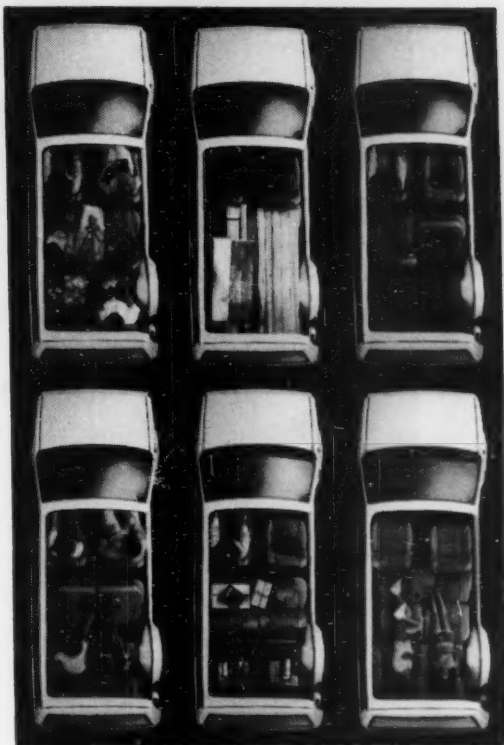
The chicken tax also applies to the spacey-looking Toyota **Van Wagon**, a deluxe seven-passenger machine with an interior that would put many a limousine to shame. Unlike the VW, the seats pop out easily without tools, leaving a flat loadspace without a hump at the back. There is a hump at the front though; the engine lives under the front seats and drives the rear wheels just as in the older U.S. vans. The seats must be folded out of the way to get at the engine, and the carpeted housing makes stepping to the rear of the bus a bit of a chore compared to other designs. This engine placement also results in so-so traction, and the drive shaft requires a higher floor which requires a higher overall vehicle height in order to obtain the desired interior volume. I found the handling to be so-so too, though it's OK around town where the short wheelbase gives unusually adroit maneuverability.

Another chicken-tax posh microvan is the Dodge **Colt Vista**. It's a bit smaller outside than the VW or Toyota, and a lot smaller inside, though it'll still seat seven. The seats, which are not really intended to be removed, fold in more ways than you'd believe. Folded down, you get a station-wagon-like space for clean cargo. Folded up, they make a rather wavy bed. Other combinations make up into table-and-chair combinations.

The **Vista** is front wheel drive with all the benefits thereof. With no drive shaft to the rear, the whole van sits low and stable, giving carlike behavior empty or loaded. Locating the engine ahead of the front seats offers improved crashworthiness; studies have shown that it is best to have at least a yard or so of car between you and the enemy. You pay for this with the loss of some cargo space — a significant loss when compared to the **Vanagon**. For instance, there's scarcely any luggage space when all seats are in use; in the VW you still have a huge 50 cubic feet.

### Dodge CARAVAN

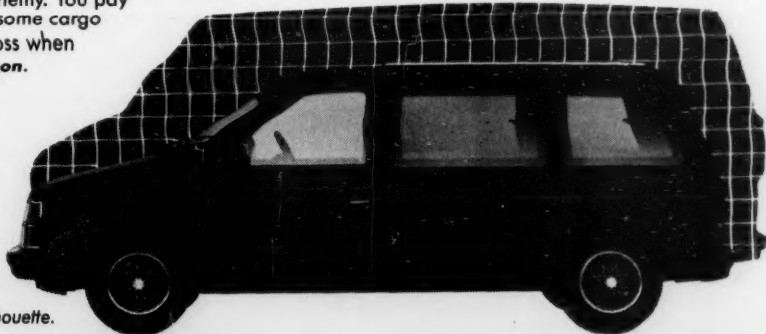
and standard van silhouette.

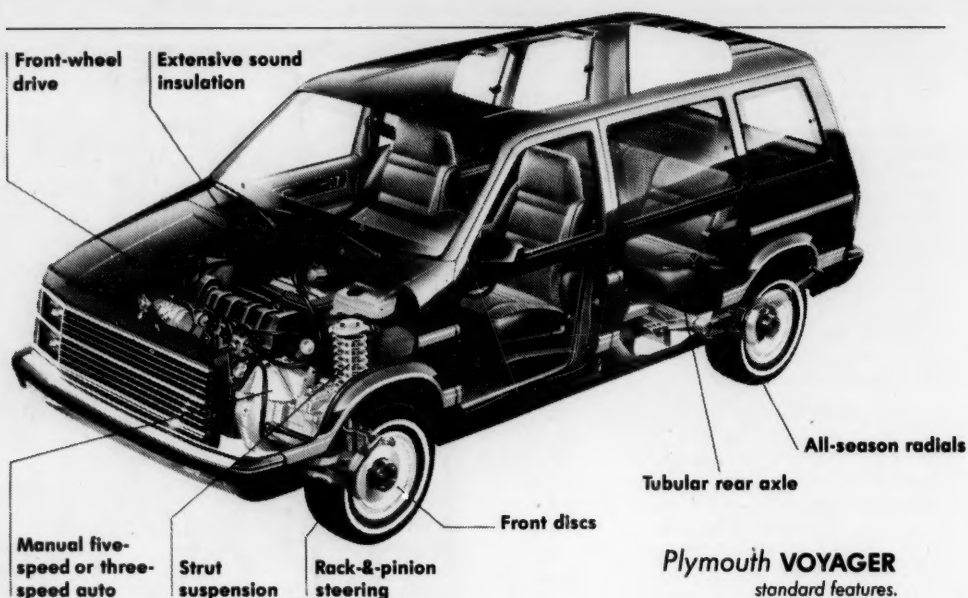


Dodge **VISTA** seating/cargo arrangements.

As with Toyota and VW, the fit & finish of the **Vista** is above reproach, as are the little details such as glass holders for the kiddies' drinks. It's a basic design that makes a lot of sense, and you'll be seeing more of it.

Sharing the same showroom with the **Vista** is the Dodge/Plymouth **Caravan/Voyager**. For once, Americans need not be ashamed of the homegrown product. Apparently the infamous Lee Iacocca goaded a design team into producing what is probably the most sensible vehicle yet seen. As with the other minivans, it seats seven in luxury. And it shares the same exterior dimensions: that is, about the same length and width as





the popular Honda Accord sedan. (That's hard to believe, but it's true.)

This machine comes with all manner of options, some typically gross like fake wood, and some highly useful. But the best news is that it is available *without* options; no chicken tax applies here so it can be ordered as a bare "tin bin" ready for your custom-made interior. The interior volume isn't as large as the VW or Toyota, but it's substantially bigger than the Vista of similar layout. It's also much larger than the most elephantine of the old "Squire" wagons. The floor is absolutely unobstructed from dashboard to tailgate. It just asks for work to do.

The mechanicals are "K car" all the way, with all that implies. That isn't fantastic, but it ain't bad either. Like all cars should, it has the wheels at the corners, adding stability and comfort. The engine room is a pleasant surprise in an American car: It's neatly laid out with 'most everything easy to get at. I hope the nice new automated factory will turn out work that won't need much getting at anyway. Time will tell. Certainly the specifications are all one could wish, and the warranty, which includes rust-out, is encouraging. Ford and Chevy are rumoured to be working on their own small vans, though first reports are that they will merely be scaled-down versions of the current crop of big ones (which remain in production). That'll give them a high profile and poor traction when empty, but may make them more suitable for heavy loads and trailer-pulling than the front wheel drives. But my guess is that the public will just love the inherent good sense of the Dodge design and that it will be widely copied. Indeed, there is even a rumour-rumour that Chevy junked its little van design just prior to producing it, after its designers saw the Dodge on the road. An expensive Edsel-type mistake, if true.

If you decide (as I have) that one of these right-size boxmobiles is for you, what options will you need? An important one is a rear window wipe/wash. Vans kick up lots of dust and spray and quickly foul the back glass. Another good choice is a light color, preferably white. Vans are all roof. If the roof is a good color for solar collecting, it will. My own studies have shown that a black car will be about 37° F. hotter than a white car of the same model, side-by-side. Light colors other than white are significantly less reflective, and all dark colors are roasters. (By the way, statistically, the safest colors are chartreuse and pink. But a pink van . . . I dunno.) An air conditioner shouldn't be needed except in very hot climates. They steal power, fuel, and underhood workspace. Even with AC, white makes sense.

City dwellers may like automatic. Many studies have shown that automatics last longer than clutch-and-stick in urban use, and some of the new ones are nearly as economical. All of the little vans should get mileage in the high 20s to low 30s anyway. An automatic in the Dodge also removes the last floor impediment; the selector is on the dash. A Dodge automatic also comes with the excellent Mitsubishi engine.

Sunroofs tend to buffet. Watch the cars around you with sunroofs. Are they open in your climate? If you like them, the Toyota offers two no less, as well as a refrigerator. Egad!

All the little vans are pretty well equipped anyway, featuring steel radials, halogen headlights etc. as standard. I see them as being the typical family car of the near future, especially the Dodge. It's so accurately on target that it will be hard for many to resist, but I'd wait a bit for "them" to sort out the inevitable bugs in the new designs. It'll be worth the wait. Practical wheels are here at last. About time, too. ■

## Super Solar Houses

"Sophisticated" is what you call a design that has been thoroughly worked out in every detail, rather than following conventional wisdom. Architect Norman Saunders has come up with a basic design that is 100 percent solar rather than the usual lesser compromise; you don't even need a woodstove as backup. You also don't need to mess with moveable insulation or other rituals. Summer cooling is included as a bonus. What's more, the architect knows why it all works, so he can fine-tune the basic design to work in virtually any climate. Not bad! Arch-critic William A. Shurcliff takes us on a comprehensive tour of the several existing and very successful examples of the design, explaining all in language understandable by plain folks, including contractors. Mr. Saunders claims that his designs don't cost any more to build than an ordinary house. Many folks, including me, think his work even looks pretty good — a rarity with most solar architecture. I hope his sophisticated system will be widely accepted.

—J. Baldwin

### DESIGN GOALS

The attic solar window is intended to be:

large — should occupy a very large fraction of the south roof area, so that a very large amount of solar energy can be collected.

highly transmissive of solar radiation in winter;

low-transmissive in summer;

capable of performing as a typical roof to exclude rain, snow, and wind; resistive to heat flow — R-value to be about 6 or greater;

entirely passive — no moving parts, nothing to adjust;

durable, despite prolonged exposure to temperatures as high as 140° or 150° F;

inexpensive — to cost no more than about twice as much as a conventional shingled and insulated roof.

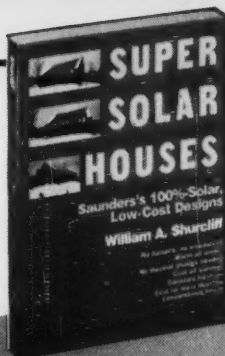
Simplified vertical cross section (looking west) of a portion of the south roof, showing the reflective louvers. In mid-winter, much direct radiation enters, with no reflection or two reflections. In summer, most of the direct radiation is reflected back to the sky.

## Super Solar Houses

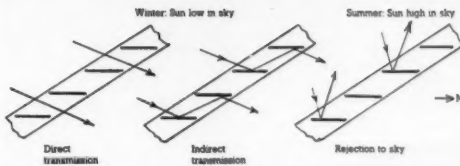
William A. Shurcliff  
1983; 140 pp.

**\$13.45**

postpaid from:  
Brick House Publishing  
34 Essex Street  
Andover, MA 01810



Shrewsbury House



## The Complete Handbook of Solar Air Heating Systems

Correcting countless mistakes in procedure and small details sooner or later causes a body of information to be regarded as reliable. So it is for simple air collectors. With this book, you can build one that you can be sure will work. Happily, the authors usually show what not to do, too, and why not to do it. (Without that, no education.) While this isn't by any means the Last Word on the subject, it'll do for now. The plans are complete with parts lists; principles are explained so you can design your own system confidently. What more could you ask?

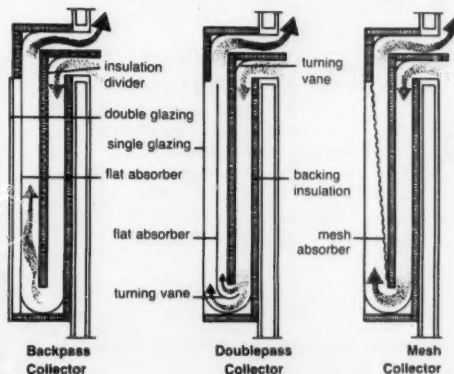
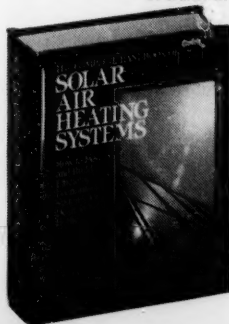
—J. Baldwin

### The Complete Handbook of Solar Air Heating Systems

Steve Kornher  
and Andy Zaugg  
1983; 350 pp.

**\$17.95**

postpaid from:  
Rodale Books  
33 East Minor Street  
Emmaus, PA 18049



There are three different methods of transferring heat in convective collectors. Sealed backpass collectors are prone to excessive heat loss out the front of the collector, and they must be double glazed to minimize that loss. In the doublepass design, air moves both in front of and behind the absorber, which helps to keep the glazing cool. In mesh collectors, our preferred design, air is heated as it moves through an expanded-metal-lath absorber. [Illustration concept by W. Scott Morris.]

## Alternative Energy Sourcebook

Real Goods Trading Co., one of the more reliable and well-stocked "alternative energy" stores, has decided to grace us with an expensive catalog of goodies. Before you sneer at the price, though, note that this catalog, unlike many, gives you a pretty decent education while it presents the stuff for sale. Even if you don't buy anything, you'll learn a lot about what's on the market and how it has been doing in actual use. They even run free seminars now and then to bring interested folks up to speed on various rapidly changing fields of hardware endeavor — another aid to making a good choice. Both Stewart and I have had pleasant dealings with these folks, and we aren't on their payroll either. (Nor are we on anyone else's, in case you wondered.) The catalog has interesting news too: In March they'll offer a device that makes electricity from the heat of your wood stove!

—J. Baldwin

**Alternative Energy Sourcebook**  
(Real Goods Trading Company Catalog)

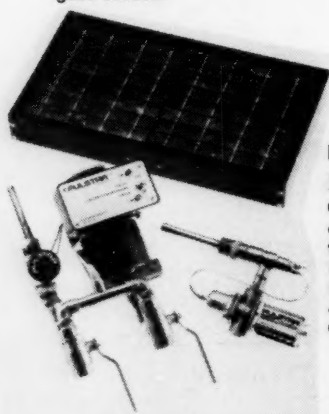
**\$4.95**  
postpaid from:  
Real Goods Trading Co.  
Mail Order Division  
308M East Perkins  
Ukiah, CA 95482

## Pulstar

One of the most persistent, maddening problems with solar collectors has been reliable control. Differential thermostats stick; electric valves fail to operate properly; things turn on and off or don't turn on and off when they should — especially if there is a power failure. The Pulstar is a device that powers the controls with a small photovoltaic panel. Power failure is impossible of course, but best is that the sun that operates the controls is the same sun that you are trying to collect; the sun works everything at just the correct rate.

I have no idea as to the reliability of this system, and I don't know anyone with a Pulstar. But the idea is right, and the components seem to be nicely made with a good attitude.

—J. Baldwin



### Pulstar System

**\$575** (approx.)  
Catalog and nearest dealer information **free** from:  
Pulstar Corporation  
Baird Center  
619 South Main Street  
Gainesville, FL 32601

## Insulated Glass

We're told that very good prices on multipane insulated glass of good quality (5/8 inch and one-inch thicknesses, double sealed) can be had at Arctic Supply. They'll ship anywhere.

—J. Baldwin (suggested by Roger White)

### Insulated Glass

Information  
**\$2** from:

Arctic Supply, Inc.  
Route 1, Box 157  
Spring Valley, WI 54767

## LAND USE

### Landscape Planning For Energy Conservation

Intended to be a survey of what's known on this subject, this collection of papers (done in 1977) covers a wide range of elements that affect energy use. The information is quite detailed, though not as dense as one would expect to find in a book concerned with just one subject. For instance, you can learn about planting a natural snow fence, but the information is likely to be less specific than would be required by a contractor hired to make one. On the other hand, you'll at least get an idea of what to do, and what has worked in the past. The book examines geography, vegetation, and water as means for controlling temperature, wind, and humidity. Site planning is discussed in considerable detail. There are case studies from five climates. All this is interesting stuff to anyone involved in building.

I'm glad to see this book back in print, but it's too bad the publishers chose to reprint the paperback (none too clearly either) as an outrageously overpriced hard-bound instead of in its original proletarian form.

—J. Baldwin

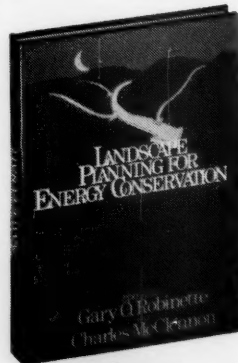
M. Jensen showed that the length of drift is related to the height in feet of the screen in the following fashion:

$$L = \frac{36 + 5h}{K}$$

$L$  = the length of the drift in feet  
 $h$  = the height of the screen in feet  
 $K$  = the function of the screen density  
1 for a 50% density; 1.28 for a 70% density.

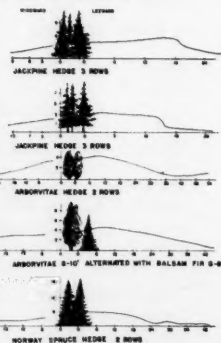
This should not be rigorously applied and a safety margin (20 feet) should be allowed for between the screen and the end of the snowdrift.

J. H. Stoeckler and E. J. Dorignac showed that narrow belts of tall trees, devoid of branches near the ground, allowed snow to sweep under the trees. The snow was deposited in thin layers on the leeward side of the belt, in a band extending between 60 and 120 feet beyond the belt. The same writers reported that shelterbelts, with one or more dense-growing shrub rows at least 8 feet high, were very effective in trapping snow and drifts from 5 to 8 feet or more in depth, and that the snow was practically all deposited in a band from 30 to 40 feet wide on the leeward side of the first row of shrubs.



### Landscape Planning for Energy Conservation

Gary O. Robinette  
and Charles McClennon,  
Editors  
1977, 1983; 224 pp.



### \$26.45

postpaid from:  
Van Nostrand Reinhold  
Company  
Order Department  
7625 Empire Drive  
Florence, KY 41042



## Waiting for an Army to Die

"Nobody wants to be told that you've been exposed to dioxin . . . nobody wants to come out and look at deformed children," says Vietnam veteran Ron De Boer.

On the assumption that nobody wanted to be told — that what people didn't know wouldn't hurt them — the U.S. government and manufacturers of Agent Orange chose not to inform American soldiers that military service in Vietnam involved exposure to the deadliest molecule ever devised by man. Fourteen years ago, the Pentagon ordered a halt to Agent Orange defoliation missions in Vietnam after laboratory studies confirmed reports from Vietnamese doctors that the chemicals were associated with birth defects, cancers, and other disorders in exposed human populations. Yet today the U.S. government, the Veterans Administration, and the chemical companies continue to deny the claims of veterans suffering the same devastating effects reported in exposed Vietnamese populations.

*Waiting for an Army to Die* is the story of Vietnam vets who survived firebombings, mortar attacks, and ambushes to face a deadly and humiliating battle at home — an uphill battle for health, self-esteem, and compensation from the government that poisoned them. The veterans, and the dedicated physicians, lawyers, and scientists fighting for them, tell an embarrassing tale of corporate and bureaucratic deceit, hypocrisy, and crass disregard for the price veterans are paying for serving their country.

The Agent Orange vets' suffering and legal battles parallel the experiences of American citizens exposed to the same chemicals in Alabama, Missouri, Oregon, Washington, Arizona, New Jersey, Love Canal — wherever phenoxy herbicides are manufactured, sprayed, or dumped. "Although the Vietnam War has ended, the Vietnamization of America continues unabated," Wilcox concludes. "Vietnam veterans are our future, and however painful that may be for us to admit, our future is now."  
—Carol Van Strum

• "There's enough evidence to convict dioxin by even criminal standards today," attorney Victor Yannacone says forcefully, half standing, pointing at me as though am the jury that will decide the most important product liability case in the history of the United States. "If you had an alleged criminal with the kind of evidence against him that we have against dioxin, he'd be convicted no matter who was sitting on the Supreme Court or how the evidence was obtained. But just what do we know about Agent Orange? We know that during the Vietnam era 8 million young men were in military service. And the average age was about eighteen and a half years old, and those kids were duly certified by at least one and in some cases three agencies of the federal government as the healthiest people in America. The people who weren't healthy stayed home. So we're saying that if you count the cancers, birth defects,

## Note on recent developments in the Agent Orange/herbicide battle

In October 1983, after spending more than ten years and over \$10 million defending the safety of its dioxin-contaminated herbicides, Dow Chemical suddenly withdrew its registrations for 2,4,5-T and silvex, ending two years of secret negotiations with the Environmental Protection Agency. EPA simultaneously ordered the cancellation of all registered uses of the two herbicides.

Dow's and EPA's actions came as congressional investigators began probing a long-suppressed EPA study of human health in herbicide- and dioxin-exposed populations of Oregon. Chemical analyses kept secret

## Waiting for an Army to Die

*(The Tragedy of Agent Orange)*  
Fred A. Wilcox  
1983; 229 pp.

postpaid from:  
Random House  
400 Hahn Road  
Westminster, MD 21157  
or Whole Earth Access



suicides, and serious illnesses among the 2.5 million that went to Vietnam and compare those statistics to the approximately 6 million who did not go — all of them chosen by the same rigorous standards — you will find that the group that went to Vietnam is much, much sicker than the group that didn't. The kids in Vietnam were exposed to something that seems to have accelerated their aging processes. They are suffering from the diseases of old age, and they are only in their thirties.

"So we've established clearly that the Vietnam veterans are sick, and we've identified a known toxicant to which they were exposed that is capable of causing the illnesses or the aging that we see in the combat veterans. The burden now shifts to Dow, Monsanto, and the other manufacturers of toxic materials to show that it wasn't their fault, that the products they made didn't poison our army. We've done our job. Let's see what they've got."

• A young mother whose daughter was born with sixteen birth defects testified before the U.S. Senate Committee on Veterans' Affairs about what has happened to many of the survivors of the Vietnam War. "Just as truly as the bullets and bombs killed on the battlefields in Vietnam," said Maureen Ryan, "maiming thousands of our men, Agent Orange has come home from those battlefields with our men. It has come home to maim and kill additional thousands of men who naively thought they made it home safely. It would have been tragic enough if it had ended there."

"But what the United States and our Vietnam veterans did not know was that they carried home a tremendous legacy with them. They did not know that genetically on those battlefields were their children. So Agent Orange is now reaping an additional harvest of birth defects and cancers in our children and the men. We are losing our children through spontaneous abortions, through miscarriages, and perhaps most tragically in the surviving children, with the horrifying birth defects."

• Today we are all living in a laboratory where the cancer victim must prove that his or her illness is the "direct result" of having been exposed to one of the many toxic chemicals that are spewn into our air and water, sprayed upon our food and forests, and that inundate many of the places where we work. In the name of science we have banished common sense to the dustbin of "anecdotal evidence," allowing multinational chemical companies to tamper dangerously with the ecology of our planet and the health of future generations.

since 1980 had identified dioxin in tissues of a human baby born without a brain and in the water supply of a household where seven miscarriages and two cancer deaths had occurred. Although the epidemiological data from the study was turned over to Dow for review, EPA still refuses to release the data to Congress or the public.

The continuing investigation of the Five Rivers/Alsea II study may turn up evidence that will significantly affect the Agent Orange veterans' class-action lawsuit. Other herbicides used in Oregon — notably 2,4-D, "the other half of Agent Orange" — are also involved in the suppressed study.

Carol Van Strum  
Tidewater, Oregon

## Frysville Hybrid Poplars

Numerous articles have been appearing recently on "How to Heat Your Home with an Acre of Poplar," and Frysville is one source for obtaining these fast-growing trees. Their catalog is 24 pages long with photographs, charts, and articles about the various kinds of poplars they sell, and the prices seem reasonable, especially in the larger quantities (a thousand unrooted cuttings for \$260).

In addition to firewood, the catalog discusses the trees as potential sources for wood gasification, sludge composting, soil reclamation, residential shading, and even cattle feed. Frysville offers eight varieties of poplars to meet these varied demands. For example, there is an "Acid Mix" which is useful at acid soil sites such as those found at a coal mine refuse site.

Along with the catalog, Frysville will send you two unrooted poplar cuttings, each about the size of a pencil. I planted one in my front yard a year and a half ago, and it is now ten feet tall — skinny, but tall. It's great fun wondering if it will really be as large as they say it will be after four years. Right now I believe it will be.

—Stephen Abbey

**Frysville Hybrid  
Poplars  
Catalog  
\$1**

postpaid from:  
Miles W. Fry  
and Son, Inc.  
R.D. 3, Frysville  
Ephrata, PA 17522

The top picture was taken in October after one summer's growth. The picture below it is the same site two years later.



## American Community Gardening Association

The American Community Gardening Association and its publication, the *Journal of Community Gardening*, are in the business of promoting the practice of community gardening nationwide.

Most of the people who got the Association rolling actually manage or operate community agriculture projects in major cities. They know firsthand how a com-

munity garden can transform the mood of a neighborhood, change lives for the better and instill pride in the residents.

The Association and the *Journal* is a great resource for those working on or wanting to start similar projects. It's a great example of a working network.

—Shane Smith

**American  
Community  
Gardening  
Association**  
Membership  
**\$15/year**  
Information **free**  
**Journal of  
Community  
Gardening**  
**Free** with ACGA  
membership (4  
issues/year)

all from:  
American Community  
Gardening Association  
P.O. Box 93147  
Milwaukee, WI 53203



Most organizations have a small core of dependable, but vastly overworked volunteers who have assumed many responsibilities. This core group usually remains small due to a winnowing out of volunteers who lack staying power and a pervasive belief that it is more effective and efficient to do it yourself. Teaching new volunteers can be time consuming and frustrating but the rewards can be profound and long term. Give others the chance to share greater responsibility and to experience the inner workings of your organization. Make this a top priority.



Shoots 'n' Roots University of Wisconsin Extension in Milwaukee.

## Earth Garden

Here's an offbeat little magazine from Down Under which gives a good look at back-to-the-land, Australian style. Perspectives differ but the essentials are the same, and if you're living in the country on a low budget you'll be on a common frequency with the publication.

The most recent issue has stories on a clever bike wheel wind generator (yes, you read that right), some good books I hadn't met before, down-home recipes like Serendipity Bread, and garden coverage that included a three-page story on raising avocado trees that was the best summary I've seen on the topic.

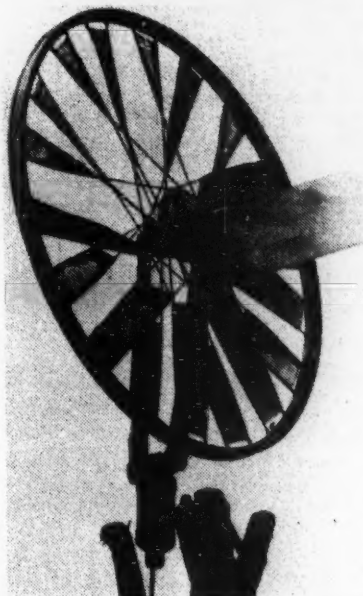
Besides that there was some oldtime stuff called the Forgotten Arts that included reprints like "Dairy Notes, 1898," or how to build a stone wall, written back in the days when people did just that, all their lives. At first glance it didn't strike me — who cares about something old? Then I recalled that the wisest book I'd ever read on beekeeping had been printed in 1915, and I realized that once again I'd slipped into contemporary thought patterns.

But in fact there was a time when New was not automatically equated with Better, and people spent their entire lives working cattle, bees or stone walls, and by the time they'd focused 60 years of their life on that one single topic they sure did know it. Our era produces shorter attention spans and people who will spend one year each on 60 different topics, so it can be gratifying to study the observations of those who concentrated better, and went deeper into their assigned topics.

**Earth Garden** isn't as slick a product yet as **Harrow-smith** from Canada (and they don't take advertising), but both pass on the work being done in their respective areas, and what **Earth Garden** lacks in sophistication is more than made up for by solid reporting and funky authenticity.

—Dick Fugett

**Peter Pedals'** bicycle wheel wind generator at work at Nimbin, New South Wales. The windwheels are made by folding galvanised sheet metal over the spokes. Each one pivots on bicycle front forks and head stem bearing and uses a hub dynamo like the Sturmey Archer Dynohub (pictured here) or a rim dynamo running on the tyre, such as the Sanyo Dynapower, to charge a 6 volt or 12 volt battery.



## Earth Garden

Irene and Keith Vincent Smith, Editors

\$17.50/year  
(4 issues)

from:

Earth Garden  
P.O. Box 378  
Epping, New South  
Wales, Australia 2121

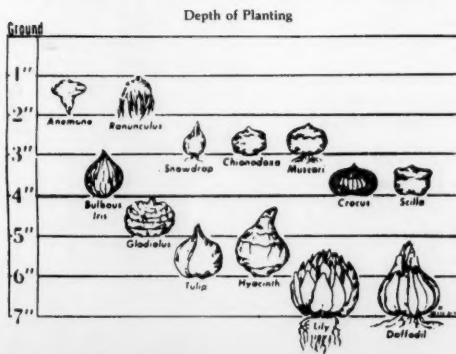
## In Your Own Back Yard

I like the practicality of this book. Lots of tips for the Great Plains, including a list of varietal strains of vegetables and flowers that grow best there.

Beyond that, it's a good basic gardening book. From lawns to berries, Marson synthesizes a wide range of gardening techniques into a common-sense approach that's basically organic with some store-bought fertilizer to help things along.

You don't need to be from the Plains to learn a lot from this book.

—Rosemary Menninger



When planning a perennial flower bed it is usually easier to start at the back of the bed and work forward. The taller and later blooming plants make a pretty background. Don't plant in a straight line but instead irregularly with some forward of the others to give a more natural effect. The tall ones should include hardy asters, tall mums, sunflower, and hollyhocks — I have used goldenrod effectively as a background plant. As you come to the front, Shasta daisies, day lilies, fox-glove, Japanese iris, and phlox will fit nicely. Don't plant in rows — bunch them in clusters. Plant shorter ones to the front. Spring bloomers are shorter as a rule. One of the biggest kicks in a perennial bed is to experiment, and if that doesn't look right, try something else. Changing and experimenting to get the combinations you want is a challenge and you will truly enjoy it.

## In Your Own Back Yard

(A Guide for Great Plains Gardening)

Chuck Marson  
1983; 154 pp.

\$6.95 postpaid from:  
Baranski Publishing Corporation  
500 Kansas Avenue  
P.O. Box 4527  
Topeka, KS 66604



## Where Have All the Wildflowers Gone?

This is the best bioregional guide to threatened and endangered U.S. wildflowers. Delightful prose. Solid info. A crusader's bible for preservation of floral wonders.

—Peter Warshall

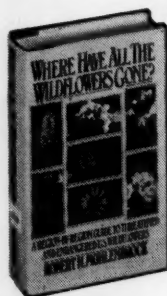
### Where Have All the Wildflowers Gone?

(A Region-by-Region Guide to Threatened or Endangered U.S. Wildflowers)

Robert H. Mohlenbrock  
1983; 270 pp.

**\$15.95**

postpaid from:  
MacMillan Publishing  
Company  
Order Department  
Front and Brown Streets  
Riverside, NJ 08075  
or Whole Earth  
Access



Venus Fly Trap  
*Dionaea muscipula*

Furbish's Lousewort  
*Pedicularis furbishiae*

Because the Furbish lousewort has a funny-sounding name, It was ripe for making ridicule, and that's a sort of shame. For there is a disappearing world, and man has played his role. In taking little parts away from what was once the whole. We can get along without them; we may not feel their lack. But extinction means that something's gone, and never coming back. So, here's to you, little lousewort, and here's to your rebirth. And may you somehow multiply, refurbishing the earth.

—Charles Osgood, 1977

Venus fly trap, with its insect-trapping mechanism, evokes more interest than almost any other kind of plant. Its unusual appearance and the miraculous way it reacts to stimuli make it difficult to realize sometimes

that this is a plant that grows in the wild. And the wild places where it occurs are primarily in the Coastal Plain of North and South Carolina, where it should be allowed to remain.

The novelty of the Venus fly trap has caused it to become greatly reduced in numbers for commercial purposes. Although it has been found in seventeen counties in North Carolina, three counties in South Carolina, and very recently in one county in the Florida panhandle, it is rare in several of them. In the wild, the Venus fly trap lives in open bogs, savannas, and in wet sandy ditches.

## Genera of the Western Plants

### Genera of the Eastern Plants

These guides are not for everyone. But for those ready to patiently spend time with each plant they find and who enjoy botanical detective work, these are the best. Batson rightly feels that the *genus* is the most useful level of plant understanding. He requires you to know some botany lingo (words like *raceme*, *rugose*, *rhizome* or *perianth*), carry a hand lens, and squint at the book's tiny print. To quote Allan Crandell, in part: "These two field guides are straightforward, elegant, useful,

unpretentious and exceptionally well crafted." You should be able to key out any North American plant to genus with these books.

—Peter Warshall

[Suggested by Allan Crandell]

### Genera of the Western Plants

Wade T. Batson  
1982; 205 pp.

**\$8.95**

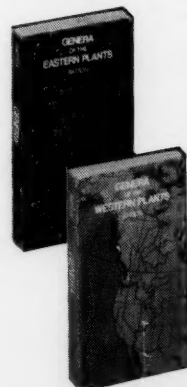
postpaid from:  
Wade T. Batson  
1120 Blake Drive  
Cayce, SC 29033

### Genera of the Eastern Plants

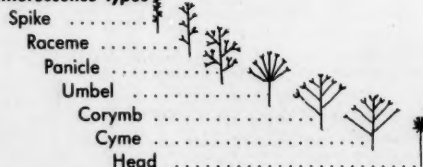
Wade T. Batson  
1975, 1983; 203 pp.

**\$13.95**

postpaid from:  
University of South  
Carolina Press  
University of  
South Carolina  
Columbia, SC 29208



#### Inflorescence Types



—Genera of the Western Plants



## American Currents

Everybody knows that tropical fish are beautiful and you can raise them in aquaria as a hobby. Fishes, like most groups of animals and plants, reach their apex of diversity in the tropics, which partly explains how the aquarium hobby became the tropical fish hobby. Still, the American Fisheries Society currently recognizes nearly 800 species of North American fresh water fishes and nearly 2000 salt water species. Many of these fishes can be kept and bred in aquaria and more than a few are the equal of any tropical species in beauty. I suspect that it is not just the diversity and beauty of tropical fishes that has led the aquarium hobby clique to ignore our native fishes (some of which bring a pretty penny from European aquarists) but the snob appeal of keeping a fish your neighbor can't scoop out of a nearby creek.

Until now, the study of North American native fishes has been largely left up to professional biologists and a few of the more fanatical sport fishermen. But there have always been a few aquarists who didn't care so much whether a fish arrived via Manaus or Milwaukee as how it behaved and what it looked like; they form the nucleus of the North American Native Fishes Association.

NANFA's organ of communication is **American Currents**, a ten-issue-per-year magazine featuring articles on "finding, collecting, observing, and breeding" native fishes. A prominent feature is the Trading Post, which enables members to swap fish and accessories by mail. **American Currents'** emphasis is skewed toward the aquarium hobby, but there are summaries and bibliographies of scientific papers, an increasing amount

## American Currents

John Eccleston, Editor  
\$7.50/year (10 issues)  
from:  
North American Native  
Fishes Association  
101 Country Club Drive  
New Orleans, LA 70124



of material on field study and a healthy dose of conservation topics.

Other services offered by NANFA include slides of native fishes, breeding records, indexes of information and a membership list to enable members to hook up with kindred spirits near where they live. —Bill McLamey

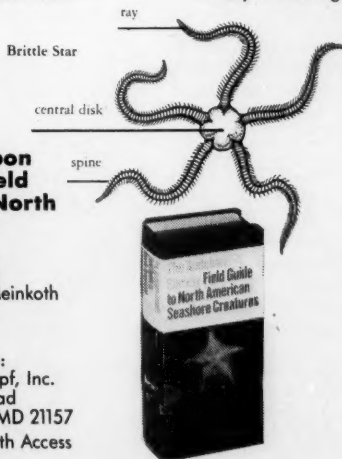
Swamp Darters are a very short-lived fish. In the southern parts of the Atlantic Coast they live for only one year and presumably die soon after they spawn for the first time (Collette, 1962). In the northeast, many Swamp Darters live out the summer after spawning for the first time and some survive into their second fall (Schmidt and Whitworth, 1979). The largest recorded specimen measured 55 mm in total length and was collected in Connecticut during its second fall of life. The life span in aquaria is not documented to my knowledge, but one might expect them to live longer than in the wild. Nevertheless, you should not be disappointed if your Swamp Darters do not live in captivity for more than a year.

## The Audubon Society Field Guide To North American Seashore Creatures

This guidebook encompasses all those familiar and bizarre invertebrates that inhabit the edges of the seas.

Nearly half the volume is made up of striking color close-ups of each creature. The remainder gives accurate, nontechnical descriptions keyed to the photos. This makes it easy even for landlubbers to identify the creatures and learn a bit about their habitats, habits and lifestyles.

As far as I'm concerned, this is the best identification resource for anyone interested in beachcombing for fun, knowledge and/or food.  
—Mary B. Bowling

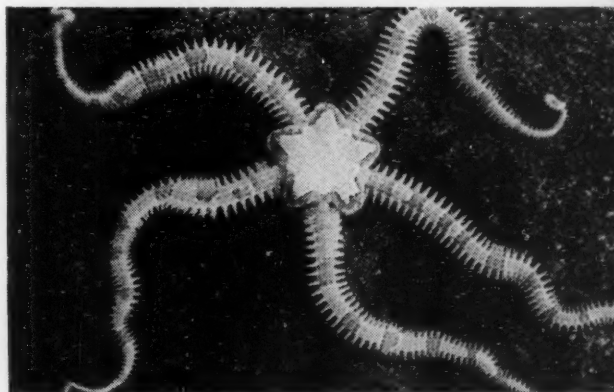


## The Audubon Society Field Guide to North American Seashore Creatures

Norman A. Meinkoth  
1981; 785 pp.

**\$13.50**

postpaid from:  
Alfred A. Knopf, Inc.  
400 Hahn Road  
Westminster, MD 21157  
or Whole Earth Access



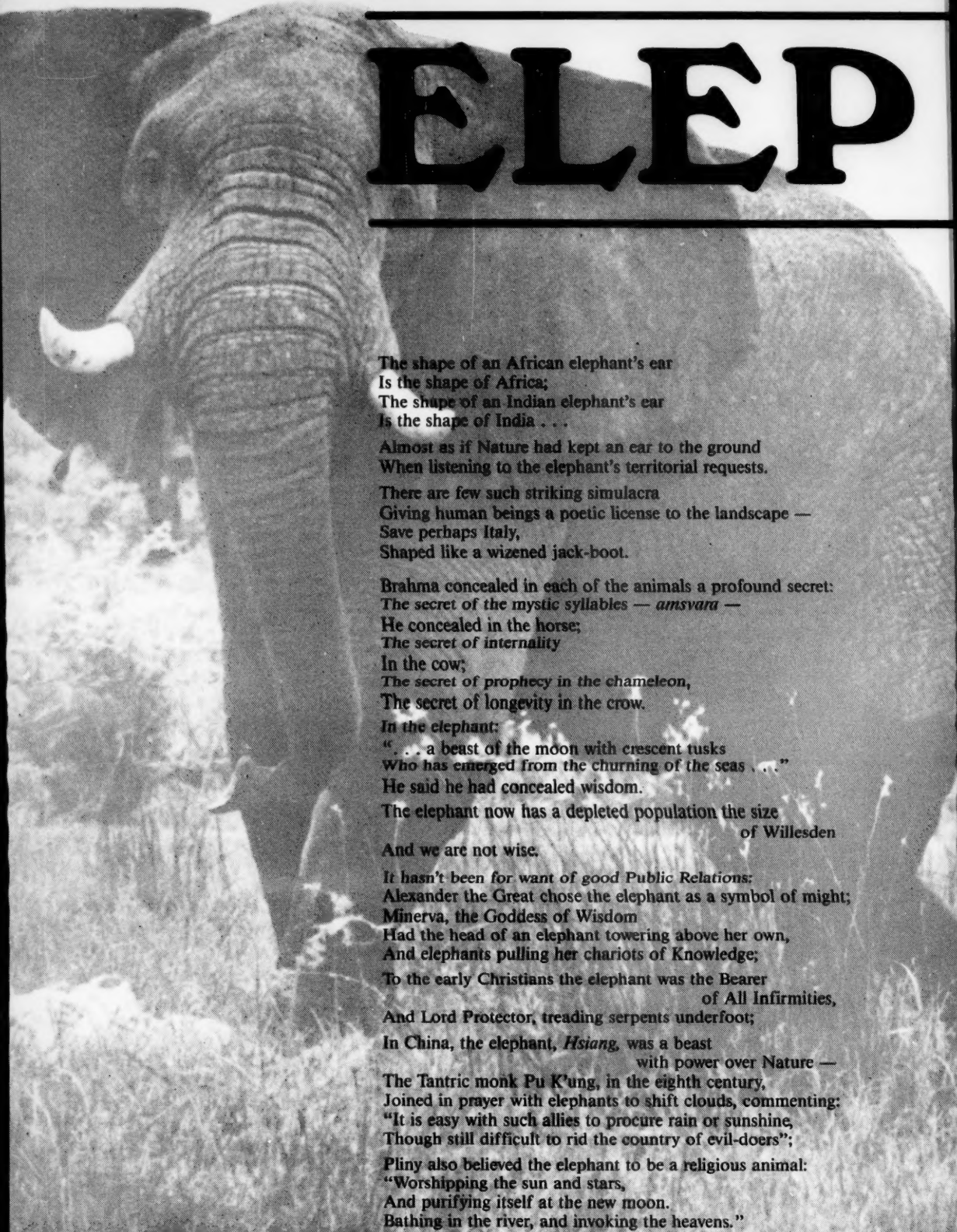
**570. Daisy Brittle Star (*Ophiotholpis aculeata*)**  
Class Stelleroidea

**Description:**  
Disk diameter 3/4" (19mm), arm length 3-5/8" (92mm). Long-armed. Red, orange, pink, yellow, white, blue, green, tan, brown, gray, and black, in infinite variety of spots, lines, bands, and mottlings. Central disk scalloped, a lobe protruding between adjacent arms, covered with fine, blunt spines and roundish plates. Plates on top of arms surrounded by row of small scales; joints with 5-6 bluntly-tapered spines in vertical rows on side of arm.

**Habitat:**  
Under rocks in tidepools, among kelp holdfasts; from low-tide line to water 5435' (1657 m) deep.

**Range:**  
Arctic to Cape Cod; Bering Sea to s. California.

**Comments:**  
These elegant brittle stars are an exotic sight in a tidepool, scrambling into hiding when one exposes them by lifting away their rock.



# ELEP

The shape of an African elephant's ear  
Is the shape of Africa;  
The shape of an Indian elephant's ear  
Is the shape of India . . .

Almost as if Nature had kept an ear to the ground  
When listening to the elephant's territorial requests.

There are few such striking simulacra  
Giving human beings a poetic license to the landscape —  
Save perhaps Italy,  
Shaped like a wizened jack-boot.

Brahma concealed in each of the animals a profound secret:  
The secret of the mystic syllables — *amsvara* —  
He concealed in the horse;  
The secret of internality

In the cow;  
The secret of prophecy in the chameleon,  
The secret of longevity in the crow.

In the elephant:  
“ . . . a beast of the moon with crescent tusks  
Who has emerged from the churning of the seas . . . ”  
He said he had concealed wisdom.

The elephant now has a depleted population the size  
of Willesden  
And we are not wise.

It hasn't been for want of good Public Relations:  
Alexander the Great chose the elephant as a symbol of might;  
Minerva, the Goddess of Wisdom  
Had the head of an elephant towering above her own,  
And elephants pulling her chariots of Knowledge;  
To the early Christians the elephant was the Bearer  
of All Infirmities,  
And Lord Protector, treading serpents underfoot;

In China, the elephant, *Hsiang*, was a beast  
with power over Nature —

The Tantric monk Pu K'ung, in the eighth century,  
Joined in prayer with elephants to shift clouds, commenting:  
“It is easy with such allies to procure rain or sunshine,  
Though still difficult to rid the country of evil-doers”;

Pliny also believed the elephant to be a religious animal:  
“Worshipping the sun and stars,  
And purifying itself at the new moon.  
Bathing in the river, and invoking the heavens.”

# HANTS

by Heathcote Williams

In Hinduism, the elephant stands on a tortoise  
Supporting the vessel which holds the lotus —  
An indication of the Heath Robinson route

we may all take to ecstasy;

On the night of the birth of the Buddha  
An elephant entered the dreams of Queen Mahamaya,  
his mother . . .

And Gautama Buddha was consequently patient, strong, meek  
And unforgetful.

But when it was thought that the elephant's qualities  
Could be best experienced  
By putting them into forced labour camps  
Or by killing them

And then packaging bits of them as billiard balls,  
Decanters, umbrella stands,  
And book-ends in their own image —

Their P.R. became more geared to the mass market  
Which has now seen fit to reduce them to a bowdlerised

Dumbo-Jumbo —

A performing slave in a Habitat cage  
With its tusks sawn off  
And a ring through a piece of flesh  
Sensitive enough to read Braille.

The elephant that we're now persuaded to know  
Is a symbol of thick-skinned, slothful clumsiness . . .  
Quaintly loveable though;  
And, as a result of its loveability,  
Much sought after by multi-national fund-raisers  
For use as an under-paid model in glossy animal soft-porn  
To prey on the confused sentiments of 'animal-lovers'  
Who spend forty million pounds a year  
Feeding tinned dolphins  
And tinned New Forest ponies  
To their cats.

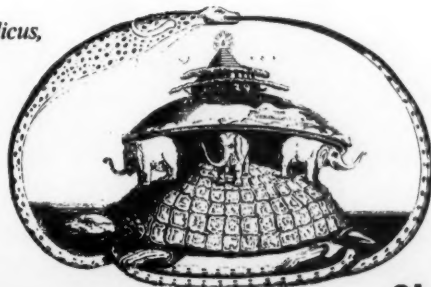
*Elephas Maximus, Loxodonta Africana, Elephas indicus,*  
(To give its names in the forensic fossil-language  
of post-mortems) —

Nature's blasting, billowing Archangel —  
A land-manatee,  
A land-siren,  
A land-whale —

The oldest and largest of land mammals  
Was born in the late Ice Age  
While we were only a glint in Darwin's eye.

Heathcote Williams, devilish English playwright-actor-poet, here performs the same admirable job of humanistic advocacy for elephants that he previously did for plants and foreskins (*CQ Winter*, 1980). I still fondly recall getting the top of my head unexpectedly sliced off by the no-holds-barred production of his indictment of psychic colonization, *AC/DC*, at the Chelsea Theater Center in Brooklyn, in 1971. More recently, if you saw Derek Jarman's screen version of *The Tempest*, you saw Heathcote playing Prospero.

This epic poem was originally published in an elephantine tabloid edition which won the hearts of all who saw it. (It is still available for \$3.50 [or £2.50] postpaid, by international money order, from Tony Bennett, Knockabout, 249 Kensal Road, London W10 5DB England.)  
—Jay Kinney





#### They're not a little clumsy?

Elephants walk on the tips of their toes.  
Elephant paths in the Congo Basin mountains are near-vertical.  
They can move in total silence without leaving a trace.  
The elephant seems unembarrassed by its bulk.

#### Thick-skinned?

They wash, massage and powder their quilted skin  
with fine dust, daily,  
And their surface muscles are so cunningly tuned  
That they can crush a colony of *Haematomyzus*  
— elephant lice —

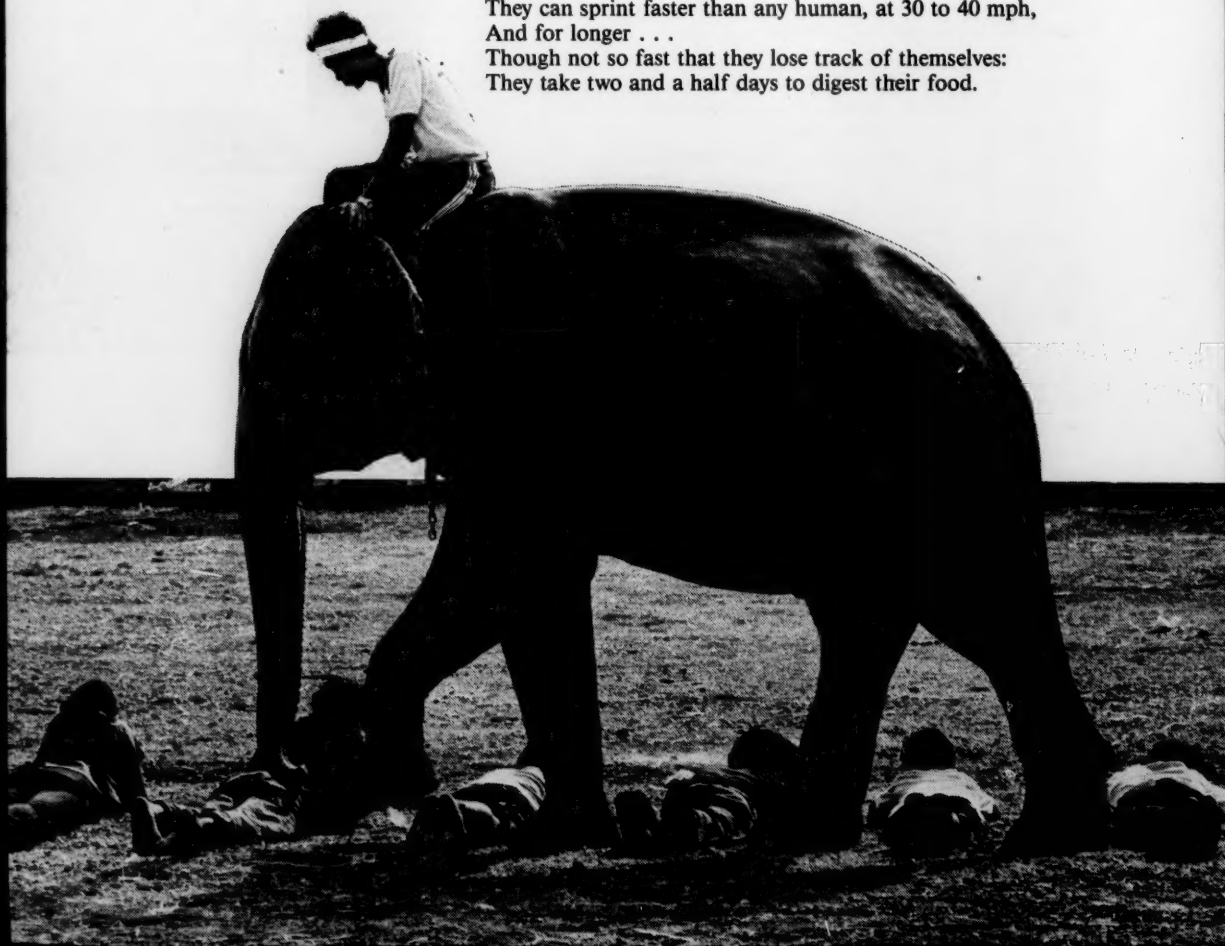
With one focussed ripple.  
Human beings,  
Similarly infested,  
Can only bleat to Rexall's.

#### Slow?

They move slowly to protect their vast brain,  
With which they can hear subsonic sound,  
And in which they carry the topology,  
The resonances and reverberations of a continent.  
To them, our scrap of consciousness  
May seem as inconsequential as a space-invader blip.

#### Slow?

They can sprint faster than any human, at 30 to 40 mph,  
And for longer . . .  
Though not so fast that they lose track of themselves:  
They take two and a half days to digest their food.





**What about those useless great flapping ears?**

With them, they can hear a mouse,  
Which is reassuring for mice.  
And while our ears are addicted to noise —  
Thrice-chewed auditory gum, often the staler the better —  
Their 'useless flapping ears'  
Open and close like eye-lids  
And can exclude debilitating junk with an enshrouding  
Trappist blink.

**But their eyes — they have very small eyes, don't they?  
They must be half-blind . . .**

They can see better than a horse.  
They find their eyes illuminating.

**Perhaps, but you wouldn't call them civilised . . . ?**

Though their foreplay can last eight days,  
And that's very heavy petting,  
They can show affection without being instantly possessed  
By a desire to get their rocks off on the spot . . .  
And their rocks are no Milk Duds.  
(One aberrant jet of elephant sperm  
Will feed a forty-foot high anthill  
For a year).

Pregnancy lasts two years —  
Which suggests that they've given it a thought —  
And there seems to be no need for ultra-sonic scanners  
Neurotically poking at a foetus half-pickled  
in food preservative,  
Nor epidurals, nor monitoring devices . . .  
For those who've lost touch with their, far smaller, bodies.  
. . . Their ante-natal care is care free,  
And an elephant may be unconcernedly fertile  
at the age of fifty-five.

An elephant's birth is attended by two or three midwives  
In the center of a protective circle.

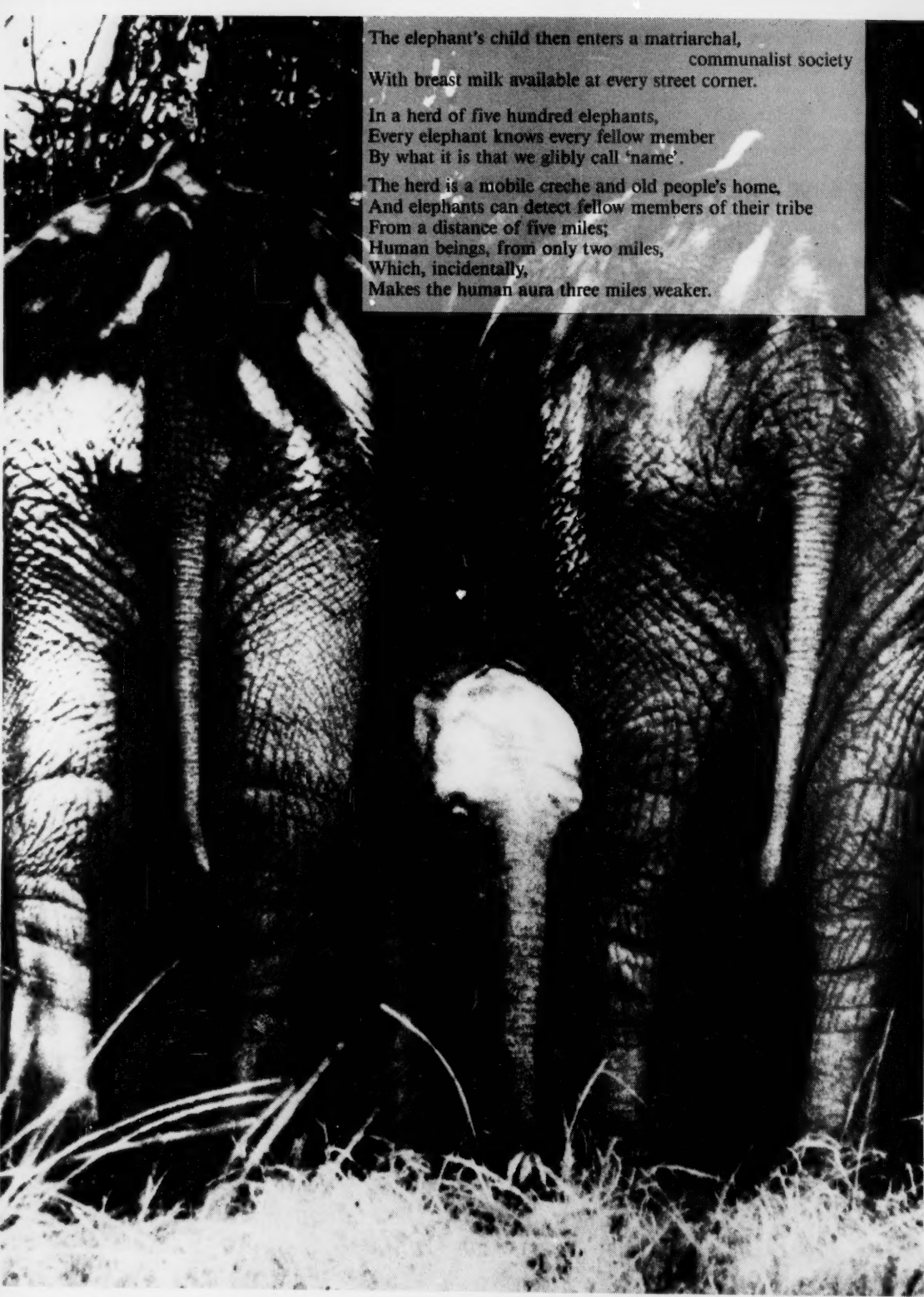
The baby's first sight is of its placental membrane  
Being tweaked into the air  
And flipped away in triumphant relief  
Like a giant, flailing frisbee.



WALTER LENTHOLD



WALTER LENTHOLD



The elephant's child then enters a matriarchal,  
communalist society  
With breast milk available at every street corner.

In a herd of five hundred elephants,  
Every elephant knows every fellow member  
By what it is that we glibly call 'name'.

The herd is a mobile creche and old people's home,  
And elephants can detect fellow members of their tribe  
From a distance of five miles;  
Human beings, from only two miles,  
Which, incidentally,  
Makes the human aura three miles weaker.







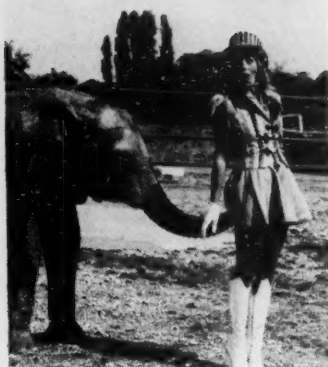
The adrenal glands of one herd  
Would keep a small war in the Middle East going  
for around a month —  
They just dip into them occasionally  
To keep on the ball.

Their tusks — their swords —  
They use mainly as ploughshares — for gathering food.  
Neither the Cruise missile, nor the Trident  
Is capable of doubling up as a cocktail stick.

**But what about Rogue Elephants?**  
**Everyone's heard of Rogue Elephants . . .**  
**They're pretty dangerous by all accounts**

Every society has its lone dementoes.  
But you shouldn't be regarded in the same light as a psychopath  
Simply because you have toothache;  
Or because you're a male in *musth*,  
And have been forcibly imported into a country  
Where there are no female elephants for five hundred miles,  
Nor for the rest of your life.

In the wild almost all 'rogues' have been turned mad  
Through being blinded by tea-planters' grape shot,  
Or having bullets imbedded in their bones  
By cack-handed 'conservationists' performing an imperious cull.



COLLECTION OF PETER BEARD



**But obviously something has to be done about them  
If they get out of control . . . ?**

If you had wandered every continent for thousands of years  
And come to consider the globe your own private football,  
And were then confined to an open prison,  
A tourist-infested allotment,  
In the suburbs of Nairobi,  
On emergency rations,  
You might become unbalanced.

**But they strip all the trees. They turn the place into a desert.  
They have felled favoured baobabs since antiquity.**

Industrialists,  
Who turn the Amazonian jungle into useless tundra,  
Or cement over half the planet,  
Are not, for some reason,  
Machine-gunned *en masse*,  
Nor captured and exhibited,  
Nor do they have their teeth drawn, and carved into little men.



Well, they probably don't know what's happening to them,  
Until it's happened — the culling.  
They're probably not aware of it.

No . . . ?

Yet they will place their trunks  
Into the mouth of an injured companion.  
They will altruistically remove stricken fellows  
Out of the line of fire.  
They will nudge and nurse the wounded to their feet.  
They have been known to practise mercy killing.

They will examine corpses extensively:  
Scanning the whole body,  
Using the dilated tips of their trunks as organic stethoscopes  
Almost as if conducting an autopsy to discover  
how they died . . .

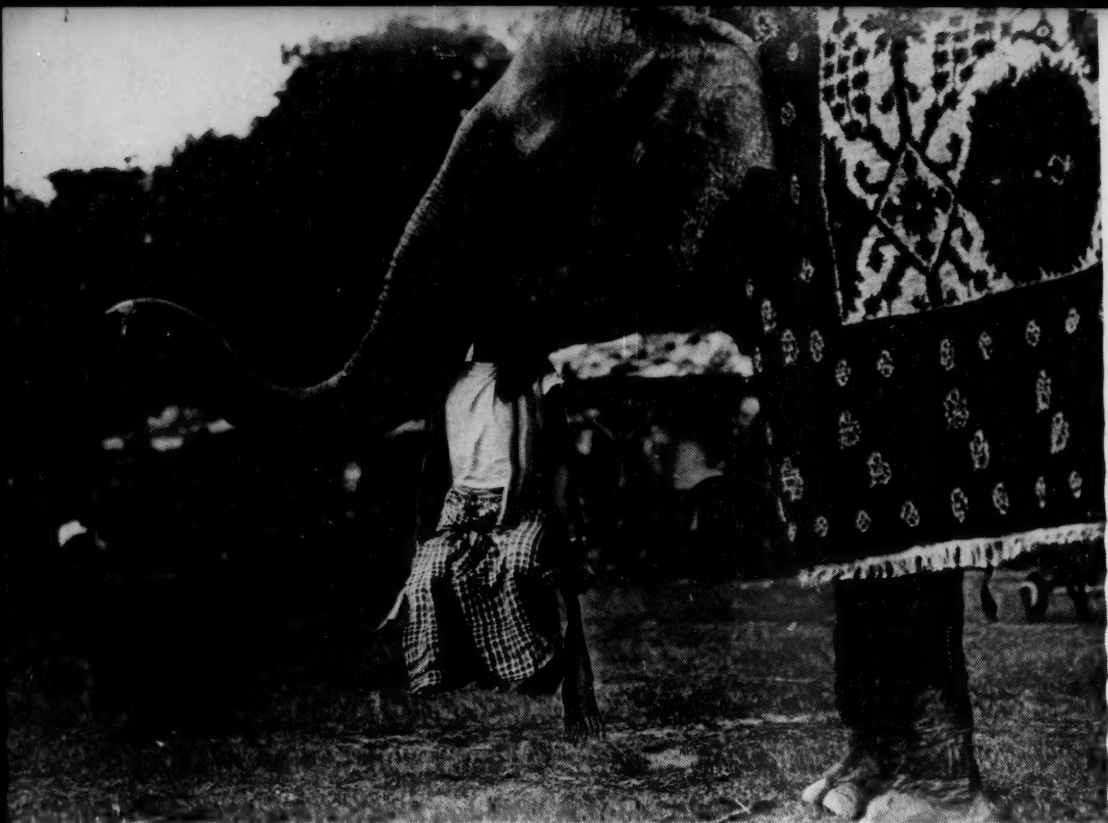
Although there is often little mystery,  
And the 'Elephants' Graveyard' is a sentimental myth  
That serves only to cover up the site  
Of an elephant pogrom.

But when they are allowed to die  
In their own time and space,  
They will sometimes hold up the body  
As if forming a funeral cortege,  
And they bury their dead,  
By covering them with mud, earth, leaves and branches;  
Then return later to draw the tusks  
Removing them several miles away,  
Or seizing them and shattering them against a nearby tree,  
As if to cheat traders,  
And have done so since Herodotus first recorded the ruse.

Bereaved herds have even raided the warehouses of ivory salesmen  
To restore missing components to a dead companion.

While the integrity of their life has been invaded,  
They attempt to preserve the integrity of their death.





*Maybe, maybe. But they're an animal.*

**They must be beneath us . . .**

Someone who's eleven foot tall

And weighs six tons . . . the same as 86.4 men,

Hasn't bothered paying much attention to the human scale  
of things.

An animal is simply someone who has the breath of life:

. . . 'Anima' — a breeze, then breath, then life, then soul.  
Anima.

*Elephants breathe frugally,  
Only twelve times a minute.*

*Less sometimes  
Since they can detect even odourless poisons  
With the lining of their proboscis.  
We, on the other hand,  
Are happy to breathe in anything,  
On the off-chance it has air in it.*

*Their breath-control makes Pranayama Yogis  
and Tai Chi Masters*

*Look like meths drinking Keystone Cops,  
And their low metabolism —  
Lowest of all mammals —  
Does, in fact, enable them  
To retain their memory for longer . . .  
Nearly petrifying it in a cerebral cement-mixer  
Filled with sodium salts,  
And immersing it slowly in giant vascular tanks  
Of protein fixative . . .  
Though there may still be many things they'd rather forget.*





Oh, come on — that trunk, for instance . . .  
That trunk's ridiculous.

*Trompe.*

It's got nothing to do with baggage.

*Trompe.*

From trumpet,

*Because that's what the rhythmic rushes of air*

Up and down it

*Sound like . . .*

When it's not humming,

*Or roaring,*

*Or piping,*

*Or talking,*

*Or purring,*

*Or rumbling,*

*Or sneezing —*

And it can stun dogs with a sneeze.

Its nose and upper lip:

*Its ringed proboscis,*

Has forty thousand muscles in it.

The Aryans of the 1st millenia called the elephant  
*'Mrigi hastin'* —

The beast with a head-finger,

And with it, elephants can pick up a pin,

Uncork a bottle,

Pull up a tree by the roots,

Detect trip-wires and traps,

Doodle in the sand,

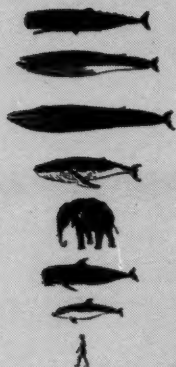
Dowse for water underground,

Walk along river-beds,

And sense alien presences from miles away . . .

A six foot long, one foot thick third eye

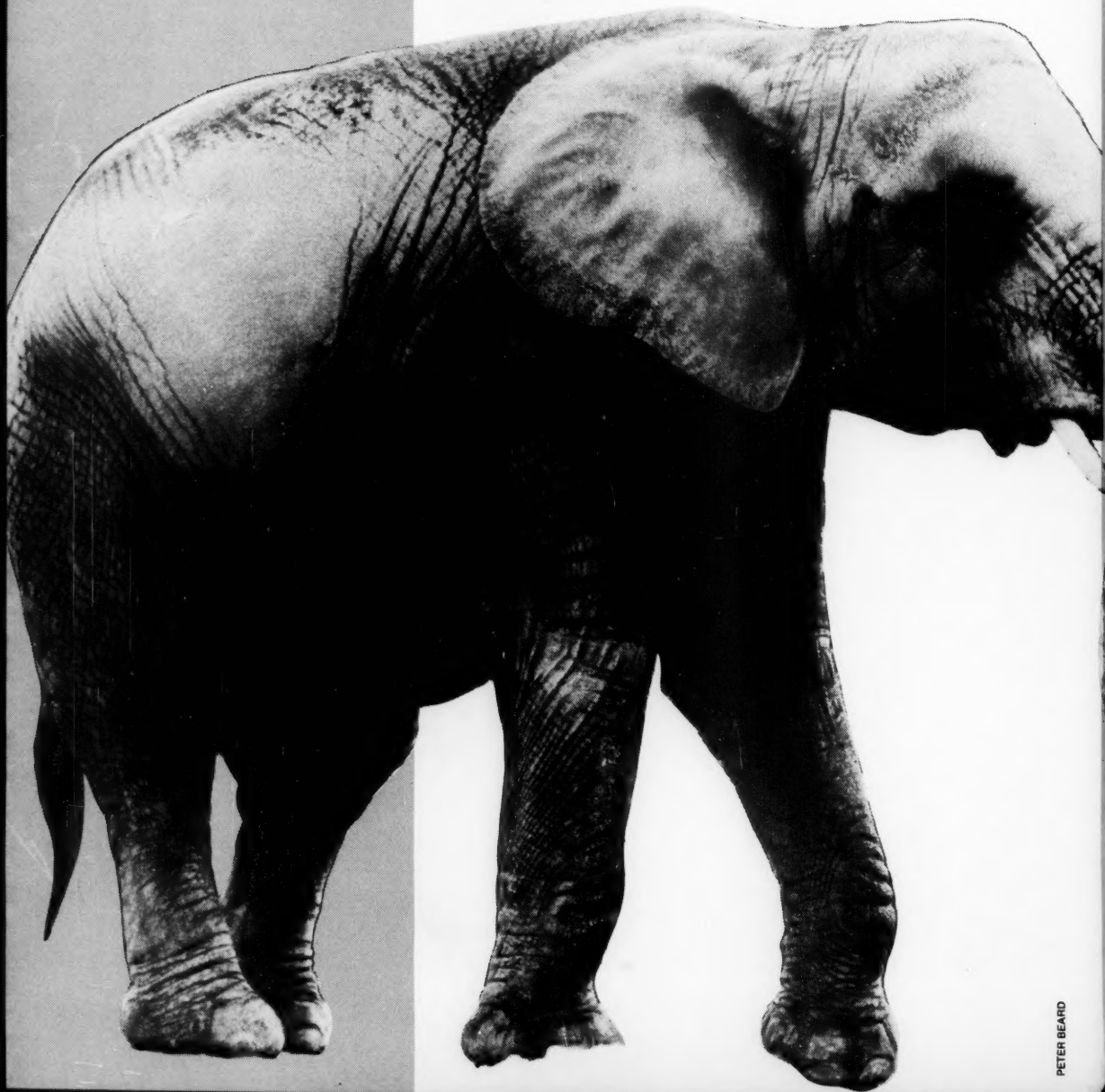
That's no hippy dippy trippy fantasy

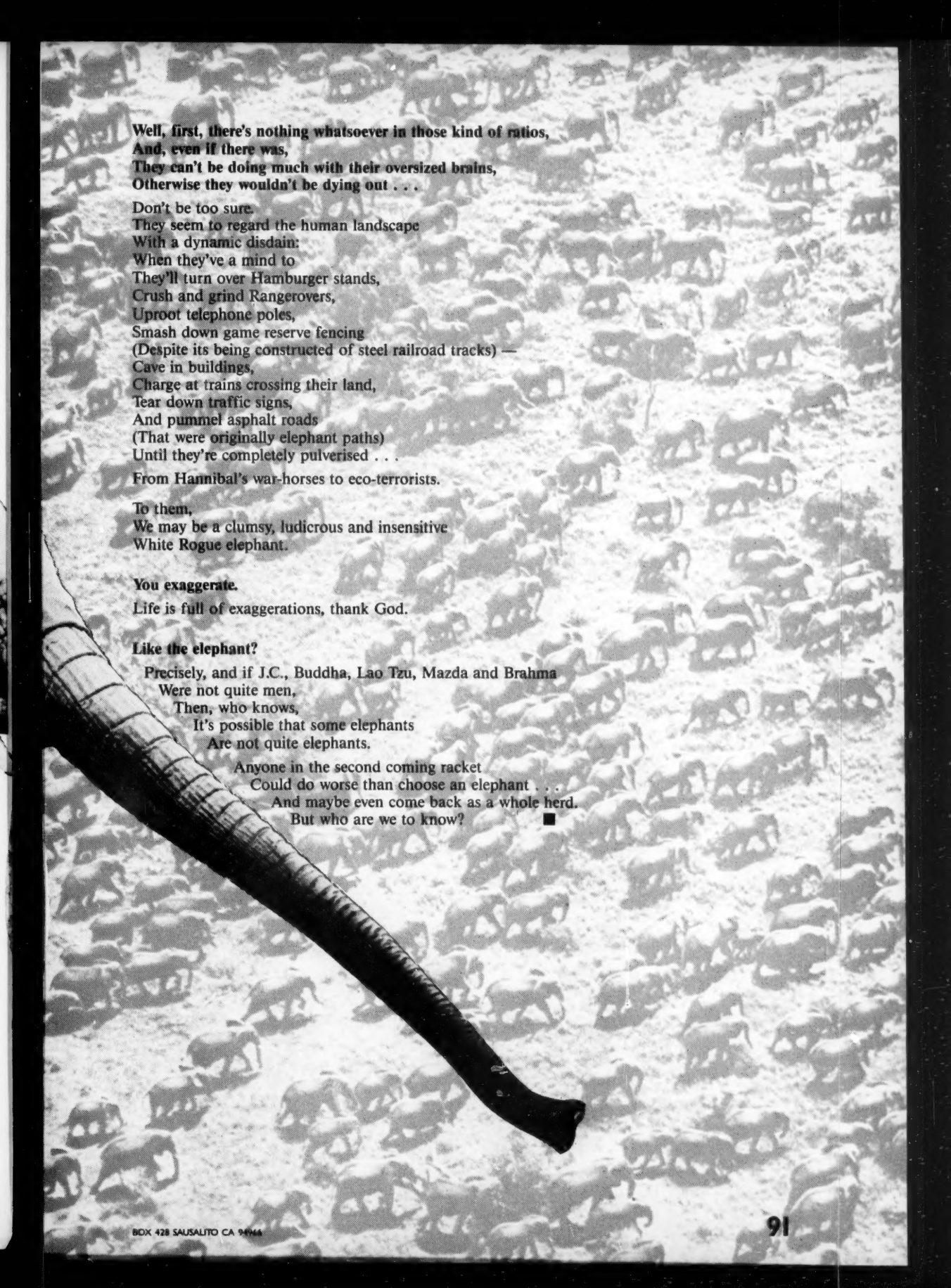


Okay, they may be pretty impressive, biologically,  
But they must be brainless . . . they're just creatures.

Human busybodies  
Have, unfortunately,  
Blunted box after box of scalpel blades,  
Discovering  
And ghoulishly rediscovering  
That elephants' brains weigh twelve pounds  
And are four times the size of ours . . .

How much did you weigh when you were born?  
**About seven pounds, I suppose . . .**  
An elephant's baby's *brain*  
Weighs nine.





Well, first, there's nothing whatsoever in those kind of ratios,  
And, even if there was,  
They can't be doing much with their oversized brains,  
Otherwise they wouldn't be dying out . . .

Don't be too sure.  
They seem to regard the human landscape  
With a dynamic disdain:  
When they've a mind to  
They'll turn over Hamburger stands,  
Crush and grind Rangerovers,  
Uproot telephone poles,  
Smash down game reserve fencing  
(Despite its being constructed of steel railroad tracks) —  
Cave in buildings,  
Charge at trains crossing their land,  
Tear down traffic signs,  
And pummel asphalt roads  
(That were originally elephant paths)  
Until they're completely pulverised . . .

From Hannibal's war-horses to eco-terrorists.

To them,  
We may be a clumsy, ludicrous and insensitive  
White Rogue elephant.

You exaggerate.

Life is full of exaggerations, thank God.

Like the elephant?

Precisely, and if J.C., Buddha, Lao Tzu, Mazda and Brahma  
Were not quite men,  
Then, who knows,  
It's possible that some elephants  
Are not quite elephants.

Anyone in the second coming racket  
Could do worse than choose an elephant . . .  
And maybe even come back as a whole herd.  
But who are we to know? ■

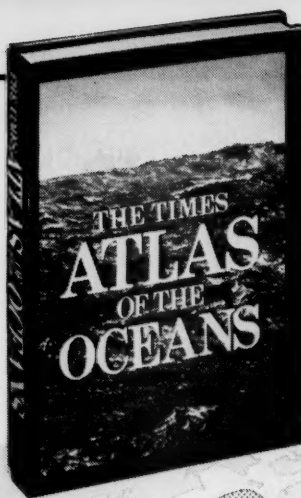
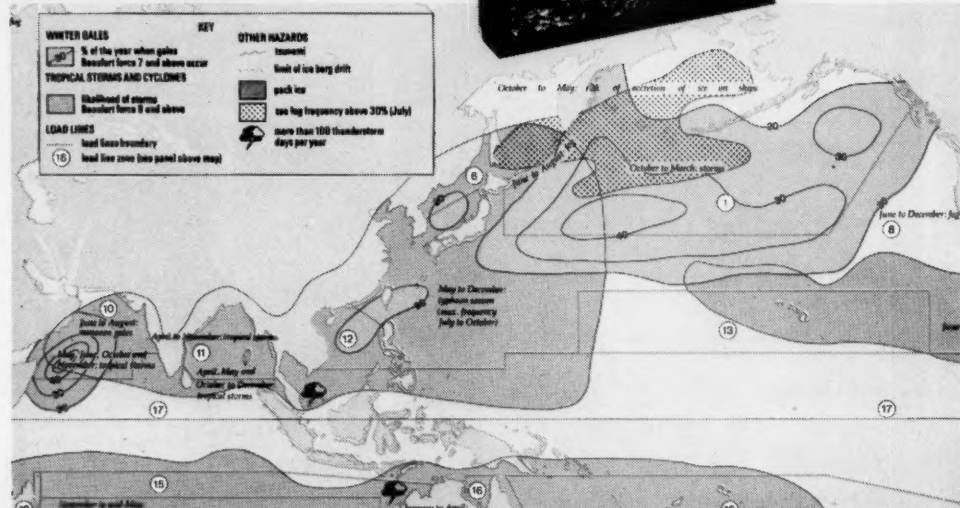


## The Times Atlas of the Oceans

The venerable *London Times* does it again. Their *Atlas of the World* (NWE p. 22) set a lofty standard which is more than equalled in this volume. A comprehensive understanding of the ocean environment has become critical as we learn more about the limits of the once boundless sea. This *Times* atlas goes a long way toward providing that knowledge. The scope is mind-bending: weather patterns, fisheries and resource exploitation, ship-borne commerce, shoreline development, pollution sources, military strategy, the law of the sea and much more. Best of all, it is well written, graphically pleasing, logically organized — a pure joy to behold. There should be a copy in every library.

—David Buror

### Weather hazards for shipping (detail)



## The Times Atlas of the Oceans

Alastair Couper, Editor  
1983; 268 pp.

**\$89.95**

postpaid from:  
Van Nostrand Reinhold  
Company  
Order Department  
7625 Empire Drive  
Florence, KY 41042  
or Whole Earth Access

## Skyguide

A nice match for looking down with *Man on Earth* is this Golden Guide to looking up. As with Golden's renowned bird guide, this is a highly inviting little book, yet dense with good information. It's a good complement to Guy Ottewill's *Astronomical Companion* and *Astronomical Calendar* (NWE p. 10), somewhat less technical, less personally delightful, equally graphically accessible but in a different way — more color (Helmut Wimmer, a master), handier pocket size.

—Stewart Brand

### Skyguide

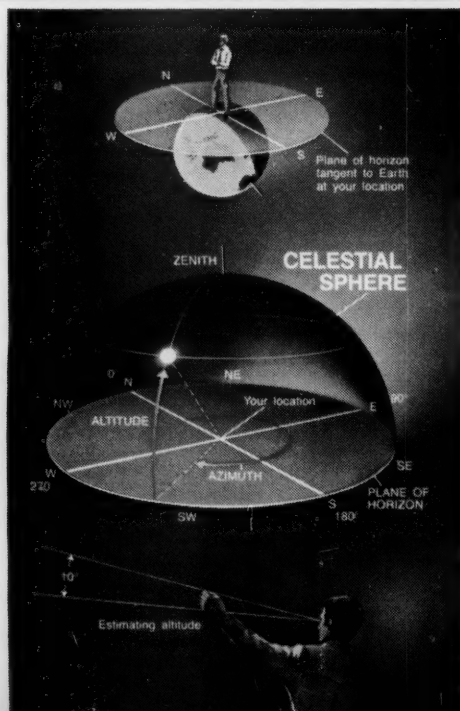
(A Field Guide for  
Amateur Astronomers)  
Mark R. Chartland  
1982; 280 pp.

**\$7.95**

postpaid from:  
Western Publishing  
Company  
1220 Mound Avenue  
Racine, WI 53404  
or Whole Earth Access



You can estimate altitude or azimuth simply by extending your fist to arm's length. At this distance your fist will appear to be about 10° wide. If you align the bottom of your fist with the horizon, the top is at about 10° altitude. Stacking fist on fist, you can estimate wider angles. This method of approximately measuring distances across the sky is convenient when you are attempting to locate a star or other object that is a known number of degrees from an object you have already identified.





## Man on Earth

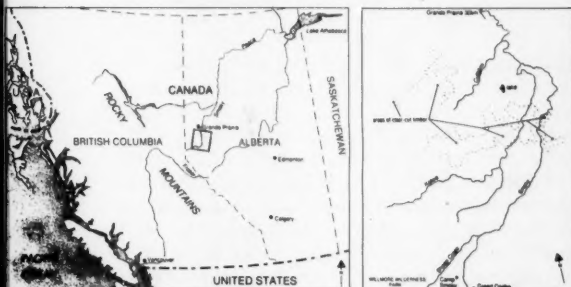
Not since the wonderful *Grand Design* book of aerial photographs that began *The Next Whole Earth Catalog* and then by misadventure fell out of print has there been so TELLING an overview of people's place in their earthly habitat. Indeed we are little, but we are increasingly marking big on our planet, and seen from orbit the marks are surprising, both in themselves and how they relate to the big natural picture.

The full-color intensely detailed photos are gorgeous. The choice is nicely demonstrated by the categories — the Ancient World, Shaping the Earth (dams, etc.), Commerce and Trade (major cities), Energy and Minerals (mines, etc.), Strategic Pressure Points (the Strait of Mandeb, Los Alamos, etc.), Food and Fiber (irrigation, agriculture), Capital Cities, The Changing Wilderness. Modest but good text and maps help elucidate.

—Stewart Brand

### Clear-cutting in Western Alberta

The distinctive patchwork-quilt pattern of pinks, light green and dark green comes from clear-cutting of the woodlands, mainly consisting in this region of spruce, lodge-pole pine, Douglas fir, poplar, balsam, white birch, and tamarack. Although power tools have now replaced the traditional axe and handsaw felling methods, each July the Canadian National Logging Competition is still held at Grande Prairie. Forest roads to transport the cut timber can be seen as fine white lines running across the upper half of the image. The black patch upper centre is a lake.

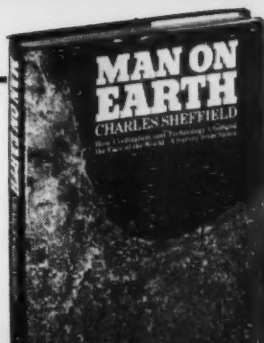


## Man on Earth

Charles Sheffield  
1983; 155 pp.

**\$29.95**

postpaid from:  
McMillan Publishing  
Company  
Order Dept.  
Front and Brown Streets  
Riverside, NJ 08075  
or Whole Earth Access



## Timescale

Fanciers of the big strange picture will revel in the newest book from Britain's answer to Isaac Asimov (Nigel Calder is a far more graphic and somewhat more insightful compiler of popular science than our prolific popularist). Here the subject is the fullness of time and the odd features that emerge when you peer along its length. Once upon a time in a galaxy very, very near . . .

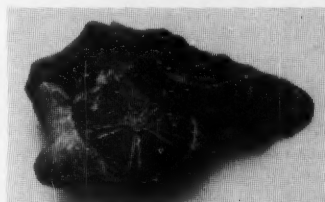
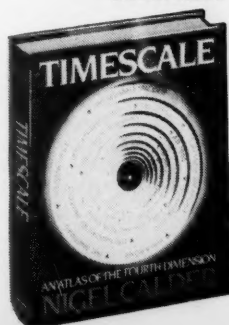
—Stewart Brand

### Timescale

(An Atlas of the Fourth Dimension)  
Nigel Calder  
1983; 288 pp.

**\$20.95**

postpaid from:  
Viking Press  
299 Murray Hill  
Parkway  
East Rutherford, NJ  
07073



The craftsman who made this hand ax during a warm interval in England deliberately shaped it around a fossil embedded in the flint. The fossil itself, a sea urchin about 90 million years old, shows the distinctive five-fold symmetry of the echinoderms.



Amsterdam became the sugar capital of Europe, and Dutch paintings of the period document, as a price of empire, a catastrophic loss of teeth. (Painting by Jan Steen.)

# Towards A Theory Of History

## Fitness, Niche and Clutch of *Homo Sapiens*

by Paul A. Colinvaux

Illustrations by Jim Ludtke

**H**UMAN HISTORY IS A RECORD of the doings of one remarkable species of animal, *Homo sapiens* L. It must follow that we can understand our history if we have sufficient knowledge of the population ecology of this animal. Starting from the concepts of human niche and breeding strategy it is possible to develop a theory of history that is testable, that makes verified predictions, that is self-correcting, and is fruitful of new knowledge (Popper 1959; Root-Bernstein 1981).

I am aware that the shadows of error and heresy from the past are spread darkly over questions about why history happens. Social Darwinists once grossly abused the concept of evolution by natural selection to write caricatures of history. More seriously, eminent philosophers and

historians, from Marx to Toynbee, wrote of history as if it were a deterministic process. They used the language of science, even of physics as they talked of 'forces' that controlled the destinies of nations. But theirs were not scientific theories, as Popper (1956) showed so trenchantly. All were forms of holism (Smuts 1926) and failed to lead to falsifiable hypotheses.

Ecology had its own struggle with holism and pulled clear. The prophetic extrapolations of an historicist (Popper 1956) are almost one with some of our early ideas of succession and climax. Clement's (1916) 'As an organism the formation arises, grows, matures, and dies' sounds like Toynbee's passion over 'challenge and response' (Toynbee 1934-1961).

The invention of the *ecosystem* by Tansley's generation partly rescued ecology from the mystic side of holism (Tansley 1935). Systems theory would henceforth replace sociology in our studies of communities; and deterministic philosophies of community development should be thrust into the

backwaters of our profession (from which they are regularly dredged by political activists). Attempts to apply the Tansley logic to human affairs were made and continue (Forrester 1971; Odum 1971; Meadows *et al.* 1972; Naroll, Bullough & Naroll 1974; Butzer 1980). If the success of these models is limited it may be because systems models cannot predict novelties. Substitution of materials or demand confounds detailed predictions of the Forrester world model rather as unforeseen increments of food supply confounded the detailed predictions of Malthus.

Yet the ecosystem was not our only approach to understanding community processes and perhaps we made more progress by working to master the strategies of individual species. This is the approach I shall now try to bring to human communities.

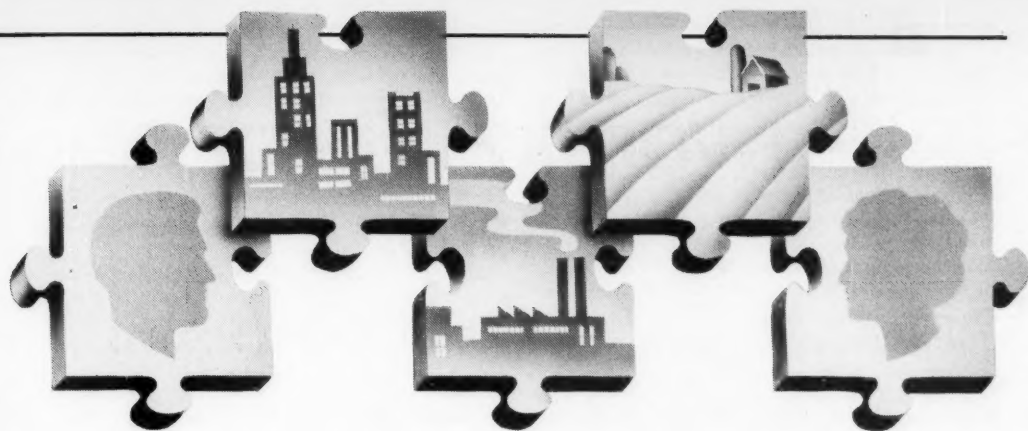
### THE LEARNED HUMAN NICHE

I offer the following working definition of a niche: *a niche is a specific set of capabilities for*

*This biologist, a zoology professor at Ohio State University, gives new meaning to the term "family planning." Peter Marshall wrote in his Next Whole Earth Catalog review (p. 57) of Why Big Fierce Animals Are Rare, "Colinvaux writes elegantly with a true philosopher's burning skepticism and passion for the Nature of Truth." Besides presenting a radical theory of history, Colinvaux explains why my old ecology teacher Paul Ehrlich was wrong about population in the '60s and that occasional Presidential candidate Barry Commoner was right. (Barry claimed that pollution was more important than population, which was wrong, and that "industrial transition" would take care of population levels in underdeveloped countries, which is looking to be right.)*

*Jim Ludtke is a free-lance illustrator (for PC World and such) currently moving from San Francisco to New York, both towns where clutch is practically nonexistent.*  
—Stewart Brand

Reprinted with permission from *The Journal of Ecology*, Vol. 70 (1982). ©1982 British Ecological Society.



extracting resources, for surviving hazard, and for competing, coupled with a corresponding set of needs.

People learn their niches. Indeed, a good one-line definition of *Homo sapiens* is 'the animal that learns its niche'. Human infants are utterly helpless, not just for days or weeks like the young of a few other animals, but for twenty years. They must learn what to eat, where to live, and how to behave, and virtually every part of the niche in which they are to live. It is tempting to think of the great advantages these learning powers give the human species, but I think it more profitable to look first at the handicaps and dangers.

One obvious danger is of learning the wrong thing. The young might learn bad habits as well as good, eventually paying the price in lost fitness. But a more subtle, and perhaps more serious danger is that learning would continue too long and so prevent settling down in a satisfactory niche to win resources and raise young — the adult with young should be an optimal forager, not an experimenter.

The twin dangers of learning a niche suggest that learning should be allowed by natural selection only if two conditions are met:

1. the young are constrained to live in a satisfactory niche until they have learned it fully; and
2. learning is impeded once a satisfactory niche has been mastered.

These two predictions of the hypothesis of niche-learning are hard to falsify. The long human juvenile period serves to apprentice young to parents whose very breeding success is evidence that they have learned a satisfactory niche. And it is a common observation that people learn rapidly as children and adolescents, though poorly as adults. Natural selection apparently has frowned on life-long learning.

The compensating advantage of learning a niche is the prowess it offers for occupying fresh environments or responding to environmental change. By learning, all of a clutch may be trained to a new way of life, which gives more fitness than the traditional method of letting all but the most appropriate variety perish.

As the later hominids evolved they must increasingly have found fresh niches by learning in advance of the morphometric changes likely to be the subject of character displacement. Difficulties with hominid taxonomy may well reflect this fact. But the first population consequence from niche-learning of which we have clear evidence was the occupation of virtually all geographic regions of the earth by hunter-gatherer peoples. Ways of life suited to places as different as African rain forest and Siberian tundra were found for this one species by niche-learning before 20,000 years ago (Livingstone 1971). No Darwinian species with a fixed or only slightly malleable niche (i.e. all species other than *H. sapiens*) has achieved anything like this range.

These widespread local populations had no need for genetic isolating mechanisms since their different niches were fixed by other means. Founder effects, behavioural mate selection learned from founding ancestors, supplemented by selection for physiologically adapted morphs, produced geographic races. But the capabilities needed for their very different lives were learned and not inherited. These human races must be similar in all but superficial matters. To expect to find, for instance, differences in intelligence between them must be absurd.

If an animal can learn its niche, it must be able to learn niches of different size; a small niche (peasant, labourer) or a large niche (physician, engineer). A small human niche is also 'narrow' in that there are few variations open to the individual so trained. We can be taught to get by with food, water, learning time, sanitation and little else. Calculations by demographer-agriculturalists of the largest human population that the earth can support assume tacitly this smallest and narrowest possible niche.

But we can also be trained for life in a very broad niche where there are many options open for narrower, though still large, niches. A physician's children, for instance, are likely to be broadly trained so that they can adopt a variety of different lives of physician quality; lawyers, priests, government officials — all large niches within the broad niche of an educated class.

We recognize the presence of a broad-niche population by a number of essential properties. Liberty is certainly one such property; self-respect of the kind meant by the French *la gloire* is another. A useful general definition of the broadest human niche might be to say that it provides, as axes to its hypervolume, inalienable rights of life, liberty, and the pursuit of happiness. Many narrower realized niches are possible within this broad fundamental niche requiring that very many resources of the habitat are required for a population to be trained to so broad a niche as liberty.

The first part of a theory of liberty emerges from this analysis. Liberty is possible only when the population is low compared with the resources that the population can release. This is a necessary, though not sufficient, condition for liberty. The other necessary condition is an absence of police oppression which, as we shall see, is also a function of resources and the number of people trained to broad-niche living.

The learned human niche has in common with niches of other animals that it tends to be fixed once mastered. People are conservative in habits because conservatism is necessary if niches are to be learned. To learn a trade and then to stick with it is the way we are programmed.

A subtle addition to this central fact of human life is that we actually learn to *perceive* a niche, and then to act in accord with that perceived niche. All humans can work as agricultural labourers but once trained to broader niches an individual tends strongly to act as suited to the large niche and to reject the small. We learn a niche, we recognize the niche we have learned, and the niche once learned is very largely fixed.

#### THE HUMAN BREEDING STRATEGY

Humans raise young in a family. I suggest that this family is to be seen as a single clutch\* put together by a process of sequential births. Ours is a reproductive strategy which appears to be unique, though it is a modification of simpler sequential birth strategies of other primates (Hrdy 1981). The strategy imposes the constraint that clutch be regulated to an optimum size, a proposition that is supported with ample data from birds (Lack 1968; Klopfer 1969). Humans, therefore, should regulate clutch.

But the human sex system does not seem suited to regulating the number of offspring. Our females ovulate roughly every lunar month and our males have an interest in sex that is virtually perpetual. Doubtless this bizarre system of sex has selective advantage from various social roles (Morris 1967; Hrdy 1981; Lovejoy 1981). But it certainly holds the danger of a ruinous overproduction of young. Human fitness requires that we be provided with ways for restricting the baby flood. Both contraception and culling seem possible, even for primeval humans.

People can and do decide when to copulate, the matter particularly being under female control. Burley (1979) has even argued that female denial of conception in our ancestors might have been so strong that hidden ovulation appeared as a device to restrict the damage to fitness that reducing the clutch to less than optimum size would bring. Be that as it may, the device of 'not now John' always has been available.

There is a wide literature showing that fertility of women declines with lactation or privation (Frisch 1978; Howell 1979; Bongaarts 1980). These effects would ease the baby flood in some circumstances, prolonged lactation, for instance, being an efficient method of birth control. Various social taboos may check conception too, but the simple act of killing surplus infants should meet more neatly the requirement of arranging an optimum number.

Infanticide in other primates certainly is widespread but it is a device to serve only the fitness of polygynous males acting to free females so that these males may inseminate them themselves (Struhsaker 1977). Even very pessimistic views of human nature can scarcely attribute such motives to the occasions when humans indulge in infanticide. What can be served by the practice is the regulation of the human clutch. For this purpose, infanticide increases human fitness and ceases to be the Darwinian puzzle it must be if it is imagined that people kill babies to control population. We have a nice data set from eighteenth century Japan (Smith 1978) where people in Tokugawa villages assessed their needs most carefully before deciding whether to let an infant live. I suggest that scrutiny of all records of infanticide will show that the act was always done in the perceived interest of the family not of the population.

It is plausible, then, to argue that human clutch always has been regulated both by controlling conception and culling the surplus. We still do both, though our methods are more convenient than in olden times. Individuals should, of course, assess the possibility of loss when deciding on the size of family they would attempt to rear, making allowances for expected losses from accident and disease. Building clutch through sequential births is particularly handy to cope with accident since it gives opportunities to replace losses as you go, so that humans always had the power to meet changes in infant mortality with changes in clutch. But more interesting is the conclusion that humans should always allow for their perceptions of niche size when arriving at how many children is optimal. Family size should be an inverse function of niche size.

It takes many resources to raise children to the expectations of a broad or large niche. Parents in these perceived niches are wealthy by definition, yet so much is required for the raising of each child that they can still afford only a few. But raising a child

\*A clutch is a group of offspring, cared for by parents or representing a heavy parental investment per offspring, and raised synchronously.



**Infanticide increases human fitness and ceases to be the Darwinian puzzle it must be if it is imagined that people kill babies to control population.**



to a small niche is relatively cheap, and the cost may actually be defrayed by adding the child's labour to the resources of the family. Poor people, therefore, can afford more children than can the wealthy, in spite of their poverty. An hypothesis that *H. sapiens* should regulate clutch to an optimum thus predicts the essential properties of the demographic transition (Teitelbaum 1975; Weinrich 1977).

Yet if an animal with the life history of *H. sapiens* is to optimize clutch it has to do something far more interesting than prevent a few conceptions or kill babies. It has to estimate what resources will be needed, and can be won, over more than twenty years. Birds with strategies of optimal clutch assess resources by simple feedback from the food supply, presumably worked by hormonal assessment of maternal fat or feeding rate, but humans need a sensing device that will forecast the resources of the next twenty years. This sensor turns out to be in three parts — intelligence, language, and grandmothers (or other 'non-productive' oldsters). These three together let us forecast the future by extrapolating from the experience of the recent past. I suggest that a prime selective force for the preservation of all three was their service to our fitness in letting us estimate what clutch is optimum for our perceived niche.

It should be noted that all birth control devices in humans, whether contraception, abortion, or infanticide, are devices to keep families at optimum bigness, never devices for population control (Colinvaux 1976). They could, in principle, be used for population purposes but only if individuals agreed to reduce their own fitness. For a theory of history it is parsimonious to assume that this has never happened.

#### THE THEORY OF HUMAN DEMOGRAPHY

When an intelligent animal works a strategy of optimum clutch the expectation must be that the

numbers of surviving children will exceed the needs of replacement. If, as is a reasonable working hypothesis, human numbers in the Pleistocene were roughly constant for long periods as for other long-lived animals (Goodman 1974), we need to ask how the surplus offspring were winnowed. The simplistic answer offered by many discussions of human demography is that excess offspring die so that the 'birth rate' is balanced by the 'death rate'. In the most abstract sense this must be true. We all die in the end and if we do not live to reproduce, then we certainly die without reproducing. But this does not seem to explain very much.

The event of importance in the lives of most long-lived, social animals is not so much death as recruitment to the breeding population. This is so, for instance, in territorial birds (Klopfer 1969) where finding a territory defines whether an individual shall breed or linger on alone. Mortality for a surplus bird merely confirms the decision made when it was unable to find a niche space in which to breed. Resources to support a bachelor or spinster bird may easily be found in marginal habitats and their early demise is not necessary for population stability. For an animal like *H. sapiens*, programmed to learn a complex social life, bachelors and spinsters can probably win fitness by remaining with, and helping, the breeding pairs who are their siblings. Their personal demand on resources would be minimal.

Bars to admission to the breeding population, therefore, are predicted to be the most important of human demographic parameters. The simplest of these is delayed marriage, a device demonstrably human which works by providing a zero class of individuals whose marriages are so delayed that they never happen. Delayed marriage is the result of many recorded human practices, including doweries, requiring evidence of economic success in males, tribal initiation ceremonies and so on.

A parsimonious theory of primeval human

demography, therefore, can be built from the concept of an animal with a single clutch built to an optimum through sequential births, together with a system of variable bars to recruitment to the breeding population. This theory should be sufficient to account for stable populations of humans in all habitats of the earth during the Pleistocene. Imposed mortality from epidemics or accident should be treated as random perturbations to which human demographic parameters can respond quickly. Both the size of clutch and the rate of recruitment to the human breeding population are functions of size of niche so that both will be manipulated as people learn new niches or secure fresh fluxes of resources. It is these things, not imposed mortality, which are prime causes of changes in human numbers.

Death from tribulation or disease is not a parsimonious explanation of historical events. And yet fascination with mortality is widespread amongst contemporary historians and politicians — as physicians are blamed for the population crisis; or the 'white man's diseases' are the scapegoat for the subjugation of indigenous peoples of the Americas (McNeil 1975). A curious extension of this logic is to blame the medical profession for rising numbers in the third world. Medicine is said so to have reduced infant mortality that population is 'out of control'. But this view depends on the unstated hypothesis that human numbers were set from times immemorial by infant mortality. The human breeding strategy makes this postulate implausible. Physicians are not to blame for the 'population crisis'. Numbers rise because people see more opportunity to raise families in an industrialized world.

I now offer the hypothesis that human demography results as humans regulate clutch in accord with both perceived niche and available resources, that they act to secure recruitment of as many of the resulting offspring as possible, that they accommodate the surplus still remaining by bars to recruitment to the breeding population, and that imposed mortality is seldom a prime cause of population change.

#### AGRICULTURE AND INITIAL CONDITIONS FOR A THEORY OF HISTORY

History began with the inventions of agriculture and herding. This is so obvious, or even trite, a statement that it is well to examine carefully the real change in the human condition meant by these inventions. Both represented new niches, certainly, but the inventions implied more than this. People had learned that changes of niche were possible; indeed that change of niche was an appropriate response to the needs of recruitment. Limits previously imposed on human numbers by a conservative niche were removed. People could invent entirely new niche spaces to recruit surplus adolescents, or at least tamper with ecosystems so that more traditional niche spaces were made.

I am not sure that a completely satisfactory prescription of the conditions needed for the invention of agriculture itself is possible, but there are suggestive possibilities. The invention entails abandonment of tried and true ways; essentially of refusing to listen to what elders advise. This might be particularly likely after long adversity when the predictions of elders were repeatedly confounded. Furthermore, change especially would be easy if populations were low, because then the pressing rituals associated with recruitment bars would be relaxed. Without these bars there would be less pressure for every individual to conform, and this is an essential precursor to invention. It may be that the necessary hard times and fall in population were brought on in the waning millennia of the ice age.

A sensible way to look upon late-glacial events is to say that the beneficent and familiar climate of the last glacial maximum gave way, through a time of unpredictable hazard, to the novel, and therefore hostile, climate of the Holocene. I am not being quixotic in describing the glacial climate as benign, for it was the climate in which we evolved. Furthermore, changes in geography and vegetation south of the ice sheets probably left a world more suited to hunter-gatherer humanity than the world we know, because there was more savanna, less forest, and large plains now inundated by the sea. The insertion of late-glacial climatic catastrophes, followed by the alien landscapes of the Holocene, into this benign normality should have undermined conservative ways of doing things. Through errors in estimating clutch, probably in the direction of being too ambitious with the consequent loss of whole families, a real population fall might result.

Other plausible hypotheses for the invention of agriculture have been offered (Cohen 1971), but they all rely on environmental change as a trigger, though some want the change to be for 'the better'. But it is the consequences of the invention that are important for the understanding of recorded human history and these are the same whatever triggered the invention. People had learned to change niche as an appropriate response to social problems of recruitment; they had come to live in dense settlements; and there were subpopulations living in different niches within a single society. The initial conditions (Popper 1956) required for an hypothesis of history were then met. There are three initial conditions:

1. the breeding strategy continues to be one of optimum clutch decided on by individuals guided by learning;
2. the habit has been acquired of learning new niches to allow free recruitment of all offspring raised to maturity; and
3. there are present subpopulations living within one society in niches of different size or breadth.

It will be noticed that these initial conditions get round Popper's (1956) objection that novelty cannot be predicted. Novelty is constrained as a function of niche. The important effect of novelty is to permit free recruitment, or to broaden niches, with

**Children in each subpopulation will be trained to the niches of their parents, so that each subpopulation is likely to maintain its breadth of niche from generation to generation.**



consequences for both individuals and populations which can be the subject of formal examination by hypothesis and test. The details of the novelties themselves are unimportant, though classes of novelty can be recognized.

*Agriculturalists change or create niches to permit free recruitment to the breeding population, requiring that numbers increase. The hypothesis thus predicts the secular rise in population that we know to have occurred, and it does so without any speculation about birth rates or death rates. It may actually be that clutch size would increase in agricultural states but only additional recruitment is needed for growth. Populations should continue to grow until invention ceases or simple resources are all spoken for.*

#### **THEORY OF CASTE, WEALTH, AND POPULATION STABILITY**

In all human societies, following the invention of agriculture, there will be subpopulations living in niches of different breadth or size. Children in each subpopulation will be trained to the niches of their parents, so that each subpopulation is likely to maintain its breadth of niche from generation to generation. The result is a tendency towards a ranked hierarchy of niches which, in its extreme form, we call a caste system. Since children learn the niches of their parents, and cannot easily change as adults, a caste system is predicted to be self-perpetuating.

People of a high caste occupy a broad niche, with a number of narrower specialties being possible. To enter the breeding population they must have wealth, which is the power to command resources. Reproductive pairs in a high caste must be rare as top carnivores are rare (Lindeman 1942; Colinvaux & Barnett 1979). Low caste people are poor, with

small, narrow niches and a low flux of resources per individual. They are thus relatively abundant.

An arrangement of ranked castes, with high caste people being rare and low caste people common, thus becomes understandable and suggestions that human castes are analogous to insect castes are unnecessary. Human castes are peculiarly a property of niche-learning and nothing like them should be expected in any other species.

Each human caste should have its own niche and its own set of resource requirements like a Darwinian species, and each should act as an independently reproducing population with its own mate selection, clutch size, and system of recruitment. These properties were certainly present in the classical caste systems of India and elsewhere (Hocart 1968). In these systems, therefore, we can expect that each caste has its own and separate population problem. This should, as usual, appear as a need to impede recruitment of surplus adolescents to the breeding population.

The need to deny recruitment should be progressively more apparent as the caste hierarchy is ascended. In the lowest castes close to subsistence the problem of recruitment may be so slight as scarcely to be noticed. One more mouth to feed is not much. But finding all the resources for an extra member of a high caste is a different matter. The problem can be placed in modern terms by imagining a physician with four children, all of whom have to be found jobs as physicians or equivalent. If all people of physician rank have four children, the recruitment problem is both obvious and of very different scale than the problem of finding room for extra agricultural labourers.

If ways are found for regular increases in resources and niche-space during times of expansion, it may be that recruitment bars can be kept to a minimum in all classes. The hypothesis then

predicts, however, that the greatest ingenuity in finding resources or invention should be in high caste populations because in these the needs are greatest. People trained by wealthy parents to be able to take up one of the occupations of the broadest niche all experience the difficulty of finding adequate employment and living. They, aided by their parents whose interest in their fitness is as great as their own, may face the choice of a proper career or failure to rear a family. Their own perceived needs are the parameters of the niche that they have learned and they cannot be abandoned easily. The choice is one of being ingenious in finding a new niche or 'fail', possibly to remain celibate, otherwise to join the community of an alien, poorer way of life. This difficulty does not arise for the poor whose narrow niches do not require invention. Their perceived needs, being simple, are always met in times of expansion. When growth fails the poor can still recruit, but to smaller niches still, eventually paying the cost in reduced fitness by accepting a smaller optimum clutch.

The chance of any young person of the broad niche population finding a new way is partly a function of the attitudes and needs of the others of that class and society. When growth fails, or invention stagnates in the whole community, then there may be no salvation from ingenuity. Some of the offspring from wealthy families cannot be found niche-spaces in the breeding population and must be excluded. For the poor agricultural labourer this dilemma scarcely can arise. In times of economic stagnation therefore, the wealthy will erect new recruitment bars though the poor do not. Thus ingenuity in finding new niches and in establishing bars to recruitment are both special properties of broad niche people. These are the subpopulations who are predicted to produce the novelties that must be examined for a theory of history to be possible.

Population stability within a high caste is possible only if sufficient surplus offspring are barred from breeding within the caste. Apart from killing, which humans learn to avoid (probably because of the danger to one's own fitness lying in retaliation), there are only two expedients possible — expulsion from caste or a non-breeding occupation within the caste. The hypothesis predicts, therefore, that delayed marriage or celibacy will be prominent in high castes of stable societies. The elaborations of celibate priesthoods, marriage doweries and the like known to history in high caste societies are consistent with this prediction.

A direct historical record of a select caste barring recruitment in a spectacular way is the Taiho Code of Japan promulgated in 702 A. D. which disinherited all imperial offspring after six generations, except for the direct imperial line. This disinheritance may perhaps have been as much an expulsion from caste as a true recruitment bar. Ordinarily expulsion from caste should be harder for an individual to accept than a bar to recruitment. More fitness lies in leaving caste to marry, but humans are programmed first to learn their niche

and then to breed in it. Accepting celibacy in the caste to which you have been raised rather than breeding in another is one of the strange costs of niche learning, perhaps analogous to the bird who, having failed to find a territory, retreats to marginal habitat without breeding.

Some individuals, however, apparently always have been ready to lose caste in the pursuit of marriage and fitness, even in India (Hocart 1968). But the difficulty of accepting the constrained niche of a lower caste is echoed in the western term 'marrying beneath you' and its problems are so evident that they provide a ready subject for melodrama.

If loss of caste in order to breed is a real option, stability for the whole population is possible only if the lowest caste has a complete and separate control mechanism of its own. But the hypothesis predicts that in the lowest caste recruitment bars will be minimal or nonexistent. Without recruitment bars the poorest people will become so crowded that resources become very short for child-rearing. Although, therefore, relatively poor people should have the largest families, extreme poverty induced by crowding can deny even the scant resources needed to rear children to niches of poverty. Optimal clutch will then fall to replacement or below and the poorest caste will have stable or falling numbers even without recruitment bars.

It is less parsimonious, though perhaps plausible, to postulate for the poorest caste high death rates from disease, malnutrition, or accident such that efforts to raise an optimum clutch above replacement are frustrated. The effect for society would be the same as that predicted when the lowest caste has an optimal clutch below replacement.

The hypothesis predicts, therefore, that population stability is possible for a society of castes when three conditions are met:

1. recruitment bars are maintained in high castes;
2. individuals can lose caste to marry beneath them; and
3. the lowest caste is so poor and so crowded that its numbers fail to grow even without recruitment bars.

It now appears that 'outcastes' like those in India are necessary to the preservation of civilization unless, of course, the breeding strategy is changed.

---

#### THEORY OF THE EXPANDING STATE: EMERGENCE OF COMMUNITY PROPERTIES

---

Following the invention of agriculture the population continues to rise and there exist subpopulations living in niches of different size, some wealthy, some poor. All recruitment bars will be relaxed. Population should grow fastest in the poorer classes but the effect of population growth should be felt seriously only by the wealthy. Options open to the wealthy with power in the state are of two kinds only: to invent fresh niches for their offspring, or to construct fresh recruitment bars against



*Accepting celibacy in the caste to which you have been raised rather than breeding in another is one of the strange costs of niche learning, perhaps analogous to the bird who, having failed to find a territory, retreats to marginal habitat without breeding.*



their own descendants. Individual fitness is best served by the search for fresh niches which should, therefore, come before bars to recruitment.

There are only five different ways in which more high-quality niches can be found:

1. technical invention leading to complexity;
2. trade;
3. colonies (people export);
4. empire building (wars of civilization); and
5. oppression.

I shall argue that all five of these expedients are likely only as they serve the recruitment needs of broad-niche people who alone can invent them. Perceived needs of the masses are seldom important to any of the five. Three of these expedients, trade, colonies, and empire, are causes of war and a fourth, oppression, requires an armed police.

#### Technical invention

A major technical project provides jobs (niche-space) for engineers who build it and bureaucrats who administer it. It is an accidental consequence that, say, an irrigation system provides also large numbers of occupations for poorer people who become dependent on it. The recent development of high yielding cereals with massive fertilizer and chemical control requirements, for instance, provides exciting lives for agricultural technologists and industrialists but its consequence is likely to be an increase in the number of people living at subsistence. All inventions are comparable whether mercantilism, bureaucracy, priesthood, or the law. All serve the purpose of providing large perceived niches to which rising numbers of the better-trained can be recruited. As they are invented, society should grow more bureaucratic or complicated, but this lets numbers in all ranks continue to grow. There should always be a lag between technical advance by broad-niche people and an increase in numbers of the poorer class that follows.

#### Trade

An obvious property of trade is the physical transfer of resources from distant places, and it is this property that is stressed in economics thinking. But this view leads to seeing trade as something undertaken for the needs of the consumer and would be hard to allow in a hypothesis that individuals act to maximize personal fitness. A more parsimonious explanation is that trade serves traders directly, any service to consumers being an accidental consequence.

There is very fine large-niche living to be had in the profession of trade: traders travel, they plan, they command others, they interact with many people and problems, and they may even grow wealthy so that they may retire to a large niche-space at home. But an inevitable *consequence* of trade is the transport of goods, food or raw materials. This is predicted to have the further consequence of increasing the chances of recruitment to smaller niches within the parent state. Because trade provides jobs for the poorer classes in making the articles of trade, and because it brings in food for their families, trade may actually work also to increase the optimum clutch of these classes. Through extra recruitment and increased clutch, therefore, trade should cause rapid population growth *after* it has begun.

A yet more important consequence of trade may be its need for weapons. Trade caravans or ships represent concentrated loot: trade must be carried on in other peoples' lands; traders, therefore, should take a cost-effective approach to the need to defend their possessions. Investing in soldierly acts, weapons and armour is required for business. This is a satisfying conclusion because it explains preparation for war as an activity in the service of fitness, making the devotion of the armourer and soldier wholly rational.

#### Colonies (people export)

A colonial enterprise is the most elementary way

of seeking extra niche-space. Three properties of colony building only require comment. Colonials should be the offspring of broad niche parents. The null hypothesis that colonials come from the masses is easily shown to be false (data from classical antiquity, Spain and England in the New World, Japan in Manchuria, etc.) except for the custom of transporting convicts. Convicts, however, staff the enterprises of those ambitious to build large niche lives from colonies for themselves and are coerced by these people.

A second necessary property of a colonial endeavour is a suitable victim — a community of people who use their land at low density or whose weapons are inadequate for defence. The last requirement is that colonials use technically advanced weapons and are prepared to soldier.

Every colonial venture, except in very strange circumstances like the colonizing of Greenland, must occupy land that already is fully occupied by people. Perhaps land to be settled has populations of people living at low density, because of hunting-and-gathering or primitive agriculture, but the land will yet be full of people living in these ways. The taking of any land for use by other life styles which can persist at higher densities must reduce the carrying capacity for the original inhabitants. If they 'negotiate' away land they must reduce their own ability to recruit into the breeding population. Individual original inhabitants should resist and the colonists must use force. Colonization, therefore, always is an armed aggression.

#### Empire building

Land annexation by aggressive war is a logical extension of people export and trade. People have learned in these activities to what uses weapons and discipline may be put and they have learned to live in broad soldierly and governing niches. A war of aggression offers expanded niches from land, loot, and bureaucratic occupations in the conquered territory. War in this analysis, therefore, is a logical enterprise designed to win fitness for those engaging in it. This aggression is a learned activity neither homologous nor analogous to agonistic behaviour in any species including *H. sapiens* itself. Successful conquest secures an empire, the governing of which offers ample opportunities for recruiting the conquerors and their descendants to breeding populations in broad-niche lives. The British Empire, for instance, gave excellent living to the educated Britons who ran it. I suggest that the opportunity of governing other people was the reason for building the empire beyond what was required for trade and the export of people. This is what underlies Barnett's (1972) observation that Britain scarcely exploited the empire's physical resources; those were not the object.

#### Oppression

It is tempting to see oppression merely as a device to secure unequal shares, yet this may be the smaller part of the effect. The immediate result of starting

an oppression is work for the oppressors. Tyrannies need an apparatus of policemen and soldiers, thus providing supervisory niches at many different ranks in a class hierarchy, suggesting that there can be few more effective ways of accommodating surplus offspring of soldiers, policemen, or the bureaucracy. Oppressing the mass, therefore, should become a habit of ruling classes when other ways for employing their surplus numbers are exhausted. Police control in some countries may become a welcome casualty of affluence, therefore, as better occupations are found for policemen.

This analysis of the five ways by which new niches can be found lets societies develop entirely as the result of the doings of individuals seeking fitness. It is logic comparable to that which explains succession as the replacement of opportunists with equilibrium species (Colinvaux 1973) that reveals the causes of trade, war, and tyranny. The same logic can yield an account of the fate of a nation when all expedients for finding fresh niche-spaces falter.

---

### THE WANING OF NATIONAL POWER

---

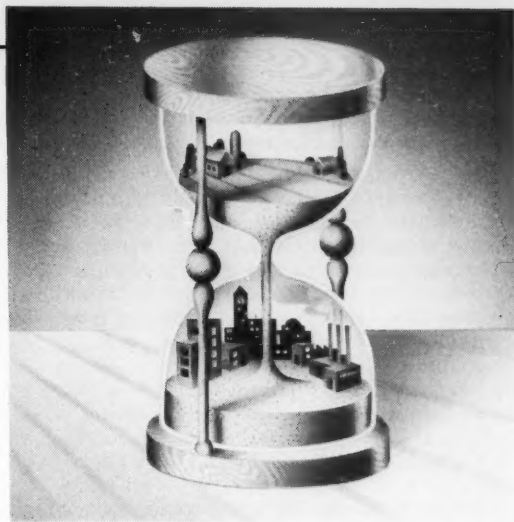
The five expedients for inventing new broad-niche space all have inherent limits. For aggressive empire building these are set by contemporary logistics and weaponry. For both aggression and colonies there are limits of available land and victims. Trade also finds limits from without the parent state, as well as limits imposed by the techniques of travel. Limits are set to oppression by human tolerance and competition between oppressors. Only the technical fix is in theory unlimited, within esoteric boundaries such as those set by entropy or the speed of light.

Yet there are real practical limits to expansion by the technical fix, all the same. The process is constrained by the capacity to learn of individuals required by the natural selection model to be conservative in changing niche. Change is thus inherently slow, and keeping pace with increasing numbers in the broad-niche population by recurrent technical change is inherently unstable.

As the rate at which new niche spaces can be found slows, there may be some slight effect on optimal clutch of broad-niche people as individuals notice that times are hard and plan accordingly. Yet average clutches should still be well ahead of replacement so that there must be a high probability that the numbers of those trained to broad niches will grow faster than appropriate niche spaces. Societies with mass-education face the extra difficulty of recruiting the children of small-niche parents who have been taught the perceptions of a broad niche. Social difficulty for middle and upper classes, therefore, should follow closely the end to physical expansion of the state.

At the same time the better-off should have to live in a society with noticeably rising numbers in the mass, as well as in their own ranks, because there is no reason for clutch-size in the poor to fall. This might actually promote continued multiplication of

*Wealth is to be made by attending to mass needs. The corollary should also be true, that needs of individuals of the mass are best met by attending to the needs of wealth. Shifts of mass population in ways that serve entrepreneurs are a result. This is the phenomenon known to history as the drift to the towns.*



broad-niche spaces as more organizers are required to govern and feed the mass. Yet this should produce a fresh emergent property of the state as control of the mass becomes a prominent occupation of the better-off. The bureaucracy and the police expand as respectable occupations.

Wealth is to be made by attending to mass needs. The corollary should also be true, that needs of individuals of the mass are best met by attending to the needs of wealth. Shifts of mass population in ways that serve entrepreneurs are a result. This is the phenomenon known to history as the drift to the towns. The social process of drift to the towns is actually a number of individual movements that can be understood without a theory of group behaviour.

It should be characteristic of this stage in the history of a state that military technique stagnates because there is no longer good living to be made by aggressive soldiering. Soldiers are now policemen and soldiering is no longer likely to attract entrepreneurial individuals. This was the reason for failure of military technique in the later Roman Empire and for the man-power shortage in the Roman army.

Other changes in broad-niche living are those described as properties of the upper levels of caste systems — cultivation of the arts or abstruse scholarship, perhaps grandiose architecture and other make-work enterprises of the better-off, increasing class consciousness that preserves the illusion of a better way of life. And with these developments should come the re-erection of barriers to breeding in the upper classes, a renewed interest in celibate religions in which one's children can live respected lives as priests, or the imposition of dowries and other impediments, or deferrals of marriage. People are now building a society with a formal caste structure and the eventual possibility of a quasi-stable population. These changes are described in deterministic models of history as the result of social growth. But the changes are really the result of altered circumstances of individuals.

The further fate of the nation should depend on the ambitions and reproduction of people outside its borders. Its own military arts have been neglected and its accumulation of physical property will be a tempting target for military adventurers should a neighbour be in that state of hopeful expansion where soldiering offers a good chance of extra large niche-spaces. The caste-based nation should be conquered as soon as neighbours are available who, because of low population density or high technology, are relatively free. The rewards to the free-born conquerors are both loot and the good lives that can be led in administering the conquered territory.

After the conquest there should be a fall in population, but not before. Population should continue to rise into the waning days of empire even if slowed by a caste system and recruitment bars. The state weakens, perhaps suffering a man-power shortage for the army and kindred trades, even as the population grows. Population should fall only after military collapse and subjugation. The fall is not because the invaders kill people but because government collapse, subordinate status (even slavery), and evacuation of towns make child-rearing so difficult that optimum clutches are small. Death through old age then reduces the population.

#### THE GENERAL ATTEMPT TO FALSIFY

In a model of history the predictions become postdictions or retrodictions and we are cursed with the benefits of hindsight. Yet this is a condition familiar enough to paleoecologists and it is perfectly possible to 'coax history to conduct experiments' (Deevey 1969).

The most pressing danger offered by hindsight is the extraordinary array of observations that are instantly available. The investigator's mind is not concentrated on the few data yielded by experiment but instead commands a multitude of observations from many parallel experiments. The tempter will

work to let you sort out those data which seem to confirm the hypothesis rather than those which will, if found, deny it. A scientific historian has particular need of the device of the null hypothesis.

Yet it is not totally without merit to compare the course of national histories predicted in the last two sections with the records in our history books. Historical facts tend to have been gathered to bolster hypotheses in the way we must avoid, but the hypotheses used were not scientific hypotheses. Macaulay's marvellous writing uses data to serve an inspired story; Gibbon, Hodgkin, Rostovzeff, or Jones had their own several views of the Roman crisis; the historicists Marx and Toynbee sought, with passion, data to confirm holistic hypotheses of political or spiritual drives in human affairs. And yet the common data of various schools of history are easily recognizable as the predictions of the ecological hypothesis (Colinvaux 1980). Patterns of trade or war in expanding states, or of oppression, bureaucracy, recruitment bars and caste in ancient nations, are as predicted. This sequence of events is, in fact, so familiar that the recounting of them has led to ideas of there being cycles in history, or to statements that the present repeats the past. These events are now parsimoniously explained as group phenomena emerging from the doings of individuals acting independently under the dictate of natural selection. The patterns of wealth, number, and ambition which lead to events as diverse as revolution or nomad aggression against civilized states are also predicted by the hypothesis (Colinvaux 1980).

With adequate data, powerful tests of the hypothesis should be found by seeking to falsify its population predictions. For these tests to be valid, however, there must be critical scrutiny of the source of population data. There must be many assertions in the literature such as the errors about Roman population described earlier, particularly assertions about supposed mortality from disease or due to vaguely defined social calamities. Ridding the data set of the consequences of these assertions will take time and care.

Perhaps the best hope for adequate data lies in China and Japan. The scholarly bureaucrats who came to administer the later Chinese empires may have kept sufficient records of populations in different classes, which will be essential to refute detailed null hypotheses. Recent work gives provocative hints of what might be possible with Chinese data, not only with population records but also with the long development of an empire independent of comparable progress elsewhere (Ho 1969; Elvin 1973). Similar data are emerging from Japan (Smith 1978).

#### THEORY OF WARS OF CIVILIZATION

The hypothesis predicts war between civilized states as an emergent property of individuals seeking to be recruited into broad-niche spaces. The result is an aggression, but something quite different

from the aggressions of agonistic behaviour (Lorenz 1966) or of tribal organizations (Harris 1974; Vayda 1976). A separate term is needed for an aggressive attack by one nation state on another. The term 'civilized war' is tempting, but cannot be congenial to those who think war 'uncivilized'. I suggest *wars of civilization*.

Advanced soldiering is a large niche available, within the constraints of the hypothesis, only in societies where expanding numbers already have resulted from using technical fixes in lieu of recruitment bars. Soldiering is predicted to be learned in the course of trade, colonies or other activities that give a free style of life involving travel. Fighting of these soldiers is divorced from feelings of aggressiveness, except as these are deliberately fostered to do deeds in battle (Kegan 1976). Weapons and armour should be designed to incur as little risk as possible. National aggressions can only happen when those living in perceived broad-niches are agreed that individual benefit can come from the work of soldiers.

A profile of an attacker nation in a war of civilization emerges from these requirements. The aggressor is relatively rich and has been getting richer. Numbers and aspirations have both been rising. The people think of themselves as free and there has actually been a history of a true increase in liberty or well-being. The people must also be conscious of a sense of technical superiority to other peoples deriving from their recent success in applying technical fixes and symbolized by their advanced weapons.

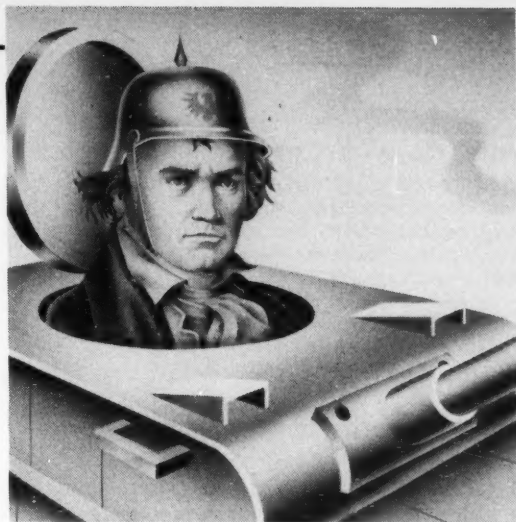
It is, therefore, the most fortunate nations who will start wars. Furthermore, the victims will be the less fortunate, because a war waged on rational grounds can only be a war of the strong aimed at the weak. A war of civilization is an armed robbery waged with superior weapons, and the attacker should always be a nation eminent for its wealth and culture. People wonder at the Germany of Beethoven and Bach devastating Europe, but the Germans attacked *because* they were the people of Beethoven and Bach; also of the inventors of industrial chemistry and new ways for making steel.

A null hypothesis is that wars are often started from the needs of masses, in face of the threat of starvation, or because people are oppressed. Versions of this null hypothesis are sometimes stated seriously as actual hypotheses, like the speculation that a crowded third world country might attack or blackmail neighbours with nuclear weapons (Heilbroner 1975). Recorded history suggests otherwise. In major wars of the western world the empire builder or aggressor has always been a nation prominent among contemporaries for its wealth, sense of liberty, or military technique (Fuller 1954-1956; Montgomery 1968; Colinvaux 1980).

Aggressive Greece and Rome appear in our accounts as free, military republics, and their virtues are remarked. They won their wars with instruments for which their enemies had no technical answer; the



**People wonder at the Germany of Beethoven and Bach devastating Europe, but the Germans attacked because they were the people of Beethoven and Bach.**



phalanx and the legion. The ranks of their armies originally were filled with free volunteers who supplied their own weapons. Rome fell eventually as free Germans, also providing their own weapons and fighting for personal advantage, banded into armies which destroyed the empire as soon as their military technology mastered legionary tactics and when Roman wealth and liberty had ceased to grow.

In wars fought by Europeans in the last half millennium it has been the wealthy who have started the fighting, typically the very wealthiest and cultivated state of its age, first Spain, then France, then Germany, with Sweden appearing as an aggressive power in the seventeenth century at a time of maximum relative wealth. The British, able to base their aggression on a fleet, found softer and more profitable victims in lands occupied by hunter-gatherers or in ancient civilizations equipped with antique weapons on whom the British soldiers fell like German barbarians on the Roman Empire, fighting for British liberty through the subjugation of other peoples.

Against this record it is extremely hard to support the null hypothesis. Imperial wars, great captain wars, and European national wars all start by the wealthiest power attacking others.

There is a curiosity of war fought among European powers these last four hundred years in that they seem without other than trivial result. Strikes for imperial hegemony by Spain, Sweden, France and Germany all ended in almost ignominious retreat to the original boundaries of the aggressor country. These wealthy countries all started their aggressions as the best armed nation, all made large initial conquests, all fought well as united peoples in common cause, and yet all were beaten in the end by their intended victims or their victims' friends. This curious result, so different from the outcome of wars in classical antiquity, appears to be a function of the ease with which the techniques and weapons of European war can be learned and mastered (Colinvaux 1980). Firearms are far easier to learn and

make than a legion or a Macedonian phalanx. Each European aggressing nation began with adequate technical superiority but the method was always copied as soon as it was shown.

Wars of civilization should never be undertaken without decisive technical means for victory, and we find that civilized wars are abandoned when the superiority has gone. Crucial events in the two German wars conform to this requirement: abandonment of the fight by German people in 1918 (the 'stab in the back' when the army could not win); the technical superiority of an expanding torrent array (Hart 1925, 1947) that gave Germany victory over France in six weeks in 1940; the urgency of Hitler to attack Russia while he still had a technical advantage, and the demonstration that he was too late by a Red Army that deployed a similar technique.

This hypothesis of wars of civilization suggests that the world should soon be a dangerous place. Many nations grow in wealth, ambitions, and numbers rapidly. Great powers do all they can to aid this process. And yet this parallel climb of numbers and ambition is the foundation of war. I have argued elsewhere (Colinvaux 1980) that frequent wars, perhaps arising to the scale of the great European wars, are to be expected in both Africa and South America. The greatest powers, U.S.A., U.S.S.R., and Europe, are unlikely to be involved in war in the foreseeable future because their nuclear weaponry makes belief in individual gain from a war, in which their equals might be an enemy, untenable. All wars between civilized states are rational, but super-power war would not be rational. I conclude that modern Russia and America will be of little interest to future military historians.

There must be a definite probability, however, of a nuclear attack by a smaller technically advanced nation, possibly an island, and against a relatively unprepared but larger power. England and Japan have been troublesome in the past, though the Common Market has now absorbed the one, and unprecedented technical expertise has met the aspirations

of the other after a desperate attempt at empire building failed. But other isolated states will arise; small, expanding, aspiring; real island powers, or nations trapped between desert and sea as was the North African power of Carthage. These are the people who are likely to use nuclear weapons, if they can find a target soft enough. This probability suggests that it is in the interests of peace for all large states to have a minimum of nuclear weapons and delivery systems. Peace-loving people might well reflect that a country like India would be less likely to be a victim yet again if she had a small nuclear force.

#### ON THE PRESERVATION OF LIBERTY

The broad niche called liberty is now defined. It is the opportunity for any adolescent to be recruited to any of several large niches of perceived quality, the necessary conditions for which opportunity are perceived resources in excess of the requirements of all the people who seek them and an absence of oppression. Both these conditions were present in the United States of America during its first two centuries; the years when the message of hope went out to the 'huddled masses struggling to be free'. As the numbers within America have crowded, so the sense of opportunity has declined. I have argued elsewhere (Colinvaux 1980) that the university upheavals of 1970 were ultimately due to a realization that the old rhetoric about individual liberty was not as accurate as it once was. Yet Americans keep the police firmly away.

The Soviet Union, with one-sixth of the land surface of the globe at its command as well as contemporary technology, should soon meet the opportunity criterion for true liberty, perhaps as abundantly as in any contemporary state. The task there is finding other jobs for the personnel of the control apparatus; not easy, but not hopeless.

Strangely, Japan on its crowded island has found a formula. The Japanese have kept pace with the demand for broad niche living by continual technical ingenuity and trade, a device which allows few imitators since the Japanese solution requires a significant part of total world trade to be at the service of one nation. Others, of course, have done something similar for a time, yet have always lost liberty and trade in the end to the insatiable demand of rising numbers. But the Japanese have reduced clutch close to replacement. They may remain free long after larger powers have lost their liberty.

The preservation of liberty requires that the resources of a people remain large compared with the number of applicants. Continued liberty, therefore, depends on preventing the population from continuing to rise. Obviously liberty will survive only if we encourage the use of many forms of contraception and abortion, but these can work only if we arrange to want small clutches. The most practicable way to do this may be to grant women true equality to men.

Both sexes equally can be taught all the skills of political, professional, or organizational life. Training our females instead to be child raisers presses them to seek large clutches and puts our liberty at peril. The continued liberty of men may depend on the liberation of women so that the average size of families is made to fall.

#### ON THE ECOLOGY OF HUMAN SOCIETIES

Human societies are simple compared with the multi-species societies of wild nature. Nations are made of subpopulations of a single kind of animal only. It is true that this one animal learns many roles, and that it can change its habits from generation to generation. But the changes are quite narrowly circumscribed and slow, moving a twenty-year generation at a time. The subpopulations all have much in common, having in particular a common reproductive strategy, a common long juvenile period, a common habit of fixing the niche by about the twentieth year. We should take the attitude that human social systems eminently ought to be explainable by the tenets of population ecology.

The ecological description of *H. sapiens* I propose allows working hypotheses to be used in the quest for historical or demographic data. It should no longer be possible to take distant echoes of a social crisis as evidence for a population fall; or to use presumption of a population fall as an excuse to look for traces of epidemics. There can be real theories of human demography or history with falsifiable hypotheses. In denying this, Popper (1956) was wrong.

And so ecology can approach the most remarkable species of all and apply its logic to our own well-being. Happiness, liberty, and war depend on changes in our own numbers alongside changes in the resources we can release. If we would manipulate our future numbers in the interests of future happiness, we need a wide understanding of the causes of family size and of the bars to marriage that people will accept. In this understanding must be a thorough realization of how completely individuals of *H. sapiens* learn nearly all the functions of their life history phenomena (Cole 1954). We even learn our sex roles, making nonsense of the male and female stereotypes of many cultures.

Since Tansley's day ecologists have abandoned holism, first for the ecosystem, then for community models built on the interactions of individual species populations, some *r*-selected, some *K*-selected, some just different (Cody & Diamond 1975; May 1976; Harper 1977). Even the supposed deterministic properties of secondary succession were shown to emerge from the coexistence in one region of species with varied life-history phenomena (Colinvaux 1973). Tansley (1917) himself, in work long before its time, experimented to see how species populations interacted to cause community properties. Human social systems also can be mastered through the approach of population ecology. ■

## ACKNOWLEDGEMENTS

A first outline of this thesis was developed in lectures to students at The Ohio State University in the year of the riots and was expanded during tenure of a John Simon Guggenheim Memorial Fellowship in London during 1971-1972. J. Bartholemew, A. Beyerchen, P. Chesson, E. S. Deevey, and D. Goodman reviewed early drafts. I left England for North America just twenty-five years ago. The Society, in

a sense, brought me home again to give this Tansley Lecture. In my gratitude for this return, I also want to record my immense debt to the America in which I have lived and worked. It is a country generous, peaceable, and tolerant; treating the foreign scholar in her midst as one of her own, to think what pleases him, and to inquire where he will, in the belief that all new knowledge is fruitful.

## REFERENCES

- Barnett, C. (1972). *The Collapse of British Power*. Eyre Methuen, London.
- Book, A. E. R. (1955). *Manpower Shortage and the Fall of the Roman Empire in the West*. University of Michigan Press, Ann Arbor, Michigan.
- Bongers, J. (1980). Does malnutrition affect fecundity? A summary of evidence. *Science*, **208**, 564-569.
- Burley, N. (1979). The evolution of concealed ovulation. *American Naturalist*, **114**, 835-858.
- Butzer, K. W. (1980). Civilizations: organisms or systems? *American Scientist*, **68**, 517-523.
- Clements, F. E. (1916). *Plant Succession: An Analysis of the Development of Vegetation*. Carnegie Institution of Washington Publication, 242.
- Coale, A. J. (1971). *The Growth and Structure of Human Populations: A Mathematical Investigation*. Princeton University Press, Princeton, New Jersey.
- Cody, M. L. & Diamond, J. M. (1975). *Ecology and Evolution*. Harvard University Press, Cambridge, Massachusetts.
- Cohen, M. N. (1971). *The Food Crisis in Prehistory: Overpopulation and the Origins of Agriculture*. Yale University Press, New Haven, Connecticut.
- Cole, L. C. (1954). The population consequences of life history phenomena. *Quarterly Review of Biology*, **29**, 103-137.
- Collinvaux, P. A. (1973). *Introduction to Ecology*. Wiley, New York.
- Collinvaux, P. A. (1976). The human breeding strategy. *Nature*, London, **261**, 356-357.
- Collinvaux, P. A. (1980). *The Fates of Nations*. Simon & Schuster, New York.
- Collinvaux, P. A. & Barnett, B. (1979). Lindeman and the ecological efficiency of wolves. *American Naturalist*, **114**, 707-718.
- Deevey, E. S. (1969). Coaxing history to conduct experiments. *Bioscience*, **19**, 40-43.
- Elvin, M. (1973). *The Pattern of the Chinese Past*. Eyre Methuen, London.
- Forrester, J. W. (1971). *World Dynamics*. Wright-Allen, Cambridge, Massachusetts.
- Frisch, R. E. (1978). Population, food intake, and fertility. *Science*, New York, **199**, 22-30.
- Fuller, J. F. C. (1954-1956). *The Decisive Battles of the Western World* (3 vols). Eyre and Spottiswoode, London.
- Glass, D. V. & Eversley, D. E. C. (Eds) (1965). *Population in History*. Aldine, Chicago, Illinois.
- Goodman, D. (1974). Natural selection and a cost-ceiling on reproductive effort. *American Naturalist*, **108**, 247-268.
- Habakkuk, H. J. (1953). English population in the eighteenth century. *Economic History Review*, **6**, 113-117.
- Harper, J. L. (1977). *Population Biology of Plants*. Academic Press, London.
- Harris, M. (1974). *Cows, Pigs, Wars and Witches: The Riddles of Culture*. Random House, New York.
- Hart, L. B. H. (1925). *Paris, or the Future of War*. Dutton, New York.
- Hart, L. B. H. (1947). *The Revolution in Warfare*. Yale University Press, New Haven, Connecticut.
- Heilbranner, R. L. (1975). *An Inquiry Into the Human Prospect*. Norton, New York.
- Ho, Ping-Ti (1969). *The Cradle of the East*. University of Chicago Press, Chicago, Illinois.
- Hocart, A. M. (1968). *Caste: A Comparative Study*. Russell & Russell, New York.
- Howell, N. (1979). *Demography of the Dobe ! Kung*. Academic Press, New York.
- Hrdy, S. B. (1981). *The Woman That Never Evolved*. Harvard University Press, Cambridge, Massachusetts.
- Jones, A. H. M. (1964). *The Later Roman Empire*. (3 vols) Blackwell Scientific Publications, Oxford.
- Kegan, J. (1976). *The Face of Battle*. Cape, London.
- Klopfer, P. H. (1969). *Habitats and Territories*. Basic Books, New York.
- Lack, D. (1968). *Ecological Adaptations for Breeding in Birds*. Methuen, London.
- Lindeman, R. L. (1942). The trophic dynamic aspects of ecology. *Ecology*, **23**, 399-418.
- Livingstone, D. A. (1971). Speculation on the climatic history of mankind. *American Scientist*, **59**, 332-337.
- Lorenz, K. (1966). *On Aggression*. Methuen, London.
- Lovajoy, O. (1981). The origin of man. *Science*, New York, **211**, 341-350.
- May, R. M. (1976). *Theoretical Ecology: Principles and Applications*. Blackwell Scientific Publications, Oxford.
- McNeill, W. H. (1975). *Plagues and People*. Doubleday, New York.
- McNeill, W. H. (1980). *The Human Condition: An Ecological and Historical View*. Princeton University Press, Princeton, New Jersey.
- Meadows, D. H., Meadows, D. L., Randers, J. & Behrens, W. W. (1972). *The Limits to Growth*. Potomac, Washington, D. C.
- Montgomery, B. C. (1968). *A History of Warfare*. Collins, London.
- Morris, D. (1967). *The Naked Ape*. McGraw-Hill, New York.
- Naroll, R., Bullough, V. L. & Naroll, F. (1974). *Military Deterrence in History*. State University of New York Press, Albany, New York.
- Odum, H. T. (1971). *Environment Power and Society*. Wiley-Interscience, New York.
- Popper, K. R. (1956). *The Poverty of Historicism*. Routledge & Kegan Paul, London.
- Popper, K. R. (1959). *The Logic of Scientific Discovery*. Hutchinson, London.
- Root-Bernstein, R. S. (1981). Evolution, theory and science. *Science*, **212**, 1446-1449.
- Smith, T. C. (1970). *Nakahara: Family Farming and Population in a Japanese Village, 1717-1830*. Stanford University Press, Stanford, California.
- Smuts, J. C. (1926). *Holism and Evolution*. Macmillan, New York.
- Struhsaker, R. (1977). Infanticide and social organization in the redtail monkey (*Ceropithecus ascanius schmidtii*) in the Kimbale Forest, Uganda. *Zeitschrift für Tierpsychologie*, **45**, 1-60.
- Tansley, A. G. (1917). On competition between *Galium saxatile* L. (*G. hercynicum* Weig.) and *Galium sylvestre* Poll. (*G. asperum* Schreb.) on different types of soil. *Journal of Ecology*, **5**, 173-179.
- Tansley, A. G. (1935). The use and abuse of vegetational concepts and terms. *Journal of Ecology*, **16**, 284-307.
- Tetelbaum, M. S. (1975). Relevance of demographic transition theory for developing countries. *Science*, **188**, 420-425.
- Toynbee, A. J. (1934-1961). *A Study of History* (12 vols). Oxford University Press, London.
- Vayda, A. P. (1976). *War in Ecological Perspective: Persistence, Change, and Adaptive Processes in Three Oceanic Societies*. Plenum Press, New York.
- Walle, E. van de (1981). Determinants of human history. *Science*, New York, **211**, 1339.
- Weinrich, J. D. (1977). Human sociobiology: pair-bonding and resource predictability (effects of social class and race). *Behavioural Ecology and Sociobiology*, **2**, 91-118.
- Wrigley, E. A. & Schofield, R. S. (1981). *Population History of England 1541-1871: A Reconstruction*. Harvard University Press, Cambridge, Massachusetts.

## The Way of the Animal Powers

Coffee-table book of the season, this formidable work of art and scholarship concerns the myths of the first peoples — the hunter-gatherers of our ancestry and of today. Their images, their beliefs, are deeply sophisticated and as troubling and inspiring as the reader will let them be. The medium, arch-mythologist Joseph Campbell, is welcoming you to a long night's journey. This is Volume I of an **Historical Atlas of World Mythology**. Maps abound, along with some of the best reproductions yet of mythic creatures both famous and heretofore little known.

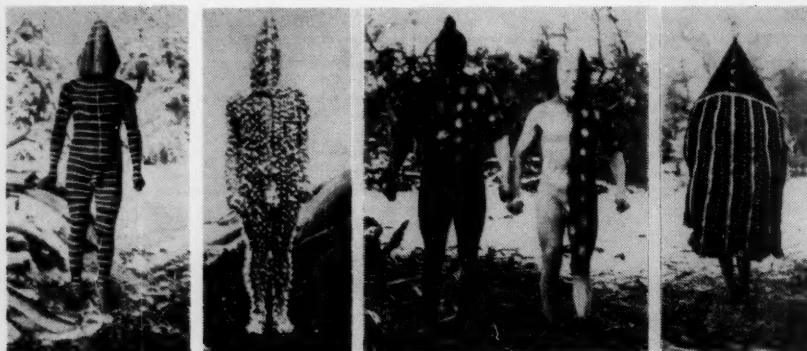
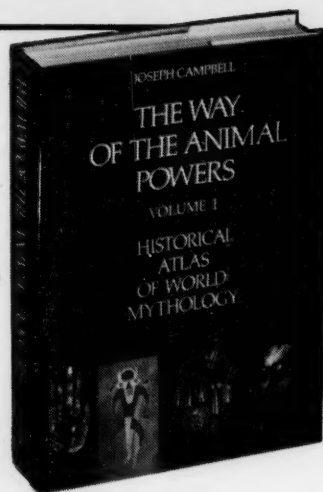
—Stewart Brand

## The Way of the Animal Powers

Volume I, Historical Atlas of World Mythology  
Joseph Campbell  
1983; 272 pp.

**\$76.50**

postpaid from:  
Harper and Row  
2350 Virginia Avenue  
Hagerstown, MD 21740



The male initiation rites of the Ona were conducted in a special lodge of the men's society, the *kloketen*, from which women were excluded; and associated with the mystifications of this institution were a number of such Hallowe'en spooks as we see here. These apparitions would appear from time to time, ranging through the bush of areas about the men's house, and any woman or child seeing one or more of them was to suppose that they were the inhabitants of the *kloketen* with whom the men held converse in their meetings. An important moment in the initiations of a boy took place when he was compelled to get up and wrestle with one of these characters, who would let the youngster put him down, after which the masquerade was uncovered, and the boy turned into a man. There was a legend of the *kloketen* having been originally of the women, but taken and kept from them by the men.

In the beginning of all things, wisdom and knowledge were with the animals; for Tirawa, the One Above, did not speak directly to man. He sent certain animals to tell men that he showed himself through the beasts, and that from them, and from the stars and the sun and the moon, man should learn. Tirawa spoke to man through his works.

—Chief Letakats-Lesa of the Pawnee Tribe to Natalie Curtis, c. 1904.

## Inua

The Smithsonian Institution has just produced the anthropological book of the decade. *Inua* is a powerful review of the Bering Sea Eskimo who live on the west coast of Alaska. Their traditional life of a hundred years ago is viewed from their animistic art, old photos and mythology and the detailed observations of a remarkable man, Edward Nelson, who spent several years with them. He preserved on paper and in museum collections a way of life that was the end product of a unique society. Many hundreds of high quality artifact, mask, and clothing photos are matched by a complementary text that breathes life into the adjacent pictures of brown-faced men and women staring at us from the near past. It's almost as if the *inua* (spirits) controlled this book's production, for it is essentially their biography as revealed by the Bering Sea Eskimo.

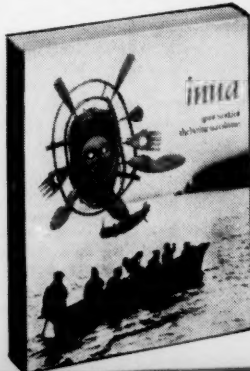
—Thor Conway

## Inua

(Spirit World of the Bering Sea Eskimo)  
William W. Fitzhugh and Susan A. Kaplan  
1982; 289 pp.

**\$19**

postpaid from:  
Smithsonian Institution Press  
P.O. Box 1579  
Washington, D.C. 20013



Boys begin to wear labrets in the shape of small nails when they reach puberty. Holes are pierced on either side of the lower lip, through which tiny labrets are inserted. The slightly flared end of the labret is worn inside the lip and rests against the lower teeth.

Men wearing labrets resemble walrus, their tusks and labrets projecting from the corners of their mouths. The white gores sewn down the front of men's parkas reinforce the image of tusked men.



# NOMADICS

## Women in the Wilderness

A real gold mine for women interested in the out-of-doors, **Women in the Wilderness** has been offering an incredible variety of programs since they began in 1975. For example, they sponsored the first all women's rafting trip down the Grand Canyon (1978) and a Buddhist Himalayan Studies trek to Nepal (1980). Last summer's six-day island retreat in Maine at Hardscrabble Hill was called "Mythology and Wilderness, the Metaphoric Journey." Participants hiked, did yoga and drew maps of their life journeys.

The main focus of these programs lies in helping women confront fears, strengthen inner resources and develop leadership capabilities without losing the values of nurturing, sustaining life and creating community — often at opposite poles in our culture. **WW's** philosophy maintains that the wilderness, deeply experienced, can have a transformative effect on one's life — providing strength, regeneration and an awareness of our kinship with the Earth.

**Women in the Wilderness** also welcomes men and families on some trips. The only stipulation is that all trips are led by women. They are an inclusive, not exclusive, organization.

The organization's newsletter contains the most comprehensive directory of women's outdoors programs yet.

They list outfitters and organizations besides their own that are running trips for women all over the U.S.A. and abroad.

—Theresa Kake

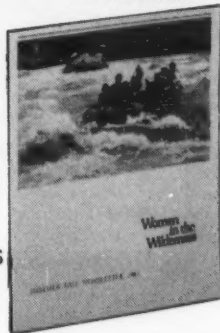
## Women in the Wilderness Newsletter

China Galland, Editor

**\$12/year** (4 issues)

from:

Women in the Wilderness  
20 Sunnyside Avenue  
Mill Valley, CA 94941



## EXUM MOUNTAIN GUIDES

Grand Teton National Park  
Box 56  
Moose, WY 83012

**AUGUST 17—AUGUST 20**

**WOMEN'S CLIMBING SEMINARS;** for women that want to either learn or improve their rock climbing technique. The courses will be conducted by Catherine Cullinane and will include both instructional classes and climbs on some of the higher peaks in the Teton Range; a basic course will be offered **JULY 17—JULY 19** and cost \$160; intermediate courses will be offered **JULY 21—JULY 24** and **AUGUST 17—AUGUST 20** and cost \$240.

## Work Your Way Around the World

This book should help you find work overseas if what you have in mind is odd jobs or seasonal work. Most lucrative gigs are landed in Europe and North America. There's little that can be predicted about more exotic corners like Africa and Asia, but what is known has been rounded up here. What you really want to know is how much you can make. This is nicely covered together with working conditions, seasons and addresses when possible. Common employers that hire travelers are described in much detail — all you need to know about picking apples in Australia, for instance. Honest first-hand accounts by other workers who have survived overseas employment keep the ultimate Romance strapped into reality. This book's meticulous reporting and lack of hype set it apart from others in the genre.

—Kevin Kelly

[Suggested by Mark Melichar]

## Work Your Way Around the World

Susan Griffith  
1983; 292 pp.

**\$10.95**

postpaid from:  
Writer's Digest Books  
9953 Alliance Road  
Cincinnati, OH 45242  
or Whole Earth Access



## FARMING

Many farms, especially in Europe, are relatively small family-run businesses, and the farmer may not need to look any further than his own family for labor. But often farmers are looking for one able-bodied assistant over the summer months, and if you are fortunate to be that one, you will probably be treated as a member of the family, sharing their meals and their outings. Whereas picking a given crop can quickly become tedious, working as a general assistant provides much more variety: feeding the cows, chopping wood, checking fences, carting bales of hay, cleaning out chicken coops, and so on. Consequently it is more important to be able to communicate with the farmer than if you are hired as a fruit

picker, since the instructions given to farm hands are more complicated. It also helps to have some farm experience or at least an aptitude for machinery. Grain harvesting, for example, can be very profitable, but before you get the job you will have to feel confident driving a tractor even on steep gradients. . . .

In Britain there is an organization called Working Weekends on Organic Farms (WWOOF) (19 Bradford Road, Lewes, Sussex, England BN7 1RB) which aims to match up willing volunteers with farmers who need manpower to replace chemicals and herbicides. In addition to the free room and board you will receive for the weekend, you will also gain experience in a wide variety of farm chores. After working for two weekends, you are entitled to have the WWOOF directory, which contains many addresses in Britain and some abroad.

## Domestic Work

One of the great advantages of au pair positions and live-in jobs generally is that they are easy to get, provided you are female. After proving to an agency or a family that you are reasonably sensible, you will in the majority of cases be able to find a placement in the country of your choice.

Usually the reasons for wanting to be an au pair are that you want to improve your knowledge of the country's language and culture, that you want to take a break from the routine of studies, work or unemployment, or that you wish to get some experience with food management and/or children before pursuing a career along those lines. . . .

Before accepting a position which involves cooking you should establish what standard your employer has in mind. Unless you do this you may end up like Sally Collins, who wrote about her experiences in the *New Zealand News*:

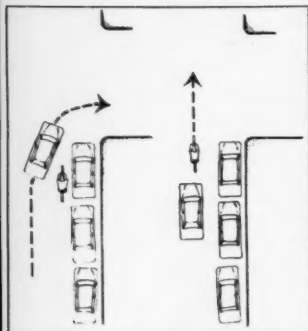
*I soon began to understand that simple cooking — which I had rashly said I could do, imagining boiled eggs and toast — in fact involved a certain amount of cordon bleu cooking. I had no idea what to do with the pheasant which was presented to me.*

So if the prospect of having to improvise *faisan en cocotte* terrifies you, you should ascertain beforehand whether such a situation is likely to arise.

## The Bicycling Book

Most of the experienced cyclists I know are always looking for books to recommend to beginners and novices — words and pictures to convince, persuade, inform, and excite without intimidating or frightening. Most of the recent books on bicycling I've seen have been pretentious, repetitive, unfocused, mundane, or just plain useless. This book is a wonderful compendium of information and advice from dozens of bicycle authorities, blended together with a wide selection of graphic techniques and occasional introductions from the editors (who are now bicycle experts themselves but wisely decided to enter into publishing in the company of others). The book contains sections on the basics of equipment, clothing, and technique, riding safely and effectively, recreational cycling including BMX, touring, bicycle polo, and cyclocross, racing, fitness, human-powered vehicles, orthopedics, and women's issues. My copy falls open to the page "Cycling Rejuvenates — Sex and Bicycling." But the book makes more "bold" claim to being the best thing available for anyone interested in bicycling who doesn't want to read boring lectures about hand signals and safety flags.

—Karen Missavage



**ACCIDENT IN THE MAKING:** The biker is hugging a line of parked cars, tempting the moving vehicle to "sneak" by and proceed with its turn into the parking lot. Biker gets caught in the squeeze when the driver "forgets" the two-wheeler.

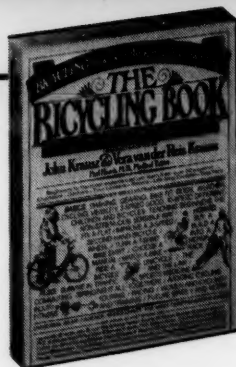
**EFFECTIVE CYCLING TECHNIQUE:** The rider takes up a bit more of the lane, forcing the car to wait until the bike clears the upcoming driveway before the vehicle makes its turn.

## The Bicycling Book

John Krausz and Vera van der Reis Krausz  
1982; 280 pp.

**\$11.95**

postpaid from:  
Dial Press  
Doubleday  
and Company  
501 Franklin Avenue  
Garden City, NY 11530  
or Whole Earth Access



Tandem bicycles, or "twicers," have a certain mystique about them that sets them apart from other bicycles. Dazzling speed, exotic prices, mechanical orneriness, and scarcity combine to lend them a uniqueness. But are tandems really so different? The answer is an unqualified yes. In almost any aspect — handling technique, equipment, mechanical tricks, versatility — twicers differ from solo bicycles.

First and foremost, the riding relationship is expanded to include three — pilot, stoker, and machine. All must function in a synergistic relationship if a happy cycling experience is to be had. The classic twicer joke that the pilot accidentally leaves the stoker behind doesn't happen to those who are attuned to the beast. This may seem trivial, but thirty miles out on a ride, it's clear to a tandemist that tandeming is cycling's teamwork sport.

A favorite myth among the uninitiated is that two big lugs can jump on a twicer and blow the pack away. While they are somewhat faster, consider this case in point.

I ride tandem with my wife, and I also occasionally ride with a Category One racer. While my wife is in no way as strong as an experienced racer, she drives the machine around a timed course every bit as fast. Why? Personal communication.

## Bicycle Transportation

This bold, often controversial book is about the only source of information available to the person interested in human-powered transportation systems. It's not mere theory or emotionally-based polemic either. Actual statistics, lots of study of real cyclists operating under real conditions, have gone into the recommendations. Yeah. Recommendations. How many books combining protest with statistical study have you seen that dare prescribe? John Forester has been one of the very few informed bicycle lobbyists for a long time now. He is nearly alone (one of only two citizens to sue the government when it attempted to regulate the design of bicycles with a bunch of silly rules written by men who didn't use bikes, for instance) so he has learned to make himself heard. Not all of his suggestions will meet with majority approval — at least not at first. For example, he makes a strong case against bike paths. But his opinions are informed, well reasoned, and backed by numbers that are hard to sneer at. I'll admit he's changed my head on many issues.

—J. Baldwin

### Bicycle Transportation

John Forester  
1983; 394 pp.

**\$20.00**

postpaid from:  
MIT Press  
28 Carleton Street  
Cambridge, MA 02142



### Parking

Generally there are enough places to park but not enough secure places. Cyclists will therefore either conduct their business accompanied by their bicycles or not use their bicycles for that business. Where it is difficult to take bicycles into the local businesses, cyclists don't ride for business, so absence of bicycle traffic does not mean absence of the desire to cycle. For shopping districts, schools, government offices, public attractions, libraries, and other places at which private or public parking (on or off the street) is provided, list the number of secure and unsecure bicycle parking stalls available. Make spot checks of the use of each type at each general location to determine if more spaces are required. Request from cycling organizations and commercial interests their views on parking adequacy.

In 1974 came Ken Cross's first report on the relative frequency of various types of car-bike collisions, followed in 1977 by his definitive report. These reports permitted several conclusions. Most car-bike collisions are caused by cyclists, not by motorists. Nearly all car-bike collisions are caused by threats from ahead of the cyclist — by turning and crossing maneuvers rather than overtaking maneuvers. For the first time it became possible to estimate the change in car-bike collisions likely to be produced by any particular design. The conclusion from Cross's data is that bike lanes will more likely increase than decrease car-bike collisions, and that certainly bikelanes are an inappropriate response to the problem and a waste of society's resources.

## Secrets of the Show Cars

This book contains many good ideas on maintaining and preserving your car. Although written for car buffs, it will be useful to anyone who wants to preserve their car. The authors favor simpler, cheaper, and less drastic methods of cleaning and restoration — such as toothpaste and dishwashing detergent — over acid baths, glassbead cleaning and other methods usually favored by restorers.

They offer many useful tricks — for example, removing rust spots from old bumpers with WD-40 (NWE p. 132) and very fine steel wool.

This is a great book if you're trying to keep a new car new, or rehabilitate an older one. However, as the authors point out, it doesn't make much sense to spend time and money on cosmetics until all mechanical problems are solved.

Body work and painting are not covered.

—Walt Noiseux

### Secrets of the Show Cars

(How to Make Your Car Look Good . . . and Stay That Way)  
1981; 93 pp.

**\$8.45**

postpaid from:  
Michael Bruce  
Associates, Inc.  
P.O. Box 396  
Powell, OH 43065



Ask a dozen show car people what kind of polish they prefer, and you'll likely get eight or ten different answers. Dave Burroughs grew up around airplanes and the folks at the local airport like a product called Astro-Shield to keep their aircraft looking new. Dave has never found anything he likes better and still uses it for all his cars. It's a polish, but he finds that it protects so well that wax isn't necessary. He believes waxes tend to accumulate and yellow a bit. Not so with the Astro-Shield.

Walk through a concours event, and you're likely to see a number of other personal favorites. Products called



This is an example of how not to polish a car. Do not use a crumpled up wad of rag. Parts of the rag will have no polish and can scratch the surface. Never wear rings or other jewelry while polishing a car, and take note also of zippers and belt buckles.

The Treatment are common, as is McGuire's, Mother's, and old faithful, Dupont #7 polish. There are a raft of silicone based waxes and polishes on the market now and many offer incredible long-term protection. But they're designed to put on and forget . . . great for the salesman who wants a decent looking car without much trouble. Show car people want to constantly keep after their car's exterior finish, and many are not convinced that the new products give the level of wet-looking gloss they seek.

Application technique for polish is important. Some products come with a little cloth-faced sponge for application. Fine for your knock-around car, not so fine for your pride and joy. No matter how thoroughly a car's exterior has been cleaned prior to polishing, some grit will remain. The reusable sponge jockey will grab it and hold it, and fine scratching will be a certainty. If you're following a rubbing compound treatment, some of the compound grit will remain embedded in the finish. The polish will lift it out and into your applicator.

The best bet is to use soft rags and plenty of them. Bill Munzer orders well used and laundered diapers from the local diaper service for the final polishing of his show cars. They're nearly lintless, and you'll find nothing softer other than maybe cotton balls. Bill uses those too. Right before judging, Bill puts a mist coat of *Windex* on all painted surfaces one area at a time, then wipes it down with a diaper. He says it leaves a beautiful shine with no lint. He uses a soft, pure bristle brush around emblems and body seams.

## Alex Moulton Bicycles

It's possible for tradition to ensnare a technology to the point where innovation is, at best, a mere nuance. No traditionalist, Alex Moulton has been at the forefront of radical bicycle design for some time now. His earlier efforts were quite wonderful — I have ridden many a happy mile on the tiny 14-inch-wheeled machine he designed more than a decade ago. But Raleigh bought out that design, produced it awhile, and then stopped making it, while at the same time forbidding Mr. Moulton from furthering that design or even using his own name on a bike. Now we have the AM (Alex Moulton), in many ways the state of the art in two-wheeled people-powered transport. Soft, adjustable suspension on both wheels cushions your way while making huge wheels an awkward relic. The very rigid spaceframe separates at a clever joint, making storage and carrying of the 24-pound rig fairly easy, though the AM doesn't shrink down as small as some folders. I've not ridden one yet, but first reports are that it is quite exceptional in every way, especially as a load-carrier. I expect to see many more small-wheeled bikes in the future — there is a trend toward them in many countries, including China — and they'll all likely owe something to this one. Now if one could only adapt the suspension to a Mountain Bike . . .

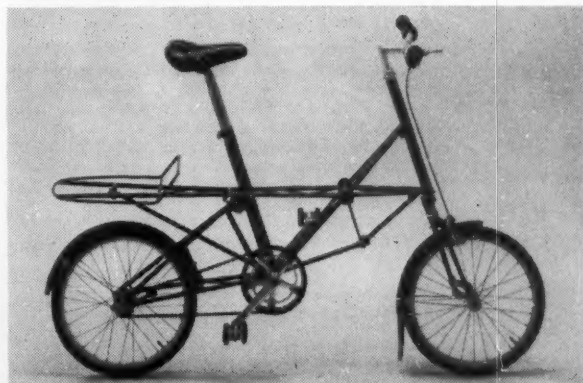
—J. Baldwin

### AM Bicycles

**\$750** (approx.)

catalog **\$1**  
nearest dealer information **free**

All from:  
Alex Moulton Limited  
Bradford on Avon  
Wiltshire BA 15 1AH  
England



The AM 2.

## Japan Handbook

Anyone convinced the Japanese will be taking over might want to visit their home turf to see what they have in mind. What they have in mind is paradox — zen and Honda. This extremely well-researched handbook takes great trouble to sort out the myths and legends. It also saves you lots of yen by encouraging camping, biking, hitchhiking (unsurpassed anywhere in the world). The best in print on settling down to study or work in Japan. Plenty of excellent maps and background notes make this a fine model of what on-your-own guides should look like.

—Kevin Kelly

### • NAGOYA AND VICINITY

Nagoya, being a center of heavy industry, opens its doors to tours of its ultramodern factories as well as to some of its traditional crafts centers. Find out about tours from City Tourist Information at Nagoya Eki (tel: 541-4301). Most, free of charge, are conducted in English. The following are some of the best. Ando Cloisonne Factory, one of the largest in Japan, has English-speaking guides and pamphlets explaining the

## Japan Handbook

J. D. Bisognani  
1983; 505 pp.

**\$14.25**

postpaid from:  
Moon Publications  
P.O. Box 1696  
Chico, CA 95927  
or Whole Earth Access



process; open 1000-1200 and 1300-1600 daily, except Sundays. Arimatsu Shibori Industrial Co-op employs hundreds of women who sit bent over, tying thousands of miniscule knots to produce the tie-dyed shibori cloth. Exquisite but expensive articles can be bought in the immediate vicinity. At Noritake Chinaware Co., commercial china is made. Honda Motor Co. is at Harata, Mie Prefecture. The Industrial Bus Tour Co. specializes in this type of tour. They depart only on Fri. from the Nagoya T.V. Tower at 0900 for an all-day tour, or at 1200 for a half day. For information and reservations (a must), contact City Tourist Information or JTB.

## South-East Asia Handbook

When the time comes to escape cold winters, junk mail, and computer-everything, grab this hefty manual and head for the equator. Covers six easy-going countries on the main road of the very popular Europe-to-Australia Overland Route. Prices are cheap. The book's maps are crude and few, but the text is dense and to the point. Accurately navigates the reader through lands of temples, beaches, open air restaurants, jungles, and crowded cities. Great trip, good book.

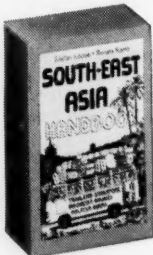
—Kevin Kelly

### South-East Asia Handbook

Stefan Loose  
and Renate Lamb  
1983; 557 pp.

**\$13.95**

postpaid from:  
Bradt Enterprises  
95 Harvey Street  
Cambridge, MA 02140  
or Whole Earth Access



### • WEST SUMATRA

About 3.1 million people live in 'Tanah Minang' the land of the Minangkabau. Two thirds of the land is still covered with forest and only 15% of it is used for agriculture. Important exports are wood, rattan, resin, and gambir (dye). West Sumatra today is self sufficient in rice which it exports to the neighboring provinces of Jambi and Riau.

### Padang

The capital of the province has 300,000 in population without acquiring a sticky or unfriendly big-city character. The new MUSEUM in the city centre is worth checking out. It is a copy of a traditional Minangkabau house with beautiful carvings. Visit the PASAR BESAR right next to the townhall. In the west the city borders the ocean, to the south on Sungei Arau. Here you'll find many small coastal ships which work the Mentawai Islands. Towering to the south is also GUNUNG MONYET from where you get a good view of the town and ocean.

### Hotels

Most travellers stay at TIGA TIGA\*\* JI. Pemuda 31 (tel 22635) — also dorm\*. The hotel is right at the bus station making it loud. We found CENDRAWASIH\*\* at No 27 (tel 22894) better. Also ok are the economy rooms in GARUDA\*\* at JI. Pasar Raya 4 (tel 22176). A bit more expensive is JAKARTA\*\*\* JI. Belakang Olo 57 (tel 23331).

## China off the Beaten Track

Oh boy, you can now go to China as a stand-alone tourist. If you know the rules. This book furnishes the rules (though you'd best check with the Chinese Consulate for the latest nuances when you pick up your visa) and gives a practiced rundown of places to go. My own experience (with a guided tour) agrees well with the advice given here. It does take a certain amount of sass to travel in China without guides, but there are many advantages to balance the inevitable misunderstandings one finds in a country where you may well be the only Anglo ever seen. For instance, it is practically unthinkable that you will be mugged, cheated, raped or even hassled by citizens or police. On the other hand, the bureaucracy is, uh (I was about to say Byzantine), intricate, and there is no bribery available to the foreigner in most places. You'll have to smile a lot and play it by ear. This book gives you most of what you'll need to do that. I can vouch that the rewards are many, and next time I go I'll have it clutched in my hot little hand.

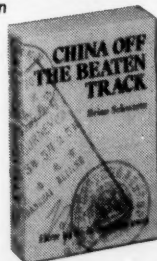
—J. Baldwin

### China off the Beaten Track

Brian Schwartz  
1982; 247 pp.

**\$10.95**

postpaid from:  
St. Martin's Press  
175 Fifth Avenue  
New York, NY 10010  
or Whole Earth Access



**Travel permits:** You cannot stop anywhere in China — except for the two cities named on your visa — unless your destination is listed on your Alien's Travel Permit. You can easily obtain this buff-coloured cardboard document in Canton, Shanghai, Peking, the cities granted on your visa, and usually in other cities as well. Problems will arise, though, if you choose a town that doesn't have the official forms in stock — best to apply in Canton if you are coming from Hong Kong. There you can usually get it in an hour or two, even if Canton is not listed on your original visa. (See "Canton" for details.)

You may add cities to your travel permit as many times as you like in any town with a Foreign Affairs Division — that is, in any large town open to tourists. Approximately 120 places are officially open, and you can obtain permission easily for most of them, although some of the more exotic, such as Xishuangbanna, are given only in the capital of their province.



# COMMUNICATIONS

## Sony ICF-2002 AM-FM shortwave radio

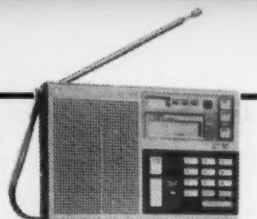
A shortwave radio enables you to tune in stations thousands of miles away, giving you direct access to news, music and viewpoints from outside the USA. Countries all over the world broadcast to North America in English daily, and if you're multilingual, your listening options are that much broader. If you think of yourself as a citizen of the world, you ought to have a shortwave receiver — it's that simple.

The best portable currently available is the **Sony ICF-2002**. "Best" is a bit too tame. The 2002 is a wonder. Though it's basically a refinement of the innovative ICF-2001 (NWE p. 524), it's a refinement in the same way that the Walkman was a refinement of the cassette player. The 2001 was about the size of a cigar box. The 2002 is the size of a paperback book. It sells for about \$250, and yet outperforms much larger and more expensive sets.

Its keypad tuning system is well thought out and easy to use. If you know the frequency of the station you want to hear, you enter it digit by digit and hit the "execute" button. If the frequency happens not to end in either a "0" or a "5" (the vast majority do), a small thumbwheel on the side of the cabinet is provided for fine-tuning. If you listen to a station regularly, you can put its frequency in the radio's ten-channel memory and recall it by pressing a single button. You can browse around the bands manually or with the automatic scan (whenever the scan finds a station, it'll stop for one-and-one-half seconds — to give you a chance to decide if you want to interrupt

## Sony ICF-2002 AM-FM shortwave radio

**\$250** (approx.)  
at your Sony dealer



the search or let it continue). Band coverage is 153 to 29995 kHz AM, plus 76 to 108 MHz FM. Single-sideband capability means you can monitor air/ground, ship/shore, military, and ham transmissions in addition to international broadcasts.

A built-in clock gives the time in either 12- or 24-hour numeration and lets you program the set to turn on automatically at a particular time and frequency. The 2002 has a liquid-crystal display and comes in a sturdy silver case. It runs on 6 volts DC, provided by four AA batteries inside the radio; by four C batteries housed in an external pack; or by house current through a converter/adaptor (this costs extra — and Sony continues its annoying habit of reversing the polarity of the power input jack, to discourage you from buying another company's adaptor). The built-in whip antenna is short — probably because the radio is so small that a longer whip would tip it over. If it doesn't pull in enough stations for you, Sony includes an external long-wire antenna that attaches easily to the set. The 2002's sensitivity, selectivity and stability are excellent. Its sound is much clearer than the 2001's.

This radio is a jewel. It may not be the ultimate short-wave receiver — but it's as close as anyone's come so far and subsequent improvements are likely to be minor.

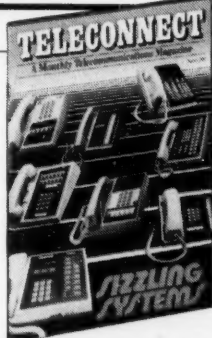
—Robert Horvitz

## Teleconnect

### Teleconnect

Andy C. Moore,  
Editor

**\$15/year** (12 issues)  
from:  
Telecom Library  
205 West 19th Street  
New York, NY 10011



I admit it. I'm obsessed by the telephone industry. The computer business, by comparison, is staid and boring, and still affects far fewer people. Telephones changed a nation of remote outposts into a vast interwoven network of nonsense, business, motion and emotion. So I subscribe to one of the most viciously irreverent, smart, and unpretentious trade magazines around: **Teleconnect**. It's a magazine for the so-called interconnect industry, the OTHER people who make telephones. The industry began in 1970 (until then Ma Bell monopolized all phone equipment in the U.S.), and is now coming into its own after the recent AT&T breakup. **Teleconnect** covers the effects of the breakup — they were the first to notice that the new 75-cent long-distance directory assistance charge would devastate a lot of small businesses, for instance — but also gossips effectively about independent phone manufacturers. Publisher/writer/honcho Harry Newton, who was once called the "Adam Osborne of the phone industry, but with enough sense not to make his own machine," masterfully wheedles and insults his main audience of business telephone salespeople. They deserve it.

I recently spent three months educating myself about AT&T's divestiture for an article in the **Whole Earth Soft-**

**ware Review**; without **Teleconnect**, I'd never have figured it out at all. Now that my article's done, I still wait for it more avidly than any other magazine.

—Art Kleiner

The story starts in 1948. In Tom's words: "We were in the mobile radio business. Mobile has always been our true love. We were in North Texas selling and installing two-way radios, largely to the petroleum industry. My customers prompted me in 1959 to design the original Carterfone — a device for allowing someone on a mobile to speak to someone on telephone land-lines. Pretty soon, however, I started getting calls from my customers saying that the phone company was threatening to cut off their phone service if they continued to use the Carterfone."

"In early 1960 I went to New York and met with a bunch of the top brass at AT&T. There's no way they wanted the Carterfone. They claimed it would cause their network irreparable harm. That their network would blow up. That seemed strange to me. My Carterfone device didn't electrically connect to them; it was acoustic. You simply laid the phone in the cradle."

"I suggested that if they simply charged our customers \$1 a month for the privilege of allowing them to lay their phones in the Carterfone cradle, then we'd go away. Otherwise, I told them we're going to have a real battle and I ain't going away. No way — just think, they could have had a buck a month, no competition in phones today, and no divestiture. They weren't interested. Great foresight, that one."



A rare photograph of the original Carterfone.

# GOOD MOVIES: SPRING

by Sheila Benson

I must admit right here that mermaids have been a passion of mine since I was nine, but I suspect that after **SPLASH** and Daryl Hannah, ravishing in waist-long, crinkly blonde hair and a goldfish-red tail, mermaids will become a general passion. The makers of that sneaky success **Night Shift** (director Ron Howard, co-writers Lowell Ganz and Babaloo Mandel), with screenwriter Bruce Jay Friedman, have made a sly sparkling romantic comedy about a delightful guy (Tom Hanks) who unwittingly falls in love with a mermaid. (Legs on land, fishtail only in water, silly.)

Those already captivated by dolphins will be delighted to find low-key propaganda for the

enormous intelligence of such creatures. (Madison, as the mermaid calls herself, in honor of the street she's on at the time, teaches herself English after one afternoon in front of a TV store's dozen sets.)

It's a warm, deliciously funny, inventive picture, with bits of outrageousness by John Candy and Eugene Levy, but I have a quibble: No music where Madison came from? Not even the sound of the mermaids singing???

★ ★ ★

**AGAINST ALL ODDS** is a right lubricious romantic melodrama directed by Taylor Hackford of **An Officer and a Gentleman** fame — or infamy, depending on your point of view. Made from that great *film noir*, **Out of the Past**, it sends Jeff Bridges, an almost-washed-up football player to spots like Cozumel to bring back James Woods' bonnie to him. Since the lady in question is Rachel Ward (proving, after **Thorn Birds**, that she can act after all), the triangle becomes very taut indeed.



BROADWAY DANNY ROSE



AGAINST ALL ODDS



STRANGERS KISS

Equally fascinating is the film's portrait of Los Angeles corruption on a high, social level. With Alex Karras, Jane Greer, Richard Widmark, Swoosie Kurtz, and Saul Rubinek, there isn't a weak performance in the film. It's the best chance Bridges has had since **Cutter's Way**, and the best use of Woods yet as the owner of a flashy L.A. nightclub. Very tough, very enjoyable, this one.

★ ★ ★

**BROADWAY DANNY ROSE** is Woody Allen's black and white night letter of regards to Broadway, and to a particular tenacity you feel he admires. It can be found, to the tenth power, in Danny Rose himself, patron agent of almost impossible acts: of parrots who sing "I Gotta Be Me," stuttering ventriloquists and skating penguins. No matter, they all receive an environment of support from Danny. His only possible success is an over-the-hill Italian singer (Nick Apollo Forte), and the complications that come with that one . . .

Besides a wife, a family, and an ego as big as the Ritz, they also include a motor-mouth girl friend who is a somewhat tarnished Mafia madonna. (She is an almost unrecognizable Mia Farrow, salty and raucous in the role.) Big trouble. Also the best fun for Allen fans in years.

★ ★ ★

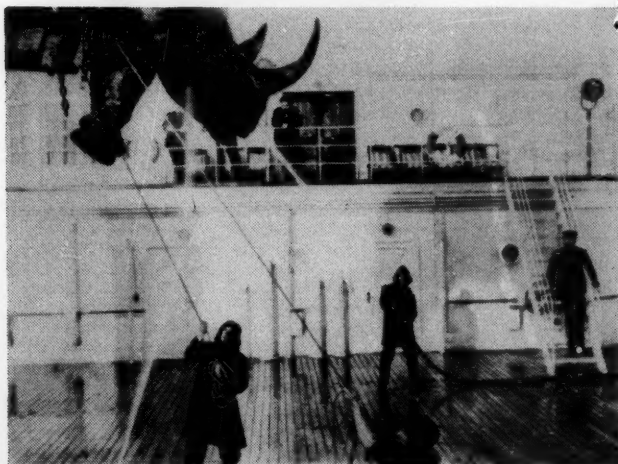
The distribution of **STRANGERS KISS** may not exactly blanket the country, but if it's anywhere near you, check it out and get in on a couple of fine discoveries.

The emergence of Peter Coyote, who's been on the periphery in **E.T.** and the smarmy **Cross Creek**, is the first. Coyote is magnetically erotic as a 1950s low-budget director who will create any tension that will make his moldy little *film noir* sizzle. It includes throwing the leading

actress, Victoria Tennant, at her unsuspecting leading man, Blaine Novak (the film's only notable miscasting, but he co-wrote it), without warning Novak that the film's gangster-backer is Tennant's jealous lover. Mark the name of the picture's cinematographer, Mikhail Suslov, a Russian emigre. The way he has captured director Matthew Chapman's enraptured view of the world of movie making is superb.

★ ★ ★

**AND THE SHIP SAILS ON** is airy, effortless Fellini, a dual Valentine to the worlds of opera and silent films. On a monumental boat, grander than the most towering set imaginable, just after Archduke Ferdinand's assassination in 1914, Fellini gathers the heavy cream of the opera world. Bearded bassos, stalking sopranos, more than enough tenors and all hysteria attendant to them. The occasion is a funeral trip, delivering the ashes of a renowned diva to her home island; the look is part Edward Gorey, part Edward Gordon Craig. It's not what you call a film of great action, and yet I really did not want it to end. It carries you into a sort of dream state; Fellini himself writes that in preparing for the film he "thought of characters full of that kind of yearning fascination of the photographs of unknown people." It's that look, that aura that he captures exactly. The picture is an unfolding delight.



**AND THE SHIP SAILS ON**



**THIS IS SPINAL TAP**

★ ★ ★

Well now, from the sublime to the . . . sublimely perceived. **THIS IS SPINAL TAP** is a delicious parody-documentary of "Spinal Tap," a British band which may just have been together too long. Founded more on friendship than talent 17 years ago, the group has slavishly followed every fad. So currently, of course, they're heavy metal. And still lame. Shooting their underattended last tour of the U.S., during which the group is threatening to self-destruct, is Marty DiBergi (the picture's director, Rob Reiner), who has given up the chance to direct "Attack of the Full Figured Gals" for this — his definitive rockumentary. Amazingly, the film was entirely improvised by a brilliant group, including Reiner, Michael McKean, Christopher Guest, Harry Shearer, R.J. Parnell, and Tony Hendra. (You'll spot alumni of *Saturday Night Live*, the *National Lampoon* and L.A.'s *Credibility Gap* here, as well as the author of that fine parody, *Not The New York Times*.)



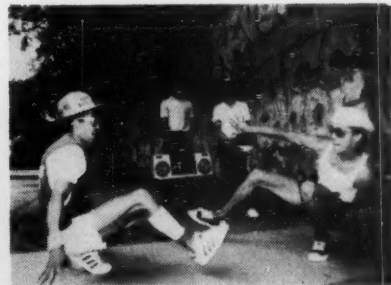
**ENTRE NOUS**

★ ★ ★

**ENTRE NOUS** is a delicate and difficult French film about the growing friendship of two young women which begins in the mid-1940s. Each is married, each unfortunately. Lena (Isabelle Huppert) has grabbed at the offer of marriage from a French Legionnaire (Guy Marchand) which will get her out of a prison camp. Madeleine (Miou-Miou) has been passionately in love and has seen her husband die; she has since made a marriage of convenience and has grown to regret it. What happens when the two, each of them with children, meet, become devoted friends and finally forge bonds which shut out their husbands and alter their lives irrevocably makes for a subtle, ironic, affectionate film. It is also the story of filmmaker Diane Kurys' own mother and best friend, and she has created for Marchand a role which is equally as moving as the roles of the two women.

★ ★ ★

**WILD STYLE** is a window into the world of graffiti, rap-music and break-dancing as practiced by experts in the South Bronx. Structured around an interviewer who comes to find out for herself just how graffiti artist George "Lee" Quinones works, the film's style is chaotic but wonderful. ■



**WILD STYLE**

## Alphabet

### Alphabet

(The Journal of the Friends of Calligraphy)

**\$20/year** (3 issues; includes Friends of Calligraphy membership) from: Friends of Calligraphy P.O. Box 5194 San Francisco, CA 94101



This elegantly designed magazine is a visual feast for anyone interested in fine letterforms. Under the expert care of editor John Prestianni, it grew out of the newsletter of the San Francisco-based Friends of Calligraphy into its current 8 1/4-inch by 11 5/8-inch format, published three times per year for distribution among its worldwide membership, and is embellished throughout by his talented hand.

Besides showcasing some of the finest contemporary and historical calligraphers, the thoroughly researched and concisely written articles cover a full range of topics pertinent to the craft and field of calligraphy, from page layout theories or pigment choices to reviews of classes, seminars, exhibitions, books, and publications, to tips on the business of calligraphy.

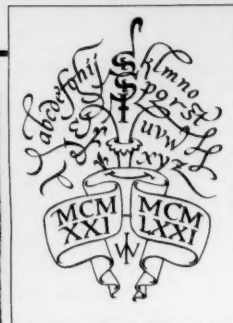
The magazine manages to crystallize an international community of lovers of the handwritten word, helping to transform this lonely, archaic, candle-lit craft into a living, vibrant force in contemporary art and design. If you're a solitary scribe in search of a peer group, voila!

—Rebecca Wilson

In conversation, Mrs. Wellington described her career with these words: "I had time to work." I understood the significance of those words, for earlier in the week, I had had the good fortune to be in Donald Jackson's studio to examine hundreds of Irene's layouts, roughs, trials, attempts and finished pieces. This mass of preparation illustrated her thinking and approach — the step-by-step development of an idea; the revisions; the discarded trials which may later develop into something



Irene Wellington in 1974.



Alphabet-emblem used in a commemorative brochure for the fiftieth anniversary of the Society of Scribes and Illuminators, 1972.

useful. How apparent it was that the magnificent body of calligraphy she produced over a lifetime was almost always the result of voluminous and thorough preliminary work.

In *The Creative Craftsman*, John Farleigh asked Irene "How long does it take to become a good scribe able to produce a fair piece of writing?"

"It depends on where one sets the standard. I remember when I was at Maidstone College of Art that it was at least a year before I felt quite suddenly that I was beginning to write with a certain amount of grace. At the end of the third year, I produced work of a sufficiently high standard to get a scholarship to the Royal College. I think it probably takes five years of fairly steady application before one begins to write well. If a student has a real gift, he will begin to write fairly well in three years; but it was about twelve years before I felt that I was really beginning to write. Johnston said he hadn't really begun to write before 1914-15, i.e. after about fifteen years, during which time some of his clearest roman and italic was written. Yes, I think one needs five years before one could become what I would call a calligrapher; until then, one is a letterer. After these five years, it would take another ten before one finds that one is able to say something that belongs to oneself."

## Homespun Tapes

Happy Traum is one of today's terrific folk musicians. His correspondence school is the best way to learn a country instrument unless your grandfather played with Leadbelly.

You don't need to read music to take the courses. All it takes is a cassette player, your instrument, a desire to learn and a will to practice. The tape gives you instruction and examples. You practice following the instructions until you can imitate the examples. You start the basic guitar course not knowing how to tune, and finish able to play a smart tune.

Happy Traum himself taped the basic guitar, basic banjo, and flatpicking, pattern picking, and fingerpicking courses. His excellent courses proceed step by step through the essentials of good technique. There are many other courses on specialized styles or on other country instruments. David Grisman, Artie Traum, Dan Crary, Mike Seeger, and Lorraine Lee are among the rest of the faculty.

The success students have with these tapes shows in the rapid growth of the school. When my brother first called in an order two years ago, he got Happy Traum in his kitchen. Now there's a staff of four, a tabloid catalog, and a huge offering of specialty courses. —Dan Duffy

**Homespun Tapes**  
Catalog free from:

Box 694  
Woodstock, NY 12498



Happy Traum.

### Guitar for Beginners taught by Happy Traum

**TAPE 1** — Introduction to the guitar; tuning up; the D, G, and A7 chords; the bass/chord strum. 12 songs, including *He's Got The Whole World In His Hands*, *Down In The Valley*, *Crawdadd*, *East Virginia*, *Jesse James*, and *Shenandoah*.

**TAPE 2** — Chords: Em, D7, C; basic finger-style strums and arpeggios; 6/8 time; 3/4 arpeggio. 12 songs, including *Scarborough Fair*, *Shady Grove*, *Sinner Man*, *Banks of the Ohio*.



## Becoming a Writer

Dorothea Brande's *Becoming a Writer* is the wisest, simplest, most effective how-to-write book I've yet encountered. She addresses herself to fiction writers, but her observations on the psychodynamics of writing, and her exercises to limber up the genius that lies below your mind, have applications beyond fiction, indeed, beyond writing.

—Stephanie Mills

I had a pupil who batted on medical case reports, and another who recorded that a few hours with a popular scientific monthly, which she could hardly understand in spite of its being insultingly elementary, induced in her such a feeling of being glutted with neat, hard little facts that she ran off to retrieve the balance by a debauch of imaginative writing. I know a popular author who abhors the works of John Galsworthy, but something in Galsworthy's rhythm starts up his own desire to write; he alleges that after a few pages of *The Forsyte Saga* he can hear an "internal hum" which soon turns into sentences and paragraphs; on the other hand, Wodehouse, whom he considers a past master of modern humorous writing, plunges him into such depths of despond about his own performance that he takes care not to read the latest Wodehouse book until he has finished whatever he has in hand. Watch for a while, and see which authors are your meat and which your poison.

## The Overnight Guide to Public Speaking

During a dull year of sophomore English class eons ago in high school there was one unexpected pleasure: discovering that I could give an entertaining speech that held the audience's attention. Unfortunately like so much we learn in high school this speaking ability eventually atrophied from disuse, and I've had a couple of speaking engagements in recent years that rank up there among my most vivid traumas. So it was with some trepidation that I volunteered to give a three-hour class recently.

Fortuitously, this little volume had just come into CQ for review shortly before and I realized that here was a chance to put both the book's advice and my own abilities to the test. Two days before the class was to occur I pulled Ed Wohlmut's book off the shelf and read the key sections he suggested for readers faced with immediate public-speaking tasks. Then I followed his advice, which included revising my remarks into a more informal style, consciously inserting some "signals" into the presentation, and corraling a friend into letting me practice my talk on him the night before. Result: the class went well and everyone enjoyed themselves, including me.

Ed Wohlmut's advice, delivered in a breezy, optimistic style, is similar to what I learned back in sophomore English class. What's helpful here is the well-organized outline format he employs and the brevity of the book. You can read it overnight and it will help your speech. Wohlmut's approach is a bit "show biz" (Myron Cohen is one of his heroes), but the reader can modify that element to his or her own taste. This book works. Period.

—Jay Kinney

Once your facts are assembled, their method of presentation becomes crucial. People have a great interest in people, not things. The black musician's name was James Reese Europe, and he probably invented the style of popular music we call the fox-trot. I think that's certainly more interesting than the name of the library where I found his concert booklet. Try to relate your facts to actual individuals, living or dead. Always tell

## Becoming a Writer

Dorothea Brande  
1981; 186 pp.

**\$4.95**

postpaid from:  
J.P. Tarcher, Inc.  
9110 Sunset Boulevard  
Los Angeles, CA 90069  
or Whole Earth Access



When the actual writing is to be done, your elder self must stand aside, only murmuring a suggestion now and again on such matters as your tendency to use repetitions, or to suggest that you are being too verbose, or that the dialogue is getting out of hand. Later you will call on it to consider the completed draft, or section, and with its help you will alter the manuscript to get the best possible effects. But at the time of writing, nothing is more confusing than to have the alert, critical, over-scrupulous rational faculty at the forefront of your mind. The tormenting doubts of one's own ability, the self-conscious muteness that drops like a pall over the best story ideas, come from consulting the judge in oneself at the moment when it is the storyteller's turn to be in the ascendant. It is not easy at first to inhibit the running verdicts on every sentence, almost every word, that is written, but once the flow of the story has well set in, the critical faculty will be content to wait its turn.

what the person did in terms that describe action. He invented that musical style. She discovered that chemical element. That's the stuff that'll involve your audience.

Statistics, by comparison, are extremely dull, and next-to-impossible for audiences to remember. Does anyone really want to know the exact number of people who attended last year's Indianapolis 500? They may not even care that the crowd was the largest in history. But tell them that the stands were filled to overflowing with screaming racecar enthusiasts, and the audience is transported to the actual event. See if you can make your statistics come alive in a similar manner.

One type of audience can cause a serious problem with the presentation of factual material. When the speaker knows that the boss will be there, it frequently leads to the preparation of what I call a "one-person speech," consisting not of facts the audience wants to hear, but of facts (or opinions) that the speaker thinks the boss wants to hear. For example, a sales manager presenting a new product to an audience of appliance dealers may tell them things they really don't want to know — only because the divisional vice-president is standing at the back of the room. That's very foolish. The ultimate test is whether the sales manager can motivate the listeners to order appliances, not how many fancy adjectives can be crammed into a ten-minute talk.

A good fact is the best servant a speaker ever had. To make your facts come alive, give them motion and animation. Present your audience with interesting, action-oriented material that they can really sink their teeth into.

## The Overnight Guide to Public Speaking

Ed Wohlmut  
1983; 149 pp.

**\$8.95**

postpaid from:  
Running Press  
125 South 22nd Street  
Philadelphia, PA 19103  
or Whole Earth Access



## The Condensed Chemical Dictionary

Having this book is like having a patient uncle who's got a Ph.D. in chemistry, been around a hundred years, and who's always willing to sit down with you to explain how things are made, what they're made of, where they come from, what they're used for, how dangerous they are, and what the laws are on them. He even knows all the trademarks, what's in THEM, who makes 'em, and what their address is. He's got a seat of honor on my shelf, right next to Uncle Taber and Aunt Merck.

—Linda Webb

**Malathion.** Generic name for S-[1,2-bis(ethoxycarbonyl)ethyl] O,O-dimethyl phosphorodithioate,  $(CH_3O)_2P(S)SCH(COOC_2H_5)CH_2COOC_2H_5$ .

Properties: Yellow, high-boiling liquid; (b.p. 156-157°C, under 0.7 mm with slight decomposition); m.p. 3.0°C; refractive index (n<sub>D</sub><sup>25</sup>) 1.4985; sp. gr. 1.2315 (25°C); vapor pressure (20°C) approximately 0.00004 mm. Miscible with most polar organic solvents. Slightly soluble in water. Combustible.

Purity: Technical grade is 95 + % pure.

Derivation: From diethyl maleate and dimethyldithiophosphoric acid.

Hazard: Toxic by ingestion and inhalation. Absorbed by skin. Tolerance, 10 mg per cubic meter of air.

Cholinesterase inhibitor.

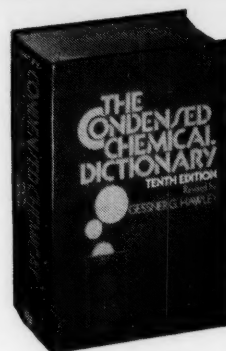
Use: Insecticide.

## The Condensed Chemical Dictionary

(Tenth Edition)  
Gessner G. Hawley  
1981; 1135 pp.

**\$43.50**

postpaid from:  
Van Nostrand  
Reinhard Company  
Order Department  
7625 Empire Drive  
Florence, KY 41042



## dragon's blood

Properties: Deep red, amorphous lumps; m.p. 120°C. Soluble in alcohol, ether, and volatile and fixed oils. Insoluble in water.

Chief constituents: Dracoolban, dracoresene, draconine, and esters.

Derivation: The resin from the surface of the fruit of several species of *Daemonorops*; habitat: Indonesia; Borneo.

Containers: Tins; boxes.

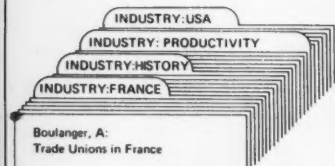
Uses: Pigment for coloring paints, polishes, lacquers, etc; photoengraving, to protect zinc plates from acid.

## Personal Documentation for Professionals

If your information life is even moderately complex, you must organize or lose effective access to the external part of your memory — your personal files. Stibic tells you how to succeed in filing information on a personal, as opposed to an institutional, scale. The book covers retrieval

instruments from cards to computers, and various classification schemes, by discussion, example, and case study. It passes my personal test for a survey or reference book: it goes deeper than most people will need. I'll use it to help organize access to the large amount of computing literature I need to do my work. —Steve Maker

### PRE-COORDINATED SYSTEM (example: cards in a card index)



### POST-COORDINATED SYSTEM (example: records on a magnetic disk)

- 355 ECONOMY: INDUSTRY: USA: HISTORY  
Colen: The American industrial revolution
- 356 AGRICULTURE: EXPORT: GERMANY  
Bach: Deutsche Landwirtschaft
- 357 AUTOMOBILES: INDUSTRY: FORD:  
LINE PRODUCTION: HISTORY  
Abels: Ford and productivity
- 358 WORKERS: WAGES: TRADE UNIONS:  
INDUSTRY: FRANCE  
Boulanger: Trade Unions in France

In both systems, keywords can be combined in any form and sequence, but

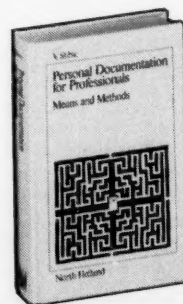
- the authorized combinations of keywords are defined in advance
- their number is limited in practice
- the sequence of keywords is essential
- the 'position' of each record within the system is pre-defined
- 'diagonal' retrieval, i.e. search across the pre-defined structure is impossible
- danger of lack of systematic arrangement occurs if not all combinations are available (a document on HISTORY of INDUSTRY in FRANCE may be stored in our case either under INDUSTRY:HISTORY or INDUSTRY:FRANCE)
- any combination of keywords may be chosen at the moment of indexing
- the number of combinations is unlimited
- the sequence of keywords is unimportant
- the positions of records within the system are irrelevant (they may be stored in chronological sequence)
- retrieval of any keyword and of any combination of keywords is possible
- the inquiry keywords may be combined at the moment of inquiry
- a document on HISTORY of INDUSTRY in FRANCE will be found by inquiries INDUSTRY:HISTORY or INDUSTRY:FRANCE or INDUSTRY:HISTORY:FRANCE or HISTORY:FRANCE etc.

## Personal Documentation for Professionals

Vladimir Stibic  
1980; 214 pp.

**\$35.00**

postpaid from:  
Elsevier-North Holland  
Publishing  
52 Vanderbilt Avenue  
New York, NY 10017  
or Whole Earth Access



One of the principles of personal documentation that we repeat time and again is: do not try to replace existing systems, and do not invent new systems if you can use an existing one. If the user decided in favour of classification, he should carefully check whether any of the available classification systems could be used or adapted for his purposes. When his field of interest is very broad and polythematic, then he should first consider basing his personal system on some of the universal classification systems. The essential advantage is that he can directly apply a fully fledged system, covering all fields of the human knowledge, that has been worked out in detail; it is easy to take an extraction from it and adapt it to the personal interest profile.

Schematic comparison of pre- and post-coordinated systems

# CRAFT

## The Dressmaker's Dictionary

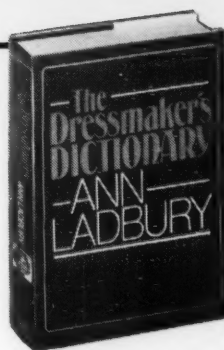
*The Dressmaker's Dictionary* is a wonderful book to have handy when you're sewing from a commercial pattern you can't figure out. Look up the confusing term or process and you'll be sewing away. Everything is carefully illustrated and described in clear detail. When there's a choice of ways to do something, Ladbury always chooses the simplest. It's really more than a dictionary. While contents are arranged alphabetically, terms are described in great depth. The section on facings, for example, covers ten pages. Terms are British and often differ from what Americans are used to but it's still the best sewing dictionary I've seen.

—Marilyn Green

### The Dressmaker's Dictionary

Ann Ladbury  
1982; 357 pp.  
**\$19.95**

postpaid from:  
Arco Publishing  
Company  
219 Park Avenue South  
New York, NY 10003  
or Whole Earth Access



**Problem:** Trousers tight over stomach or crutch.

**Solution:** Unpin centre seam and let it out. Also shorten darts. Release inside leg seam from crutch to mid-thigh. It might also be necessary to lower the crutch curve slightly.

## The Complete Book of Sewing Short Cuts

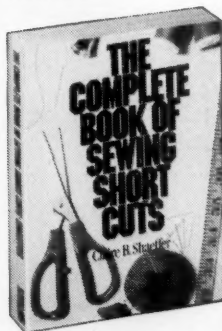
*This is a great find for someone who knows his/her sewing machine but wants to perfect sewing techniques. It deals mostly with sewing clothes. Nice to have on the shelf to grab when you're in a hurry and want to streamline the sewing.*

—Marilyn Green

### The Complete Book of Sewing Short Cuts

Claire B. Shaeffer  
1981; 256 pp.  
**\$19.95**

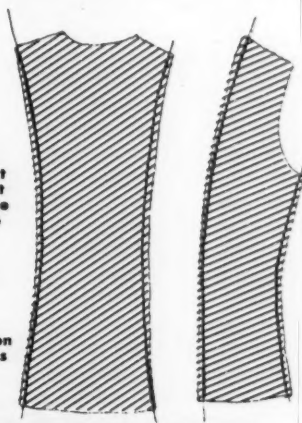
postpaid from:  
Sterling Publishing  
Company  
2 Park Avenue  
New York, NY 10016  
or Whole Earth Access



#### Underlinings that Shape

Backing fabrics used to shape the garment should be cut slightly smaller than the fashion fabric. The stiff backing fabric must make a smaller circle than the garment so that the backing will fit inside the garment smoothly and won't create ridges on the outside of the garment. The difference between the two layers isn't very large, but it's enough to spell success or failure.

1. Cut the underlining and fashion fabric out separately.
2. Mark the construction and design details on the right side of the garment fabric with thread or soap.
3. Trim the backing sections  $\frac{1}{16}$ " (1.6 mm) on each lengthwise seam.
4. Glue the seam allowances of the underlining and fashion fabric together, matching the cut edges. The glued sections will curl toward the underlining.



## Imports by Clotilde

*Clotilde imports and sells a wonderful array of notions for sewing. Many are sold exclusively by the company. They really do have things you won't find anywhere else.*

—Marilyn Green

### Imports by Clotilde

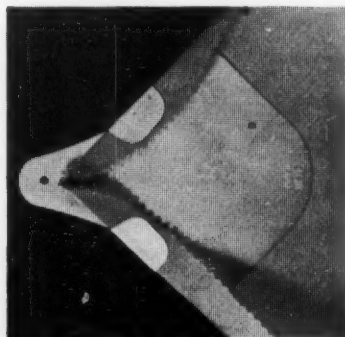
Catalog **free** from:

Clotilde  
11 South Limestone  
Street  
Jamestown, OH 45335

#### Pocket Former Template

The Japanese use this handy template to shape their kimono curves. We use it to shape patch pocket curves with perfectly smooth edges. No more crooked corners. No more scorched fingers. Template has four different corner shapes. Place desired template curve on seamline of pocket curve. Fold seam allowance over template. Insert into clip section to hold fabric in position and press. For thick fabrics, spread clips apart.

Item No. 6923 \$3.00







# YOUR SCHOOL

A	B	C	D	F
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

soldiers. There was no mention of the learner as an eventual good parent, neighbor, or entrepreneur.

Following Seaborg's address I went home and prepared this test. I gave a speech and showed this test expecting to be booed out of the place. Instead the board members applauded and crowded around for several hours of sharing and dreaming about another kind of excellence.

—Ron Jones

Ron Jones was responsible for two of the most popular articles CQ has ever run: "Take As Directed" (reprinted as "The Third Wave" in *NWEC*, pp. 374-377) and "The Acorn People" (CQ No. 12-13). Currently he directs physical education at a recreational center for the handicapped in San Francisco. Ron's speech, which originally accompanied this test, can be found in the *East West Journal*, Sept. 1983.

—Jay Kinney

## NATIONAL SCORING

Stanford Index  
on School Performance

A	200 - 230	pts.
B	160 - 200	
C	100 - 160	
D	80 - 100	
F	0 - 80	

(Scoring based on  
Helix Curve Sub Total  
Base 185 schools.)

## SOCIAL STUDIES

The school engages in annual problem-solving exercises and celebrations such as building milk carton boats, growing the largest tomato, demonstrating kindness to others, etc.

The school sponsors guest speakers from local industry, business, social service agencies and special interest groups

Parents are welcome and often found sitting in and working in school activities

Noncredentialed teachers are hired by the school to instruct special classes of interest to students and parents

Once a year the school has a general meeting to plan its future course of activity and approve the school budget

## BONUS SCORES

The school band performs regularly for community groups

The school basketball team schedules games against the Fire Department, Lions Club, and a local Special Olympics team

The school shops are open on weekends and in the evenings for printing projects, car repair, home maintenance, manufacture of solar heaters, etc.

Student art and handiwork is on display (and for sale) in a local shopping center

When asked "Who is the most important person at your school?" the students will give a variety of answers from the principal to the cooks to a friend in their class

0 pts. Never	5 pts. Sometimes	10 pts. Often
-----------------	---------------------	------------------


## The Upstart Spring

Want to nudge civilization in a different direction? This chronicle of the Esalen Institute on the cliffs of Big Sur, California, may inspire or daunt you, but it is assuredly a good account of one of the most successful nudging efforts ever.

I know that my own journey has been bent significantly half a dozen times by passing through the Esalen prism/lens/funhouse mirror labyrinth. I met Buckminster Fuller there and enlisted him in the campaign to make a photograph of the whole Earth. I had some of my best encounters with Gregory Bateson there. I first taught "New Games" there. I lost my Midwestern fear of nakedness there. I learned about LSD there. I got out of college there. Later when I got out of the Army, Esalen is where I hastened to re-enlist in civilian frontier work. There are ten thousand stories in those naked baths, and mine is one of the milder ones.

Though the Esalen saga is far from over, it's about time — 20-plus years after founding — that a thorough telling was attempted of the accomplishments and strangenesses so far. Walt Anderson has the requisite experience, humor, and affection (if not detachment, since Esalen teaches, indeed proves, that detachment is a universal impossibility) to carry off a wonderful account. It's not complete, of course, but a five-volume set would not tell all the tales of world-nudging personality implorations suffered on the ecstatic rack of seminar, where countless new class intelligences were tortured and tickled till they told the truth, and it stayed told. —Stewart Brand

I visited Murphy at his San Francisco office in 1968 and, during a lull in the conversation, suggested that somebody lead a hike in the mountains and graft some of Esalen's techniques onto the experience of being in the High Sierra. Murphy agreed that it was a good idea and asked me if I wanted to do it. I said I was only suggesting that he get somebody to do it. Murphy said that since it was my idea I should do it. I said I would think about it and flew back to Los Angeles, amazed by what I had just seen of Esalen's way of doing business. Finally I did lead a mountain encounter and it was a success,

## The Upstart Spring

(Esalen and the American Awakening)  
Walter Truett Anderson  
1983; 339 pp.

**\$11.95**

postpaid from:  
Addison Wesley  
Publishing Company  
Jacob Way  
Reading, MA 01867



or Whole Earth Access

but it could easily have been a disaster and I often wondered that the portals had swung open so readily, allowing me to stumble through with a group process that was accepted before it was invented. People have assured me that when Murphy made such decisions it was out of intuition, not carelessness. I would like to believe that, but I'm not sure; Abraham Maslow is reported to have said that if Satan himself came to Esalen, Mike Murphy would have invited him to lead a seminar.

Once, when Michael and Dennis Murphy were standing together in the lodge, Fritz Perl came up and started to say something to Michael. "Fuck off, old man," said Dennis. Another time, Dennis was sitting in his car in the parking lot in front of the lodge and Fritz put his head in through the open window to say something to Dennis. Dennis pushed the button and the window began to roll up, like a reverse guillotine, and Fritz withdrew in haste and confusion. Still another time, after a session in the bar with some of the Big Sur locals, Dennis got a bunch of them to pick up Fritz's little Fiat, carry it over to the lodge, and jam it against the main door. Dick Price angrily intervened and got into a fight with Dennis. He wrestled Dennis to the ground, and after he let Dennis up, Dennis found a piece of lead pipe and came after him. Dick ran around the lodge to escape, Dennis pursued him, and the seminarians inside, pondering that day's piece of evolutionary wisdom, looked out to see one of California's most promising young novelists chasing the co-founder of the Esalen Institute across the sun deck, brandishing a length of pipe.

## Language Acquisition Made Practical

Given a chance, our brains can't help learning new languages.

Schools, tapes, courses don't give a chance. Total immersion does, if you have the guiding hand of parent, mentor, schoolmates. Or so does this superb handbook, which trains you to learn any language in the world on your own.

The trick is to teach native speakers to teach you to learn their language. Compende? It's done slowly, naturally, and playfully — the way you learned English. Your assistant doesn't even have to dig your jive. You begin conversing with one word, trying to make as many mistakes as you possibly can, entertaining the folks in the

marketplace or anywhere else they'll put up with your blabberings. This well-tested program shows you how to construct your own exercises that fit the language you are after and later how to discover its grammar by yourself. The goal is multiculturalism, inseparable from multilingualism. Like realizing that you don't need a degree in anything to build your own house, learning that you can become fluent in another language without schools is deliciously radical.

—Kevin Kelly

To prepare for a Comprehension drill, you need to plan a list of related activities and have Kino make up a 3 x 5 card with the activities written in his language. The activities for the first day might include sit, stand, squat down, clap your hands, scratch your leg, stretch your arms. In the drill, Kino will instruct you in his language to do an activity; for example, "stand up." He will stand up and you observe and then mimic the action by standing yourself. Do not say what he says. Kino then introduces the second item, performing the activity while giving the verbal instructions. You mimic the activity — for example, "sit down." Kino then again gives the first instruction, "stand up," and you respond by standing. Then Kino can give the instructions without acting them out himself — "sit down," "stand up," "sit down," "stand up," "sit down" while you respond to his verbal directions. When doing comprehension drills, respond rapidly without hesitation and make a distinct robust response with your body. If you respond with gusto, the meaning of the instruction will be reinforced all the more securely in your mind.

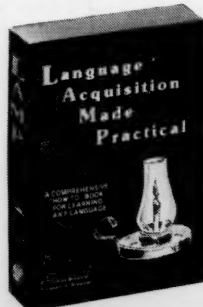
## Language Acquisition Made Practical

E. Thomas Brewster and  
Elizabeth S. Brewster  
1976; 382 pp.

**\$13.00**

postpaid from:  
Lingua House  
915 West Jackson Street  
Colorado Springs,  
CO 80907

or Whole Earth Access



## Clown

This is the most accessible book I've found for the closet clown. It has sections on make-up, movements, and prop building, and sequence photos of six (count 'em) six classic routines that even a kid can comprehend. Time-tested at Camp Winna Rainbow. Yes, you too can learn to slap, take, slow burn, blow off and add a little laughter to this sometimes weary world. —Wavy Gravy

Remember: all your slaps and falls should have a comic feeling, and you always need to let the audience know that you haven't been hurt.

When you do a fall, always land facing the audience, if possible. If you want to land in profile, or at an angle to the audience, make sure you let the audience see your face and your reaction.

Practice the slaps and falls until you can do them easily, naturally and instinctively, and so that you don't look as though you're afraid of getting hurt. The more habitual your skills, the more you'll be able to concentrate on your character and your actions.

Now combine the slaps with the falls. Take a slap and use the momentum of the blow to fall. Get up and hit your partner; he or she falls.

Next, work out a short fighting sequence with an exchange of slaps and falls. Again improvise the argument which leads to the fight.

### Staying in Character

It's important to perform your slaps and falls as your character would do them. One character might get angry after a fall. Another might cry or laugh. One clown might get up slowly; another might jump right back up to his feet. Your slapstick skills should not stand out awkwardly apart from your character.

Try the following scenes with your clown character, making sure you stay in character throughout:

1. Imagine you see another clown on the other side of

## Clown

(For Circus and Stage)  
Mark Stolzenberg  
1983; 159 pp.

**\$14.95**

postpaid from:  
Sterling Publishing  
Company  
2 Park Avenue  
New York, NY 10016  
or Whole Earth Access



the stage. He is leaving. You wave at him and call him, but he doesn't hear you. You start to run after him. Think of a specific important reason why you must catch the other clown before he leaves. You run a few steps and suddenly trip and fall. Look to see what you tripped on. React to the audience and then continue your pursuit.

2. Create another fight scene with your partner, using slaps and falls. Concentrate on maintaining your character throughout the fight.

## Register for International Service in Education

Register for International Service in Education (RISE) is a job service of the Institute of International Education. They match applicants and jobs in post-secondary education worldwide. The fee is \$35 for a calendar year.

When they match you with a position, the potential employer receives your resume and other data; you receive information about the job and where to apply. From there, IIE bows out — it's up to you and the

employer to make contact. Of course, there is no obligation to accept any position offered.

RISE lists many positions not advertised in U.S. professional journals. It seems to be an excellent service.

—Wall Noiseux

### Register for International Service in Education

Information free from:

RISE  
Institute of International  
Education  
809 United Nations  
Plaza  
New York, NY 10017

## Directory of Sail Training Ships and Programs

For anyone who yearns for the sailing life, for the romance and adventure of "a tall ship and a star to steer her by," this is a directory full of photos and statistics about a number of ships still sailing in the traditional way. What's traditional? you may ask. When the captain shouts "All hands on deck!" and you're asked to go aloft, up the ratlines in the rigging to the yards to furl the topsails, and you're balanced up there 50 feet high, hung out over the yard gathering in sail — that's traditional. (Working aloft is not mandatory, however.) Traditional sailing is also an attitude about the sea and the tall ships who grace her waters. It is an understanding of the natural ways of travelling through the water; the combination of wind, waves, and manpower that keep a ship moving.

The American Sail Training Association, founded in

1973, is an organization devoted to three purposes: promoting sail training as an educational and character-building experience for young people, bringing together the sail training ships of the world in a spirit of friendship and international goodwill, and educating our young people in the values of our maritime traditions.

While many of the ships in the directory offer sail training only for young people, there is still a large number of them who offer cruising opportunities in East Coast waters and the Pacific for those with a free spirit and time to travel.

—Merlyn Storm

### Directory of Sail Training Ships and Programs

Nancy Richardson,  
Editor  
1983; 68 pp.

**\$3.00**

postpaid from:  
American Sail Training  
Association  
Eisenhower House  
Fort Adams State Park  
Newport, RI 02840

## Don't Shoot the Dog!

There are two kinds of training. One is the sort I used to do for the infantry — intense imparting of information and skills. An activity far worthier and more interesting than it's given credit for. But even worthier (and more uncredited) than that is the second kind of training — the shaping of behavior. This new book looks like the very best on the subject — a full-scale mind-changer.

It is customary to apologize whenever saying something favorable about behavior modification and the insights of B.F. Skinner. I now hasten to fail to do that. We all strive to modify the behavior of everyone around us (including ourselves) all the time, usually with monumental ineptitude. Learning to do it well is a service to all. Now that both I and my wife have read Karen Pryor's book we're busily training each other simultaneously, some of it overt, some covert.

In the course of becoming a renowned dolphin trainer Karen Pryor learned that positive reinforcement (the only kind useable with dolphins, who can't be reached with leashes, bridles, fists, or yells) is even more potent than prior scientific work had suggested. A daughter of novelist Philip Wylie, she is also a fine writer. It's not our custom to quote letters from authors, but this one feels accurate and justified.

—Stewart Brand

Dear Mr. Brand,

Your publications have always been so generous to my earlier book, *Nursing Your Baby* (NWECC p. 541) that I thought you might want to see this new one. In spite of the (I think) rather hostile title the publishers have chosen, this is a very gentle book about how to use reinforcement theory to affect behavior without manipulation or force.

"Gregory and Lois Bateson, my neighbors and friends during my porpoise-training days in Hawaii, were very much a formative influence in this end product. It really is the porpoise-trainers' guide to people training, and I hope it will get out there and do some good in the world. This is definitely a book on how to stop yelling at your kids."

—Karen Pryor

In 1980 I taught an experimental course in training to a group of high school students at the Brearley School in New York City. We played the Training Game in class, and a hard core of half a dozen fiendishly imaginative young women began playing the Training Game at home among themselves, working in pairs usually, and shaping exotic behaviors such as crawling upstairs backward. They had been taught — successfully, in my opinion — to think analytically at the Brearley School, and they correctly did their hard thinking before and after a shaping session and flung themselves into the shaping itself with the normal gusto of sixteen-year-olds. In no time they were shaping parents, using positive reinforcement on teachers, and turning obnoxious siblings into amusing companions by selectively reinforcing desired behavior. I never saw a group,

before or since, grasp both the techniques and their possibilities so rapidly.

Real, elegant stimulus control, established through use of reinforcement, may produce something we interpret as discipline in the subject. The person who really has to become disciplined, however, is the trainer.

Yes, but where do you begin? What if you live or work among people who are already confirmed signal ignorers? Here is the Karen Pryor system of effecting a change in a hard case:

Karen Pryor (Seeing a young visitor's wet bathing suit and towel on the living-room couch): Please take your wet things off the couch and put them in the dryer.

Young Visitor: Okay, in a minute.

K.P.: (Physically goes to the young visitor and stands there, saying nothing.)

Y.V.: What's the matter with you?

K.P.: Please take your wet bathing suit off the couch and put it in the dryer. (N.B.: Without adding "Now!" or "Right this minute," or "I mean it," or anything else. I am training this person to obey requests the first time, not to wait until the signal has been heightened with further details or threats.)

Y.V.: Well, jeez, if you're in such a hurry why don't you do it yourself?

K.P. (Pleasant smile, no comment. I am waiting to reinforce the behavior I want. Giving me an argument is not the behavior I want, so I ignore it.)

Y.V.: Okay, okay. (Gets up, goes to couch, picks up stuff, tosses it at the laundry room.)

K.P. In the dryer.

Y.V. (Grumbling, puts stuff in the dryer.)

K.P. (Big smile, sincere, no sarcasm): Thank you!

The next time I have to ask the young visitor to do something, probably all I'll have to do is look at him to elicit action. By and by he will be one of the people in the household who do what I ask promptly, and for my part I will be fair — I'll do what he asks, if it's feasible, and I'll be careful not to ask him to do more than his share.

There are eight methods of getting rid of a behavior. Only eight. It doesn't matter if it's a long-term behavior such as the messy roommate or a short-term problem such as kids making too much noise in the car; anything you do about it is going to be a variation of one of the eight methods. (I am not concerned with complex constellations of behavioral problems such as arise in the psychotic person or the unpredictably dangerous dog; I am considering only single items of undesirable behavior.)

The eight methods are:

**Method 1:** "Shoot the animal." (This definitely works.

You will never have to deal with that particular behavior in that particular subject again.)

**Method 2:** Punishment. (Everybody's favorite, in spite of the fact that it almost never really works.)

**Method 3:** Negative reinforcement.

**Method 4:** Extinction; letting the behavior go away by itself.

**Method 5:** Train an incompatible behavior. (This method is especially useful for athletes and pet owners.)

**Method 6:** Put the behavior on cue. (Then you never give the cue. This is the porpoise trainer's most elegant method of getting rid of unwanted behavior.)

**Method 7:** "Shape the absence"; reinforce anything and everything that is not the undesired behavior. (A kindly way to turn disagreeable relatives into agreeable relatives.)

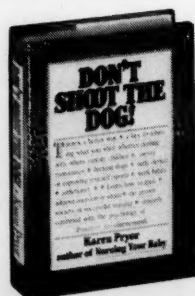
**Method 8:** Change the motivation. (This is the fundamental and most kindly method of all.)

## Don't Shoot the Dog!

Karen Pryor  
1984; 189 pp.

**\$14.95**

postpaid from:  
Simon and Schuster  
Attn. Mail Order  
1230 Avenue of  
the Americas  
New York, NY 10020  
or Whole Earth Access







H. S. ROBINS

## Bambi habitat vs. moose habitat

As a biologist, I found Garrett Hardin's analysis of the "Bambi Lie" very well done ("Sentiment, Guilt and Reason in the Management of Wild Herds," Winter '83 CQ). The urban dweller is far removed from the reality of the "carrying capacity" of the feed lot when he broils his steak. . . .

The growth of the City of Anchorage has eliminated generations of moose. For moose, like all animals, cannot live without *habitat*. Each new single-family house, "condo" project, business "park," shopping center, and high rise landed squarely on top of habitat. Moose became a "problem." Their tendency to "come down the hill" during winter put them in people's back yards, where they ate ornamental shrubs, and on the highways, where they did serious damage to cars that hit them. Given the undisrupted habitat remaining, biologists at the Alaska Department of Fish and Game concluded that the carrying capacity of the Anchorage bowl is about 200 moose. To maintain the population at that level, without the type of "crash" described by Hardin, Fish and Game gave archers permits to kill about 30 animals. Of course the "Bambi educated" have hit the local papers with a barrage of letters, many written from their homes situated on a quarter acre lot of moose habitat. . . .

Jim Thiele  
Anchorage, Alaska

## Hunters vs. fitness

Garrett Hardin should distinguish between the limited and the

"unlimited" environment cases. If one wants to have a wild herd of reindeer on Matthew's Island (a questionable goal), it seems clear that it must be "managed" in some way. In such a limited environment spaying and neutering might well be feasible. A similar solution could reasonably be used with the African elephants, especially since this represents the only "wild" population. This is perhaps more expensive than hunting and killing, but is certainly more "humane."

The case of the Wisconsin deer herd is quite different. Here there should be no permanent harm in allowing a population crash (although deer hunters will consider this a waste) as the population will undoubtedly rebuild. There are however some possible advantages to allowing the crash. What survivors there are will presumably be the most fit, leading eventually to a more fit herd. In particular it is conceivable that does which do not have fawns every year would be more likely to survive a hard winter and this might prove to be a survival characteristic which would eventually lead to lower fecundity of the deer herd as an adaptation to the lack of predators.

A disadvantage to deer hunting which was not mentioned in the article is that deer build up a reserve of fat in the fall to help them through the winter, and that they normally stay "yarded up" and relatively quiet during the winter if they are undisturbed. Hunting, not unnaturally, frightens them into frantic activity which burns up this fat reserve prematurely so that many of those which survive the hunting season die later of starvation.

Unfortunately, hunters (who do not need the encouragement) will be made to feel positively virtuous by Hardin's article, since they will presumably be doing the animals a favor by killing them. One could use the same argument to justify the hunting and killing of human populations in overpopulated parts of the world. That Hardin has not done so indicates that he shares the popular belief that human beings are somehow "better" than the other animals. . . .

Ina and Mason Phelps  
Wendell, Massachusetts

## Schweitzer not vs. Hardin

Well exposed to the life and beliefs of Albert Schweitzer throughout my childhood and youth, I didn't find it easy to take the position of reproductive choice for women which I hold now. Some of this process included rereading his works. Garrett Hardin might be interested in the following:

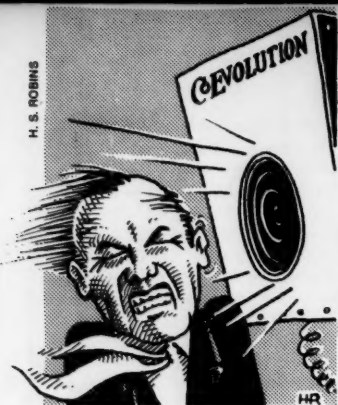
**"The Law of Necessity:** However seriously man undertakes to abstain from killing and damaging, he cannot entirely avoid it. He is under the law of necessity, which compels him to kill and damage both with and without his knowledge. In many ways it may happen that by slavish adherence to the commandment not to kill compassion is less served than by breaking it. When the suffering of a living creature cannot be alleviated, it is more ethical to end its life by killing it mercifully than it is to stand aloof. It is more cruel to let domestic animals which no one can feed die a painful death by starvation than to give them a quick and painless end by violence. Again and again we see ourselves placed under the necessity of saving one living creature by destroying or damaging another.

"The principle of not-killing and not-harming must not aim at independence, but must be the servant of, and subordinate itself to, compassion. It must therefore enter into practical discussion with reality. True reverence for morality is shown by readiness to face the difficulties contained in it."

**Albert Schweitzer: An Anthology**  
(Beacon Press)

I daresay that Schweitzer would not have quarrelled with Hardin's basic thesis of what constitutes ethical behavior.

Judith Hunter  
Pittsford, New York



## CoEvolution is not a commons

I have read Ivan Illich's article "Silence is a Commons," (Winter '83 CQ) several times carefully, and I have to admit I'm baffled. He certainly conveys a disturbing sense of menace about computer-based communication, but what exactly is the threat he perceives? Maybe Ivan is so far-sighted he can see something I can't, but if so it doesn't come across in his article. His analogy between loudspeakers and computers is quite misleading. A loudspeaker doesn't give you any new capabilities, it simply gives you an edge over someone who doesn't have one when you are competing for the attention of the same ears at the same time. Computers, on the other hand, introduce some fundamental new options in human communication, such as the ability to hold a discussion among a large group of individuals widely separated in space and time. Take a look at CompuServe or Delphi or the hundreds of tiny, free computerized bulletin boards, and you'll see people communicating in new ways with people they've never met, swapping recipes, exchanging advice on child rearing, writing collaborative novels, you name it. What we are witnessing is nothing less than the creation of a new commons, one that is inherently more egalitarian than the traditional mass media. Anyone can enter the world of computer bulletin boards for less than the price of a color TV. By contrast, how many people can air their views on the cover of **CoEvolution Quarterly**?

David Woolley  
La Jolla, California

## From Daisy World to Gaia World is a long way yet

"Daisy World (Summer '83 CQ) was a nice piece, but it was hardly a formal proof of the Gaia hypothesis.

I can't deny that Daisy World as described displays thermal homeostasis. Homeostasis as a viable concept is not at issue here. My uncertainties stem from Mr. Lovelock's mechanism for developing that homeostatic system — natural selection. I am partly thinking of Mr. Doolittle's argument (Spring '81 CQ), partly of Mr. Bateson's (**Steps To An Ecology Of Mind**, p. 346-363), and partly of the simple fact that natural selection works best when both the problem and the effect of the solution are proximal to the evolving species. The Daisy World model does not even begin to address this fundamental problem. Gaia is a system of systems (of systems, of systems . . .). Natural selection will tend to adapt a species to the system within which it exists, the system which encompasses its niche. This need not be beneficial to larger, more encompassing systems. For Gaia to be viable, there must be a homeostasis amongst her component systems. This requirement is not met by Daisy World, simply because it is a trivial system.

Personally, and for quite arational reasons, I am aware of Gaia. As a geologist among doubting colleagues, I've gone out on a limb quite a few times in her defense. I can, to varying degrees, see solutions to some of these problems — solutions which must be formally demonstrated before the research monies of Science are turned to the understanding of Gaia. Don't go advertising a "Formal Proof of the Gaia Hypothesis" because you can sum two parabolas on your home computer. We're on the threshold of a logical paradigm in the tradition of Copernicus, Wegener and Einstein; it will be no surprise if this idea takes a couple of decades to enter mainstream scientific thought.

I just hope Gaia can stand the wait.

Christopher Earle  
Seattle, Washington

## Les enfants disparus

On June 25, 1983, the 10-year-old son of our friends, Lyse and Philippe Haulbert, disappeared while hiking alone along the highway near his home. Six months later he's still missing, and no indications of his whereabouts have been found.

This letter is written on behalf of the organization founded by his parents, S.O.S. Missing Children in Southern France. S.O.S. hopes to help, financially, legally and morally, the parents of other missing children, as, according to official

statistics, around 80 children under 13 disappear every year in France, and are not found. (Many more are reported missing then found dead or alive.)

In order to help us have an overall view on the subject, we would appreciate information from concerned individuals or organizations which might shed light on a possible explanation of these disappearances and allow us to perceive the problem in America: isolated abductions, or a network of prostitution or other utilization of these children.

Lyse and Philippe are homesteaders who left Paris six years ago, and I am an ex-Californian who left the States in 1972 with my husband and am currently goat-raising and child-raising in Southern France.

**CoEvolution Quarterly** is our last contact with the California scene, and I'm hoping that you will take the time to answer this letter, or to publish it, or to direct it to concerned peoples as rapidly as possible.

The Haulberts, who wanted to find an alternative to city-living and live the "good life" (to quote the Nearings), are now in a living Hell. When you know the child, it's different.

Helen Rosfelder

La Garde de Castellane, France

Address of S.O.S. Missing Children:  
S.O.S. Enfants Disparus  
c/o S.V.P. Associations  
Boulevard Saint Michel  
04120 Castellane  
France

## Liberation theology and mud

The main emphasis of this letter is to express regret at the whimsical article by Carl Oglesby and the illustration of the Crusader by Harry Robins ("Rescuing Jesus from the Cross," Fall '83 CQ). To equate liberation theology with the Crusades is to miss the point of what liberating theology really implies.

Liberation theology does not spring from the pen of a comfortable intellectual in his safe, book-filled study. Rather, its starting point is the poor, the marginalized people, about whom the rest of society could care less. To cast one's lot with the poor and oppressed provides one with a new way of perceiving how the world really is. This action forces one to look at theory again, and the theory forces one to look at action again. So, this theology of liberation is a never-ending process which is a combination

of thinking and doing in the real world of the oppressed majority.

With no desire to belittle the author and illustrator, nonetheless I find it necessary to mention that the comfortable circumstances interfere with their perceptions. Since their daily lives are not fraught with the travails of oppression and repression which the Guatemalans and other Latin Americans have suffered for many years (with the support of the U.S. government and taxpayer), the author does not face his life circumstances with the same sense of urgency with which the makers and doers of liberation theology face theirs.

Douglas Spence  
La Conner, Washington

Carl Oglesby replies:

In his attack on my article, Douglas Spence unconsciously bears witness to the very point I was trying to make, namely, that when you try to join a religious mode of struggle (for perfection of the soul) with a political mode of struggle (for perfection of the social sphere), you end up with mud, i.e., with an absolutistic politics and a relativistic religion, the worst of both worlds.

My point in "Rescuing Jesus" was certainly not, as Mr. Spence pretends to think, that one should abandon the world's poor to their condition. Rather it was (a) that the distinction between religion and politics, however hard to draw precisely, is a valid and essential distinction; and (b) that liberation theology tends to blur and distort this distinction, if not altogether to wipe it out.

I say this not against "the revolution," which among others I seek to befriend, but only against the sort of bourgeois-cum-proletarian theology that represents the "revolutionary act" as divinely mandated, as though a political choice of any kind could claim God's personal sanction.

### No there here

I started reading the **Whole Earth Catalog** when it was no bigger than the Quarterly. For years my friends and I looked upon it as a quality item, the hallmark of which was responsibility. The articles in the Catalog were there because someone had been there with the article. No second-hand information. A good idea.

I don't believe I will ever look at your products again, Stewart. The plain and simple reason is that you

promoted an article that you had not been there with; and that article maliciously attacked and libeled the most important force in my life: my Guru ("The Secret Life of Swami Muktananda," Winter '83 CQ).

I say you had not been there with some certainty having spoken to the management of the SYDA Foundation and having been assured by folks I know and trust that the Quarterly did not approach them prior to publication. Why?

I suppose it made good publishing sense to pair the two articles together. It will sell magazines.

I also noticed the difference in tone between the two. You have been there with the Zen master. (Poor Confused Zen Master/Evil Baba).

Stewart, I am very surprised and hurt. Baba would welcome you with love. I cannot.

Jackson Hedrick  
Berkeley, California



### The price is everything you've got

Thanks for the article on Muktananda's mischiefs. It is good to have this out in the open. The lesson for all of us is that naughty gurus (and nice ones) are created by the expectations of their followers. For that matter, so are presidents and rock stars. We seem to need living examples of superhuman beings. So we make them up as we imagine they ought to be then insist they be that way. Eventually they show us that they are also or only human beings. Then our expectations crash and the vultures prowl the remains. . . .

As long as we insist on miracle, mystery and authority, there will be a supplier. Everyone wanted a suprahuman Baba, living proof that it can be done. So we worked it until everything he touched was supposed

to be filled with holy vibes and every trivial thing he did was seen as a portent or a teaching. Baba had something, we all saw that. We didn't believe that we had it ourselves even though he told us over and over. We thought we could get it from him. So we bowed and paraded under his peacock feather duster demanding guidance and enlightenment. From this point of view every spiritual follower is out to rip off his leader. . . .

The desire to believe in spiritual leaders is awesome. I know this from periodically following Baba around from 1974 to 1980. Being in the Siddha herd was a 24-hour-a-day intense experience, an amphetamine circus. I was constantly amazed that people like Michael and Chandra could hang in there. The Siddha yoga scene is a classical transformation establishment. It offers a complete, plausible and BETTER reality as the alternative to our present misery. There is a powerful momma/daddy to identify with and be dependent on. The momma/daddy is both guide to and absolute interpreter of the new life. It offers a protective, supportive "home" in the ashrams. There is a community of true believers to share in our transformation and keep the infidels at bay. The price is everything you've got. The same form exists everywhere in our culture. Secular transformations can be had from est or the Golden Door. Spiritual transformations are offered everywhere at slightly higher prices since they are peddling cosmic more-more. But whether it is the Pope, Jerry Falwell, Bhagwan Rajneesh or any of a hundred others, they all make their promises and they all collect their dues.

The first payment requires that you dump your present beliefs, switch to their reality and do as you are told. You must turn over to the leader all your power to choose and guide your life. After that, the money is a trivial loss. You are now in the promised land, a world where you do not make the rules. Your every need will be taken care of but only if you do as you are told and believe, believe, believe. It is the ultimate in helplessness. However, there is a benefit from going through all this and coming out the other side, if you make it. You know how to switch realities. You can then see that the world is full of possible realities. There are at least 4 billion human ones. Take your pick, it is all a matter of belief.

The instances of violence I saw and heard about while I was in Baba's en-

tourage bothered me a lot. I finally realized that I was only willing to hang out with gentle people and I left. To my management consultant's calculating eye it was obvious that the Siddha Foundation took in far more than it paid out. It was a businessman's dream, a big service organization with no labor costs. People worked their asses off for no money. That is a miracle. It was not hard to guess Swiss bank. Nobody in their right mind would leave it here or send it back to India and Baba knew how to get more out of a nickel than even my father-in-law.

For a long time, though, my desire to believe in some unexperienced potential was too powerful to resist. I kept trying to switch realities, trying to become a saint. Baba kept jamming my head into the contradictions between my everyday experiences and my fantasies about how you get enlightened. Here I was hanging out with a saint, studying to be one. And here was the saint squeezing every buck and every ounce of energy he could get out of all of us. The contrast between what I saw and what I believed made my life hell. So what's new? I couldn't handle it. I finally had to give up beliefs and expectations. I really have to thank Baba for this. The lesson took. I keep on giving up my beliefs and expectations as I come on them and I keep getting happier.

However, there is something about Baba that I cannot account for if I see him as just another old rascal. At a retreat outside Denver, one of the first intensives, I sat in a pleasant, sunny room with 30 other "seekers." Baba walked in, sat down, said something about how beautiful we all were and he'd like to just sit in bliss for a while. He closed his eyes and we all settled into meditation. In a moment, I was filled with the most intense light and incredible ecstasy. All the other folks were sobbing or laughing and looking at each other with eyes full of love. This was a totally novel experience for me. He had me. Many times after that Baba gave me a touch or a look that melted my bones with love. He was an extraordinary being.

Baba brought the whole Hindu transformation scene over here and said, "Here's how you do it." Perhaps it was the only way he knew. It has its attractions. Surrender everything and you get everything. Helplessness turned into certainty. But giving in to authority is not the way to freedom. Sometime we have to grow up and take responsibility

for the choices that create and maintain our reality. For me this led to a universe of amazing possibilities. I found that there is more than one way to get to the ground of being. What kept me from realizing this were limitations I invented or accepted from a teacher and imposed on myself.

So here is Baba, shown as a saint, shown as a rascal. There is room for both in my head. I accept that I make my experience of Muktananda what it is. I imagine he must have laughed all the way to the bank. I also feel sorry for Baba. It was not all that much of a haul for living all those years as a prisoner of his devotees' expectations. Serves us all right for trying to make him into what we wanted.

Keith Gilchrist  
Paia, Hawaii

### So-called investigation

This is in regard of your article on Muktananda (Winter '83 CQ). What surprised me most is that a so-called investigative reporter based his whole article on fingerprinting and allegations. Not one shred of hard evidence was presented to verify that any of the events ever happened at all. Of the alleged string of violated young girls not one came forward to verify that it was true. The so-called goon squads that threatened the accusers could have been found and interviewed. None were. We have only the allegations of the accusers. The people to whom the young girls allegedly confessed are alive and well. They could have verified the facts. None were asked. Nothing presented verified that there has ever been a Swiss bank account. A case like this would be laughed out of court. Nevertheless it is an outstanding piece of yellow journalism. A hick reporter on a country newspaper would be promptly fired for this kind of reporting.

Melville McBride  
Aptos, California

William Rodarmor replies:

In writing an investigative story, it is wise to be somewhat skeptical of anything you hear from only one or two sources. For the Muktananda piece, I interviewed 27 people, both in and out of the ashram, and cross-checked their stories.

As far as Muktananda's sex life is concerned, I have lengthy tape-recorded interviews with two women who DID come forward, and their husbands. The report of sex was

confirmed by Chandra Dinga, denied by Muktananda's two successors.

When I interviewed Swami Chidvilasanda, one of the new gurus, she called the Swiss bank account "gossip." She was contradicted a few months later by the president of the Foundation. In an interview with the *Los Angeles Times*, published October 1, 1983, SYDA head Ed Oliver said that there WAS such an account, with \$1.5 million dollars in it.

Two eyewitnesses independently confirmed Swami Stan Trout's report of being beaten by Muktananda's bodyguard at South Fallsburg, and Chandra Dinga was in the room with Muktananda when he gave the order. The Berkeley police have confirmed the reports of death threats against the Dingas after they left the ashram, as did the lawyer they hired to stop the harassment. I personally heard a tape of one of the phone calls.

I agree that I should have talked to the bodyguards. To be perfectly honest, after everything I had heard, I was afraid of them.

### In praise of Baker Roshi

On reading Katy Butler's recent article "blackwashing" Richard Baker I felt I must do a little "whitewashing" to get at the truth, which is almost always some shade of grey.

I am not debating Ms. Butler's "facts" but I seriously resent the lack of any in-depth recognition of the positive things Baker led into reality. I, like you, Mr. Brand, have known R. Baker since BZ (before Zen) and find his real contribution to our lives in Northern California to be considerable, valuable and most increasing in the *quality* of our lives here. I am not a Zen but . . .

I have spent time in Tassajara and never had a more serene, benevolent, fear-free time in the last 30 years.

I have gone to events at Page Street Center and have been exposed to music and lectures that one could not have enjoyed anywhere else.

I have eaten often at Greens — which is not only a superb restaurant in all ways (food, service, and decor) but, more importantly, serves to show all of us that we don't have to eat meat to dine with dignity and joy.

I have also gone to many events at Green Gulch that were fascinating, singular and positive.

Granted, none of the above are religious experiences, but they are



experiences that enhance the quality of life today, and damn few people are doing that.

Of course, Richard Baker has helped — lots of it. Virginia and all the many staff and students make it all run and I know they work hard. But Richard put it all together and has enriched our lives far beyond the Zen group.

I think if the **CoEvolution**

**Quarterly** has any sense of integrity they will either print this letter intact — or have someone other than Katy Butler do another piece that gives credit where credit is due.

In closing, I find I can't resent one BMW when that guru in Oregon has 22 or more Rolls-Royces.

Come now, let's be fair.

John Carden Campbell  
Sausalito, California



## Religion and sex

... The articles on Muktananda and Baker were the only ones I read carefully. I was, as always, impressed with the writing of Katy Butler (I have been a fan of hers since her Bay Guardian days). But, more importantly, it was vividly brought to my attention that a person's sexual proclivities can get him into trouble more reliably than any other activities.

I am inclined to speculate that the two spiritual teachers could have indefinitely gotten away with their fancy cars and questionable money dealings, if only they'd been clever enough not to fuck their students. I don't know if it is true for those two men, but some men, no matter how highly evolved, act as if they have little or no control over their sexuality. It seems that they separate sex from the rest of their lives so effectively that they are completely different people when sexually

engaged. Perhaps in the parts of the world where Hinduism and Buddhism were born, a guru who has sex with his students (or one who squanders his students' money) is not rejected for so doing. . . .

Joani Blank  
Down There Press/Yes Press  
Burlingame, California

## A truly wicked Roshi

We have just read "Events are the Teacher" by Katy Butler. We read this with awe, trying to imagine all those flourishing industries, all that money flowing in, all those students, and all this in the Paris of the West. We drooled and our fantasies went wild. What we wouldn't give to trade Roshis.

Our Zen center is in one of the smog city's worst ghettos. Every time we start a business to earn enough money to get out, our Roshi shuts it down. We tried raising vegetables in a window box and he turned off the water. We opened a diner and our Roshi called the health department and finished us off. We started a publication and our Roshi sued us for publishing him. We bought him a secondhand Datsun and it was stolen and wrecked. Our priceless bells and statue were stolen twice. There are too few students, so scholarships are offered strangers off the street to fill the zendo. Our Roshi prefers beginners anyway . . . he says it's much better than TV. Reflecting on the San Francisco Zen Center controversy, we were even more in awe . . . could there really be a Zen Center with only one controversy in ten years? Our Roshi specializes in continuous multiple crises with palace intrigue. Upon further reflection, maybe our Roshi is now the one for Dick Baker to study under . . . ?

Seiko Long  
Joshin Bigelow  
Shuko Green  
La Jolla, California

P.S. The women students are sad to report that our Roshi has never once tried to romance any of them.

## Report from a lightning rod

I write to deeply thank **CoEvolution** for the courage to bring out into the open the dark, painful and well-kept secret regarding the teaching and enlightenment of Muktananda and Richard Baker.

Ten years ago I turned to Buddhism because I felt it offered clear spiritual instruction, it was part of a

living tradition, and it taught equality in terms of men's and women's ability to realize its highest goal of enlightenment. Buddhism, I felt, also presented women and men with an equal opportunity to manifest their enlightenment as lay people, as monks or nuns, as teachers.

As a feminist, I brought to my commitment to meditation practice a certain perspective. In 1978, with Deborah Hopkinson and other members of the Diamond Sangha in Hawaii, I helped found a journal of women and Zen. This work eventually allowed me the opportunity to speak at a number of Buddhist communities on such themes as women and enlightenment, women and the Buddhist tradition, women's place in today's western sangha.

Combining feminism with Buddhism was a radical act in the sense that by definition it integrated West and East. My feminism was very much a product of secular progressive democratic idealism — it fostered a questioning of hierarchal structures within Buddhism and it called into question the cultivation of devotion at the expense of dialogue between equals. Further, sources of support for that orientation were drawn from within the Buddhist tradition itself.

In going out into other spiritual communities and raising questions in a way that sought to encourage open discussion and mutual inquiry, I unwittingly became a lightning rod for long-pent-up powerful energies. Often women, but not only women, came to me or wrote me with their painful, confidential stories. Stories of sexual abuse — not physical abuse: emotional abuse. The stories had many variants but the essential elements included: 1) a male teacher, married or celibate, presenting himself as such to his students and to the wider world, 2) a sexual love affair with a student of days', months', or years' duration, usually initiated by the teacher, 3) the teacher's inference, sometimes baldly ("You will get kensho"), sometimes subtly, that through a sexual relationship the student would participate in the teacher's power, 4) with the exception of some of the teachers of Tantric Buddhism, the necessity to keep the affair secret from the community and from the outside world.

This secrecy and the abuse of power is, by and large, a neurotic situation for every person involved. The emotional damage this had done, to young girls, to spiritually earnest women students, and to wives of

teachers, not to mention the overall sangha, had not been told publicly until **CoEvolution** published its two articles.

If a teacher is seducing his students, male or female, what is that? Is it dharma? Is it a manifestation of his enlightened mind in action? Is it his infinite compassion operating to rescue a needy damsel from spiritual darkness? Is the teacher showing us that he too is "ordinary"? Is it a special transmission?

NO. I want to say NO so that it resounds and all its pain and anger and sense of betrayal is communicated. I won't keep the secret. I won't participate in the neurotic conspiracy of silence, not calling something by its plain obvious name — sexual abuse of power. Nor will I fear naming those who have dared to parade themselves in the context of their participation in and oftentimes initiation of such abuse:

*[Here the letter gives ten names of major Buddhist and other teachers in the U.S., some of Asian background, some not. On advice of our lawyer I'm not printing the names because, while*

*Susan Murcott has firsthand accounts of offenses, we don't. Also I'm uncomfortable with lists, period. What looks like a name in a category (the list) is in life a whole biography in a whole context, each one unique, a story in its own right. Given the sometimes grotesque effects that come with public print, I figure either tell the whole story or keep quiet. Susan Murcott, by phone, agreed to the letter appearing without names, but wanted to establish publicly her refusal to go along with further conspiracies of silence that she feels are a major part of the problem. She noted that in the Tantric Buddhist groups where teacher-student sex is openly acknowledged there is very little of the psychological damage she's found in other groups.*

—Stewart Brand]

I name this list because it is my broad experience of those who have confided to me first-hand accounts. These people have been lovers of teachers; wives of teachers; former lovers of teachers; students who have refused to be their teachers' lovers and who in turn were rejected as students; students who were inside observers or confidantes

of teachers or their lovers, who didn't like the scene and oftentimes left.

Some of these people have been dear friends, have been companions of the way for me. I have witnessed and experienced their pain.

My reflections today are these: we are the first and second generation of practicing Buddhists in America. This is the most serious crisis we have faced in terms of the healthy growth and flourishing of Buddhism in the West. This crisis is a result of the confluence of an Asian monastic tradition which paid almost no attention to sexuality, and our American culture which is obsessed with sexual expression, freedom and satisfaction. The abuse of power inherent in teacher/student relations can continue to be swept under the carpet to the detriment of the entire sangha, or we can take responsibility for seeing the facts and interjecting values, including values from within our own cultural inheritance, which uphold community, marriage, self-expression, and genuine love.

Susan Murcott  
Boston, Massachusetts

## Baker-roshi resigns as Abbot of Zen Center

On December 20, 1983, Richard Baker sent the following handwritten letter to the Board and students of Zen Center, San Francisco:

"Dear Zen Center Students and Friends,

"I have waited all these months trying to decide what to do because I did not know what to do to fulfill the vow I made to Suzuki-roshi to continue and to develop a place for his teaching which would endure.

"Now I see that my role as Abbot and leader is more damaging to the Sangha and to individuals than any help I may add by staying. And I see even more that the present situation and any effort I make in it is damaging to the teaching and this is completely unacceptable to me.

"I want to do what is best for Zen Center and the lineage and the teaching. And I want to do whatever I can to lessen, to end the deep suffering and pain many persons feel.

"So it is with deep regret and shame before Suzuki-roshi and you, that I resign as Abbot and Chief Priest of the San Francisco Zen Center. I resign with trust and hope in your wisdom, in the strength of your future, and in the compassion and intelligence of each of you and of all of you working together.

"Please heal and help me to heal the wounds I have opened and please end and help me to end the suffering I have caused. I know you can work together to make Zen Center the wonderful place to practice and place to share your lives that I know it can be.

"Thank you for being patient with me all these months while I absorbed the truth and teaching of this situation. And thank you for being patient with me all these years.

Sincerely,  
Zentatsu Baker"

The Zen Center Board of Directors accepted the resignation. At this writing the Board is inviting Katagiri-roshi to be Acting Abbot at Zen Center for a year. Katagiri is a former student of Suzuki-roshi who has been Abbot of the Zen group in Minneapolis, Minnesota for a number of years.

I am no Zen student, but I am a deeply indebted student of Richard Baker, of the membership of Zen Center, and of many individuals on the Zen Center Board. Here is as good a place as any for a deep bow of gratitude to them. I am profoundly impressed by the resolution they have found for their crisis.

—Stewart Brand



H. S. ROBINS

## Passing the boyfriend test

Congratulations on continuing to do a great job! I have positive proof now that you all tend to talk good sense to a broad spectrum of people: My boyfriend, a quintessential redneck (though a very nice man), said to me the other night over a copy of **CQ** "You know, for a bunch of egg-sucking liberals these people come up with some pretty good ideas." Keep up the cross-cultural effort.

D.  
Dillon, Colorado

# UNCLASSIFIEDS

The UNCLASSIFIEDS are a reader-to-reader service available to CQ subscribers only. They're designed to provide a cheap communications network for CQ readers and mild financial assistance to the magazine.

## TO ADVERTISE:

You must be a current subscriber. Please send a recent mailing label from the cover of CQ when you send in your ad copy. You may become a subscriber when you place your ad (see below). The first few words in your ad will be in all capital letters. (We cannot do any other words all capitals — they take up twice the space.) Rates are 50 cents a word. You count them and send us payment with copy. We will not bill. Payment must accompany copy and be in U.S. funds drawn on a U.S. bank. Your address must be included in ad copy as we will not forward replies.

To run a repeat ad, multiply your ad payment times the number of issues you want the ad to run. Send in that amount and we will print the same ad that many times. If you decide to repeat your ad after it has run or you wish to make a copy change, you must re-submit the entire ad.

Deadlines are two months before publication date. The next deadline is April 21 for the Summer issue; then July 21 for the Fall issue. Sorry, we will not take ads over the phone. Ads received after the deadline will be held for the following issue.

We print ads in the order received. "UNCLASSIFIEDS" — no categories. CQ subscription rates are \$18/year (\$21/year foreign and Canada). Please add this amount to your payment if you are not currently a subscriber. Order forms for subscriptions are at the back of this magazine. Mail ad and payment (made out to CoEvolution Quarterly) to Susan Erkel, CQ UNCLASSIFIEDS, P.O. Box 428, Sausalito, CA 94966.

**LIVING FREE** newsletter. Forum for debate among freedom-seekers, homesteaders, survivalists, libertarians, anarchists, outlaws. Lively, unique. \$7.00 for 6 issues, sample \$1.00. Box 29-CQ, Hiller Branch, Buffalo, NY 14223.

**SYSTEM SOFTWARE** custom developed. Small R&D company with proven record developing compilers, operating systems, data management software, etc., seeks commercial development contracts. Fixed price POD or T&M. Minimum contract \$50K. We are not cheap but very good, with national reputation for high quality implementations at the edge of the doable. Contact Mark Rain, Penobscot Research Center, Deer Isle, ME 04627.

**FINANCIAL INDEPENDENCE.** Get together with others to buy land, build homes, and create jobs. End up self-employed with no mortgage. "The Best Investment: Land in a Loving Community" details the Land Co-op approach to self-sufficiency. Send \$8.50 to Wellington Press, Box 13504-H, Tallahassee, FL 32317.

**PORTABLE DWELLING** newsletter: eclectically interweaves "space-age" & "primitive" technologies. Simple comforts easily improvised anywhere, candid product reports, contacts. 1/51: 6/85 (2 years). Message Post, POB 190-CQ, Philomath, OR 97370.

**FREE CATALOG** — Books by Rudolf Steiner for cultural renewal; agriculture, medicine, architecture, Waldorf education. Anthroposophic Press, 258 Hungry Hollow Road, Suite 2, Spring Valley, NY 10977.

**FREE CATALOG** of self-care tools assembled by CQ's medical editor Tom Ferguson. The Self-Care Catalog, P.O. Box 717-CQ, Inverness, CA 94937.

**NATIONAL ARCHIVES** researcher, photo-film documents. Fast and thorough. Eddie Becker, (202) 332-1000. 1844 Mintwood Pl. NW, Washington, D.C. 20009.

**TREES AND SHRUBS** for permaculture, edible landscapes. Tree, shrub, and herb seeds. Over 50 species. Permaculture design consultation. Send SASE for list. Frosty Hollow Nursery, Box 53, Langley, WA 98260. (206) 221-2332.

**DIET AND NUTRITION** Rudolph Ballentine, M.D. 650 pages. "A welcome addition to the literature on alternative approaches to health care. . . . Highly recommended." — Library Journal. \$12.20 postpaid. Free mail order catalog. Himalayan Publishers/Dept. CQ/RD 1, Box 88A/Honesdale, PA 18431.

**REALITY INSPECTOR.** Intriguing mystery investigates economic, social dilemmas. \$4.20. John Carls, 56 Westgate, San Francisco, CA 94127.

**BLOWER DOORS** — Start a House Doctor energy conservation business by using a blower door to solve air infiltration problems in houses. Professional model with computer, \$2970. House Doctor's Manual, \$9.75. Infiltec, P.O. Box 1533-CQ, Falls Church, VA 22041. 703/820-7696.

**HOMEOPATHIC MEDICINE!** Books, tapes, medicines. Free catalog. S.A.S.E. to: Homeopathic Educational Services, 2124Q Kittredge, Berkeley, CA 94704.

**CHOGYAM TRUNGPA, RINPOCHE** on tape, in our first Buddhist Home Study Course! Includes meditation instruction, text and workbook. Free brochure, write: Vajradhatu Home Study, Dept. CO-200, 1345 Spruce Street, Boulder, CO 80302.

**MICHAEL PHILLIPS' ARTICLES** available to you in draft form, before publication. Read them at home, add your comments. Cost \$10 per page. Send \$10.00 deposit for 100 pages. Each new article mailed to you will include an invoice showing the balance in your account. Checks to Michael Phillips, 1936 Buchanan St., S.F. 94115.

**PEACE FORCE.** Couple seeks permanent group to develop non-violent alternative to police and armies. Grant Stuehling/Bucks Harbor, Maine 04618.

**MASTURBATION, TANTRA, AND SELF-LOVE** is a charming book on an arcane topic. "Screw" magazine said: "This is one of those extraordinary, happy books that comes along just when you feel that sex is a dark closed room with a door that has no handle. . . . [this] enlightening book on Tantra and masturbation is so full of earned insight and detailed suggestion that I could only wish that all sex advice books were presented with such sincerity and finesse. . . ." Jan Goodloe in "The Update" said: ". . . [it] is a significant work about becoming a passionate being with the ability to use this passion to experience the divine. . . . Margo Woods [the author] . . . offers an approach to healing and creativity, the eradication of sexual dysfunction, and the attainment of ecstasy both alone and with others. . . ." Masturbation, Tantra and Self-Love is available from Mho & Mho Works, Box 33135, San Diego CA 92103 for \$7.50 plus \$5.50 mailing and postage.

**NEW-AGE SINGLES** advertise free in CONTACT magazine. Details free (current issue, \$3). Box 500-CQ, Mendocino, California 95460.

**WANT GOOD BOOKS ABOUT BOATS?** Send for "International Marine Books," a great free catalog of the best 500 current marine books. International Marine, Box CQ, Camden, ME 04843.

**MAKE YOUR OWN FUTON!** . . . In one evening for half retail cost! The traditional Japanese technique in detailed instructions — includes 8" tulung needle. Send \$8.00 to J.J. Smith, 502 Bonnardel, Sebastopol, CA 95472.

**FINE, HANDCRAFTED OAK CHEST.** Designed as hope, storage chest, ultimately as beautiful casket. For photo, prices send 3 stamps (60¢). Box 564, Creswell, OR 97426.

**THE OTHER SIDE** is a monthly magazine for Christians who care about justice and discipleship.

Some people call it the magazine that's easy to read — but hard to ignore. Each issue uses story-telling, humor, and down-to-earth commentary to tackle the tough questions that we ordinary people are facing. Questions like: How can I raise my children so they care about peace and justice? What can one person do to help avert a nuclear nightmare? What changes can I make today to start simplifying my life style? Subscriptions are \$16.75 per year. For a free sample, write: The Other Side, 300 W. Apsley St., Philadelphia, PA 19144.

**WANTED: LIVING ARRANGEMENT.** Native Tennessee recently relocated to Denver (Ph.D student/English) — 29, open-minded, musician (folk/old-timey), poet (1 book published), single, congenial, humorous, stable, non-tobacco-smoker — looking a) for friends; and b) to share house/apartment with like-minded people in Denver/Boulder area. Jim Clark, 2022 S. University Blvd., P.O. Box 31016, Denver, CO 80210.

**THE GRAPEVINE** — Monthly boycott information newsletter. Reliable, current information on boycotts: Coors, Nestle, Campbell, South Africa and many others. Shop with a conscience. Gary Snyder — "Good work." Francis Moore Lappe — "Tremendously useful." Sample \$1 — Year \$25. 217 South Hyland, Dept. C, Ames, Iowa 50010.

**UNINHABITED ISLANDS.** Unique book discusses over 180, \$7.95 postpaid, or details for stamp. Jim Stumm, Box 29-CQ, Hiller Branch, Buffalo, NY 14223.

**JACOBS WIND GENERATOR** 1800 watts, 110 volts. Rewired. \$1,950 + shipping. R.S. White, Star Rt. 1, Box 2009, Ely, MN 55731.

**RURAL 3.5 ACRE SOLAR SITE** 11 miles from Auburn, CA. Pines, road, electricity. \$22,000 cash. Trades, terms or solar speculation considered. 916-878-0296.

**ADDRESSED MAILING LABELS,** form letters prepared from your mailing lists. Quality work, low rates. Free sorting by ZIP. Or, mail to all on your list electronically! Send 50 cents for info package: includes samples, ideas for prosperous business. Computer-Crafts, RFD 2, Box 105, Edinburg, VA 22824



**READERS:** Why didn't you (\_\_\_\_\_) not  
Send replies to Paul Mark, Box  
5201, WWC, Swannanoa, NC 28778.

**NEIGHBORHOOD CARETAKER**, A Journal of  
Neighborhood Health Sciences, needs new  
interactive readers for dialog. Sponsored by  
Indianapolis Institute of Cultural Affairs.  
Send \$2.00 for trial subscription to ICA, 3038  
Fall Creek Pkwy N., Indianapolis, IN 46205.

**UNPLUGGING THE TELEVISION:** I am  
writing a book, like "Diet for a Small  
Planet," on taking charge, this time of  
leisure time: activities families and  
households enjoy together. Informal, inspira-  
tional, personal accounts of games, bedtime  
rituals, outdoor activities, skits and short  
plays, with young children, and learning  
about the world. Honorariums offered for  
contributions used. Frances Moore Lappe,  
5934 Ayala, Oakland CA 94609

**WEST MEETS EAST** in "The Vajradhatu  
Sun," a bi-monthly Buddhist newspaper  
reporting on the growth and ferment in the  
contemporary Buddhist world. Edited by  
Rick Fields, author of "How the Swans  
Came to the Lake," and CQ contributor. For  
1 yr. subscription (6 issues): send \$15 to Va-  
jradhatu Sun, Dept. CQ, 1345 Spruce St.,  
Boulder, CO 80302.

**"SARAH SIMPLEHEART"** 54 minute musical  
cassette. Classic story! Seven endearing  
songs! Up! Up! Up! Children play it over and  
over and over! Positive! Real values! Better  
than any Disney production! Guaranteed to  
fill the heart with love! Money back, if not  
satisfied! Sarah Box 425, Taos, NM 87571.

**CURE PREMATURE EJACULATION** — or  
money back with "Sexual Solutions." "After  
10 years of embarrassment, your book cured  
me in only three weeks." Louisville. "Your  
book really WORKS!" — NYC. "Practical, im-  
pressive, loving." — LA Times. "Sexual Solu-  
tions has been wonderful for my husband  
and me." — Tulsa. "The best guide." —  
Playboy. "Very helpful." — Denver.

"Humorous, sensitive, thorough. I pray for  
wide distribution." — CoEv. "Thank you from  
the bottom of my heart." — Arlington, VA.  
Also: Keys to high-quality lovemaking. Self-  
help for impotence. Women's sexuality.  
Contraception. And more. \$9.95 payable  
Self-Care Associates, 55 Sutter #645-A,  
San Francisco, CA 94104.

**TURNABOUT MAP** of the Americas (See CQ,  
Summer 1983) now available in magnificent  
full color on art paper. \$7.00 postpaid, rolled  
in tube. \$6.50 postpaid, folded, in 9 x 12 gift  
envelope. (Also in transparent covers for  
retail selling.) \$3.50 for b&w, folded, \$4.00 in  
tube. Both maps available in English or  
Spanish. Add 6% s.t. in Calif. Laguna Sales,  
Map Dept., 7040 Via Valverde, San Jose,  
CA 95135.

**FARMHAND/APPRENTICE** wanted for rural  
Prince Edward Island farmstead. Gardening,  
carpentry, logging with draft horses. Room,  
board, and small allowance. Black Horse  
Logging, R.R.3, Belle River, PEI, Canada C0A  
1B0.

**NAROPA Summer Institute's Programs** in-  
clude "Contemporary Jazz" (June 18—July  
13), with Robin Ford, Jerry Granelli, Gary  
Peacock, Paul McCandless, Collin Walcott";  
"Dance/Movement Studies and Dance  
Therapy" (June 18—August 10), with Richard  
Heckler, Anna Halprin, Keith Terry, Barbara  
Dille, Robert Dunn, Yoshiko Chuma, Nancy  
Stark Smith, Steve Paxton, Bonnie Bain-  
bridge Cohen, others; "Writing" (July 2—27),  
with Allen Ginsberg, William Burroughs,  
Robert Creeley, Diane diPrima, Amir Baraka,  
Philip Whalen, Anne Waldman, Norman  
Mailer, others; "Contemplative  
Psychotherapy Intensive" (June 24—30);  
"Christian Buddhist Conference" (Aug.  
3—7), with Aldo Rosh, Metropolitan An-  
thony Bloom, Bernadette Roberts, Brother  
David Steindl-Rast, others; "Conference on  
Aging" (Aug. 10—12), Dr. Barbara Myerhoff;  
"Awakening The Dream" (Aug. 10—12), Dr.  
Joan Halifax. For full information write  
Naropa Summer Institute, Dept. G6, 2130  
Arapahoe Avenue, Boulder, CO 80302.  
(\*Tentative)

**MEXICO — SIERRA MADRE GUIDED  
TOURS.** Get closer (Arrimate!) and get in-  
volved. Live with native family, learn  
Spanish, explore remote areas. Write — Ar-  
imate Tours, Box 7234, Boulder, CO 80306.

**CQs FOR SALE.** All issues EXCEPT #1 and #  
23. All 5 issues of "Place." Make offer.  
K. Hammons, 1409 West Ash, Riverton,  
WY 82501.

**PEACEWORKERS, ARTISTS, therapists,**  
scholars explore the intersection of personal  
lives and global threats in "Humpty Dumpty  
Report." Quarterly; \$10/year. Sample issue  
\$1. HDR/CQ, 84 Anderson, San Francisco,  
CA 94110.

**RUSTIC, HANDMADE FURNITURE APPREN-  
TICESHIP** desired by Japanese with four  
years experience making Shaker-type fur-  
niture on Aris Farm commune, Hokkaido.  
Especially interested in learning about using  
tools on hardwoods, and bending wood for  
Windsor-type chairs. Many methods can't be  
learned in Japan because there isn't  
anybody doing them here. Going to the U.S.  
autumn 1984. If you can introduce me to  
someone please write for further references  
to: Masayuki Uno, Isono-cho 10, Karashashi,  
Minami-ku, Kyoto, Japan 601.

**SEMINARY OF SELF-MASTERY** — Dynamic  
program of physical/spiritual development.  
Daily chanting, meditation, natural diet.  
Traditional/modern: Buddhist, Taoist, Gurd-  
jieff, others. Hot springs, mountains. Guru-  
free. SSMCE, Box 82, Middletown, CA 95461.

**VIRGINIA COMMUNE** — 12 years old —  
wants more members for extended-family  
type group. We seek stable folk for frugal,  
hard-working but full and rich country life.  
Especially need auto mechanics with  
6—8-year-old children. Write (with SASE) or  
phone Tom, Springtree, Rt. 2, Box 89, Scotts-  
ville, VA 24590 (804) 286-3466.

**THE PUBLIC DOMAIN SOFTWARE Copying**  
Company offers Double-sided Sample Disk  
20—50 programs and Catalogue \$12.00. For  
Osborne soldid, Kaypro-2, Morrow micro-  
decision, Superbrain Jr., Heath/Magnolia,  
Zenith 2100, DEC v1100, NEC pc-8001, TRS1  
Omikron CP/M, TRS3 MM-CP/M, Xerox  
820-1/2, IBM-pc CP/M86, T.I. pro, Access/  
Matrix computers (T.M.s). 33 Gold Street  
c13, NYC 10038 732-2565.

**HAND-BUILT BICYCLE FRAMES** from  
England. Beautiful and functional Wester  
Ross framesets made to your specifications  
without the excessive furbelows and ex-  
pense of U.S. custom builds. Complete infor-  
mation \$2.00 from John Livingston, 709 N.  
Christy Lane, Las Vegas, NV 89110.

**SOLAR RETROFIT** — SOUTHERN CALIFOR-  
NIA Retrofit professor offers 1/3 Acre, 4 BR,  
2 BA, Solarium, Hot Tub, Pool, Organic  
Gardens, Fruit Trees, Hillside, Beautiful  
View, Isolation, Quiet, yet within 30 minutes  
of 6 colleges & Universities. D. Anderson,  
6201 Winnetka Ave., Woodland Hills,  
CA 91371.

**FOR A STIMULATING, yet lasting and**  
wholesome family life consider group mar-  
riage: a lifestyle that brings together groups  
of best friends who share ideals and future  
visions for mutual growth and good times.  
We value partners equally, communicate  
openly, enjoy long lasting relationships, and  
are looking for more good friends. Write to  
get to know us and to network. Send SASE  
to Alternative Relationship Center, Box 3912,  
Eugene, OR 97403.

**GREENGENES** by A. Plant, **GOODGENES** for  
1984 by RNA, and **BLUEGENES** by E. Coll.  
Sweatshirts, T-shirts, Posters and Postcards.  
Designs from authentic electron  
micrographs, high-quality amusement. Free  
samples and catalogue. Ruth Kavenoff,  
DESIGNERGENES POSTERS, LTD., 106 11  
St., Del Mar, CA 92014, (619) 755-5593.

**MEDITATION, TIBETAN AND ZEN BUD-  
DHISM, ORIENTAL ARTS.** Complete selec-  
tion of books and practice supplies for the  
beginner or serious student. Many foreign  
and hard-to-find books. Also tapes of talks  
by Chogyam Trungpa Rinpoche, Osei Tend-  
zin, Situ Rinpoche, the Dalai Lama, and  
Naropa Institute's Christian-Buddhist Con-  
ferences. For a free catalog write to Naropa  
Institute Bookstore, Dept. CQ, 2011 10th  
Street, Boulder, CO 80302 or call  
(303) 449-6219.

**1984 PLANTING/HARVESTING GUIDE** and  
calendar, 23" x 30", includes moon phases  
and signs, sun signs, eclipses, and more,  
circling about a beautiful and inspiring draw-  
ing. \$5.00 ppd., 3/510. Calendars, Rt. 1 Box  
15, LaFarge, WI 54639.

**SOCIAL ECOLOGY SUMMER PROGRAM**  
9 COLLEGE CREDITS AVAILABLE JUNE  
22—JULY 21, 1984. What are the underlying  
causes of acid rain, the greenhouse effect,  
the oppression of women, and the ever pre-  
sent threat of nuclear annihilation? Examine  
these issues and others with Murray  
Bookchin, Grace Paley, Abbie Hoffman,  
Samuel Kayman, Dave Dellinger, Rayna  
Rapp, Daniel Berrigan, and Ynestra King  
during the Institute for Social Ecology's  
1984 Summer Program focusing on Social  
Theory, Feminism and Ecology, Ecological  
Agriculture, Holistic Health, and Alternative  
Technology. Write: Institute for Social  
Ecology, Box 89-V, Plainfield, VT 05667.

**MONEY WANTED:** Young man requires  
funds enabling long term travel on a  
minimum budget, for the purpose of ex-  
ploring other cultures and experiencing a  
different perspective on life. Your contribu-  
tion will go a long way toward expanding the  
awareness of another. Please send no  
strings attached. R.Z. P.O. Box 863, Tijeras,  
NM 87059.

**WILDERNESS ESTATE**, S.E. British Colum-  
bia. 83 acres woods and meadows, 2 creeks,  
small hydro system, excellent soils, fruit  
trees. Energy efficient 3700 square foot  
house near completion. Superb views, near  
large clean lake, 1 hour to commercial air-  
port. Substantial potential for communal or  
other development. Write: Powers Asso-  
ciates, P.O. Box 1104, Spokane, WA 99210.

**PROGRAMMING AND CONSULTING** com-  
pany desires a few additional quality clients.  
Track record in education, operations  
research, business, homebirth, and more.  
Alan White, ComputerCrafts, (703) 477-3886,  
RFD 2, Box 105, Edinburg, VA 22824.

**SISKIYOU LLAMA EXPEDITIONS:** Educa-  
tional Wilderness Experience. Exquisite  
llamas carry the gear, you hike uncon-  
dered by backpacks, enjoy delicious meals,  
trekking endangered wilderness mountains  
of Northwestern California and South-  
western Oregon: Siskiyou, Kalmiopsis,  
Cascades. Small groups, custom expedi-  
tions for seniors, children. Brochure: P.O.B.  
1330, Jacksonville, OR 97530.

**HELP STOP THE WAR!** The War goes on  
with helicopters, M-16s, herbicides and  
misery. We want to change the law that  
"lets" them war on us. The Oregon Mari-  
juana Initiative is trying, with an initiative  
petition, to have the voters of Oregon decide  
on the private possession and cultivation of  
marijuana, by adults, for personal consump-  
tion. We do not propose to legalize sales,  
public consumption, possession or cultiva-  
tion by minors, or operating machinery while  
intoxicated. It would be for adults only, in  
private only. We need 65,000 valid signatures  
by 6 July 1984, and 700,000 votes in favor on  
6 November 1984. We've gotten (by 1 Janu-  
ary) 27,000 signatures, and Initiative  
supporters are plugging away state-wide,  
but the war goes on and we need help. For  
information, write O.M.I., P.O. Box 8698,  
Portland, OR 97207, or call (503) 775-9250.  
Peace, Sandee Burbank, Chief Petitioner,  
O.M.I., Fred Oerther, M.D., Chief Petitioner,  
O.M.I., John Sajo, State Coordinator, O.M.I.

**PROFESSIONAL PILOT**, 5000+ hrs,  
worldwide experience, safe and conscien-  
tious. I would like to work with individual  
organization that is doing some good in the  
world. I require a liveable wage. T. Schneider,  
20 South Shore Rd., Elkton, MD 21921.

**HORTIDEAS NEWSLETTER** — Monthly  
 gleanings from international research for  
adventurous vegetable, fruit, and flower  
gardeners. Discover what other gardening  
periodicals leave out, without spending all  
your time in libraries! No advertising, an-  
nually indexed, edited by a professional  
horticulturalist. \$10 per year; sample \$1.  
Satisfaction guaranteed. Hortideas Q,  
Gravel Switch, KY 40328.

**MAPS FOR MAP FANATICS!** Eagle Eye sup-  
plies maps for travelers. Our latest catalog  
is \$1.00. Write today to Francis Stanton,  
Eagle Eye Maps, PO Box 30917, Seattle,  
WA 98103.

**HOLEY BOOKS** (to hide things in). Each of  
these real and partially readable books con-  
tains a twenty cubic inch, felt lined cache  
between its ubiquitous or boring covers. The  
books, handholed by a furry Oregonian, are  
available from Ed Duggan, 2426 N.E. 16,  
Portland, OR 97212 for twelve dollars each.



**BORN TO CLEAN!** I'd rather be ironing! *Misthoo* is powerful. And 12 other Official *Slagans* from *Ladies Against Women* hand-screened on a big 22" cotton bandana. Color choices: hot pink, light pink, baby blue. Send \$4 (or 2 for \$7) to: National Rutabaga Co., 20400 West Fifth Street #40, Sonoma, CA 95476.

**HOMEBREW RECIPE** — Personal "cabin fever" recipe, all natural. \$2.00, SASE: Homebrew, R1 Box 2252, Brooks, ME 04921.

**YOU DON'T NEED A COMPUTER** to network your group. "How to Start and Operate a Many-to-Many Communication System Through the Mail," practical article with examples. Send \$1.00 and SASE to: Ann Weiser, 537 Jones St., #9175, San Francisco, CA 94102.

**GLOBAL VIEW LINKS** Findhorn, Auroville, Tibetan communities in India and Nepal, hilltribe people of northern Thailand and other wonderful craftspeople in Asia, with western appreciators of their special crafts and handmade clothing. We helped develop cottage industries in Auroville, and some of us visit the Asian artisans yearly. *Global View* expressed our belief in mutual right livelihood in nurturing personal relationships with both producer and consumer as directly as possible. Our catalog illustrates natural fiber clothing, accessories, bedspreads, tapestries, the hammock-chaise, woodcrafts, stationery, books: \$1.00. Our retail store: *Global View*, Rt. 3-CQ, Spring Green, WI 53586. 508/583-5311.

**ALTERNATIVE LIFESTYLES.** Six rural communities, established over the last 16 years, invite you to visit. Discover our successful, cooperative, satisfying environments! Write for information. (\$1 postage please.) Federation of Egalitarian Communities, Twin Oaks-C4E, Louisa, VA 23093.

**VERMONT 100% PURE Fancy Grade Maple Syrup.** Gathered by hand and horse, produced by time honored methods. No chemicals, no cleaners. Priced directly from Jupiter Hollow Farm in Waterville. Gallons: \$19.95, 1/2 Gallons: \$13.00, Quarts: \$8.00. Please add \$3.00 per item for U.P.S. Duck Soup, Mill Village, Sudbury, MA 01776.

**TATTOO FUN BOOK:** Unique children's book; coloring, puzzles, information promoting the tattoo as personal expression and art. \$3.00. Dinah, P.O. Box 7133, Santa Rosa, CA 95407.

**POLARGUARD QUILTS/COMFORTERS.** Choose any pattern, size, fabric, colors, thickness. Highest quality materials. All major seams double-stitched. Affordable prices. Warmth and workmanship guaranteed for life. All inquiries receive prompt replies. Please send long SASE. Dittich's, Box 117, Curlew, WA 99118.

**ESCAPE . . .** with your Indian tipi. A portable structure designed for comfortable living through the four seasons. For brochure send \$1 to Great Plains Mfg., 1906 N. 34th St., Seattle, WA 98103 (206-634-3154).

**APOCALYPSE, A NEW MAGAZINE,** seeks subscribers and contributors. Eclectic and on the fringe, we will mix hope with despair, humor with paranoia, art with science, the rural with the urban, all in the prophetic, cooperative and mischievous traditions. For a copy of our first issue, send \$3.50 to *Apocalypse*, 673 9th Ave., N.Y., NY 10036. We welcome ALL submissions suitable for the black and white magazine format.

**MANDOLIN ENTHUSIASTS ATTENTION:** Subscribe to "Mandolin World News," the quarterly magazine for mandolin players, students, and fans. Founded in 1976 and still going strong. Features interviews, columns, access to mandolin information, and fun in every issue; mail-order catalog of hard-to-find accessories, instruction materials, records and mandolin gifts also available. Write for free catalog and complete details. Start your subscription now by sending \$10.00 (\$12 U.S. currency for foreign subscriptions) to our new address: Mandolin World, Dept. CQ, 107 Watson Street, Ripon, WI 54971.

**KNOW YOUR STUFF!** — Knowledgeable and lighthearted text explains dozens of natural foods. Manufacturing info, vitamin and cooking charts, recipes, cartoons. \$3.95 + \$1 P.H. WHAT'S THAT STUFF? 112 N. Glenwood, Columbia, MO 65201.

**STUDIES OF THE FUTURE** — The University of Houston-Clear Lake offers a unique Master's degree in Futures Studies. The curriculum includes an introduction to futures studies, forecasting techniques, systems analysis and numerous electives. Graduates use the program as a supplement to their professional training or as preparation for full-time work in futures forecasting and planning. For information, write: Program in Studies of the Future, University of Houston-Clear Lake, Houston, TX 77058.

**NOVA SCOTIA HOMESTEAD.** 2700 square foot house. All structural renovations completed from bare frame. Managed woodlot with roads. Organic gardens with winter solar growing development. New large and small barn. Details: Lynn Curtis, Box 912, Middletown, Nova Scotia, B0S 1P0, Canada.

**THE FULCRUM APPENDIX** is a mail order catalog of small press poetry, prose & miscellanea available for \$1.00 from the Fulcrum Bookshop, Box 397, Ocean Grove, NJ 07758.

**SIERRA FOOTHILLS HOUSE** — sturdy, 1600-s.f., 4-bdrm near downtown. Beautifully landscaped. Good condition. \$50,000 FHA loan and will consider trade for my \$20,000 equity. J.D. Stover, 13624 Red Duster Ct., Grass Valley, CA 95945.

**NIKOLA TESLA'S** autobiography, virtually unavailable since 1919. 111-page reprint includes a new introduction and all 17 original illustrations. Paperback \$7.95, hardcover \$12.95, postpaid. Hart Brothers, Box 205-F, Williston, VT 05495.

**EXCHANGE FRESH-DRIED HERBS** you pick/grow for those you can't. List needs/surplus, suggestions, your standards. Include long S.A.S.E., have patience. We'll match/respond. Herbet, 1824 E. Bryan Rd., Erda, UT 84074.

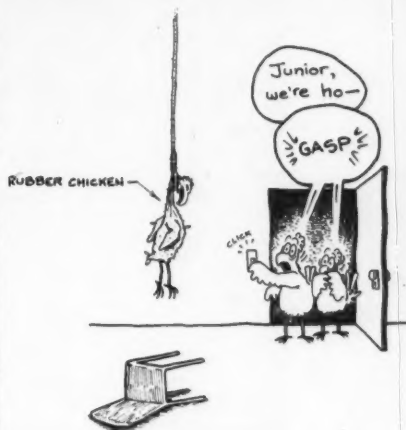
**HOUSESITTING COUPLE** available autumn '84 in San Francisco Bay Area. Returning from 2 years work in Australia. He hospice social worker. She Presbyterian minister. Gardening, cleaning and pet-sitting done with care. Write — David/Diana c/o Mineau's, 2737 N. West Ave., Fresno, CA 93705.

**STOP POISONING YOUR PET** and yourself. All natural, non-polluting, 100% effective flea shampoo \$5.95. Or send for this recipe and others for making natural pet products using easy, locally obtainable ingredients. \$3.00. Sequoia Connection, Rt. 3, Box 525, Vienna, IL 62995.

**PLUMBING FOR DUMMIES** is not for dummies. It's an awareness book dealing with "thundermugs" (toilets), drips (in sinks, showers, basins, tubs, pipes, valves, water heaters and roof gutters), and constipated sewers that won't pass anything without medication or major surgery. There's a fine basic Solar Water Heater section too! *Plumbing for Dummies* teaches you how to work high (as on roofs) to make repairs that'll keep water out of your pockets during the rainy season. Everybody thinks it's just great (see J. Baldwin's review, CQ No. 40). It's the only plumbing book we know that has the endorsement of the Plumbing Code Authority. Don Fredrikson, a working plumber for over twenty years, talks you through maintenance, repair and construction so that anyone who can read should be able to maintain, repair and replace residential water, sewer and gas plumbing. Get your copy from Whole Earth Access, or postpaid from NARIS, Post Office Box 3455, San Rafael, CA 94912. Publisher: Bobbs-Merrill. 238 pages — \$10.95. NAPIS accepts VISA and MC. Give name, phone number, account number and expiration date.

**LEARNING EXCHANGES** — programs for understanding community through direct experience and study in small groups. Merriam Hill Center began this educational exchange program in the mid-1970s to further understanding of, and among, three communities: AUROVILLE in India, FINDHORN in Scotland, and ARCOSANTI in Arizona. We offer these programs to self-motivated individuals interested in studying and serving these specific communities. For further information contact: Lisa Farina, Registrar, Merriam Hill Center, 129 Raymond Street, Cambridge, MA 02140. (617) 354-3431.

**FARMHOUSE FOR RENT,** and/or cooperative woodworking shop — rundown house, isolated, garden, pond, \$190+. Lesser, RD3 Chicora, PA 16025. (412) 894-2194.



**JUNIOR HAS SOME FUN WITH A STRATEGICALLY PLACED NOVELTY ITEM...**

**BACK IN PRINT!** Winter Gardening in the Maritime Northwest, 2nd Edition, fully revised/expanded. For those who want vegetables out in their gardens 12 months of the year. Useful from Alaska (apx 56°) to the Bay Area. \$9.95, WA residents add \$.75 tax. Maritime Press, P.O. Box 527, Everson, WA 98247.

**HEAT MIRROR™ windows, SOLAROLL™, PARSECT™** reflective barriers, structural stress skin panels and more. At CHILES POWER SUPPLY, we have chosen the most innovative and functional products which to us represent a good value. Send now for free catalog of energy conserving, energy producing and energy managing products. Write CHILES POWER SUPPLY, 3131 W. Chestnut Expressway, Springfield, MO 65802. 417-864-6108.

**1984: WILL YOU SURVIVE THE COMING NUCLEAR HOLOCAUST?** Read: *The Essence Manual of Discipline*, Level Two. NewDawn-cc, California, PA 15419-0693.

**WORKSHIRT,** 100% preshrunk cotton. Guatemalan handwovens or thick pinstriped cotton. Graduated sizes (all ages, all sexes) or send measurements for custom fit. SASE for free swatches: Workshirt, 604 Franklin, Decorah, IA 52101.

**HAWAII** is the least expensive state to live in. For illustrated report send \$3 to Hawaii Center for Alternative Lifestyles, Star Route 8-1270, Keauau, Hawaii 96749.

**CUTE HOUSE,** 4 1/2 + acres, views, spring. Creative rural area. \$39,000. Albertsen N.S.J. CA 95960-0347.

**SOLAR ELECTRICITY** — from a cell to a complete system for your home. Also hydro and wind-electric systems, inverters, wiring, meters, 12-volt lighting and the latest in D.C. appliances plus hard to find items. \$3.00 for new 48 page catalog. The Earth Store, P.O. Box 679-CQ, North San Juan, CA 95960.

**HANDMADE** luxurious silk camisoles and Teddies. Several styles, for under and outer wear. Send SSA envelope and \$1 for fabric samples and information. MJN, P.O. Box 89, Enterprise, OR 97828.

**MODERN HAIKU:** Foremost international English language haiku journal. Thrice National Endowment Arts recipient for excellence. Pays \$1 each haiku. Sample copy: \$3. P.O. Box 1752, Madison, WI 53701.

**CQ STAFFER,** cycling in England, Ireland and Europe, looking for places to stay and people to meet this summer. Please send invitations and suggestions to Jonathan c/o M.C. Eveleigh, 17 Hertford St., Cambridge, CB4 3AE, England.

## Gossip

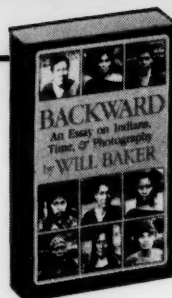
Interesting sequence. The infusion of a dollop of cash — \$567,000 from Doubleday, last summer, as advance for the **Whole Earth Software Catalog** — led to a number of developments affecting **CQ**. That much money, that much new work and new people, called for and paid for financial overseeing like we've never had before. Longggg overdue.

After 15 years of stabbing in the dark we suddenly had budgets, and soon, actuals (what actually got spent), followed by stark fear. We had a financial clarifier, Arnie Kotler, asking embarrassing questions and summing the answers. We had a swell accounting program (The Champion) for Andrea Sharp's book-keeping and a voluminous computer (Kaypro 10) to slice and dice the numbers. We had trouble, but for once it was anticipatory trouble instead of ex post facto too-late-now trouble.

The scrutiny revealed that parts of our business were rather far from making money to help keep everything going. They were losing. All this was good people doing good work of good service to the customers, but so structured that it threatened our fundamental service.

Which was what? Paul Hawken urged us to protect no sacred cows but question everything, including what we were up to really.

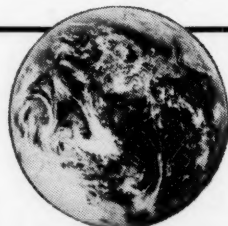
The central thing we do is publish. We mess with information. We take information and improve it — hopefully — and broadcast it. **CoEvolution, Whole Earth Software Review, Whole Earth Software Catalog**. The rest is either gravy or hemorrhage. The column in the *San Francisco Chronicle* is gravy; keep it. "Uncommon Courtesy" does good but loses money; put it to sleep until Point is fat enough to do interesting charity again. The mail-order operation, "Other Products," is an overall drain; either dive in and do it right (i.e. bigger) or quit; we quit — selling the inventory to the Whole Earth Access Company, who is already doing it bigger. We have too much expensive office space, too much of it filled with excellent but quiescent library; sell the library, fill its area with people, and let go the extra offices. **CoEvolution** still loses a little money; dive in and make it better; lower its expenses, keep improving its quality. Having **CQ** in LITE and BOLD editions seemed to be attracting neither scads of subscribers (about 500 LITE) nor wonderful dirty articles, but costing extra for printing and handling (\$7,000 a year?); so,



To my mind Will Baker outwits Peter Matthiessen, John McPhee, Ed Abbey, and Edward Hoagland in this account of primary encounters in South American highlands. **Backward: An Essay on Indians, Time, and Photography** is \$13.95 postpaid from North Atlantic Books, 2320 Blake Street, Berkeley, CA 94704. I wrote some jacket copy for it. So did Gary Snyder. We want him to get the audience he deserves. —SB

go to Plan B — dirty words, clean pictures, which is what the last three issues have been anyway, with no offense except for the booger-haters who were upset by Will Baker's "Candy Man" last issue. (See adjoining photo for word on Will Baker's new book.)

Easy to say all that. The reality involves the usual blood, sweat, and tears. Especially tears at losing Debbie Hopkins, mail order master and first-rate rock drummer for the Contractions, who diligently assisted the very analysis that eliminated her



## WESTFALL

ragweed is the plant  
grows best closest  
to the hard top road

there is a god  
she is our planet terra  
her messages are clear

mercy  
pitiless  
comic  
mercy

sam abrams

## Next Whole Earth Catalog Access Update

One of the most inventive periodicals we've ever reviewed, **The Answer Man Newsletter** (**CQ** Fall 1983, p. 121) is now defunct because proprietor Gary Warne unexpectedly died of a heart attack this past Thanksgiving. I'll miss his newsletter, the expression of an unusually vibrant and warm-hearted personality.

If you recently tried to order a self-help law book like **Legal Care for Your Software** (**CQ** Spring 1983, p. 100) or **Everybody's Guide to Small Claims Court** (**NWEC** p. 293) from Addison-

Wesley (the publisher we listed), you know that they no longer distribute the books. The original publisher, Nolo Press, is also the distributor now: contact them at 950 Parker Street, Berkeley, CA 94710.

Last issue I snidely criticized the excellent **Privacy Journal** (Winter 1983, p. 90) for its \$89/year subscription price. Publisher Robert Ellis Smith replied, "I can't dispute your beef about our subscription price (although we're far lower in price than comparable newsletters), but I do want to point out two things: Newsletters are not subsidized by ads and because of their format generally do not reach large audiences. Also, we have a special rate of \$25/year for individuals (as opposed to institutions), but we do not advertise this generally because to do so would dilute full-price subscriptions and thus prevent us from continuing publication. Whenever an individual writes us for subscription

job. As for the library, if it isn't sold by the time you read this, you might know someone who would be interested in the offer — it's a 7000-volume collection, nearly all recent, all selected for quality, organized in about 30 categories, valued retail at \$45,000 — \$50,000, offered at \$20,000 [contact David Cohn, (415) 332-4335]. Ah yes, David Cohn: another San Francisco Zen Center stalwart — the one who turned the Green Gulch Greengrocer corner store from a losing into a profitable operation — he is gradually replacing the irreplaceable Arnie Kotler, who is becoming even more entrepreneurial than we can offer. He's helping one guy start a streetcart bagel business and helping another assemble a field guide to computer businesses. If he does as well for them as for us with financial advice, their success is assured.

Point's biggest gamble in years, the **Whole Earth Software Review**, is just reaching the stands as I write, and we're atremble at what will happen with the 85,000 copies printed. The production crew of **CoEvolution** showed its range by making the first issue of the full-color TV Guide-size magazine have all the design flair and confidence of a booming fourth issue.

Peripheral pleasures come and go



**CQ's Debbie Hopkins on drums: on to broader horizons. Her group, the Contractions, has just released its first album, *Something Broke*, available for \$8 postpaid from Q'n'D Productions, P.O. Box 40515, San Francisco, CA 94140.**

around here. One year it's mountain bikes, another year it's sailing. Right now subscription handler and ocean-fancier (see his review of **Atlas of the Oceans** on p. 92) David Burnor is six weeks adrift in a 40-foot yawl in the Sea of Cortez. Meanwhile copy editor Joe Kane is exuberantly back from his salty sabbatical on and off

the Baja California coast. As deck ape he was to do most chores and accept most blames. When the head inevitably clogged, he was declared guilty and sent pearl diving in the plumbing for the obstruction. The skipper's wife's hairball that he found there he lovingly placed under her pillow.  
—Stewart Brand

information, we quote the \$25-a-year rate, and you may quote it to your readers." Now I can recommend **Privacy Journal** without reservation.

Two **Whole Earth Catalog** reviewers wrote us to tell of changes in books they reviewed. Martha Burning says that the new revised **Circle Guide to Wicca and Pagan Resources** (NWEAC p. 589) is much more complete and up-to-date than the old edition. It's \$10.95 from Circle, P.O. Box 9013, Madison, WI 53715. Dave Potvin says the beloved **Piano Owner's Guide** (NWEAC p. 477) is back in print: \$3.95 postpaid from Apex Piano Publishers, P.O. Box 1009, Mountain Home, AR 72653.

Some new addressees: The Handweaver's Guild of America (NWEAC p. 279) is at 65 La Salle Road, West Hartford, CT 06107. VITA, publishers of the **Village Technology Handbook** (NWEAC p. 180) are now at 1815 North Lynn Street, Arlington, VA 22209.

Christopher Swan's Suntrain Inc., featured in **Gossip** (CQ Fall '83) and on the Spring '80 CQ cover, is now at 1717 Green Street, San Francisco, CA 94123. We're still trying ourselves to track down these publishers, who have mysteriously disappeared: Eustis Press (**How to Make and Use Private Radio Codes**, CQ Fall '83); Hazelwood Press (**You're Gon'na Love It!**, same page in CQ Fall '83); Orenda/Unity Press (**The Way of Herbs**, Spring '83 CQ); and Autumn Press (various Tofu/Tempeh/Soy books in NWEAC p. 364).

CQ reader Jeff Travis, trying to order **Think Harmony With Horses** (CQ Winter '83, p. 53) found out its address is Give-it-a-Go Enterprises, P.O. Box 28, Tuscarora, NEVADA 89834 and not New York as we mistakenly printed. Tuscarora, he remembered, is also the setting of Will Baker's "The Legend of Great Uncle Jim" (CQ Spring '82). Another CQ reader, Bill Evans, found the com-

fortable E.A.R. plugs (CQ Fall '83, p. 126) at Bailey's Logging Supplies Catalog for half the price we quoted: \$6.25 a pack. Bailey's, reviewed on NWEAC p. 88, is at P.O. Box 550, Laytonville, CA 95454. Write for their catalog before ordering.

Finally, a NWEAC listee called Bramble Coins was indicted last December for fraud. According to an **Ann Arbor News** clipping sent by CQ reader Jeff Hicks, Bramble's proprietors "face charges of bilking nearly 500 investors out of more than \$1.1 million." The indictment charged that they "accepted money from investors interested in purchasing gold, silver, coins, and artifacts, and then used the money for their own benefit." George von Hilsheimer reviewed Bramble briefly in an article called "More Money, Honey" in the NWEAC 1st Edition (p. 302). We don't know how many, if any, of the bilked investors found out about Bramble through **Whole Earth**.  
—Art Kleiner

## CoEvolution Quarterly October, November, December 1983

<b>Income</b>	
Subscriptions & Renewals	83,654
Newsstand Distribution	17,814
Back Issues	5236
Mailing List	9043
Unclassified Ads	2400
Retainers & Sustainers	2043
<b>Total Income</b>	<b>120,190</b>

<b>Expenses</b>	
Point Corporate	5298
Machinery & Equipment	581
Freight (Distribution)	1382
Printing (Magazine)	28,088
Mailing List	588
Sub. Promo. & Fulfillment	15,919
Writers & Contributors	6420
Salary — Editorial	10,537
Salary — Production	12,171
Salary — Office	11,831
Salary — Circulation	6358
Equipment Rent/Lease/Maintenance	-23
Supplies (Office, Prod., Computer)	4862
Postage	1172
Publicity & Promotion	6136
Rent & Bldg. Maintenance	4627
Telephone	1841
Utilities	622
Miscellaneous Operating Expenses	2915

<b>Total Expenses</b>	<b>121,325</b>
<b>Profit/Loss</b>	<b>-1135</b>

\* We have changed our fiscal year and our report, for this one reporting period, overlaps one month with last quarter's report.

## Point Project Reports: October, November, December 1983

### Whole Earth Software Catalog & Review Income

Software Review	
Advance Subscriptions	44,326
Advance from Doubleday	0
Interest Earned	6863
<b>Total Income</b>	<b>51,189</b>
Expense	253,286
<b>Profit/Loss</b>	<b>-202,097</b>

### Uncommon Courtesy

Income	0
Expense	2773
<b>Profit/Loss</b>	<b>-2773</b>

### Chronicle Column

Income	6500
Expense	2766
<b>Profit/Loss</b>	<b>3734</b>

### Other Products

Income	31,157
Expense	40,528
<b>Profit/Loss</b>	<b>-9371</b>

## Thank you

<b>Maniacal Subscribers (\$1000)</b>	Robert Dunn Sparks, Nevada
Peter C. Akwai	Allan Hogle Gualala, California
Frankfurt am Main, West Germany	Michael O. Johnson Los Angeles, California
Denise & Norman Alm	James E. Lovelock Launceston, Cornwall England
Inchture, Perthshire Scotland	Douglas Martin Sausalito, California
Bamboo Flying Water New York, New York	Norman Pease Orinda, California
Donna Boyd & Gene Combs	Plant Just One Tree Love, Ma
Lexington, Kentucky	Katherine W. Tremaine Santa Barbara, California
Marlon Brando Beverly Hills, California	
Stephen & Julie Briggs Moretown, Vermont	

## Point Foundation December 31, 1983

<b>Assets</b>	
Cash in Bank	208,904
Accounts Receivable	
Distributor — CQ	31,085
Mailing List — CQ	9159

<b>Inventory</b>	
CQ Back Issues	10,943
Other Products	14,231
Random House (NWECC)	37,004

<b>Liabilities</b>	
Accounts Payable	
Miscellaneous	0
Subscriber Liability	
CQ	201,144
Software Review	79,437
Random House (NWECC)	89,614
Doubleday Advance	567,500

## "Or Whole Earth Access"

That phrase under access information in the **CoEvolution Quarterly** means you can mail order the item from the Whole Earth Access store, operated by Basic Living Products (CQ Summer '83 and NWECC p. 370). Do not send orders for books reviewed in CQ or the Whole Earth Catalog to **CoEvolution Quarterly**. Send your mail order book orders to:

Whole Earth Access  
2990 Seventh Street  
Berkeley, CA 94710

**Postage & handling:**  
Add \$2 per order.

**Rush orders U.P.S.**  
(Continental U.S.): 40 cents  
additional charge per book.

**Foreign orders** (surface mail): 50 cents additional postage per book past the first two. International Registry Insurance (add \$3.50 per order) is recommended. Payment only in U.S. funds drawn on a U.S. bank.

**California delivery:** Add 6% tax (BART counties 6½%).

**VISA/MasterCard** orders accepted.

**Telephone** (415) 845-3000.

Whole Earth Access has taken on mail order for CQ products. See page 152 for details.



Greg & Pat Williams  
Gravel Switch, Kentucky  
Ye Olde Tootie Fairye  
Birmingham, Alabama  
and 8 anonymae

#### **Sustaining Subscribers (\$100)**

Tremaine Arkley  
Independence, Oregon  
Timothy Bass  
Cambridge, Massachusetts  
Skip Bergin  
Sterling, Virginia  
Peter Bickford  
Lebanon, New Jersey  
Mrs. Arthur Brand  
Rockford, Illinois  
Mike Bunis  
Nashville, Tennessee  
In Memory of  
Richard Chernick  
Asbury, New Jersey

Rhea Davis  
Little Rock, Arkansas  
John Gilbert  
Chitina, Arkansas  
Pat Grealy  
Pasadena, Texas  
Arthur Hayssen  
Sebastopol, California  
Larry Holmgren  
Long Beach, California  
David Ilg  
Fremont, California  
J.L. Kirk  
Fairfax, Virginia  
B. Kliban  
San Anselmo, California  
Howard Landman  
& Gelly Archibald  
Hillsboro, Oregon  
William R. MacKaye  
Washington, DC  
Alexandra Martin  
Santa Fe, New Mexico

Mike & Chris Meador  
Indianapolis, Indiana  
Roy Rappaport,  
Ann Arbor, Michigan  
A.E. Roach II  
Washington, D.C.  
William Ryder  
Miami, Florida  
Evan Solley  
Portland, Oregon  
Jack Trainor  
Cambridge, Massachusetts  
Unity Church  
Alhambra, California

Walt's Mailing Service  
Spokane, Washington  
T. Winsberg  
Boynton Beach, Florida

#### **Retaining Subscribers (\$40)**

Michael J. Park  
Tarzana, California  
John A. Schumaker  
Rockford, Illinois  
R.E. Taylor  
Tulsa, Oklahoma

The Retaining Subscriber list includes only those who became retainers since the last issue, as of 11/10/83. Retaining and Sustaining Subscribers get your CQs in an envelope, delivered first-class or airmail, for one year. Maniacal Subscribers get your CQs in an envelope, first-class or airmail, for the rest of your life (or ours, whichever comes first). For all three, we gratefully publish your name and town in the magazine (unless you say not to). All contributions are tax-deductible because we're a nonprofit foundation.

## How to submit things to CoEvolution Quarterly

**1. Send them.** Address them to **CoEvolution Quarterly**, Attention: Assistant Editor, Box 428, Sausalito, CA 94966 and drop them in the mail. We are sitting here, being as bored as anyone else, reading all the mail, hoping some of it will be good.

What's good? New, not read a hundred times before, not an imitation of old CQ articles, often a personal passionate statement. Articles that sound like articles are often dead. Consider yourself to be writing a letter to an intelligent, uninformed friend about something that is interesting/important to you. We often print things that everyone, including the author, thought were too odd to be printed anywhere. Remember that we print all lengths from a paragraph to many pages, so don't puff a good, short idea into four tedious pages. And please don't try to please us by creating something you think we'll like. Being hustled is boring. We'd rather print true love — yours for your subject.

**2. Enclose a stamped, self-addressed envelope.** That's courtesy. You are much better at writing your address than we — all that practice. If you don't address and stamp an envelope for us to reply or return things in, your manuscript won't be returned to you if we reject it. Please include the correct amount of postage for the weight of your manuscript.

**3. Keep a copy.** We are careful and good but not perfect. You

should never send anyone the only copy of anything.

**4. Be patient.** We sometimes reply on submissions the day we get them, but you shouldn't get worried if there's no reply for about two months. Sometimes we have to show things to our far-flung, part-time editors, and that can take even longer. On the other hand, don't wait a year to tell us you sent something and didn't get an answer. Many manuscripts have flowed over the desk in that time, and it will be hard to remember what happened to yours or if we ever saw it.

**5. Be legible and put your name and address on the first page of the manuscript.**

If you are physically unable to use a typewriter, or geographically unable to get to one, neat handwriting is acceptable; otherwise type what you send. Our eyeballs are prejudiced against sloppy handwriting, and you won't get an objective reading if you insist on using it. When typing, double-space your manuscript — it helps make copy-editing and typesetting a lot easier.

**6. Avoid query letters.** Query letters are what writer's magazines tell you to send editors to find out if they are interested in a subject. We're less interested in the subject than in what you do with it. If at all possible, please send us the manuscript.

Exception: You have found an interesting and complex subject that would take a lot of time and work to

write about. If you want to know if CQ might be interested before proceeding, write a detailed, fact-filled letter about what you know and what you want to do, and send samples of your writing. The details and the samples might make it possible for us to make an intelligent reply. But in every case, it's better to send a manuscript than a query. (Please note: CQ doesn't have a budget for "kill-fees," so all submissions are on spec.)

**7. Notes on Book Reviews.** Write to that smart ignorant friend, introduce the book and get out of the way. A paragraph should usually be enough. The quotes are the thing — ideally they should be immediately useful and contain the soul of the book. You don't have to type the quotes, just note page numbers. It's not necessary to analyze the book; just say exactly why you love it.

It can take up to a year for us to decide on a book review, partly because we only publish four times a year. We don't decide about printing it until we've seen the book, which we order from the publisher, who may take a couple of months to send it. (Don't you send the book unless you don't want it back; it's hard enough to deal with returning manuscripts.) If we decide not to use your review, you won't hear further from us about it. If we do use it, you'll receive a check and tear sheet upon publication.

**8. Photographs.** Non-fiction articles are often accompanied by photos. The best by far for us to work with are black and white prints (either matte or glossy finish) that are 5x7 inches or 8x10. We can make do with 3x5, but it is better for us to reduce a big print than try to blow up a small one. Never send your negatives.

If the only photos you can get are color, we can make do — it's just a hassle because we print in black and white. For color we definitely prefer transparencies or slides to prints.

**9. Money & Rights.** We pay for everything we use upon publication. \$15 for letters used in Backscatter, \$10 to \$25 for photos (depending on what size we print) and \$60 to \$300 for articles. The article money varies depending on length, relative significance and provision of illustrations. Item and book reviews work like this — you get \$15 for being the first to suggest an item and \$15 for reviewing it. If you do both, you get \$30.

CQ buys first-use rights on material, though we reserve the option to reprint things in the *Whole Earth Catalog* or our *Whole Earth* column. If we reprint, you'll receive another fee.

Contributors maintain all other rights.

**10. Will you still love us if we reject your offering?** Editing is arbitrary. It's hard to explain why any given piece is rejected. To understand that, picture yourself leafing through a magazine, not liking an article, and suddenly being confronted by the author who wants you to explain why you didn't like the article. A cogent explanation would be somewhere between awkward and impossible and definitely time consuming. Our rejection notes tend to be short. It has to be that way if we're to have time to read all the mail carefully. If we turn down your piece, we may not convey in the note that we are grateful for all mail, that mail is all we've got, that the magazine would not exist if it weren't for mail from strangers who are good enough to share the wonders of their world with us.

We're waiting to hear from you.

—the CQ staff

#### Letter-writing

#### Versus Review-writing

Nearly every time that somebody

sends both a letter and a review we wind up printing the letter. In CQ #30 we printed the second paragraph of Paul Kyte's letter as a review instead of the review he enclosed. Compare them yourself.

—Stewart Brand

Dear Mr. Brand:

I recommend this book, *Making Home Video* for review in the *CoEvolution Quarterly*, the future *Whole Earth Catalog*, and the *Whole Earth Household Store*.

*It is the only book on home video (or home movies for that matter) that is written from the perspective of what someone might actually want to tape; like building a greenhouse or their kids playing with a dog (as opposed to telling how Hollywood faked Moses crossing the Red Sea and you can do it too with a home movie camera and a little help from the wife and kids). The book doesn't get bogged down in either brand names or technical details. It emphasizes how to use the medium elegantly, how to make people look good, how to record an event without intruding on it, and how to make tapes that are interesting enough to want to watch a second time.*

I have enclosed a copy of the book (I bought a batch to give to friends) and a copy of a review I wrote which you can use or not as you wish.

Yours, Paul Kyte,

West Newbury, Massachusetts

*No product hype in this book, just sound advice on making tapes of family, friends, and community that look good and don't bore people. The technical stuff is tucked away in an appendix. The author is a documentary film/video maker who considers home video a specialized genre of documentary. Also a good introduction to using consumer equipment for community advocacy, oral history, and low budget professional projects. Funky illustrations.*

—Paul Kyte

## POINT FOUNDATION

#### Point Board

Paul Hawken, Huey Johnson, Alan Rothenberg, Stewart Brand  
Irmine Steltzner, Secretary

#### Whole Earth Chronicle Column

J. Baldwin, Joe Kane

#### Whole Earth Software Catalog

Richard Dalton, Barbara Robertson, Matthew McClure, Kathy Parks,  
Jim Stockford, Cliff Figallo, Karen Hamilton, Cindy Craig

## COEVOLUTION

Quarterly

#### Publisher

Stewart Brand

#### Editor

Jay Kinney

#### Office Manager

Andrea Sharp

#### Assistant Editor

Richard Nilsen

#### Art Direction

Kathleen O'Neill

#### Research

Ben Campbell, Joe Kane, Susan Erkel

#### Typesetting

James Donnelly

#### Art Department

Don Ryan, Rebecca Wilson, Ted Schultz

#### Production Liaison

Jonathan Eveleigh

#### Proofreading

Susan Erkel, Hank Roberts

#### Subscriptions and Back Issues

Dick Fugett, David Burnor,

Cindy Craig, Lisl Folsom

#### Organizational Support

David Cohn, Lyn Gray, Arnie Kotler

#### Editor at Large

Art Kleiner

#### Illustrations

B.S. Beaver, James Donnelly,

Andrej Dudzinski, Mark Fisher,

Phil Frank, Alex Grey, Jim Ludtke,

Mark Mitcham, Kathleen O'Neill,

Harry S. Robins, Spain Rodriguez,

Don Ryan, Ellen Sasaki

#### Soft Tech and Nomadics

J. Baldwin

#### Land Use

Richard Nilsen, Peter Marshall

#### Learning

Carol Van Strum

#### Art

Robert Horvitz

#### Film

Sheila Benson

#### Medical

Planetree Health Resource Center

Tom Ferguson, M.D.

#### Craft

Marilyn Green

#### Mailing Services

Mailing Management, San Francisco

Publishers Aide, San Diego

#### Mailing List Brokers

Pacific Lists, Mill Valley

Triplex Direct Marketing Corporation,

San Rafael (fulfillment)

#### Printing

Warren's Waller Press, San Francisco

A.L. Lemos Company, San Francisco

(bindery)

Marinstat, Mill Valley

(stats and halftones)

Synthex Press, San Francisco

(mail order form)

# 1983 INDEX This index covers CQ for Nos. 37-40.

## Key:

- Article titles are indicated by a dark star (★).
- Article authors are indicated by a light star (☆).
- The remaining **bold-face** headings include the authors of books reviewed, manufacturers of products reviewed, and subjects covered.
- *Italic bold-face* headings indicate books or movies reviewed.
- The numbers to the right of each listing indicate its issue number and page number. (37:100 means CQ 37 [Spring 1983], page 100.)

Our thanks to Michael Haldeman of the Mediaworks, Boulder, Colorado for preparing the index, and to John Kirk for computer sorting and alphabetizing.



Access to robotics  
Ambats, Maris 38:106  
*Access to the World*  
Review 39:85  
Acid rain prevention system.  
Morse, David 39:90  
Addiction—Book Reviews  
Chocolate to morphine. 39:67  
Adobe—Book Reviews  
Down to earth. 39:95  
Adoption—Book Reviews  
Gamines. 38:84  
*Adventure Cycling in Europe*  
Review 37:109  
*Adventures of a Bystander*  
Review 37:144  
Advertising—Book Reviews  
Advertising Age. 38:117  
Advertising—Periodical Reviews  
Madison Avenue. 38:117  
Advertising Age  
Review 38:117  
Adzema, Robert  
Great sundial cutout book. 39:128  
*Aerobics Program for Total Well-Being*  
Review 38:85  
Africa—Description and Travel  
Letter from the oldest continent. 37:114  
African Wildlife Leadership Foundation  
African Wildlife Leadership  
Foundation/Wildlife News. 39:110  
Agricultural—Reviews  
HP books. 37:29  
Edible city resource manual. 38:51  
Agriculture—Latin America  
Third world savvy: disaster as  
good news 38:45  
Agriculture—Southwestern States  
Kokopelli—the humpbacked flute  
player. 37:4  
Air Pollution  
Acid rain prevention system. 39:90  
Alright barn: a superinsulated retrofit at  
New Alchemy. ★  
Smith, Bill 40:54  
Alaska: the point of it. ★  
Kesev, Ken 37:72  
Alexander, Greta ☆  
Japanese "love" hotels. 38:95  
*All New Complete Book of Bicycling*  
Review 37:110  
Allen, John S.  
Complete book of bicycle  
commuting. 37:111  
Alter a billboard. ★  
Board, William 38:114  
Alternative Education—  
Periodical Reviews  
Lomi School Bulletin. 38:128  
Alternative Energy—Book Reviews  
Tools for the soft path. 39:98  
Aluminum—Equipment and Supplies  
Alumsmiths. 37:54  
Amazing maze. ★  
Yoshida, Shinpei 37:1

Ambats, Maris ☆  
Access to robotics. 38:106  
*AMC Country Walks*  
Review 38:55  
*American Almanac of Jobs and Salaries*  
Review 37:58  
*American Demographics*  
Review 37:101  
*American Indians*  
See Native Americans.  
*American Medical Association Family*  
*Medical Guide*  
Review 38:83  
*American Society*  
Cartoons by Norman Dog. 39:117  
Not taking care of old people. 37:132  
Amnesia  
Amnesiac concerns. 37:96  
Amnesiac concerns. ★  
Bamberger, W.C. 37:96  
*Android Design*  
Review 38:106  
Andropov, Yuri  
Real intelligence: the world according  
to Andropov. 37:126  
*Angelo, My Love*  
Review, Movie 38:118  
Animal Rights—Organizations  
Buddhists Concerned for Animals. 39:50  
Animals  
See also Interspecies Communication,  
Wildlife.  
Animals—Book Reviews  
Nature watch. 39:111  
Rhythms of life. 39:110  
Ansbro, John J. ☆  
Martin Luther King, Jr. 39:24  
*Answer Man Newsletter*  
Review 39:121  
Anti-Nuclear Movement  
Mystery not mastery: a religious  
approach to preventing nuclear  
holocaust. 39:43  
Nuclear free zone how-to. 37:137  
Anti-Nuclear Movement—Periodical  
Reviews  
No Nuclear News. 38:40  
Nuclear Times. 38:40  
Anti-Nuclear Movement—Publications  
Preventing nuclear war. 40:91  
Appelhof, Mary  
Worms eat my garbage. 37:29  
*Apprentice Alliance*  
Review. 38:129  
Apprenticeship—Organizations  
Apprentice Alliance. 38:129  
Appropriate Technology—Periodical  
Reviews  
Tranet. 37:102  
Arab Culture  
Third world savvy: moon rock  
in Abu Dhabi. 38:46  
*Arabia*  
Review 39:46  
Architecture—Book Reviews  
Down to earth. 39:95  
Echoes of the ancient skies. 40:39  
Architecture—Periodical Reviews  
Arts and Architecture. 38:111  
Aries, Philippe  
Hour of our death. 40:40  
*Armada International*  
Review 37:101

Art  
See Public Art.  
Art—Periodical Reviews  
Arts and Architecture. 38:111  
*Artificial Reality*  
Review 38:106  
*Arts and Architecture*  
Review 38:111  
Ashford, Janet Isaacs  
Whole birth catalog. 39:82  
Association of Neighborhood Housing  
Developers  
Cheaper by the million. 40:63  
Astronomy—Book Reviews  
Echoes of the ancient skies. 40:39  
Solar system close-up. 40:40  
Astronomy—Recording Reviews  
Tapes of the night sky. 40:40  
Atmosphere  
Atmosphere notes. 39:105  
Atmosphere notes. ★  
Horvitz, Robert 39:105  
Atwill, Lionel  
Official survival game manual. 39:88  
*Audubon Society Field Guide to North*  
*American Butterflies*  
Review 40:36  
*Audubon Society Field Guide to North*  
*American Mushrooms*  
Review 38:61  
August 6, 1981: A survivor of Hiroshima  
writes his son. ★  
Franklin, George  
*Author Law & Strategies*  
Review 40:17  
Author of the acacia seeds: manuscript  
found in an ant hill (Journal of the  
Association of Therolinguistics). ★  
Le Guin, Ursula (as West, G.) 37:30  
Automobiles  
Toyota Tercel 4x4. 37:112  
Automobiles—Repairing—Book Reviews  
How to keep your Honda alive. 39:87  
*Avalanche Review*  
Review 40:102  
*Axe Handles*  
Review 40:21  
Aysal, Daphna  
Breasts. 38:83  
Ayensu, Edward S.  
Rhythms of life. 39:110

**B**

Babies—Book Reviews  
Whole birth catalog. 39:82  
Baer, Steve ☆  
Teamwork. 37:50  
Bagdikian, Ben H.  
Media monopoly. 39:116  
Bainbridge, David A.  
Integral passive solar water  
heater book. 38:63  
Baker, Richard (Roshi)  
Events are the teacher: working through  
the crisis at San Francisco Zen Center. 40:112  
Baker, Will ☆  
Candy man. 40:92  
Baking—Book Reviews  
Breads of France. 40:52  
Bamberger, W.C. ☆  
Amnesiac concerns. 37:96



<b>Bamford, James</b> Puzzle palace.	40:90	<b>Biographies—Book Reviews</b> Adventures of a bystander.	37:144	<b>Brown, David E.</b> Biotic communities of the American Southwest.	39:112
<b>Bananas</b> Third world savvy: disaster as good news.	38:45	<b>Biology</b> Devolution.	37:36	<b>Brown, John Buchanan</b> Mot juste: a dictionary of classical and foreign words and phrases.	38:97
<b>Barbarians and empire. ★</b> Fuller, Frederick	38:14	<b>Biology—Book Reviews</b> One DNA molecule.	39:1	<b>Brown, Lester O.</b> Hazardous waste in America.	38:52
<b>Barbidol, Pheno ★</b> Sexus revisited.	37:88	<b>Biosphere</b> Daisy world: cybernetic proof of the Gaia hypothesis.	38:66	<b>Brown, Robin</b> Nature watch.	39:111
<b>Bardagly, Joan C.</b> Humanscale.	40:60	<b>Biotic Communities of the American Southwest</b> Review	39:112	<b>Buddhism—Organizations</b> Buddhists Concerned for Animals.	39:50
<b>Barry, Lynda ★</b> Breaking up.	38:87	<b>Bird, Isabella</b> Lady's life in the Rocky mountains.	38:78	<b>Buddhists Concerned for Animals</b> Review.	39:50
<b>Barthelme, Volker</b> Street murals.	37:104	<b>Bitter Fog</b> Review	38:53	<b>Budoff, Penny Wise</b> No more menstrual cramps and other good news.	37:85
<b>Beckstrand, Peter ★</b> Deforestation in disguise.	37:12	<b>Blessed Simplicity</b> Review	39:51	<b>Building—Book Reviews</b> Earth sheltered owner-built home.	37:52
<b>Beer, Jennifer</b> Mediator's handbook.	40:51	<b>Bloomsbury Review</b> Review	38:112	<b>HouseWarming with Charlie Wing.</b>	40:58
<b>Behavior</b> Silence is a commons.	40:4	<b>Board, William ★</b> Alter a billboard.	38:114	<b>Logbuilder's handbook.</b>	38:64
<b>Behr, Peter ★</b> Extent of local political power.	37:139	<b>Boardroom Reports</b> Review	37:100	<b>Building for Tomorrow</b> Review	37:82
<b>Bein, Vic</b> Mountain skiing.	40:102	<b>Boats and Boating</b> See Houseboats.		<b>Bunnin, Brad</b> Author law & strategies.	40:17
<b>Benecki, John ★</b> Three true stories.	38:44	<b>Boats and Boating—Book Reviews</b> Elements of seamanship.	38:54	<b>Burke, Katy</b> Complete live-aboard book.	37:113
<b>Bennett, Jennifer</b> Harrowsmith northern gardener.	37:27	<b>Practical yacht joinery.</b>	39:87	<b>Business—Book Reviews</b> In search of excellence.	37:136
<b>Bennett, LaVerne ★</b> Party basement: girlhood song.	38:81	<b>Body—Book Reviews</b> It's MY body.	40:103	<b>Business—Japan—Book Reviews</b> Fifth generation.	39:121
<b>Benson, Sheila ★</b> Good movies: fall.	39:122	<b>Bodywork—Book Reviews</b> Massage and bodywork resource guide of North America.	39:84	<b>Business—Periodical Reviews</b> Boardroom Reports.	37:100
<b>Berger, John</b> Pig earth.	37:106	<b>Bollier, David</b> Liberty & justice for some.	39:42	<b>Butler, Katy ★</b> Events are the teacher: working through the crisis at San Francisco Zen Center.	40:112
<b>Berry, John D. ★</b> Regional cultural magazines.	38:112	<b>Book of Masonry Stoves</b> Review	40:59	<b>Butterflies—Book Reviews</b> Audubon Society field guide to North American butterflies.	40:36
<b>Berry, Wendell</b> Standing by words.	40:21	<b>Book of Puzzlements</b> Review	37:144	<b>By Little and By Little</b> Review	39:25
<b>Betrayal</b> Review, Movie	37:106	<b>Borom, Clifford</b> How to get parts cast for your antique stove.	40:59		
<b>Better Beer and How to Brew It</b> Review	39:67	<b>Borg, Susan</b> When pregnancy fails.	37:86		
<b>Bicycles and Bicycling</b> How did you bike across America?	37:108	<b>Boston Review</b> Review	38:112		
<b>Bicycles and Bicycling—Book Reviews</b> Adventure cycling in Europe.	37:109	<b>Bower, Bill</b> Helping health workers learn.	37:84	<b>California—Politics and Government</b> Extent of local political power.	37:139
<b>All new complete book of bicycling.</b>	37:110	<b>Bradley, Jeff</b> Young person's guide to military service.	38:121	<b>Camera Arts</b> Review	38:111
<b>Complete book of bicycle commuting.</b>	37:111	<b>Bradley, Martin</b> Android design.	38:106	<b>Campbell, Monica E.</b> Profit from pollution prevention.	37:82
<b>Bicycles and Bicycling—Equipment and Supplies</b> Blackburn bicycle racks.	37:109	<b>Brand, Stewart ★</b> Next? The politics OF religion.	39:53	<b>Candy man. ★</b> Baker, Will	40:92
<b>Burley lite bicycle trailer.</b>	37:110	<b>Brandow, Karen</b> No bosses here!	37:58	<b>Capoeira ★</b> Grossinger, Richard	38:122
<b>Sturmey Archer five-speed hub.</b>	37:108	<b>Brazil</b> Capoeira.	38:122	<b>Carpentry—Book Reviews</b> Practical yacht joinery.	39:87
<b>U-lok transit bus rack.</b>	37:111	<b>Real intelligence: biggest bank robbery in history.</b>	38:41	<b>Carrying capacity</b> Carrying capacity and the Greek dark ages.	40:29
<b>Bicycles and Bicycling—Organizations</b> Touring Exchange.	37:108	<b>Breads of France</b> Review	40:52	<b>Sentiment, guilt and reason in the management of wild herds.</b>	40:22
<b>Bicycles and Bicycling—Periodical Reviews</b> Bike Commuted Sentences.	37:111	<b>Breakouts. ★</b> Rieveschl, Gary	39:114	<b>Devolution.</b>	37:36
<b>Palenque Traveler.</b>	37:108	<b>Breakthrough</b> Review	39:51	<b>Running Out.</b>	37:18
<b>Bicycles and Bicycling—Publications</b> Touring cyclists' hospitality directory.	37:108	<b>Breasts</b> Review	38:83	<b>Walls within walls.</b>	37:60
<b>Bieler, Steven ★</b> Poem to be named later.	38:94	<b>Bresler, David E.</b> Free yourself from pain.	37:84	<b>Carrying capacity and the Greek dark ages. ★</b> Massey, Marshall	40:29
<b>Big Chill</b> Review, Movie	39:122	<b>Briggs, Raymond</b> When the wind blows.	39:61	<b>Cartography—Book Reviews</b> Mapmakers.	38:65
<b>Bike Commuted Sentences</b> Review	37:111	<b>Brittany</b> Report from Brittany.	38:28	<b>Maps.</b>	38:65
<b>Billboards</b> Alter a billboard.	38:114	<b>Britz, Richard</b> Edible city resource manual.	38:51	<b>Map use.</b>	38:65
<b>Bingham, Fred P.</b> Practical yacht joinery.	39:87	<b>Brody, Hugh</b> Maps and dreams.	39:104	<b>Catalogs—Book Reviews</b> International catalogue of catalogues.	37:87
<b>Biogas from Agricultural and Other Wastes</b> Review	40:62			<b>Solarwest electronic catalog.</b>	38:62
				<b>Whole Earth Access mail order catalog.</b>	38:85
				<b>Catcher in the ROM. ★</b> Knox, Keith R.	40:10









<b>Day, Dorothy</b> By little and by little.	39:25
<b>De Keijzer, Arne J.</b> China guidebook.	38:55
<b>De La Iglesia, Maria Elena</b> International catalogue of catalogues.	37:87
<b>Deaf and Deafness—Book Reviews</b> Hearing loss handbook.	38:84
<b>Death and Dying</b> Coma stories.	40:41
<b>Death and Dying—Book Reviews</b> Hour of our death.	40:40
<b>Deforestation in disguise. *</b> Beckstrand, Peter	37:12
<b>Demand</b> Review	37:100
<b>Demographics—Periodical Reviews</b> American Demographics.	37:101
<b>Dennett, Daniel C.</b> The Mind's I.	38:106
<b>Desert Harvest</b> Review	37:26
<b>Desert Plants</b> Review	39:112
<b>Desert Smells Like Rain</b> Review	37:26
<b>Deserts—Book Reviews</b> Biotic communities of the American Southwest.	39:112
	37:26
	39:88
<b>Deserts—Periodical Reviews</b> Desert plants.	39:112
<b>Design—Book Reviews</b> Humanscale.	40:60
	37:49
<b>Dethier, Jean</b> Down to earth.	39:95
<b>Devolution. *</b> Meredith, Austin	37:36
<b>Dictators</b> Philosopher king of Singapore.	39:62
<b>Dictionaries—Book Reviews</b> Mot juste: a dictionary of classical and foreign words and phrases.	38:97
<b>Diesel Engines</b> Chinese diesel engines.	37:54
<b>Dietrich, Jeff *</b> Symposium on spiritual politics: a journey back to the very things I had rejected.	39:26
<b>Diffrient, Niels</b> Humanscale.	40:60
<b>Disarmament</b> Joy of arms control.	39:54
<b>DNA</b> One DNA molecule.	39:1
<b>Dog, Norman *</b> Cartoons by Norman Dog.	39:117
<b>Dolphins—Book Reviews</b> Sierra Club handbook of whales and dolphins.	40:37
<b>Down to Earth</b> Review	39:95
<b>Dragonfly Wind Electric Generator</b> Review.	37:53
<b>Dreaming the Dark</b> Review	39:42
<b>Dreu, Leo *</b> Rachelann: a remembrance.	37:76
<b>Dreyfuss, Henry</b> Humanscale.	40:60
<b>Drucker, Peter F.</b> Adventures of a bystander.	37:144
<b>Drug Abuse and Addiction—Periodical Reviews</b> D.I.N. Newservice.	40:20
<b>Drugs (Intoxicants, Narcotics, Hallucinogens, etc.)—Book Reviews</b> Chocolate to morphine.	39:67
<b>Drugs (Intoxicants, Narcotics, Hallucinogens, etc.)—Periodical Reviews</b> D.I.N. Newservice.	40:20

<b>Drying Wood with the Sun</b> Review	40:63
<b>Dumpster cookery. *</b> Preston, Dianna	37:83
<b>Dunnigan, James F.</b> How to make war.	40:91
<b>Dykeman, Peter A.</b> Field guide to North American edible wild plants.	39:86

## E

<b>Ear Plugs</b> E-A-R plugs.	39:126
<b>Earth</b> Daisy world: cybernetic proof of the Gaia hypothesis.	38:66
<b>Earth Sculptures</b> Breakouts.	39:114
<b>Earth-Sheltered Buildings—Book Reviews</b> Down to Earth.	39:95
	37:52
	40:58
<b>Earth Sheltered Owner-Built Home</b> Review	37:52
<b>Earthquakes—Publications</b> Seismicity of the earth map: 1960-1980.	39:104
<b>Echoes of the Ancient Skies</b> Review	40:39
<b>Eckhart, Meister</b> Breakthrough.	39:51
<b>Ecology</b> Carrying capacity and the Greek dark ages.	40:29
	37:12
	40:22
<b>Ecology—Publications</b> Wildlife ecology handbooks.	39:111
<b>Economic Conditions—Brazil</b> Real intelligence: biggest bank robbery in history.	38:41
<b>Economic Conditions—Singapore</b> Philosopher king of Singapore.	39:62
<b>Economic Conditions—U.S.—Book Reviews</b> Healing America.	40:83
<b>Economics—Book Reviews</b> Next economy.	37:135
<b>Economics—Periodical Reviews</b> Challenge.	37:100
<b>Edible City Resource Manual</b> Review	38:51
<b>Editor tells all: "I was saved from certain death by Jim Jones's sunglasses." *</b> Kinney, Jay	39:4
<b>Education of Koko</b> Review	37:35
<b>Eggert, Jim</b> Low cost earth shelters.	40:58
<b>Eisenberg, Evan *</b> Joy of arms control.	39:54
<b>El Chichon and my friends. *</b> Ginter, Gary	40:82
<b>El Salvador—Description and Travel</b> Three true stories.	38:44
<b>El Salvador—Politics and Government</b> It's easier to stop a slow-moving vehicle than it is a runaway horse.	40:80
	38:44
<b>Elements of Seamanship</b> Review	38:54
<b>Elias, Thomas S.</b> Field guide to North American edible wild plants.	39:86
<b>Ellsberg, Robert</b> By little and by little.	39:25
<b>Empire As a Way of Life</b> Review	38:27
<b>Empire at Bay</b> Review	38:27
<b>Empires—Book Reviews</b> Empire as a way of life.	38:27

<b>Employment—Periodical Reviews</b> Community Jobs.	38:93
	37:113
<b>Endangered Species</b> Saving the creepy crawlies.	40:36
<b>Endangered Species—Book Reviews</b> IUCN invertebrate red data book.	40:36
	40:37
	40:38
<b>Endangered Species—Periodical Reviews</b> Endangered Species Technical Bulletin.	39:111
<b>Endangered Species Technical Bulletin</b> Review	39:111
<b>Enemies and friends: the varied nations of Central America. *</b> McLarny, Bill	40:64
<b>Energy—Book Reviews</b> Community energy cooperatives.	40:63
<b>Energy Conservation</b> Airtight barn: a superinsulated retrofit at New Alchemy.	40:54
<b>Energy Conservation—Book Reviews</b> HouseWarming with Charlie Wing.	40:58
	40:62
<b>Engling, Richard *</b> Gecko as roach-deterrent.	39:96
<b>English Language—Book Reviews</b> Truth about English.	38:97
<b>Environment</b> Acid rain prevention system.	39:90
<b>Epilepsy—Book Reviews</b> Living with epilepsy.	39:79
<b>Epstein, Samuel S.</b> Hazardous waste in America.	38:52
<b>Erichsen, Heino R.</b> Gamines.	38:84
<b>Escapees</b> Review	37:112
<b>Espinosa, Alvaro F.</b> Seismicity of the earth map: 1960-1980.	39:104
<b>Essays—Book Reviews</b> Standing by words.	40:21
<b>Europe—History</b> Barbarians and empire.	38:14
<b>Europe—History—Bibliographies</b> Barbarians and empire.	38:14
<b>Events are the teacher: working through the crisis at San Francisco Zen Center. *</b> Butler, Katy	40:112
<b>Everyone's Backyard</b> Review	38:52
<b>Evolution</b> Culture in the evolution of evolution.	37:46
	37:36
	37:45
<b>Evolution—Book Reviews</b> Coevolution.	40:39
<b>Exercise—Book Reviews</b> Aerobics program for total well-being.	38:85
<b>Experience Preferred—But Not Essential</b> Review, Movie	39:122
<b>Extent of local political power. *</b> Behr, Peter	37:139
<b>Eye of a bluefish. *</b> Wojcik, Jan	38:56

## F

<b>Fagerstrom, Grethe</b> Our new baby.	40:103
<b>Faith and Power</b> Review	39:25
<b>Family</b> Three-person two-some.	39:80
<b>Fanny and Alexander</b> Review, Movie	38:118



<b>Fantasy Fiction—Book Reviews</b> Reader's guide to fantasy.	37:105	<b>Franke, Monte</b> Going co-op.	40:51	<b>Germanic Peoples</b> Barbarians and empire.	38:14
<b>Farmers and Farming</b> Reflections by a farming woman.	38:76	<b>Franklin, George</b> ☆ August 6, 1981: a survivor of Hiroshima writes to his son.	39:59	<b>Geze, Francois</b> World View 1983.	38:40
<b>Farmers and Farming—Book Reviews</b> Farming game.	37:27	<b>Franklin, Michael</b> Reader's guide to fantasy.	37:105	<b>Gibbs, Lois Marie</b> Love Canal.	38:52
Pig earth.	37:26	Reader's guide to science fiction.	37:105	<b>Gift Giving Guide</b> Review	37:57
<b>Farming Game</b> Review	37:27	<b>Franz, Carl</b> On and off the road cookbook.	38:54	<b>Gilbert, Sara</b> Trouble at home.	38:121
<b>Fee, Jacqueline</b> Sweater workshop.	39:89	<b>Fredriksson, Don</b> Plumbing for dummies.	40:62	How to live with a single parent.	38:121
<b>Feed the Soil</b> Review	37:28	<b>Free Inquiry</b> Review	39:46	<b>Ginter, Gary</b> ☆ El Chichon and my friends.	40:82
<b>Feigenbaum, Edward</b> Fifth generation.	39:121	<b>Free Yourself from Pain</b> Review	37:84	<b>Gleason, Kay</b> Stamp it!	37:56
<b>Fell, Derek</b> Vegetables.	37:29	<b>Freeman, Lory</b> It's MY body.	40:103	<b>Glen, Jan</b> Sahara handbook.	39:88
<b>Fiction</b> Amnesia concerns.	37:96	<b>Friedman, Thomas</b> Life and death on the corporate battlefield.	37:136	<b>Glen, Simon</b> Sahara handbook.	39:88
August 6, 1981: a survivor of Hiroshima writes his son.	39:59	<b>Fuel—Book Reviews</b> Cheaper by the million.	40:63	<b>Glenn, William M.</b> Profit from pollution prevention.	37:82
Candy man.	40:92	Biogas from agricultural and other wastes.	40:62	<b>Globe</b> Review	39:85
Catcher in the ROM.	40:10	Jay Shelton's solid fuels encyclopedia.	38:63	<b>Glossbrenner, Alfred</b> Complete handbook of personal computer communications.	38:101
Shine on.	38:82	<b>Fuller, Frederick</b> ☆ Barbarians and empire.	38:14	<b>Gnaizda, Robert</b> ☆ Simple tax.	38:4
<b>Fiddleback</b> Review	40:53	<b>Fuller, R. Buckminster</b> Inventions.	40:60	<b>Gnostic Jung and the Seven Sermons to the Dead</b> Review	38:128
<b>Field Guide to North American Edible Wild Plants</b> Review	39:86	<b>Fuller, Robert</b> ☆ Mo Tzu in Kenya and Poland.	37:118	<b>Goc, Michael</b> ☆ Hand-me-down network.	40:48
<b>Fields, Rick</b> ☆ Perils of the path.	40:124	<b>Fundamentals of Interactive Computer Graphics</b> Review	38:104	<b>Going Co-op</b> Review	40:51
<b>Fifth Generation</b> Review	39:121	<b>Funding Exchange</b> Gift giving guide.	37:57	<b>Good, wild, sacred.</b> ★ Snyder, Gary	39:8
<b>Films—Reviews</b> Good movies: fall.	39:122	<b>Future Weather and the Greenhouse Effect</b> Review	37:35	<b>Good movies: fall.</b> Benson, Sheila	39:122
Good movies: spring.	37:106	<b>Futuyma, Douglas J.</b> Coevolution.	40:39	<b>Good movies: spring.</b> Benson, Sheila	37:106
Good movies: summer.	38:118			<b>Good movies: summer.</b> Benson, Sheila	38:118
Good movies: winter.	40:18			<b>Good movies: winter.</b> Benson, Sheila	40:18
<b>Fire in America</b> Review	38:53			<b>Gorillas—Book Reviews</b> Education of Koko.	37:35
<b>Firewood—Book Reviews</b> Drying wood with the sun.	40:63			<b>Goulds Pumps</b> Review	39:98
<b>First Principles</b> Review	39:58			<b>Government Employees and Officials</b> Prior censorship: forced security checks on writing by federal workers, starting now.	40:84
<b>Fish—Book Reviews</b> Vanishing fishes of North America.	40:38	<b>Gala</b> Daisy world: cybernetic proof of the Gaia hypothesis.	38:66	<b>Graffiti—Book Reviews</b> Spray it loud.	38:117
<b>Fishing</b> Eye of a bluefish.	38:56	<b>Game Management</b> Sentiment, guilt, and reason in the management of wild herds.	40:22	<b>Graphic Art and Artists—Periodical Reviews</b> U&Lc.	37:103
<b>Fishing—Periodical Reviews</b> In-Fisherman.	38:61	<b>Games—Book Reviews</b> Official survival game manual.	39:88	<b>Gray, D.M.</b> Handbook of snow.	40:61
<b>Fitness—Book Reviews</b> Aerobics program for total well-being.	38:85	<b>Gamines</b> Review	38:84	<b>Great Forest</b> Review	37:17
<b>Flea Market America</b> Review	39:83	<b>Gandhi, Mohandas K.—Publications</b> Gandhi book source.	39:42	<b>Great Sundial Cutout Book</b> Review	39:128
<b>Flea Markets—Book Reviews</b> Flea market America.	39:83	<b>Garbage Reincarnation</b> Review	37:80	<b>Greece (Ancient)</b> Carrying capacity and the Greek dark ages.	40:29
Where to sell anything and everything book.	39:83	<b>Garbage to Energy</b> Review	37:80	<b>Green, Joann</b> Small theatre handbook.	40:17
<b>Foley, J.D.</b> Fundamentals of interactive computer graphics.	38:104	<b>Garden Way's Joy of Gardening</b> Review	37:28	<b>Greenleaf Books</b> Gandhi book source.	39:42
<b>Food</b> Dumpster cookery.	37:83	<b>Gardening—Book Reviews</b> Desert harvest.	37:26	<b>Grey, Alex</b> ☆ Victim nightmares, sacred mirrors.	38:35
<b>Food—Preservation—Book Reviews</b> Preserving perishables with vacuum packing.	38:84	Edible city resource manual.	38:51	<b>Grey Fox</b> Review, Movie	39:122
<b>Foraging</b> Dumpster cookery.	37:83	Garden Way's joy of gardening.	37:28	<b>Gribbin, John</b> Future weather and the greenhouse effect.	37:35
<b>Foreign Languages—Dictionaries—Book Reviews</b> Le mot juste: a dictionary of classical and foreign words and phrases.	38:97	Harrowsmith northern gardener.	37:27	<b>Griffin, Ed</b> ☆ Symposium on spiritual politics: facing forbidden topics.	39:26
<b>Foreign Policy—U.S.—Book Reviews</b> Empire at bay.	38:27	HP books.	37:29	<b>Griffin, Susan</b> ☆ Symposium on spiritual politics: entering very dangerous territory.	39:26
<b>Forests and Forestry</b> See also Reforestation, Trees.		Youth gardening book.	39:113		
<b>Forests and Forestry—Book Reviews</b> Great forest.	37:17	<b>Gardening—Periodical Reviews</b> Gardens for All.	39:113		
<b>Fortean Times</b> Review	37:102	<b>Gardens for All</b> Review	39:113		
<b>Fox, Matthew</b> Breakthrough.	39:51	<b>Gates, Tom</b> Tapes of the night sky.	40:40		
Original blessing.	40:130	<b>Gaventa, John</b> How to research your local military contractor.	40:90		
		<b>Gays—Book Reviews</b> Legal guide for lesbian and gay couples.	39:83		
		<b>Gecko as roach-deterrent.</b> ★ Engling, Richard	39:96		

**G**



Grossinger, Richard ☆	
Capocira.	38:122
Guggenbuhl-Craig, Adolf	
Power in the helping professions.	40:130
Guide to Midwifery	
Review	37:86
Guitar poster	
Review	38:129
Gurus	
Letter from a former swami.	40:110
Secret life of Swami	
Muktananda.	40:104



## H

Hackleman, Michael ☆	
Waterworks.	40:61
Halaby, Rodrigo Arboleda ☆	
Third world savvy: disaster as good news.	38:45
Hammerschmidt, Mark ☆	
Symposium on spiritual politics: sitting with the dying in the middle of the night.	39:32
Hand Cleaner	
Review.	37:54
Hand-me-down network. ★	
Goc, Michael	40:48
Hand Tools	
Review	37:51
Handbook of Snow	
Review	40:61
Handcycles	
New England Handcycles.	37:109
Handfast: the trick of children. ★	
Tisdale, Sallie	40:1
Handicapped Persons—Book Reviews	39:85
Access to the world.	
Hanh, Thich Nhat	
Miracle of mindfulness!	39:50
Hansson, Gunilla	
Our new baby.	40:103
Harbeck, Kirk	
How to paint your house.	38:64
Hardin, Garrett ☆	
Sentiment, guilt, and reason in the management of wild herds.	40:22
Harding, Jim	
Tools for the soft path.	39:98
Harman, David	
Humanscale	40:60
Harrowsmith Northern Gardener	
Review	37:27
Havens, Lorena	
On and off the road cookbook.	38:54
Hawken, Paul	
Next economy.	37:135
Not taking care of old people.	37:132
Hazardous Substances	
See Toxic Substances.	
Hazardous Waste in America	
Review	38:52
Healing America	
Review	40:83
Health	
See also Women—Health.	
Health Care—Book Reviews	
American Medical Association family medical guide.	38:83
Current medical diagnosis and treatment.	37:85
Helping health workers learn.	37:84
Health Care—Organizations	
Planetree Health Catalog.	39:79
Hearing Loss Handbook	
Review	38:84
Heart Like A Wheel	
Review, Movie	39:122
Heating	
Kotatsu can kill.	37:87
Heating—Book Reviews	
Jay Shelton's solid fuels encyclopedia.	38:63

Heiserman, David L.	
Robot intelligence with experiments.	38:106
Projects in machine intelligence for your home computer.	38:106
Helping Health Workers Learn	
Review	37:84
Herbert, Anne ☆	
It's easier to stop a slow-moving vehicle than it is a runaway horse.	40:80
Safer too.	38:82
Shine on.	
Herbicides—Book Reviews	
Bitter fog.	38:53
Herbs—Book Reviews	
Way of herbs.	37:85
Heron-Allen, Ed.	
Violin-making as it was and is.	40:16
Hewitt, Paul G.	
Conceptual physics.	38:73
Hiking	
See Walking.	
Hiroshima	
August 6, 1981: a survivor of Hiroshima writes to his son.	39:59
History	
Running out: 4200 years of wood shortages.	37:18
Hodges, Carl ☆	
Third world savvy: moon rock in Abu Dhabi.	38:46
Hoeller, Stephan A.	
Gnostic Jung and the seven sermons to the dead.	38:128
Hofstadter, Douglas R.	
The mind's I.	38:106
Hogan, James P.	
Two faces of tomorrow.	38:106
Home Brewing—Book Reviews	
Better beer and how to brew it.	39:67
Honda Automobiles—Book Reviews	
How to keep your Honda alive.	39:87
Horned Lizards	
Review	37:35
Horses—Book Reviews	
Think harmony with horses.	40:53
Horticultural Publishing Co.	
HP books.	37:29
Horvitz, Robert ☆	
Atmosphere notes.	39:105
Hot Tubs—Equipment and Supplies	
Snorkel hot tub stove.	39:99
Hour of Our Death	
Review	40:40
House Painting—Book Reviews	
How to paint your house.	38:64
Houseboats—Book Reviews	
Complete live-aboard book.	37:113
Houses—Book Reviews	
Renovation.	37:52
HouseWarming with Charlie Wing	
Review	40:58
How to get a piano . . . cheap! ★	
Hutchinson, Joan	39:124
How to Get Parts Cast for Your Antique Stove	
Review	40:59
How to Keep Your Honda Alive	
Review	39:87
How to Live with a Single Parent	
Review	38:121
How to Make and Use Private Radio Codes	
Review	39:127
How to Make War	
Review	40:91
How to Paint Your House	
Review	38:64
How to Research Your Local Military Contractor	
Review	40:90
Humanscale	
Review	40:60

Humor—Periodical Reviews	
Wittenburg Door.	40:20
Hump-backed flute player. ★	
Snyder, Gary	37:8
Hunt	
Review	38:61
Hunt, Ray	
Think harmony with horses.	40:53
Hunting—Book Reviews	
Hunt.	38:61
Hutchinson, Joan ☆	
How to get a piano . . . cheap!	39:124
Hyman, Henry A.	
Where to sell anything and everything book.	39:83
I	
I'm On My Way Running	
Review	40:51
IDOC Bulletin	
Review	39:46
IJA Juggler's World	
Review	39:129
Illich, Ivan ☆	
Silence is a commons.	40:4
In-Fisherman	
Review	38:61
In Search of Excellence	
Review	37:136
Inc.	
Review	37:100
Income Tax	
Simple tax.	38:4
Independent Recording Companies—Periodical Reviews	
Record Roundup.	39:126
Indexes and Indexing	
Nineteen eighty-two index.	38:145
Indo-Europeans	
Barbarians and empire.	38:14
Infants—Book Reviews	
Watersafe your baby in one week.	38:120
Information Centers	
Planetree Health Catalog.	39:79
Information Centers—Periodical Reviews	
Answer Man Newsletter.	39:121
Insulation	
Airtight barn: a superinsulated retrofit at New Alchemy.	40:54
Integral Passive Solar Water Heater Book	
Review	38:63
Intelligence Agencies	
Prior censorship: forced security checks on writing by federal workers starting now.	40:84
Intelligence Agencies—Book Reviews	
Puzzle palace.	40:90
Intelligence Agencies—Periodical Reviews	
Center for National Security Studies.	39:58
International Catalogue of Catalogues	
Review	37:87
International Employment Hotline	
Review	37:113
International Finance	
Real intelligence: biggest bank robbery in history.	38:41
International Monetary Fund	
Real intelligence: biggest bank robbery in history.	38:41
International Politics—Book Reviews	
World View 1983.	38:40
International Solar Pond Letters	
Review	39:99
International Trade	
Third world savvy: disaster as good news.	38:45
Interspecies Communication—Book Reviews	
Education of Koko.	37:35
Interspecies Communication—Humor	
Author of the acacia seeds: manuscript found in an ant hill (Journal of the Association of Therolinguistics).	37:30



<b>Inventions</b>	
Review	40:60
<b>Investigative Reporters and Editors, Inc.</b>	
Reporter's handbook.	40:89
<b>Investing</b>	
Socially responsible investing.	38:90
<b>Investing—Bibliographies</b>	
Socially responsible investing.	38:90
<b>IPM for Tomatoes</b>	
Review	38:51
<b>Islam</b>	
Real intelligence: the politics of martyrdom.	40:100
<b>Islam—Book Reviews</b>	
Faith and power.	39:25
<b>It's easier to stop a slow-moving vehicle than it is a runaway horse. Safer too. ★</b>	
Herbert, Anne	40:80
<b>It's MY Body</b>	
Review	40:103
<b>IUCN Invertebrate Red Data Book</b>	
Review	40:36

## J

<b>Jabs, Carolyn</b>	
Re/uses.	37:80
<b>Japanese "love" hotels. ★</b>	
Phillips, Michael and Alexander, Greta	38:95
<b>Jay Shelton's Solid Fuels Encyclopedia</b>	
Review	38:63
<b>Jeffers, Robinson ★</b>	
Passenger pigeons.	37:45
<b>Jewelry Concepts and Technology</b>	
Review	37:55
<b>Jones, Bryan</b>	
Farming game.	37:27
<b>Jones, Jim</b>	
Editor tells all: "I was saved from certain death by Jim Jones's sunglasses."	39:4
<b>Jones, Maflen</b>	
Great sundial cutout book.	39:128
<b>Jordan, Boromir ★</b>	
Running out: 4200 years of wood shortages.	37:18
<b>Jour de Fete</b>	
Review, Movie	38:118
<b>Journalism—Book Reviews</b>	
Reporter's handbook.	40:89
<b>Joy of arms control. ★</b>	
Eisenberg, Evan	39:54
<b>Judaism</b>	
Mystery not mastery: a religious approach to preventing nuclear holocaust.	39:43
Real intelligence: the politics of martyrdom.	40:100
<b>Jugglers and Juggling—Equipment and Supplies</b>	
Airflite juggling clubs.	39:129
IJA Juggler's World.	39:129
<b>Jung, C.G.—Book Reviews</b>	
Gnostic Jung and the seven sermons to the dead.	38:128

## K

<b>Kals, W.S.</b>	
Land navigation.	39:86
<b>Kane, Joe ★</b>	
Socially responsible investing.	38:90
<b>Kansas Wind Energy Handbook</b>	
Review	37:53
<b>Kaplan, Frederick</b>	
China guidebook.	38:55
<b>Kavenoff, Ruth ★</b>	
One DNA molecule.	39:1
<b>Keeping track of the arguments: religion and politics in print. ★</b>	
Kinney, Jay	39:46
<b>Ken Kern's Masonry Stove</b>	
Review	40:59
<b>Kenya—Politics and Government</b>	
Mo Tzu in Kenya and Poland.	37:118

<b>Kern, Barbara</b>	
Earth sheltered owner-built home.	37:52
Ken Kern's masonry stove.	40:59
<b>Kern, Ken</b>	
Earth sheltered owner-built home.	37:52
Ken Kern's masonry stove.	40:59
<b>Kesey, Ken ★</b>	
Alaska: the point of it.	37:72
<b>Kidel, Mark ★</b>	
Report from Brittany.	38:28
<b>King, Martin Luther Jr.—Book Reviews</b>	
Martin Luther King, Jr.	39:24
<b>Kinney, Jay ★</b>	
Editor tells all: "I was saved from certain death by Jim Jones's sunglasses."	39:4
Keeping track of the arguments: religion and politics in print.	39:46
Outro.	39:52
<b>Kites</b>	
Gunther models.	38:129
<b>Kites—Book Reviews</b>	
Kites and other wind machines.	39:129
<b>Kites and Other Wind Machines</b>	
Review	39:129
<b>Kleiner, Art ★</b>	
Kotatsu can kill.	37:87
<b>Knitting—Book Reviews</b>	
Knitting without tears.	37:56
Sweater workshop.	39:89
<b>Knitting—Periodical Reviews</b>	
Machine Knitters News.	37:56
<b>Knitting Without Tears</b>	
Review	37:56
<b>Knox, Keith R. ★</b>	
Catcher in the ROM.	40:10
<b>Kogan Page, Ltd.</b>	
Le mot juste: a dictionary of classical and foreign words and phrases.	38:97
<b>Kohl, Herbert</b>	
Book of puzzlements.	37:144
<b>Kokopelli</b>	
Bibliography.	37:11
<b>Kokopelli—the humpbacked flute player. ★</b>	
Nabhan, Gary	37:4
<b>Koppelman, Phyllis Sheon</b>	
I'm on my way running.	40:51
<b>Komp, Richard</b>	
Solar electric home.	38:62
<b>Konner, Melvin</b>	
Tangled wing.	37:49
<b>Kotatsu can kill</b>	
Review	37:87
<b>Krueger, Myron W.</b>	
Artificial reality.	38:106
<b>Krup, Marcus</b>	
Current medical diagnosis and treatment.	37:85
<b>Krupp, E.C.</b>	
Echoes of the ancient skies.	40:39
<b>Kunz, Jeffrey R.M.</b>	
American Medical Association family medical guide.	38:83

## L

<b>Lady's Life in the Rocky Mountains</b>	
Review	38:78
<b>Lancaster, Don</b>	
Micro cookbook.	38:101
<b>Land</b>	
Good, wild, sacred.	39:8
<b>Land Navigation</b>	
Review	39:86
<b>Langsner, Drew</b>	
Logbuilder's handbook.	38:64
<b>Language</b>	
See Foreign Languages.	
<b>Language—Book Reviews</b>	
Book of puzzlements.	37:144
Standing by words.	40:21
Truth about English	38:97
<b>Language—Humor</b>	
More Texas crude.	37:91
<b>Lasker, Judith</b>	
When pregnancy fails.	37:86

<b>Last, Martin</b>	
Reader's Guide to Science Fiction	37:105
<b>Latinamerica Press Noticias Atladas</b>	
Review	39:46
<b>Laurins, Alex</b>	
Shelter What You Make—Minimize the Take	37:57
<b>Law—Book Reviews</b>	
Author law & strategies.	40:17
Legal guide for lesbian and gay couples.	39:83
<b>Laws, Priscilla W.</b>	
X-ray information book.	39:79
<b>Leatherwood, Stephen</b>	
Sierra Club handbook of whales and dolphins.	40:37
<b>Lee Kuan Yew</b>	
Philosopher king of Singapore.	39:62
<b>Left Politics</b>	
Rebirth of virtue: religion and liberal renewal.	39:18
Rescuing Jesus from the cross.	39:36
Symposium on spiritual politics.	39:26
<b>Left Politics—Book Reviews</b>	
By little and by little.	39:25
<b>Legal Care for Your Software</b>	
Review	38:100
<b>Legal Guide for Lesbian and Gay Couples</b>	
Review	39:83
<b>LeGuin, Ursula (West, G.) ★</b>	
Author of the acacia seeds.	37:30
<b>Lernoux, Penny ★</b>	
Symposium on spiritual politics.	39:34
<b>Lester, Julius ★</b>	
Symposium on spiritual politics.	39:34
<b>Letter from a former swami. ★</b>	
Trout, Stan	40:110
<b>Letter from the oldest continent. ★</b>	
Warshall, Peter	37:114
<b>Levine, Murray</b>	
Love Canal.	38:52
<b>Levine, Steven ★</b>	
Coma stories.	40:41
<b>Lewis, Chuck</b>	
You're gon'na love it.	39:127
<b>Liberty</b>	
Review	39:46
<b>Liberty &amp; Justice for Some</b>	
Review	39:42
<b>Life and Death on the Corporate Battlefield</b>	
Review	37:136
<b>Light Bulbs</b>	
Philips SL18 light-bulb.	40:61
<b>Lillard, Richard</b>	
Great forest.	37:17
<b>Lincoff, Gary H.</b>	
Audubon Society field guide to North American mushrooms.	38:61
<b>Linden, Eugene</b>	
Education of Koko.	37:35
<b>Litchfield, Michael</b>	
Renovation.	37:52
<b>Living with Epilepsy</b>	
Review	39:79
<b>Lizards</b>	
Gecko as roach-deterrent.	39:96
<b>Lizards—Book Reviews</b>	
Horned lizards.	37:35
<b>Lobbying and Lobbyists</b>	
Local citizen lobbying.	38:47
<b>Lobbying and Lobbyists—Book Reviews</b>	
Lobbying on a shoestring.	38:50
<b>Lobbying on a Shoestring</b>	
Review	38:50
<b>Local citizen lobbying. ★</b>	
Behr, Peter	38:47
<b>Local Politics</b>	
Extent of local political power.	37:139
Local citizen lobbying.	38:47
Local political rules of thumb.	37:138
Winning isn't always winning.	37:138
<b>Loeb, Paul</b>	
Nuclear culture.	37:137



<b>Log Cabins—Book Reviews</b>						<b>Monks—Book Reviews</b>	
Logbuilder's handbook.	38:64	<b>McCree, Cree</b>	Flea market America.	39:83		Blessed simplicity.	39:51
<b>Logan, Patricia</b>		<b>McCreight, Tim</b>	Complete metalsmith.	37:55		<b>Monroe, Judith W. ☆</b>	38:74
Community energy cooperatives.	40:63	<b>McDonnell, Jim</b>	No bosses here!	37:58		<b>Moon rock in Abu Dhabi. ★</b>	38:46
<b>Logbuilder's Handbook</b>		<b>McLarney, Bill ☆</b>	Enemies and friends: the varied nations of Central America.	40:64		<b>Moon Rocks</b>	
Review	38:64	<b>McLeod, Edwin</b>	Feed the soil.	37:28		Third world savvy: Moon rock in Abu Dhabi.	38:46
<b>Lami School Bulletin</b>		<b>McWilliams, Peter</b>	Personal computer book, etc.	39:120		<b>Moral Majority</b>	
Review	38:128	<b>Meacham, Beth</b>	Reader's guide to fantasy	37:105		Rebirth of virtue: religion and liberal renewal.	39:18
<b>Love Canal</b>		<b>Media Monopoly</b>	Reader's guide to science fiction	37:105		<b>Moral Majority—Book Reviews</b>	39:42
Review	38:52	Review		39:116		Liberty & justice for some.	39:42
<b>Love Hotels</b>		<b>Mediator's Handbook</b>		40:51		<b>Moral Majority Report</b>	39:46
Japanese "love" hotels.	38:95	Review		40:51		Review	
<b>Lovelock, James E. ☆</b>		<b>Medical Care—Book Reviews</b>				<b>Morality</b>	
Daisy world: cybernetic proof of the Gaia hypothesis	38:66	Current medical diagnosis and treatment.		37:85		Rebirth of virtue: religion and liberal renewal.	39:18
<b>Low Cost Earth Shelters</b>		X-ray information book.		39:79		<b>More rules of thumb. ★</b>	39:100
Review	40:58	<b>Menninger, Rosemary</b>	Women of the west	38:78		Parker, Tom	
<b>Lucha</b>		<b>Menorah</b>		39:46		<b>More Texas crude. ★</b>	37:91
Review	39:46	Review		37:36		Weaver, Ken	
<b>Luthier's Scrap Book</b>		<b>Meredith, Austin ☆</b>	Devolution.	37:36		<b>Morrison, David</b>	40:40
Review	40:16	<b>Meredith, Judith C.</b>	Lobbying on a shoestring.	38:50		Solar system close-up.	
<b>Lyle, David</b>		<b>Merrifield, Juliet</b>	How to research your local military contractor	40:90		<b>Morrison, Philip</b>	39:112
Book of masonry stoves.	40:59	Message Services		37:112		Powers of ten.	39:112
<hr/>						<b>Morrison, Phyllis</b>	39:112
<b>Machine Knitters News</b>		<b>Metalwork—Book Reviews</b>		37:55		Powers of ten.	39:112
Review	37:56	Complete metalsmith.		40:89		<b>Morse, David ☆</b>	39:90
<b>Machines</b>		<b>Michalowski, Helen</b>	Power of the people.	40:89		Acid rain prevention system.	39:90
Teamwork.	37:50	<b>Micro Cookbook</b>		38:101		<b>Mortimer, Edward</b>	39:25
<b>MacKenzie, Angus ☆</b>		Review		40:100		Faith and power.	
Prior censorship: forced security checks on writing by federal workers, starting now.	40:84	<b>Middle East—Politics and Government</b>		40:100		<b>Mot Juste: A Dictionary of Classical and Foreign Words and Phrases</b>	38:97
<b>Macy, Joanna Rogers ☆</b>		<b>Midstream</b>		39:46		Review	
Symposium on spiritual politics.	39:33	Review		39:46		<b>Mother Teresa's first love. ★</b>	39:68
<b>Madison Avenue</b>		<b>Midwestern States—Book Reviews</b>		37:17		Stevenson, Joseph McClendon	
Review	38:117	Where the sky began.		37:86		<b>Mountain Skiing</b>	40:102
<b>Madson, John</b>		<b>Midwifery—Book Reviews</b>		37:86		Review	
Where the sky began.	37:17	Guide to midwifery.		38:121		<b>Mountain Travel Book of Treks, Outings and Expeditions</b>	40:102
<b>Magazines</b>		<b>Military—Book Reviews</b>		37:101		Review	
Keeping track of the arguments: religion and politics in print.	39:46	Young person's guide to military service.		37:118		<b>Mountaineering—Book Reviews</b>	40:102
Make your own magazine.	37:100	<b>Military—Periodical Reviews</b>		37:101		Mountain travel book of treks, outings and expeditions.	40:102
<b>Magazines—Bibliographies</b>		<b>Military Industry and Trade—Book Reviews</b>		40:90		<b>Mountaineering—Periodical Reviews</b>	40:102
Regional cultural magazines.	38:112	How to research your local military contractor.		38:106		Avalanche Review.	40:102
<b>Mailing Services</b>		<b>Mind's I</b>		37:145		<b>Mr. Hulot's Holiday</b>	38:118
MCAA worldwide mail forwarding service.	37:112	Review		38:118		Review, Movie	38:65
<b>Male, D.H.</b>		<b>Miracle of Mindfulness!</b>		37:49		<b>Muehrcke, Phillip C.</b>	
Handbook of snow.	40:61	Review		38:129		Map use.	
<b>Map Use</b>		<b>Mitchell, John G.</b>		38:129		<b>Muktananda, Swami</b>	40:110
Review	38:65	Hunt.		37:118		Letter from a former swami.	40:110
<b>Mapmakers</b>		<b>Mo Tzu in Kenya and Poland.</b>		37:118		Secret life of Swami	40:104
Review	38:65	Fuller, Robert		38:129		<b>Mullan, Jane</b>	37:52
<b>Maps</b>		<b>Model Airplanes</b>		38:129		Earth sheltered owner-built home.	37:52
New world of understanding.	38:1	Gunther models.		37:145		<b>Mullan, Otis</b>	37:52
Review	38:65	<b>Model Boats</b>		37:145		Earth sheltered owner-built home.	37:52
Seismicity of the earth map: 1960-1980.	39:104	Gunther models.		37:145		<b>Mulligan, Kevin</b>	37:80
<b>Maps—Book Reviews</b>		<b>Models</b>		37:145		Operating a recycling program.	
Map use.	38:65	Paper Model Company.		38:106		<b>Murals—Book Reviews</b>	37:104
Mapmakers.	38:65	<b>Mon Oncle</b>		38:118		Street murals.	
Maps.	38:65	Review, Movie		37:49		<b>Murals—Periodical Reviews</b>	37:104
<b>Maps and Dreams</b>		<b>Monasteries—Book Reviews</b>		37:49		Community Murals.	
Review	39:104	Plan of St. Gall in brief.		37:49		<b>Mushrooms—Book Reviews</b>	38:61
<b>Marriage</b>		<b>Money</b>		38:90		Audubon Society field guide to North American mushrooms.	38:61
Three-person two-some.	39:80	See also Philanthropy.		38:90		<b>Musical Heritage Society</b>	38:97
<b>Martial Arts</b>		Socially responsible investing.		38:90		Review	
Capoeira.	38:122	<b>Money—Bibliographies</b>		38:90		<b>Musical Instruments</b>	39:124
<b>Martin Luther King, Jr.</b>						How to get a piano . . . cheap!	
Review	39:24					<b>Myer, Linda</b>	38:50
<b>Marva Collins' Way</b>						Lobbying on a shoestring.	
Review	37:145					<b>Myers, Norman</b>	40:37
<b>Masonry Stoves—Book Reviews</b>						Wealth of wild species.	
Book of masonry stoves.	40:59					<b>Mystery not mastery: a religious approach to preventing nuclear holocaust. ★</b>	39:43
Ken Kern's masonry stove.	40:59					Waskow, Arthur	
<b>Massage and Bodywork Resource Guide of North America</b>						<hr/>	
Review	39:84					<b>N</b>	
<b>Massey, Marshall ☆</b>						<b>Nabhan, Gary ☆</b>	37:4
Carrying capacity and the Greek dark ages.	40:29					Kokopelli—the humpbacked flute player.	
<b>Mazes</b>							
Amazing maze.	37:1						
<b>McCorduck, Pamela</b>							
Fifth generation.	39:121						

<b>Nabhan, Gary Paul</b> Desert smells like rain. 37:26	<b>Nose-Picking</b> Candy man. 40:92	<b>Parapsychology—Periodical Reviews</b> Fortean Times 37:102 The Skeptical Inquirer. 37:102
<b>Naiman, Arthur</b> Word processing buyer's guide. 38:105	<b>Not taking care of old people. *</b> Hawken, Paul 37:132	<b>Parents and Children</b> Handfast: the trick of children. 40:1
<b>National Archives</b> Review 39:127	<b>Nuclear Culture</b> Review 37:137	<b>Parents and Children—Book Reviews</b> Trouble at home 38:121 How to live with a single parent. 38:121
<b>National Center for</b> <b>Appropriate Technology</b> Drying wood with the sun. 40:63	<b>Nuclear Free Zones</b> Nuclear free zone how-to. 37:137	<b>Parker, Ron</b> Sheep book. 40:52
<b>National Directory of</b> <b>Shops/Galleries/Shows/Fairs</b> Review 39:89	<b>Nuclear Industry—Book Reviews</b> Nuclear culture. 37:137	<b>Parker, Tom *</b> More rules of thumb. 39:100
<b>National Recycling News</b> Review 37:80	<b>Nuclear Times</b> Review 38:40	<b>Party Basement: girlhood song</b> Bennett, LaVerne 38:81
<b>National Security Agency</b> <b>(NSA)—Book Reviews</b> Puzzle palace. 40:90	<b>Nuclear Warfare</b> August 6, 1981—a survivor of Hiroshima writes to his son. 39:59	<b>Parvin, Jack</b> How to keep your Honda alive. 39:87
<b>Native Americans</b> Hump-backed flute player. 37:8 Kokopelli—the humpbacked flute player. 37:4	<b>Nuclear Warfare—Book Reviews</b> Preventing nuclear war. 40:91 When the wind blows. 39:61	<b>Passenger pigeons. *</b> Jeffers, Robinson 37:45
<b>Native Americans—Book Reviews</b> Cocopelli stories. 37:11 Desert smells like rain. 37:26	<b>Nuns</b> Mother Teresa's first love. 39:68	<b>Passive Solar Journal</b> Review 39:99
<b>Native Americans—British Columbia—</b> <b>Book Reviews</b> Maps and dreams. 39:104	<b>Nurses and Nursing</b> Women's work. 38:80	<b>Patents—Book Reviews</b> Inventions. 40:60
<b>Native Americans—Mexico</b> El Chichon and my friends. 40:82	<b>Nyhuis, Jane</b> Desert harvest. 37:26	<b>Patterson, Francine</b> Education of Koko. 37:35
<b>Natural Foods—Book Reviews</b> Complete book of natural foods. 39:84	<b>O'Neill, Dan *</b> Blockade. 37:130	<b>Pawley, Martin</b> Building for tomorrow. 37:80
<b>Natural forests, au revoir. *</b> Stewart, Philip 37:14	<b>Oberg, Keith</b> Community energy cooperatives. 40:63	<b>Peace—Book Reviews</b> Whole earth security: a geopolitics of peace. 39:60
<b>Nature Watch</b> Review 39:111	<b>Oberst, Susan Sweitzer *</b> Reflections by a farming woman. 38:76	<b>Peace Movement</b> Mystery not mastery: a religious approach to preventing nuclear holocaust. 39:43 Mo Tzu in Kenya and Poland. 39:24
<b>Navajos—Book Reviews</b> Women in Navajo society. 38:78	<b>Ocone, Lynn</b> Youth gardening book. 39:113	<b>Peace Movement—Book Reviews</b> Peace Pilgrim 39:24
<b>Navigation—Book Reviews</b> Land navigation. 39:86	<b>Office Supplies</b> Quill office supplies. 37:58	<b>Peace Movement—Periodical Reviews</b> Planet Walker. 39:24
<b>Nelson-Erichsen, Jean</b> Gamines. 38:84	<b>Official Survival Game Manual</b> Review 39:88	<b>Peace Pilgrim</b> Review 39:24
<b>Neoprene</b> GACO neoprene coating. 40:63	<b>Oglesby, Carl *</b> Rescuing Jesus from the cross. 39:36	<b>Peoples Temple</b> Editor tells all: "I was saved from certain death by Jim Jones's sunglasses." 39:4
<b>Never Cry Wolf</b> Review, Movie 39:122	<b>Oil (Petroleum)—Arabia</b> Third world savvy: Moon rock in Abu Dhabi. 38:46	<b>Performance Art</b> Victim nightmares, sacred mirrors. 38:35
<b>New Age—Periodical Reviews</b> Lomi School Bulletin. 38:128	<b>Old People</b> Not taking care of old people. 37:132	<b>Perils of the path. *</b> Fields, Rick 40:124
<b>New age computer heresy.</b> Wagner, Pat 38:98	<b>On and Off the Road Cookbook</b> Review 38:54	<b>Perlin, John *</b> Running out: 4200 years of wood shortages. 37:18
<b>New Alchemy Institute</b> Airtight barn: a superinsulated retrofit at New Alchemy. 40:54	<b>One DNA molecule. *</b> Kavenoff, Ruth 39:1	<b>Perlis, Alan J. *</b> Computer epigrams. 38:102
<b>New world of understanding.</b> Map 38:1	<b>Ono, R. Dana</b> Vanishing fishes of North America. 40:38	<b>Personal Computer Book</b> Review 39:120
<b>NeWest Review</b> Review 38:112	<b>Operating a Recycling Program</b> Review 37:80	<b>Personal Computer in Business Book</b> Review 39:120
<b>Newservice</b> Review 40:20	<b>Organic Gardening</b> See Gardening	<b>Pest Control</b> Gecko as roach-deterrent. 39:96
<b>Newspapers—Book Reviews</b> Media monopoly. 39:116	<b>Original Blessing</b> Review 40:130	<b>Pest Control—Book Reviews</b> IPM for tomatoes. 38:51
<b>Newspapers—Periodical Reviews</b> USA Today. 39:116	<b>Ort, Myron</b> Preserving perishables with vacuum packing. 38:84	<b>Peters, Thomas J.</b> In search of excellence. 37:136
<b>Next Economy</b> Review 37:135	<b>Other Side</b> Review 39:46	<b>Pettifer, Julian</b> Nature watch. 39:111
<b>Next? The politics OF religion. *</b> Brand, Stewart 39:53	<b>Our New Baby</b> Review 40:103	<b>Pheffer, Marvin</b> Shelter what you make — minimize the take. 37:57
<b>Night of the Shooting Stars</b> Review, Movie 37:106	<b>Outdoor Life—Book Reviews</b> Land navigation. 39:86 Mountain travel book of treks, outings and expeditions. 40:102	<b>Philanthropy</b> Tithing successfully (when you don't have much to tithe). 37:57 Who really gives? 39:61
<b>Nineteen eighty-two index.</b> 38:145	<b>Outro *</b> Kinney, Jay 39:52	<b>Philanthropy—Book Reviews</b> Gift giving guide. 37:57
<b>Nineteen Sixties</b> Rachelann: a remembrance. 37:76	<b>Paganism—Book Reviews</b> Dreaming the dark. 39:42	<b>Phillips, Michael *</b> Japanese "love" hotels. 38:95
<b>Nirmal Hriday Home for Dying Destitutes</b> Mother Teresa's first love. 39:68	<b>Pain—Book Reviews</b> Free yourself from pain. 37:84	<b>Philosopher king of Singapore. *</b> Szanto 39:62
<b>No Bosses Here!</b> Review 37:58	<b>Palenque Traveler</b> Review 37:108	<b>Philosophy</b> More rules of thumb. 39:100
<b>No More Menstrual Cramps and</b> <b>Other Good News</b> Review 37:85	<b>Panikkar, Raimundo</b> Blessed simplicity. 39:51	<b>Photographs—Organizations</b> National Archives. 39:127
<b>No Nuclear News</b> Review 38:40	<b>Paper-Grate</b> Recycling now. 37:80	<b>Photography—Periodical Reviews</b> Camera Arts. 38:111
<b>Nonviolence—Book Reviews</b> Power of the people. 40:89	<b>Paper Model Co.</b> Review 37:145	
<b>North America</b> New world of understanding. 38:1		
<b>North Country Anvil</b> Review 38:112		



<b>Photovoltaics—Book Reviews</b>		<b>Power in the Helping Professions</b>		<b>Ray, Richard</b>	
Practical photovoltaics.	39:99	Review	40:130	Cirtus.	37:29
Solar electric home.	38:62	<b>Power of the People</b>		<b>Raymond, Dick</b>	
<b>Photovoltaics—Catalogs—Book Reviews</b>		Review	40:89	Garden Way's joy of gardening.	37:28
Solarwest Electric.	38:62	<b>Powers of Ten</b>		<i>Re/Uses</i>	
<b>Physics—Book Reviews</b>		Review	39:112	Review	37:80
Conceptual physics.	38:73	<b>Practical Guide to Small Computers</b>		<b>Read-Aloud Handbook</b>	
<b>Piano Servicing, Tuning and Rebuilding</b>		Review	37:105	Review	38:120
Review	40:16	<b>Practical Photovoltaics</b>		<b>Reader's Digest Home</b>	
<b>Pianos</b>		Review	39:99	<b>Improvements Manual</b>	
How to get a piano . . . cheap!	39:124	<b>Practical Yacht Joinery</b>		Review	39:94
<b>Pianos—Book Reviews</b>		Review	39:87	<b>Reader's Guide to Fantasy</b>	
Piano servicing, tuning		<b>Prairie Life—Book Reviews</b>		Review	37:105
and rebuilding.	40:16	Where the sky began.	37:17	<b>Reader's Guide to Science Fiction</b>	
<b>Pig Earth</b>		<b>Pregnancy—Book Reviews</b>		Review	37:105
Review	37:26	Our new baby.	40:103	<b>Reading—Education—Book Reviews</b>	
<b>Pinckert, Robert C.</b>		When pregnancy fails.	37:86	Read-aloud handbook.	38:120
Truth about English.	38:97	Whole birth catalog.	39:82	<b>Real intelligence: the biggest bank</b>	
<b>Pioneer Women</b>		<b>Preserving Perishables with</b>		<b>robbery in history *</b>	
Review	38:79	<b>Vacuum Packing</b>		Szanto	38:41
<b>Plan of St. Gall in Brief</b>		Review	38:84	<b>Real intelligence: the world according</b>	
Review	37:49	<b>Preston, Dianna *</b>		<b>to Andropov. *</b>	
<b>Planet Walker</b>		Dumpster cookery.	37:83	Szanto	37:126
Review	39:24	<b>Preventing Nuclear War</b>		<b>Rebirth of virtue: religion and</b>	
<b>Planetree Health Catalog</b>		Review	40:91	<b>liberal renewal. *</b>	
Review	39:79	<b>Price, Lorna</b>		Townsend, Kathleen Kennedy	39:18
<b>Planetree Health Resource Center</b>		Plan of St. Gall in brief.	37:49	<b>Reblitz, Arthur A.</b>	
Planetree Health Catalog.	39:79	<b>Printmaking: History and Process</b>		Piano servicing, tuning	
<b>Plants—Book Reviews</b>		Review	40:17	and rebuilding.	40:16
Biotic communities of the American		<b>Prior censorship: forced security</b>		<b>Record Industry and Trade</b>	
Southwest.	39:112	checks on writing by federal workers,		<b>Record Roundup</b>	
Field guide to North American		<b>starting now. *</b>		Review	39:126
edible wild plants.	39:86	MacKenzie, Angus	40:84	<b>Recreational Vehicles—Periodical Reviews</b>	
<b>Plants—Periodical Reviews</b>		<b>Privacy—Periodical Reviews</b>		Escapes.	37:112
Desert plants.	39:112	Privacy Journal.	40:90	<b>Recycling</b>	
<b>Playtime</b>		<b>Privacy Journal</b>		Hand-me-down network.	40:48
Review, Movie	38:118	Review	40:90	Recycling now.	37:80
<b>Plumbing for Dummies</b>		<b>Pro-Log</b>		<b>Recycling—Book Reviews</b>	
Review	40:62	Review	38:63	Recycling now.	37:80
<b>Poem to be named later. *</b>		<b>Profit from Pollution Prevention</b>		<b>Recycling—Organizations</b>	
Bieler, Steven	38:94	Review	37:80	Recycling now.	37:80
<b>Poems</b>		<b>Projects in Machine Intelligence</b>		<b>Recycling—Periodical Reviews</b>	
Hump-backed flute player.	37:8	<b>for Your Home Computer</b>		Recycling now.	37:80
Party basement: girlhood song	38:81	Review	38:106	<b>Recycling Mixed Waste Paper</b>	
Passenger pigeons.	37:45	<b>Psychotherapists—Book Reviews</b>		Review	37:80
Poem to be named later.	38:94	Power in the helping professions.	40:130	<b>Recycling now. *</b>	
White whoolymuffs.	38:86	<b>Public Art</b>		Warshall, Peter et al.	37:80
<b>Poetry—Book Reviews</b>		Alter a billboard.	38:114	<b>Reese, Lyn</b>	
Axe handles.	40:21	Breakouts.	39:114	I'm on my way running.	40:51
<b>Poland—Politics and Government</b>		<b>Public Art—Book Reviews</b>		<b>Reese, M.R.</b>	
Mo Tzu in Kenya and Poland.	37:118	Street murals.	37:104	Better beer and how to brew it.	39:67
<b>Politics</b>		<b>Public Art—Periodical Reviews</b>		<b>Reeves, Randall R.</b>	
See also Left Politics, Local Politics,		Community Murals.	37:104	Sierra Club handbook	
Politics and Religion, Right-Wing Politics.		<b>Pumps</b>		of whales and dolphins.	40:37
<b>Politics and Religion</b>		Goulds pumps.	39:98	<b>Reflections by a farming woman. *</b>	
Editor tells all: "I was saved		<b>Puzzle Palace</b>		Oberst, Susan Sweitzer	38:76
from certain death by Jim		Review	40:90	<b>Reforestation</b>	
Jones's sunglasses."	39:4	<b>Pyle, Robert</b>		Deforestation in disguise.	37:12
Mystery not mastery: a religious		Audubon Society field guide to		Natural forests, au revoir.	37:15
approach to preventing		North American butterflies.	40:36	<b>Regional cultural magazines. *</b>	
nuclear holocaust.	39:43	<b>Pyle, R. M.</b>		Berry, John D.	38:112
Next? The politics OF religion.	39:53	IUCN invertebrate red		<b>Relationships</b>	
Outro.	39:52	date book.	40:36	Breaking up.	38:87
Real intelligence: the politics		<b>Pyne, Stephen J.</b>		Rachelann: a remembrance.	37:76
of martyrdom.	40:100	Fire in America.	38:53	Sexus revisited.	37:88
Rescuing Jesus from the cross.	39:36			Three-person two-some.	39:80
Symposium on spiritual politics.	39:26			<b>Religion</b>	
<b>Politics and Religion—Bibliographies</b>				Next? The politics OF religion.	39:53
Keeping track of the arguments: religion				<b>Religion—Book Reviews</b>	
and politics in print.	39:46			Blessed simplicity.	39:51
<b>Politics and Religion—Book Reviews</b>				Breakthrough	39:51
Dreaming the dark.	39:42			<b>Religion—Humor—Periodical Reviews</b>	
<b>Pony Express Book Service</b>				Wittenburg Door.	40:20
Review	40:103			<b>Religion and Politics</b>	
<b>Pope, Carl</b>				See Politics and Religion	
Hazardous waste in America	38:52			<b>Religious Socialism</b>	
<b>Population (Animals)</b>				Review	39:46
Sentiment, guilt, and reason				<b>Remer, Daniel</b>	
in the management of wild herds.	40:22			Legal care for your software.	38:100
<b>Posener, Jill</b>				<b>Remodeling—Book Reviews</b>	
Spray it loud.	38:117			Reader's Digest home	
<b>Posters</b>				improvements manual.	39:94
Guitar poster.	38:129			Renovation.	37:52
<b>Powell, Jerry</b>				<b>Renovation</b>	
Operating a recycling program.	37:80			Review	37:52



<b>Report from Brittany</b>		<b>Say Amen, Somebody</b>		<b>Singing</b>	
Kidel, Mark	38:28	Review, Movie	38:118	Women singing.	38:74
<b>Reporter's Handbook</b>		<b>Schlesinger, Tom</b>		<b>Skeptical Inquirer</b>	
Review	40:89	How to research your local military contractor.	40:90	Review	37:102
<b>Rescue Work—Periodical Reviews</b>		<b>Schlissel, Lillian</b>		<b>Skilling—Book Reviews</b>	
Response!	40:47	Women's diaries of the westward journey.	38:78	Mountain skiing.	40:102
<b>Rescuing Jesus from the cross. *</b>		<b>School Energy Action</b>		<b>Slatkin, Montgomery</b>	
Oglesby, Carl	39:36	Review	40:62	Coevolution.	40:39
<b>Resource Recycling</b>		<b>Schwartz, Murray</b>		<b>Slide Shows—Reviews</b>	
Review	37:80	Street smart.	37:59	Solar system close-up.	40:40
<b>Response!</b>		<b>Science—Humor</b>		<b>Sliwa, Curtis</b>	
Review	40:47	Author of the acacia seeds: manuscript found in an ant hill (Journal of the Association of Therolinguistics).	37:30	Street smart.	37:59
<b>Return of the Jedi</b>		<b>Science—Periodical Reviews</b>		<b>Sloane, Eugene A.</b>	
Review, Movie	38:118	Fortean Times.	37:102	All new complete book of bicycling.	37:110
<b>Reuben, Reuben</b>		<b>The Skeptical Inquirer.</b>	37:102	<b>Small Businesses—Book Reviews</b>	
Review, Movie	39:122	<b>Science Fiction—Book Reviews</b>		You're gon'na love it.	39:127
<b>Rhythms of Life</b>		Reader's guide to science fiction.	37:105	<b>Small Theatre Handbook</b>	
Review	39:110	<b>Scythians</b>		Review	40:17
<b>Rieveschl, Gary *</b>		Barbarians and empire.	38:14	<b>Smith, Bill *</b>	
Breakouts.	39:114	<b>Searles, Baird</b>		Airtight barn: a superinsulated retrofit at New Alchemy.	40:54
<b>Right Stuff</b>		Reader's guide to science fiction.	37:105	<b>Snorkel Stove Co.</b>	
Review, Movie	40:18	<b>Secret life of Swami Muktananda. *</b>	37:105	Snorkel hot tub stove.	39:99
<b>Right-Wing Politics—Book Reviews</b>		Rodarmor, William	40:104	<b>Snow—Book Reviews</b>	
Liberty & justice for some.	39:42	<b>Selfert, Richard D.</b>		Handbook of snow.	40:61
<b>Rinder, Robert M.</b>		Solar design manual for Alaska.	37:53	<b>Snow—Periodical Reviews</b>	
Practical guide to small computers.	37:105	<b>Selsmity of the Earth Map: 1960-1980</b>		Avalanche Review.	40:102
<b>Roblon Spunflex Rope</b>		Review	39:104	<b>Snyder, Gary</b>	
Review	38:64	<b>Self-Defense—Book Reviews</b>		Axe handles.	40:21
<b>Robot Intelligence with Experiments</b>		Street smart.	37:59	Good, wild, sacred.	39:8
Review	38:106	<b>Selfridge, John</b>		Hump-backed flute player.	37:8
<b>Robots—Bibliographies</b>		Kansas wind energy handbook.	37:53	Walls within walls.	37:60
Access to robotics.	38:106	<b>Sensible Sound</b>		<b>Social Change</b>	
<b>Rocsport Shoes</b>		Review	39:126	Socially responsible investing.	38:90
Review	37:87	<b>Sentiment, guilt, and reason in the management of wild herds. *</b>	40:22	Symposium on spiritual politics.	39:26
<b>Rodarmor, William *</b>		Hardin, Garrett	40:22	<b>Social Change—Book Reviews</b>	
Secret life of Swami Muktananda.	40:104	<b>Sewing—Book Reviews</b>		Power of the people.	40:89
<b>Roessel, Ruth</b>		Complete book of babycrafts.	39:89	<b>Social Change—Periodical Reviews</b>	
Women in Navajo society.	38:79	<b>Sex</b>		Community Jobs.	38:93
<b>Rohe, Fred</b>		Sexus revisited.	37:88	<b>Socially responsible investing. *</b>	
Complete book of natural foods.	39:84	<b>Sex—Japan</b>		Kane, Joe	38:90
<b>Rope</b>		Japanese "love" hotels.	38:95	<b>Soderstrom, Neil</b>	
Roblon Spunflex rope.	38:64	<b>Sexus Revisited. *</b>	37:88	Chainsaw savvy.	39:95
<b>Rosen, Winifred</b>		Barbidol, Pheno	40:62	<b>Soil—Book Reviews</b>	
Chocolate to morphine.	39:67	<b>Shadduck, Greg</b>		Feed the soil.	37:28
<b>Rosenthal, Richard</b>		Biogas from agricultural and other wastes.	40:62	<b>Sojourners</b>	
Hearing loss handbook.	38:84	<b>Sheep Book</b>		Review	39:46
<b>Rubber Stamps—Book Reviews</b>		Review	40:52	<b>Solar Collectors</b>	
Stamp it!	37:56	<b>Shelter What You Make—Minimize the Take</b>		Zomeworks little plate.	39:98
<b>Running out: 4200 years of wood shortages. *</b>		Review	37:57	<b>Solar Design—Book Reviews</b>	
Perlin, John and Jordan, Boromir	37:18	<b>Shelton, Jay W.</b>		Saunders Shrewsbury house.	38:62
<b>Rybczynski, Witold</b>		Jay Shelton's solid fuels encyclopedia.	38:63	Solar design manual for Alaska.	37:53
Taming the tiger.	40:83	<b>Sherbrooke, Wade</b>		Solar electric house.	38:62
<b>Ryko, Danuta</b>		Horned lizards.	37:35	<b>Solar Design—Education</b>	
Watersafe your baby in one week.	38:120	<b>Shine on. *</b>		Successful passive solar design course.	37:54
<b>S</b>		Herbert, Anne	38:82	<b>Solar Design Manual for Alaska</b>	
<b>Sacilotto, Deli</b>		<b>Shoes and Shoe Industry</b>		Review	37:53
Printmaking: history and process.	40:17	Rocsport shoes.	37:87	<b>Solar Electric Home</b>	
<b>Sacred Places</b>		<b>Shurcliff, W.A.</b>		Review	38:62
Good, wild, sacred.	39:8	Saunders Shrewsbury house.	38:62	<b>Solar Energy</b>	
<b>Saff, Donald</b>		<b>Sierra Club Handbook of Whales and Dolphins</b>		See also Photovoltaics, Solar Ponds, Solar Water Heating.	
Printmaking: history and process.	40:17	Review	40:37	<b>Solar Energy—Periodical Reviews</b>	
<b>Sahara Handbook</b>		<b>Sign Craft</b>		Passive Solar Journal.	39:99
Review	39:88	Review	37:104	<b>Solar Ponds—Periodical Reviews</b>	
<b>Sailing—Book Reviews</b>		<b>Signs—Periodical Reviews</b>		International solar pond letters.	39:99
Elements of seamanship.	38:54	Sign Craft	37:104	<b>Solar System Close-Up</b>	
<b>Salaries—Book Reviews</b>		Signs of the Times.	37:104	Review	40:40
American almanac of jobs and salaries.	37:58	<b>Signs of the Times</b>		<b>Solar Water Heating—Book Reviews</b>	
<b>San Francisco Zen Center</b>		Review	37:104	Integral passive solar water heater book.	38:63
Events are the teacher: working through the crisis at San Francisco Zen Center.	40:112	<b>Silence is a commons. *</b>		<b>Solarwest Electric</b>	
<b>Sanders, Jerry W.</b>		Illich, Ivan	40:4	Catalog.	38:62
Empire at bay.	38:27	<b>Simple tax. *</b>		<b>Solman, Paul</b>	
<b>Saunders Shrewsbury House</b>		Gnaizda, Robert	38:4	Life and death on the corporate battlefield.	37:136
Review	38:62	<b>Singapore—Politics and Government</b>		<b>Sound Systems—Periodical Reviews</b>	
<b>Saving the creepy crawlies. *</b>		Philosopher king of Singapore.	39:62	Sensible Sound.	39:126
Warshall, Peter	40:36			<b>South America</b>	
<b>Saws</b>				New world of understanding.	38:1
Hitachi Resaw.	37:54			<b>Southworth, Michael</b>	
				Maps.	38:65





<b>Southworth, Susan</b>	
Maps.	38:65
<b>Species</b>	
Devolution.	37:36
<b>Speicher, John</b>	
Reader's Digest home improvements manual.	39:94
<b>Spiritual Life</b>	
Events are the teacher: working through the crisis at San Francisco Zen Center.	40:112
Letter from a former swami.	40:110
Mother Teresa's first love.	39:68
Next? The politics OF religion.	39:53
Perils of the path.	40:124
Secret life of Swami Muktananda.	40:104
<b>Spirituality—Book Reviews</b>	
Breakthrough.	39:51
Original blessing.	40:130
<b>Sports—Periodical Reviews</b>	
Triathlon/Tri-Athlete.	39:66
<b>Spray It Loud</b>	
Review	38:117
<b>Stamp It!</b>	
Review	37:56
<b>Standing by Words</b>	
Review	40:21
<b>Star Struck</b>	
Review	37:106
<b>Starhawk</b>	
Dreaming the dark.	39:42
Symposium on spiritual politics	39:26
<b>Starr, Richard</b>	
Woodworking with kids.	39:128
<b>Stebbins, Robert L.</b>	
Western fruit, berries and nuts.	37:29
<b>Stellata</b>	
Three-person two-some.	39:80
<b>Stevenson, Joseph McClendon</b> ★	
Mother Teresa's first love.	39:68
<b>Stewart, Philip</b> ★	
Culture in the evolution of evolution.	37:46
Natural forests, au revoir.	37:15
<b>Stoves</b>	
See also Wood Stoves.	
<b>Stoves—Book Reviews</b>	
Book of masonry stoves.	40:59
Ken Kern's masonry stove.	40:59
<b>Stoves—Equipment and Supplies—Book Reviews</b>	
How to get parts cast for your antique stove.	40:59
<b>Stratton, Joanna</b>	
Pioneer women. ★	38:79
<b>Streamers</b>	
Review, Movie	40:18
<b>Street Murals</b>	
Review	37:104
<b>Street Smart</b>	
Review	37:59
<b>Sullivan, Margaret Walker</b>	
Living with epilepsy.	39:79
<b>Sundials—Book Reviews</b>	
Great sundial cutout book.	39:128
<b>Superinsulating</b>	
See Insulation.	
<b>Surf Report</b>	
Review	38:55
<b>Surfing—Periodical Reviews</b>	
Surf Report.	38:55
<b>Sussman, Art</b>	
School energy action.	40:62
<b>Sweater Workshop</b>	
Review	39:89
<b>Swimming—Book Reviews</b>	
Watersafe your baby in one week.	38:120
<b>Symposium on spiritual politics.</b> ★	
Nine authors' views.	39:26
<b>Szanto</b> ★	
Philosopher king of Singapore.	39:62
Real intelligence: biggest bank robbery in history.	38:41
Real intelligence: the world according to Andropov.	37:126

Real intelligence: the politics of martyrdom.	40:100
---	--------

## T

<b>Taklima Forge and Wagon Works</b>	
Taklima Forge and Wagon Works.	39:94
<b>Tamarkin, Clvia</b>	
Marva Collins' way.	37:145
<b>Taming the Tiger</b>	
Review	40:83
<b>Tangled Wing</b>	
Review	37:49
<b>Tannenbaum, Judith</b>	
School energy action.	40:62
<b>Tanner, Beverly</b>	
Shelter what you make—minimize the take.	37:57
<b>Tapes of the Night Sky</b>	
Review	40:40
<b>Tax Shelters—Book Reviews</b>	
Shelter what you make—minimize the take.	37:57
<b>Taxation</b>	
Simple tax.	38:4
<b>Taylor, Roger C.</b>	
Elements of seamanship.	38:54
<b>Teachers and Teaching—Book Reviews</b>	
Marva Collins' way.	37:145
<b>Teamwork.</b> ★	
Baer, Steve	37:50
<b>Technique of Violin Making</b>	
Review	40:16
<b>Technology</b>	
Silence is a commons.	40:4
Teamwork.	37:50
<b>Technology—Book Reviews</b>	
Taming the tiger.	40:83
<b>Telecommunications—Book Reviews</b>	
Complete handbook of personal computer communications.	38:101
<b>Tender Mercies</b>	
Review, Movie	37:106
<b>Terms of Endearment</b>	
Review, Movie	40:18
<b>Testament</b>	
Review, Movie	40:18
<b>Texas—Humor</b>	
More Texas crude.	37:91
<b>Tharp, Marie</b>	
Seismicity of the Earth map.	39:104
<b>Theater—Book Reviews</b>	
Small theatre handbook.	40:17
<b>Thiebault, Andre</b>	
Kites and other wind machines.	39:129
<b>Think Harmony with Horses</b>	
Review	40:53
<b>Third world savvy.</b> ★	
Halaby, Rodrigo Arboleda	38:45
Hodges, Carl	38:46
<b>Three-person two-some.</b> ★	
Stellata	39:80
<b>Three true stories.</b> ★	
Benecki, John	38:44
<b>Throttle</b>	
Review	38:112
<b>Tierra, Michael</b>	
Way of herbs.	37:85
<b>Tilley, Alvin R.</b>	
Humanscale.	40:60
<b>Tisdale, Sallie</b> ★	
Handfast: the trick of children.	40:1
Women's work.	38:80
<b>Tithing</b>	
Tithing successfully (when you don't have much to tithe).	37:57
<b>Tomorrow</b>	
Review, Movie	40:18
<b>Tools—Book Reviews</b>	
Hand tools.	37:51
<b>Tools for the Soft Path</b>	
Review	39:98
<b>Towler, Solala</b>	
Cocopeli stories.	37:11
<b>Townsend, Kathleen Kennedy</b> ★	
Rebirth of virtue: religion and liberal renewal.	39:18

<b>Toxic Substances—Book Reviews</b>	
Hazardous waste in America.	38:52
Love Canal.	38:52
<b>Toxic Substances—Periodical Reviews</b>	
Everyone's Backyard.	38:52
<b>Toyota Tercel 4x4</b>	
Review	37:112
<b>Trailers</b>	
Burley lite bicycle trailer.	37:110
<b>Tranet</b>	
Review	37:102
<b>Travel—Book Reviews</b>	
Access to the world.	39:85
China guidebook	38:55
Sahara handbook	39:88
<b>Travel—Organizations</b>	
Touring Exchange.	37:108
<b>Travel—Periodical Reviews</b>	
Avalanche Review.	40:102
Escapes.	37:112
Globe.	39:85
<b>Travel—Publications</b>	
Touring cyclists' hospitality directory.	37:108
<b>Trees</b>	
See also Forests and Forestry.	
Deforestation in disguise.	37:12
<b>Treleese, Jim</b>	
Read-aloud handbook.	38:120
<b>Tri-Athlete</b>	
Review	39:66
<b>Triathlon</b>	
Review	39:66
<b>Tribes—Europe</b>	
Barbarians and empire.	38:14
<b>Trouble at Home</b>	
Review	38:121
<b>Trout, Stan</b> ★	
Letter from a former swami.	40:110
<b>Truth About English</b>	
Review	38:97
<b>Two Faces of Tomorrow</b>	
Review	38:106

## U

<b>U.S./Soviet Relations</b>	
Real intelligence: the world according to Andropov.	37:126
<b>U&amp;Ie</b>	
Review	37:103
<b>UC Integrated Pest Management Project</b>	
IPM for tomatoes.	38:51
<b>Ulph, Owen</b>	
Fiddleback.	40:53
<b>Umbrellas</b>	
Uncle Sam Umbrella Shop.	37:59
<b>Uncle Sam Umbrella Shop</b>	
Review	37:59
<b>Underground Architecture</b>	
See Earth-Sheltered Buildings.	
<b>United States—Politics and Government—Book Reviews</b>	
Empire at bay.	38:27
<b>Universe—Book Reviews</b>	
Powers of ten.	39:112
<b>Untracht, Oppi</b>	
Jewelry concepts and technology.	37:55
<b>Urination and Defecation—Equipment and Supplies</b>	
Sani-fem.	37:113
<b>USA Today</b>	
Review	39:116
<b>Used Clothing</b>	
Hand-me-down network.	40:48
<b>User's Guide</b>	
Review	38:104

## V

<b>Van Dam, A.</b>	
Fundamentals of interactive computer graphics.	38:104
<b>Van Strum, Carol</b>	
Bitter fog.	38:53
<b>Van Zandt, Eleanor</b>	
Complete book of babycrafts.	39:89



<i>Vanishing Fishes of North America</i>	
Review	40:38
<i>Vegetables</i>	
Review	37:29
<i>Victim nightmares, sacred mirrors.</i> ★	
Grey, Alex	38:35
<i>Vikings</i>	
Barbarians and empire.	38:14
<i>Violin-Making As It Was and Is</i>	
Review	40:16
<i>Violins—Book Reviews</i>	
Violin-making as it was and is.	40:16
<i>Volcanoes—Mexico</i>	
El Chichon and my friends.	40:82

## W

<i>Wagner, Anne</i>	
Vanishing Fishes of North America.	40:38
<i>Wagner, Pat</i> ★	
New age computer heresy.	38:98
<i>Wagons</i>	
Taklima Forge and Wagon Works.	39:94
<i>Wake, H.S.</i>	
Luthier's scrapbook.	40:16
Technique of violin making.	40:16
<i>Walheim, Lance</i>	
Citrus.	37:29
Western fruit, berries and nuts.	37:29
<i>Walking—Book Reviews</i>	
AMC country walks series.	38:55
Peace Pilgrim.	39:24
<i>Walking—Periodical Reviews</i>	
Planet Walker.	39:24
<i>Walls within walls.</i> ★	
Snyder, Gary	37:60
<i>War—Book Reviews</i>	
How to make war.	40:91
<i>War Games</i>	
Review, Movie	38:118
<i>Warshall, Peter</i> ★	
Letter from the oldest continent.	37:114
Recycling now.	37:80
Saving the creepy crawlies.	40:36
<i>Waskow, Arthur</i> ★	
Mystery not mastery: a religious approach to preventing nuclear holocaust.	39:43
<i>Water Supply—Book Reviews</i>	
Waterworks.	40:61
<i>Waterman, Robert H. Jr.</i>	
In search of excellence.	37:136
<i>Waterproofing—Equipment and Supplies</i>	
GACO neoprene coating.	40:63
<i>Watersafe Your Baby in One Week</i>	
Review	38:120
<i>Waterworks</i>	
Review	40:61
<i>Watson, Aldren A.</i>	
Hand tools.	37:51
<i>Way of Herbs</i>	
Review	37:85
<i>Wealth of Wild Species</i>	
Review	40:37
<i>Weather</i>	
Atmosphere notes.	39:105
<i>Weather—Bibliographies</i>	
Atmosphere notes.	39:105
<i>Weaver, Ken</i> ★	
More Texas crude.	37:91
<i>Weil, Andrew</i>	
Chocolate to morphine.	39:67
<i>Weinstein, Martin Bradley</i>	
Android design.	38:106
<i>Weinstock, Isaac J.</i>	
Breasts.	38:83
<i>Weiss, Louise</i>	
Access to the world.	39:85
<i>Welding—Equipment and Supplies</i>	
Alumsmiths.	37:54
<i>Wells, S.M.</i>	
IUCN invertebrate red data book.	40:36
<i>Werner, David</i>	
Helping health workers learn.	37:84

<i>West, G.</i> ★	
Author of the acacia seeds: manuscript found in an ant hill (Journal of the Association of TheroLinguistics).	37:30
<i>Western Fruit, Berries and Nuts</i>	
Review	37:29
<i>Western States—History—Book Reviews</i>	
Women of the west.	38:78
<i>Whales—Book Reviews</i>	
Sierra Club handbook of whales and dolphins.	40:37
<i>When Pregnancy Falls</i>	
Review	37:86
<i>When the Wind Blows</i>	
Review	39:61
<i>Where the Sky Began</i>	
Review	37:17
<i>Where to Sell Anything and Everything Book</i>	
Review	39:83
<i>White whoolymuffs.</i> ★	
Raupp, Ellen	38:86
<i>Whitfield, Philip</i>	
Rhythms of life.	39:110
<i>Whole Birth Catalog</i>	
Review	39:82
<i>Whole Earth Access Mail Order Catalog</i>	
Review	38:85
<i>Whole Earth Security: A Geopolitics of Peace</i>	
Review	39:60
<i>Wild Foods—Book Reviews</i>	
Field guide to North American edible wild plants.	39:86
<i>Wilderness</i>	
Good, wild, sacred.	39:8
<i>Wildlife—Book Reviews</i>	
Wealth of wild species.	40:37
<i>Wildlife—Organizations</i>	
African Wildlife Leadership Foundation.	39:110
<i>Wildlife—Periodical Reviews</i>	
Wildlife News.	39:110
<i>Wildlife—Publications</i>	
Wildlife ecology handbooks.	39:111
<i>Wildlife News</i>	
Review	39:110
<i>Wilford, John Noble</i>	
Mapmakers.	38:65
<i>Wilkenson, Jean</i>	
I'm on my way running.	40:51
<i>Williams, James D.</i>	
Vanishing fishes of North America.	40:38
<i>Williams, William Appleman</i>	
Empire as a way of life.	38:27
<i>Wilson, John "Shane"</i>	
Massage and bodywork resource guide of North America.	39:84
<i>Wind</i>	
Atmosphere notes.	39:105
<i>Wind Energy—Book Reviews</i>	
Kansas wind energy handbook.	37:53
<i>Wind Generators</i>	
Dragonfly Wind Electric generator.	37:53
<i>Wing, Charles</i>	
HouseWarming with Charlie Wing.	40:58
<i>Wittenburg Door</i>	
Review	40:20
<i>Wojcik, Jan</i> ★	
Eye of a bluefish.	38:56
<i>Women</i>	
Women singing.	38:74
<i>Women—Book Reviews</i>	
Breasts.	38:83
I'm on my way running.	40:51
Women of the west.	38:78
<i>Women—Employment</i>	
Reflections by a farming woman.	38:76
Women's work.	38:80
<i>Women—Health—Book Reviews</i>	
No more menstrual cramps and other good news.	37:85
<i>Women and Men</i>	
Breaking up.	38:87
Party basement: girlhood song.	38:81
Sexus revisited.	37:88
Three-person two-some.	39:80

<i>Women in Navajo Society</i>	
Review	38:79
<i>Women of the west.</i>	
Rosemary Menninger	38:78
<i>Women's Diaries of the Westward Journey</i>	
Review	38:78
<i>Women's work.</i> ★	
Tisdale, Sallie	38:80
<i>Women singing.</i> ★	
Monroe, Judith W.	38:74
<i>Wood Burning—Book Reviews</i>	
Jay Shelton's solid fuels encyclopedia.	38:63
<i>Wood Burning—History</i>	
Running out: 4200 years of wood shortages.	37:18
<i>Wood Cutting—Book Reviews</i>	
Chainsaw savvy.	39:95
<i>Wood Cutting—Equipment and Supplies</i>	
Pro-Log.	38:63
<i>Wood Stoves</i>	
Snorkel hot tub stove.	39:99
<i>Woodworking with Kids</i>	
Review	39:128
<i>Word Processing—Book Reviews</i>	
Personal computer book, etc.	39:120
Word processing buyer's guide.	38:105
<i>Word Processing—Periodical Reviews</i>	
Word Processing News.	38:105
<i>Word Processing Book</i>	
Review	39:120
<i>Word Processing Buyer's Guide</i>	
Review	38:105
<i>Word Processing News</i>	
Review	38:105
<i>Work—Book Reviews</i>	
American almanac of jobs and salaries.	37:58
<i>Work—Organizations</i>	
Apprentice Alliance.	38:129
<i>World View 1983</i>	
Review	38:40
<i>Worldwatch Institute</i>	
Whole earth security: a geopolitics of peace.	39:60
<i>Worms Eat My Garbage</i>	
Review	37:29
<i>Wright, John W.</i>	
American almanac of jobs and salaries.	37:58
<i>Writers and Writing—Book Reviews</i>	
Author law & strategies.	40:17
Truth about English.	38:97

## X

<i>X-Ray Information Book</i>	
Review	39:79
<i>X-Rays—Book Reviews</i>	
X-ray information book.	39:79

## Y

<i>Yentl</i>	
Review, Movie	40:18
<i>Yoshida, Shingpei</i> ★	
Amazing maze.	37:1
<i>You're Gon'na Love It</i>	
Review	39:127
<i>Young Person's Guide to Military Service</i>	
Review	38:121
<i>Youth Gardening Book</i>	
Review	39:113

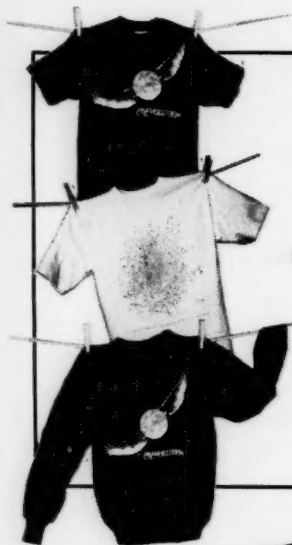
## Z

<i>Zelig</i>	
Review, Movie	39:122
<i>Zen Buddhism—Book Reviews</i>	
Miracle of mindfulness!	39:50
<i>Zen Buddhism—U.S.</i>	
Events are the teacher: working through the crisis at San Francisco Zen Center.	40:112
<i>Zimmermann, Elizabeth</i>	
Knitting without tears.	37:56
<i>Zomeworks</i>	
Zomeworks little plate.	39:98



## OTHER PRODUCTS

**I**N FEBRUARY of this year, we passed the fulfillment of the mail orders for "Other Products" to the Whole Earth Access Company in Berkeley. As you know, they also handle the mail order fulfillment of books reviewed in **CQ** and in the **Next Whole Earth Catalog**. The products pictured below should now be ordered from them; yes, even **CQ** T-shirts and sweatshirts. —Arnie Kotler



### CoEvolution T-shirt

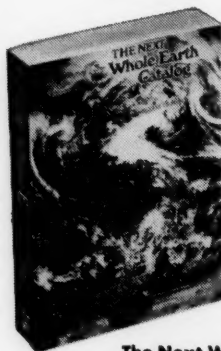
\$8 XS (youth's 14-16),  
S (24-34), M (38-40),  
L (42-44), XL (46-48)

### Bluegenes T-shirt

\$10 S (34-36), M (38-40),  
L (42-44), XL (46-48)

### CoEvolution Sweatshirt

\$16 S (34-36), M (38-40),  
L (42-44), XL (46-48)



**The Next Whole  
Earth Catalog**  
2d Edition (1981)  
\$16



**CoEvolution Quarterly  
Back Issues**  
\$3.50 Each  
Issues 14-26, 28-40



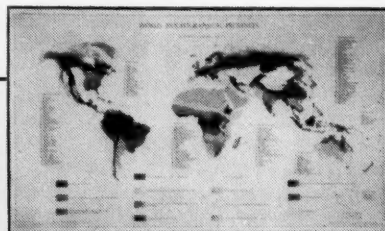
Paul Hawken's  
**The Next Economy**  
\$14.50



**A Pattern  
Language**  
(Towns, Buildings,  
Construction)  
\$45



**One Million Galaxies Map**  
\$5 continental U.S.  
(elsewhere \$7.50)  
39" x 47" (mailed in tube)



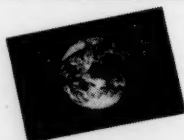
**World Biogeographical  
Provinces Map**  
\$4  
22" x 39" (mailed in tube)



**Devolving Europe Map**  
\$3  
11" x 15" full-color  
(mailed in tube)

When ordering specify quantity and size (where applicable). Please include \$2 per order for postage and handling. California residents include 6% tax on all orders. Send all orders to:

**WHOLE EARTH  
ACCESS COMPANY**  
2990 Seventh Street  
Berkeley, CA 94710



**Whole Earth Post Cards**  
\$3.50 package of ten



**Earthrise Postcard**  
\$3.50 package of ten



# WANTED

## 2,000 New Subscribers for CoEvolution

In the world of mass media 2000 people is a mere drop in the bucket. TV shows like to measure their audiences in the millions, while most magazines are hot in pursuit of demographic slices of the population — not individuals.

Here at **CoEvolution Quarterly**, we see things a little differently. Just as there is no such thing as a "typical" **CQ** reader — our reader survey results awhile back proved that! — the situation that we work from is also not typical. Unlike most magazines, **CQ** is a non-profit venture, but since we don't have a big endowment-rich foundation footing the bills, being "non-profit" doesn't mean we can blithely lose money either. Currently, we're just on the verge of breaking even (yay!), but only 2000 more subscribers would kick us over into truly responsible publishing — making a modest margin to grow and improve with.

### AND HERE'S HOW YOU CAN HELP:

If you currently buy **CQ** at a newsstand or bookstore, please subscribe.



If you already subscribe, please be sure to renew — or consider adding a second year to your subscription.



Give **CQ** to your friends and family. A gift subscription is a present that lasts all year.



Consider becoming a Retaining, Supporting, or Maniacal subscriber.

Not only do such subscriptions help us greatly, but your contributions are tax-deductible.



To subscribe, fill out the order form on the other side of this page. Mail it directly to our subscription fulfillment agency at P.O. Box 27956, San Diego, CA 92128 USA.

## The Whole Earth Software Review has begun to review.

New wine, new wineskin, old vineyard. As of February 1984 Point's new publication about personal computers has entered the most seething market in the history of magazines.

At last count there were 228 magazines for personal computer users. Why would anyone want ours? Well . . . 1) It's the only one that reviews the other magazines; 2) it's one of the very few without advertising; 3) it's one of the very few that covers the entire field; 4) it's the only one that makes harsh comparisons and strong recommendations in its reviewing of products; 5) it's the only one that reviews free software and discount suppliers; 6) it's the only one which owes all its allegiance to the computer user and none to the computer industry.

People may want to get ours so they don't have to watch all 227 others (actually it's a good idea to watch about three computer magazines for the first year or so).

Our first issue, now on newsstands, has a survey of Word Processing programs that I assembled. The second issue, out in May, has a survey of Telecommunications software assembled by Art Kleiner. As with **CoEvolution**, we are relying on the intelligence and participation of readers to deepen the magazine's interest and usefulness. You **CQ** readers are already good at it; we'd like your help encouraging new readers of the **Whole Earth Software Review**.

—Stewart Brand

To subscribe, fill out the order form on the other side of this page. Mail it directly to our subscription fulfillment agency at P.O. Box 27956, San Diego, CA 92128 USA.

# SUBSCRIPTIONS

**CoEvolution**  
Quarterly

P.O. Box 27956 San Diego, CA 92128

☐ Canadian subscribers add \$4 per year for surface delivery, \$7 per year for airmail. Foreign subscribers add \$4 per year for surface delivery, \$16 per year for airmail. Canadian and foreign orders must be paid in U.S. funds drawn on a U.S. bank.

☐ Please mail my U.S. subscription first class for an additional \$7 per year.

☐ Please leave my name off rentals of the **CoEvolution Quarterly** subscriber list

3411

Your name \_\_\_\_\_

☐ 1 year (4 issues/\$18)

Address \_\_\_\_\_

☐ 2 years (8 issues/\$33)

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

☐ Is your order a renewal?

Gift to \_\_\_\_\_

3412

Address \_\_\_\_\_

☐ 1 year (4 issues/\$18)

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

☐ 2 years (8 issues/\$33)

We would be pleased to announce your gift subscription with a card. Gift card to read:

"From \_\_\_\_\_

I enclose \$ \_\_\_\_\_ to cover \_\_\_\_\_ subscriptions. VISA ☐ MasterCard ☐

Account # \_\_\_\_\_

Expiration date \_\_\_\_\_ Signature \_\_\_\_\_

**NOTE:** You can call our toll-free lines with your VISA or MasterCard orders. Call (800) 321-3333; in California, (800) 354-8400.

## Supporting Subscribers (tax deductible contributions)

☐ Retaining: \$40/year. You get your **CQ** in an envelope, delivered first class, and we gratefully publish your name and town (unless you say not to).

☐ Sustaining: \$100/year. You get your **CQ** in an envelope, airmail, and we gratefully bless your name and town in the magazine (unless you say no).

☐ Maniacal: \$1,000/life. You get your **CQ** in an envelope, airmail, for the rest of your life (or ours, whichever comes first).

**Change of Address** Moving? The post office often will not forward magazines. Send your **CQ** label and your new address one month before you move and we can deliver the magazine on time.

Old address (put your label here)

New address

Name \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_

Zip \_\_\_\_\_

You may cancel your subscription at any time and receive a refund on the unused portion of your subscription term.

Please list additional subscriptions on a separate sheet of paper.

WHOLE EARTH  
**Software**  
Review

P.O. Box 27956 San Diego, CA 92128

☐ Canadian subscribers add \$4 per year for surface delivery, \$7 per year for airmail. Foreign subscribers add \$4 per year for surface delivery, \$16 per year for airmail. Canadian and foreign orders must be paid in U.S. funds drawn on a U.S. bank.

☐ Please mail my U.S. subscription first class for an additional \$7 per year.

☐ Please leave my name off rentals of the **Whole Earth Software Review** subscriber list

3CQ2

Your name \_\_\_\_\_

☐ 1 year (4 issues/\$18)

Address \_\_\_\_\_

☐ 2 years (8 issues/\$33)

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

☐ Is your order a renewal?

Gift to \_\_\_\_\_

3CQ2

Address \_\_\_\_\_

☐ 1 year (4 issues/\$18)

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

☐ 2 years (8 issues/\$33)

We would be pleased to announce your gift subscription with a card. Gift card to read:

"From \_\_\_\_\_

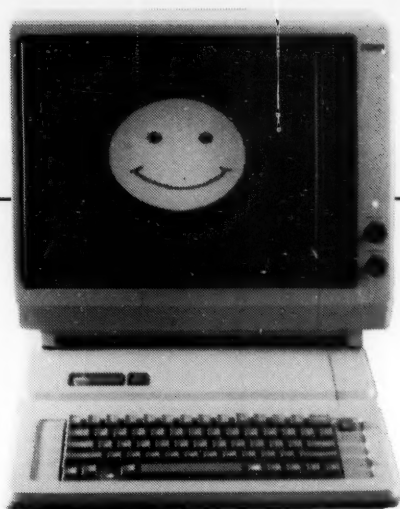
I enclose \$ \_\_\_\_\_ to cover \_\_\_\_\_ subscriptions. VISA ☐ MasterCard ☐

Account # \_\_\_\_\_

Expiration date \_\_\_\_\_ Signature \_\_\_\_\_

**NOTE:** You can call our toll-free lines with your VISA or MasterCard orders. Call (800) 321-3333; in California, (800) 354-8400.





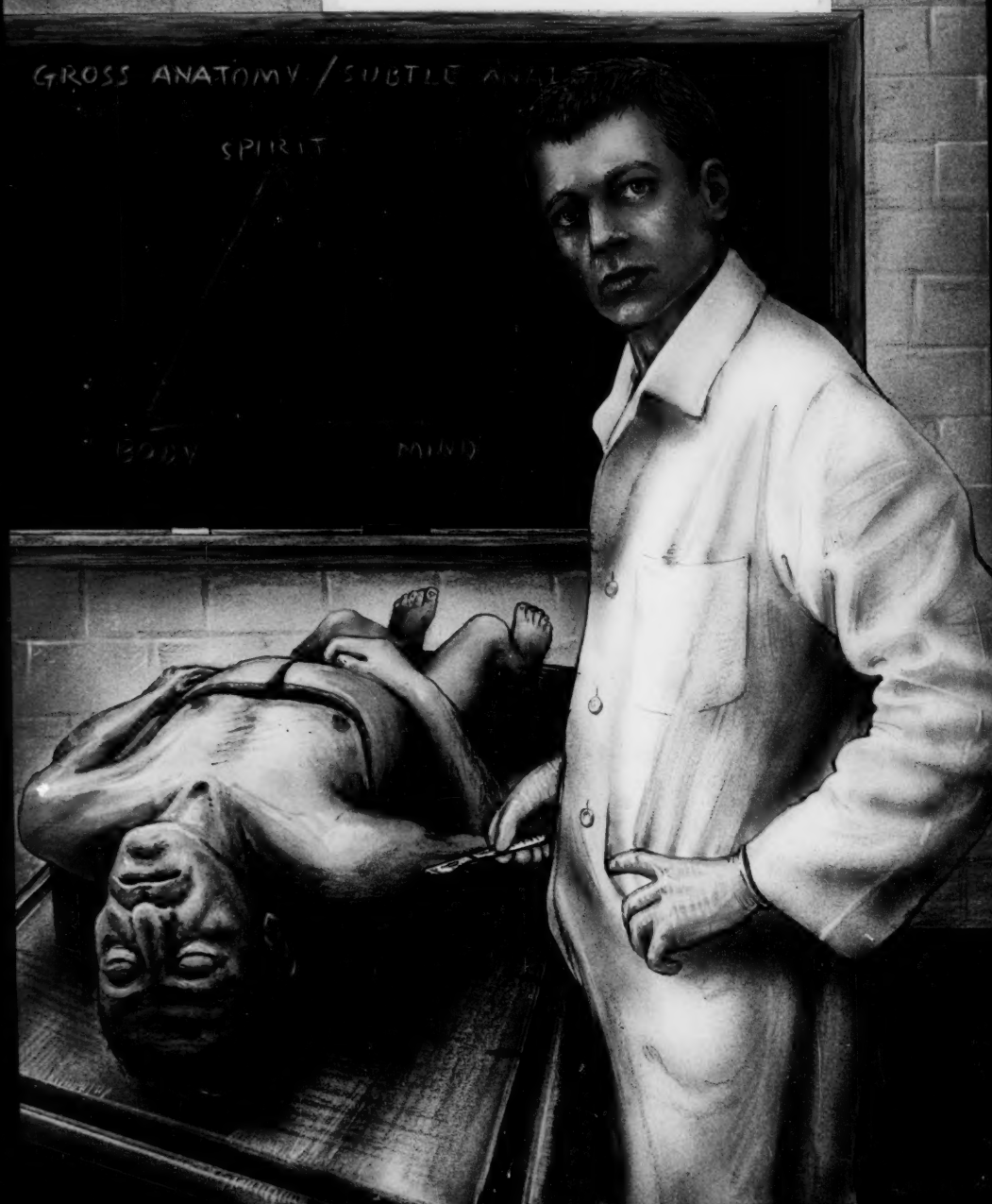
DID ANYONE FORESEE suburban sprawl and traffic jams at the dawn of the age of the automobile? Are there similar calamities we should foresee now before computers become completely commonplace? In our other magazine, the **Whole Earth Software Review**, we unabashedly recommend computer-based tools and exult in how they change us and our culture. But here at the **CQ** offices we've all wondered about the dangers and effects of this new medium. We're not interested in the "Computers: Threat or Menace?" school of hysteria: we're interested in foresight.

## Announcing A Special CQ Section: PERSONAL COMPUTERS AS POISON

Stewart Brand, Jay Kinney and I are coediting a symposium on computers as poison for the Fall 1984 **CQ**. We'll seek insights from people inside and outside the computer industry, plus related articles, like one on computer writer burnout and a realistic analysis of the contradictory arguments about video screen radiation hazards. We also seek your writing on this subject, especially if it's insight based on experience. Where ARE these seductive machines taking us? Deadline is June 1, 1984. Please write me at **CoEvolution Quarterly**, P.O. Box 428, Sausalito, California 94966. —Art Kleiner



EQ 481060UNMI30045 SAMPL  
UNIVERSITY MICROFILMS INO  
300 N ZEEB SERIALS PRCC  
ANN ARBOR MI 48106



THE SACRED AND THE DEAD p.4



